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Tel. Nos. (082) 222-0850 to 53 Local 115

Fax No. (082) 221-1074

Email: research@davaodoctors.edu.ph

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Related Learning Experience and Professional Performance of Nursing Graduates from A Private Academic Institution in Tacurong City: Basis For

A Proposed Intervention Program

Richard Deo Rox R. Alave, RN

Davao Doctors College Inc.

Davao City, Philippines

Abstract

The Related Learning Experience (RLE) is composed of a Clinical and Skills Laboratory wherein the RLE activities are carefully selected to develop competencies utilizing the nursing process in varying health situations. Standards of Professional Performance refers to a proficient level of manners in a professional role. The objective of this descriptive-correlational study is to determine the related learning experience performance and professional performance of graduate nurses from a private academic institution in Tacurong City. The 62 NDTCean Nurses from batch 2012-2019 were chosen as respondents of the study. The study utilized an adapted survey questionnaire, validated and reliability tested with a Cronbach's Alpha. The study utilized the following statistical tools: frequency and percentage, mean, standard deviation, and, Pearson Chi-Square Test of Association, Point Biserial Correlation, and Pearson Product Moment Correlation. Results revealed that most of the respondents belonged to the young adult group, were female, and had above three years' length of service in the hospital. The RLE Performance of the respondents is mostly fairly satisfactory. The respondents had a very satisfactory professional performance. There is a significant association between the respondents' age and related learning experience. Also, age and length of service had a significant association with professional performance. However, the RLE performance on NCM 104 and NCM 106 had a significant relationship with professional performance. Based on the findings, an intervention program was proposed for these professional nursing

courses entitled Summer Enhancement class and Clinical Skills Improvement and Advance Competency Enhancement Program, respectively.

Keywords: *Professional Performance, Related Learning Experience, Descriptive-Correlation, Tacurong City*

Corresponding email: xoroed@yahoo.com

Introduction

In recent years, governments and international health sectors have dedicated themselves to attaining universal health coverage by targeting to expand the health outcomes of the people. While quality care is an essential step in achieving this goal, performance appraisal is usually assessed to gauge the quality of nursing care being provided. Concerning this, the Institute of Medicine has launched a series of studies aimed at raising the standard of healthcare, all of which have shown how much gap between what is considered to be high-quality care and what is provided. In addition, healthcare teams typically meet five major issues, which are associated with responsibility, dispute resolution, decision-making, progress reflection, and coaching (Zajac et al., 2021).

The obligations and Nurses' responsibilities extend beyond providing bedside care, but it's also a lot more difficult. In the line of their work, nurses are presented with a never-ending list of chores to enhance and enhancing and solidifying professional competency as well as dedication. Despite the aforementioned duties and obligations, these are the nurses' burden to bear (Artificion et al, 2020). Additionally, a major concern for the World Health Organization (WHO) is that nurses are not producing the desired performance in terms of health interventions. This is due to barriers inhibiting effective performance such as obstructive settings due to the scarcity of the medical workforce in the clinical assignment, shortage of nurse instructors and trainers, high patient loads, and anxiety (Gemuhay et al., 2019).

According to a white paper by the American Association of Colleges of Nursing (AACN), student nurses are better equipped for a varied patient-care atmosphere in a series of situations through hands-on experience. Related learning experience (RLE) or clinical experience offers nursing students a plethora of knowledge before entering the professional world (Duquesne University School of Nursing, 2020).

However, the clinical performance of newly graduated clinicians revealed significant gaps hovering worries about standards of clinical education (Lewis et al., 2019). Newly graduated nurses continue to report high levels of stress, anxiety, and burnout during their early years on the job (Spence Laschinger, 2019). A prolonged shortage of nurses can also lead to stress and burnout, which can worsen a nurse's performance and increase the possibility of

medical errors, especially when it comes to clinical care, laboratory testing, and patient treatment (Tamata & Mohammadnezhad, 2023). This can have an impact on the outcomes of the patient's treatment as well as increase the risk of death, both during and after hospitalization (Malinowska-Lipień et al., 2024).

In some hospitals in Sultan Kudarat, the professional performance of staff nurses was assessed regularly. Understanding the RLE performance of the graduate Nurses concerning their professional performance is relevant to assessing the effectiveness of the school's curriculum in producing clinically competent nurses, especially in their knowledge and skills in handling different patients and procedures. Hence, the researcher examined whether the graduate nurses are prepared for the profession or if there is a gap between the RLE as a student and clinical performance as a professional thereby creating challenges in the medical setting. The study aimed to design and propose a comprehensive intervention program for improving the RLE performance of student nurses.

Methods

The study's respondents were the nurses working in the different hospitals in Tacurong City. The study utilized a descriptive-correlational research design to determine the relationship between the RLE performance and the respondent's professional performance which served as the basis of the Proposed Intervention Program. A total number of 62 participant nurses who were graduates of a private academic institution and employed in the six participating private hospitals in Tacurong City were selected using complete enumeration.

The data for this study were gathered using a two-part questionnaire. The initial part was the demographic profile of the respondents.

The second part encompasses the determination of professional performance which consists of four areas: autonomy, accountability, patient care management, and professionalism. The modified adapted survey questionnaire was validated and reliability tested with a Cronbach result of 0.767, 0.946, 0.914, and 0.905 respectively. To assess the level of achievement in each professional performance area, the 5-point Likert scale was utilized.

The Related Learning Experience (RLE) performance in the selected professional subjects which includes Nursing Care Management (NCM) 100 RLE Grade, NCM 101 RLE Grade, NCM 102 RLE Grade, NCM 103 RLE Grade, NCM 104 RLE Grade, NCM 105 RLE Grade, NCM 106 RLE Grade, NCM 107 A RLE Grade, and NCM 107 B RLE Grade were also obtained through the college registrar of the private academic institution and rated using the 5-point Likert scale.

The study employed Frequency Distribution and Percentage to describe the respondents' demographic profile in terms of age, sex, and length of service. Moreover, Mean and Standard Deviation were used to determine the RLE Performance and Professional Performance. Additionally, Pearson Chi-Square was used to test the association between the demographic profile, RLE Performance, and Professional Performance. Furthermore, Point biserial correlation was utilized for the association of sex and RLE Performance and Sex and

Professional Performance. Lastly, Pearson Product Moment Correlation was used to determine the relationship between RLE Performance and Professional Performance.

Results and Discussion

Table 1. Respondent's Demographic Profile

Demographic Profile	Frequency	Percentage(%)
Age		
21-25	18	29.0%
26-30	42	67.7%
31- 35	2	3.2%
Total	**62**	**100%**
Sex		
Male	13	21.0%
Female	49	79.0%
Total	**62**	**100%**
Length of Service		
less than 1 year	18	29.0%
1 to 3 years	20	32.3%
above 3 years	24	38.7%
Total	**62**	**100%**

Table 1 presents the demographic profile in terms of age, sex, and length of service of the graduate nurses who participated in the study. A total of 62 respondents were evaluated through the survey questionnaire during the study period. In terms of age, the age group of 26-30 has the highest frequency which represents 67.7% of the total population. While the age group of 31-35 occupies the lowest percentage which is 3.2%.

This implies that the majority of the graduate nurses belong to the young adult group between 26-30 years old. This finding suggests that the study's sample population is predominantly composed of individuals in the prime of their adulthood. This age group's representation could significantly influence

the study's outcomes and insights, as it may offer a unique perspective on the subject matter. Understanding the characteristics and trends within this age group could provide valuable context for the study's findings and implications. The data also reveals interesting patterns in terms of age distribution and highlights the predominant age group within the population. This information is crucial for understanding the dynamics and composition of the nursing workforce in hospital settings (Smiley et al., 2021).

The proportion of male and female respondents also presents unequal percentages wherein female covers 79% of the total population while there is only 21% of males. The highest number of respondents are females. The dominance of female nurses in the healthcare profession has been a longstanding trend, but it is important to acknowledge that the field is becoming more inclusive as the number of male nurses is increasing. This shift challenges traditional gender stereotypes and brings diversity to the profession. Understanding the dynamics of gender in nursing is crucial to address the imbalance and promote equality (Kearns & Mahon, 2021).

According to their length of service, 38.7 % shows that most of the respondents have above 3 years of experience. Whereas, only 29% have less than 1 year of experience. In the field of nursing, the length of service plays a crucial role in determining the expertise and work performance of the nurses. This is largely influenced by various factors including job satisfaction, financial considerations, working conditions, professional advancement, and safety at work. Additionally, the expertise of clinical nursing is significantly influenced by individual characteristics, particularly the nurse's years of experience (Lu et al., 2019).

Table 2. Related Learning Experience Performance

Professional Subject	Mean	SD	Interpretation
NCM100	84.32	3.50	Fair
HA	85.29	4.19	Good
NCM101	80.11	3.21	Fair
NC102	80.47	2.61	Fair
NCM103	80.05	3.43	Fair
NCM104	80.68	2.74	Fair
NCM105	83.61	4.22	Fair
NCM106	81.42	2.92	Fair
NCM107B	83.05	2.81	Fair
Overall	**82.11**	**2.44**	**Fair**

LEGEND: 75-79 (Poor); 80-84 (Fair); 85-89 (Good); 90-94 (Very Good); 95-100 (Excellent)

Presented in Table 2 is the Related Learning Experience of the respondents in terms of NCM 100 RLE Grade, HA RLE Grade, NCM 101 RLE Grade, NCM 102 RLE Grade, NCM 103 RLE Grade, NCM 104 RLE Grade, NCM 105 RLE Grade, NCM 106 RLE Grade, and NCM 107 B RLE Grade. In terms of the Related Learning Experience Performance of the respondents, the highest RLE grade was reflected on the Health Assessment with a mean score of 85.29, verbally interpreted as satisfactory. It also showed that the professional subject NCM 103 had the lowest mean score of 80.05 and was verbally interpreted as fairly satisfactory. The overall result of the mean of the related learning experience performance is 82.11 and verbally interpreted as fairly satisfactory. This implies that most of the respondents were struggling in their clinical exposure as evidenced by their fair grades. As a nursing student, it is essential to understand the significance of clinical exposure and the learning experiences that come with it. The practical application of nursing theory and the demonstration of key competencies in various clinical settings play a crucial role in the development of a professional nurse (Experience of Nursing Students in Clinical Practice: A Qualitative Study, 2023).

In addition to theoretical knowledge, hands-on clinical experience is invaluable in honing nursing skills. Exposure to diverse clinical settings not only enhances critical thinking but also fosters the development of practical skills essential for delivering patient-centered care. The correlation between clinical experience and the enhancement of nursing skills is evident in the respondents' satisfactory performance in the health assessment component of the Related Learning Experience (RLE) (Sancho-Cantus et al., 2023).

It is also important to consider that while clinical exposure allows students to practice their skills in a controlled environment, it may not fully prepare them for the unpredictability and complexity of real-world patient care. In certain clinical settings, students may have limited opportunities to encounter specific scenarios or patient populations, which could impact the breadth of their practical experience (Jacobs & Costin, 2022).

Table 3. Professional Performance

Professional Performance	Mean	SD	Interpretation
Autonomy	3.85	0.67	Very Satisfactory
Accountability	3.84	0.68	Very Satisfactory
Patient Care Management	3.83	0.60	Very Satisfactory
Professionalism	3.99	0.63	Very Satisfactory
Overall	**3.88**	**0.62**	Very Satisfactory

LEGEND: 1.00-1.80 (Unsatisfactory); 1.81-2.60 (Fairly Satisfactory); 2.61-3.40 (Satisfactory); 3.41-4.20 (Very Satisfactory); 4.21-5.00 (Outstanding)

Presented in Table 3 is the professional performance of the respondents in terms of autonomy, accountability, patient care management, and professionalism. In terms of the professional performance of the respondents, professionalism got the highest result with a mean score of 3.99 and it is verbally interpreted as very satisfactory. The lowest professional performance of the respondents was patient care management with a mean score of 3.83 and it is verbally interpreted as very satisfactory.

To further strengthen the nursing profession, it is crucial to continue nurturing and developing the professionalism of nurses (Cao et al., 2023). Nursing educators and leaders should emphasize the importance of professional conduct and provide opportunities for nurses to cultivate and refine their skills in this area. By doing so, the nursing profession can continue to uphold its reputation as a vital and trusted component of the healthcare system (Aziz et al., 2020).

This finding is consistent with the conclusion drawn from the study by Aziz et al (2020), which stated that the majority of nurses have fair knowledge, practices, and attitudes regarding professionalism. It also highlights the significance of professionalism in nursing, as nurses are in positions of trust and need to ensure that patients are confident in their care.

While the lowest-scored domain, patient care management, still achieved a very satisfactory rating, it is essential to identify and address any underlying issues that may be hindering even better performance (Rathi et al., 2022). By addressing these challenges, the respondents can continue to enhance their patient care management skills and provide an even higher level of service to the individuals under their care.

As the healthcare industry continues to evolve, it is crucial that healthcare professionals maintain a steadfast commitment to patient-centered care and ongoing professional development. The insights gained from this study can serve as a valuable reference point for healthcare organizations and policymakers as they work to enhance the quality of care and support the professional growth of their staff (Charosaei et al., 2021).

Lastly, the respondents have demonstrated an outstanding level of professional performance, exceeding expectations in their roles. Their consistent adherence to policies, maintenance of high-quality care, and positive attitudes are a testament to their professionalism. Nursing educators and leaders should continue to emphasize the importance of professionalism and work to overcome any barriers that may exist (Aziz et al., 2020).

Table 4. Test of significant association between the demographic profile and the related learning experience performance of the respondents

Related Learning Experience Performance

Demographic Profile		NCM 100	HA	NCM 101	NCM 102	NCM 103	NCM 104	NCM 105	NCM 106	NCM 107B	OVER ALL	Decision	Remarks
Age	**r**	-.144	-.435**	-.240	-.205	-.204	.128	-.497**	-.008	-.278*	-.312*		
	p	.265	.000	.060	.111	.113	.320	.000	.953	.029	.013	Rejected Ho_1	Significant
Sex	**r_{pb}**	.151	.122	.081	.093	.054	-.163	.019	.006	.023	.065		
	p	.242	.346	.534	.472	.678	.206	.886	.962	.858	.614	Accepted Ho_1	NS**
Length of Service	**r**	-.002	.017	-.009	-.070	-.174	.166	-.028	.208	-.086	-.002		
	p	.987	.898	.945	.587	.177	.198	.830	.105	.508	.988	Accepted Ho_1	NS**

*LEGEND: NS** No significant association…; Significant at 0.05 level of significance.*

Table 4 shows the test of association between the demographic profile and the related learning performance of the NDTCean Nurses. The overall result of age and related learning experience showed that there was a significant association between the two with a p-value of 0.013 that was below the 0.05 level of significance, which resulted in a decision to reject the null hypothesis. While age and experience certainly bring valuable perspective and maturity to nursing programs, it's important to consider that younger students also have their unique strengths. Younger students may bring fresh ideas, enthusiasm, and adaptability to the clinical setting, which can complement the experience and maturity of their older counterparts (Sharma & Mohammad, 2023). Therefore, nursing programs must create a diverse and inclusive environment that values the contributions of students from different age groups.

On the other hand, Sex had no significant association with the related learning experience performance since the p-value was above 0.05 level of significance, which resulted in a decision to accept the null hypothesis. This was supported by the study of Jafari et al. (2019) entitled The Relationship between Study Habits and Academic Achievement in Students of Medical Sciences in Kermanshah-Iran, states that the status of study habits of female students was better than that of male students, but this difference was not statistically significant.

It was also shown that length of service has no significant association with the related learning experience performance since the p-value was above 0.05 level of significance, which resulted in a decision to accept the null hypothesis. However, the study of Mthimunye and Daniels (2019) regarding the Predictors of Academic Performance, Success, and Retention amongst Undergraduate Nursing Students: A Systematic Review, declared that previous educational experiences are a major predictor of academic performance, achievement, and retention of nursing students, according to four research that were shortlisted for the current systematic review. Previous schooling was indicated in several ways, such as pre-admission scientific GPA, admission

GPA, supplemental application score, and pre-admission qualifications.

Table 5. Test of significant association between the demographic profile and the professional performance of the respondents

Professional Performance								
Demographic Profile		**Autonomy**	**Accountability**	**Patient Care Management**	**Professionalism**	**OVERALL**	**Decision**	**Remarks**
Age	**R**	.541**	.331**	.410**	.417**	.444**		
	P	.000	.009	.001	.001	.000	Rejected Ho_2	Significant
Sex	**r_{pb}**	-.151	-.107	-.136	-.082	-.124		
	p	.241	.410	.292	.527	.336	Accepted Ho_2	NS**
Length of Service	**r**	.563**	.530**	.572**	.503**	.566**		
	p	.000	.000	.000	.000	.000	Rejected Ho_2	Significant

*LEGEND: NS** No significant association…; Significant at 0.05 level of significance.*

Table 5 shows the test of association between the demographic profile and the professional performance of the NDTCean Nurses. It was shown that age and professional performance had a significant association as shown in table 5. Age and autonomy with a p-value of .000, age and accountability with a p-value of .009, age and patient care management with a p-value of .001, and age and professionalism with a p-value of .001. The overall p-value of age and professional performance is .001 which was below the 0.05 level of significance, which resulted in a decision to reject the null hypothesis.

Understanding how age demographics impact the various aspects of professional performance can provide valuable insights for nursing practice and management. In this study, it delves deeper into the implications of age on nursing professionals' autonomy, accountability, patient care management, and overall professionalism. By exploring these associations, it gained a better understanding of how age influences the performance of nursing professionals and its potential implications for the healthcare industry (Shen et al., 2022).

However, table 5 showed that in terms of sex and professional performance, there was no significant association since the overall p-value was above 0.05 level of significance, which resulted in a decision to accept the null hypothesis. All the components of professional performance i.e.

autonomy, accountability, patient care management, and professionalism, had no significant association with sex.

Gender diversity and equality in the workplace have been central topics of discussion in the healthcare industry. While the study has shown no significant association between sex and professional performance among NDTCean Nurses, it is important to delve into the factors that do impact the professional performance of nurses deeply (Male nurses' work performance: A cross-sectional study, 2022). Factors such as education, experience, workload, and work environment have been suggested as potential influencers of professional performance in nursing.

Table 5 also showed that the length of service and the professional performance had a significant association with an overall p-value of 0.000 which was below 0.05 level of significance, which resulted in a decision to reject the null hypothesis. The p-value of the length of service and all the components of professional performance i.e. autonomy, accountability, patient care management, and professionalism, were .000.

It is well-established that the professional performance of nursing professionals is closely linked to their length of service and experience in a healthcare setting. The findings of this study further corroborate this, clearly demonstrating the positive influence of the length of service on nursing professionals' performance in key areas such as autonomy, accountability, patient care management, and professionalism (Length of work improves nurse performance, 2022).

Table 6. Test of Significance between the Respondents' Related Learning Experience Performance and Professional Performance

	PROFESSIONAL PERFORMANCE			
RLE PERFORMANCE	**r-value**	**p-value**	**Decision**	**Interpretation**
NCM 100	.245	.055	Accepted Ho_3	NS**
HA	.144	.236	Accepted Ho_3	NS**
NCM 101	.099	.445	Accepted Ho_3	NS**
NCM 102	.108	.402	Accepted Ho_3	NS**
NCM 103	.025	.849	Accepted Ho_3	NS**
NCM 104	.278*	.029	Rejected Ho_3	Significant
NCM 105	-.096	.460	Accepted Ho_3	NS**
NCM 106	.314*	.013	Rejected Ho_3	Significant
NCM 107-B	-.052	.690	Accepted Ho_3	NS**

*LEGEND: NS** No significant relationship…; Significant at 0.05 level of significance.*

The table shows that among the nine RLE subjects, only 2 had a significant relationship with the professional performance of the NDTCean Nurses i.e. NCM 104 and NCM 106 with p-values of .029 and .013, respectively. Therefore, the null hypothesis is accepted among the seven other RLE subjects while it is rejected in the aforementioned RLE subjects. This implies that the related learning performance of the NDTCean Nurses had some impact on their professional performance while working in the hospitals.

In the field of nursing, the correlation between related learning experiences and professional performance is a topic of great interest and importance. Understanding how specific learning experiences impact professional performance can inform educational practices and improve overall patient care. The significance of the relationship between the two, as indicated in the findings presented in Table 6, sheds light on the specific areas of learning that have a tangible impact on the quality of nursing practice (Tang et al., 2019).

Additionally, the study of Gemuhay et al., (2019), about factors affecting performance in clinical practice among preservice diploma nursing students in Northern Tanzania revealed that the majority of nursing students were in agreement that clinical assignments give them a sufficient opportunity to gain real clinical experience.

Moreover, Lewis, et al., (2019). their study about Clinical Performance among Recent Graduates in Nine Low- and Middle-Income Countries showed that several issues with clinical training programs have been noted, such as a deficiency in quality assurance methods, a lack of practical experience, a lack of standardization in curriculum, training models centered on pathology, and a failure to place enough emphasis on developing clinical skills. The quality of education provided by overburdened systems may decline even more when governments broaden health professions education to boost the number of health workers. In particular, the institutional capacity to consistently deliver high-quality instruction to students and to innovate in clinical education is limited by the absence of infrastructure and resources for teaching and learning.

Conclusion and Recommendations

The study of NDTCean nurses in Tacurong City hospitals reveals several key insights. Most of the nurses are young adults aged 26-30, predominantly female, and have more than three years of experience. Despite their demographic profile, their overall learning experience performance is rated "fairly satisfactory," indicating room for improvement in the quality of their training.

In terms of professional performance, the nurses are rated "very good," suggesting that they perform their duties confidently and competently. This indicates that while their educational training may have areas for enhancement, their practical performance in the workplace is commendable. A notable finding is the significant association between age and learning experience performance, as well as between age and length of service with

professional performance. This suggests that experience and maturity contribute to better job performance, whereas sex does not significantly influence either learning experience or professional performance.

Performance in specific courses, particularly NCM 104 and NCM 106, has a significant relationship with overall professional performance. This highlights the critical role these courses play in the nursing curriculum and suggests that targeted improvements in these areas could have a substantial impact on professional outcomes. The study indicates that the learning experience in these courses needs attention and strengthening to ensure nurses are well-prepared for real-world challenges.

The results suggest that the proposed intervention programs, such as the summer enhancement class and clinical skills improvement for NCM 104 and the advanced competency enhancement program for NCM 106, are well-targeted. These programs aim to magnify related learning experience (RLE) exposure for nursing students, focusing on key concepts and clinical skills necessary for improving clinical competencies and readiness for professional practice.

Based on these findings, it is recommended to implement comprehensive intervention programs for NCM 104 and NCM 106 to enhance the quality of nursing education. Additionally, targeted training and support for younger nurses should be provided to bridge any gaps in their preparation. Continuous professional development and regular assessment mechanisms should also be established to maintain high standards of care and adapt to evolving healthcare needs. These measures will ensure that nursing graduates are well-equipped with the clinical competencies and confidence required to excel in their professional roles. Furthermore, to gain deeper insights, future studies could combine quantitative data with qualitative research methods, such as interviews or focus groups.

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Nursing Informatics Competencies and E-health Readiness Among Nurses in a Government Hospital in Cotabato City

Baicylen U. Ayunan, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

Emerging technology enormously impacts different fields, specifically medicine and the healthcare system in general. The present study investigated the relationship between Nursing Informatics competencies and E-health readiness of nurses in a government hospital in Cotabato City. With 150 nurses as the target population who work in the government hospital from different assigned areas, they were asked to rate their Nursing Informatics Competencies and E-Health Readiness using the 5-point Likert scale. With the use of the predictive-correlational approach, the data was analyzed, and the conclusions were that Nursing Informatics Competencies such as basic computer skills, informatics knowledge, and informatics skills have no strong positive relationship between the demographic Profile of the nurses who currently work in the government hospital in Cotabato City. This means that Nursing Informatics Competencies are not measured and are unaffected based on the demographic profile (age, sex, educational attainment, area of assignment, and length of service) of the nurses. Also, E-Health Readiness, such as strategic, Competency, cultural, structural, and technological, are not affected by the demographic Profile of the nurses. Furthermore, there is insufficient evidence that Nursing Informatics Competencies are a good predictor of E-Health Readiness in preparation for healthcare digitization in the government hospitals where nurses work.

Keywords: *Nursing informatics competencies, E-health, Predictive, Cotabato City*

Corresponding email: baicylenenggel@gmail.com

Introduction

Information technology (IT) significantly affects the healthcare sector (Parlakkilic & Saribas, 2021). Thus, nurses' Competency in adopting these changes is challenging (Clendon, 2020). Nursing informatics is a new dimension in the Nursing competency field that includes applying information technology (IT) knowledge and skills within the nursing profession (Jarzembak, 2023). But, despite the clear benefits, research indicates a gap between the need for nursing informatics and actual adoption.

A 2022 study by Kruszyńska-Fischbach et al. found that more than half of hospitals in resource-limited countries haven't yet implemented nursing informatics. This highlights the need to understand nurses' preparedness for e-health, a concept encompassing their skills, knowledge, and attitudes toward utilizing technology in healthcare delivery. Studies have shown a positive correlation between e-health adoption and improved patient outcomes. For instance, a 2019 study by the American Medical Informatics Association (AMIA) linked the use of electronic health records (EHRs) with reduced medication errors and better care coordination (Li et al., 2021). Additionally, a 2024 study published in the Journal of Medical Internet Research found that implementing e-health solutions in European hospitals resulted in significant cost savings through streamlined administrative processes and fewer medication errors (Bente et al., 2024).

In the Philippines, healthcare delivery increasingly faces problems with timely information for effective decision-making, increasing the urgency for digital transformation to be integrated into nursing service (Faustorilla, 2020). Filipino nurses are still not proficient in using technology in nursing service delivery (Bautista, 2019). Moreover, Marcelo et al. 2022 highlighted that despite the benefits of informatics innovations, nurses had difficulty managing due to insufficient rain and support to equip them with these competencies.

Cotabato City faces unique challenges in e-health implementation. A 2020 report by the Cotabato City Health Office (CCHO) highlights limited access to technology and infrastructure as critical barriers to wider e-health adoption within the city's healthcare facilities (CCHO, 2020). Although hospitals are already implementing computerization systems, many nurses are still unable to integrate nursing informatics into the care of patients (AOP, 2022). This study investigates the specific situation of nurses working in a government hospital within Cotabato City. Understanding competencies and e-health readiness will provide valuable insights into analyzing nurses' nursing informatics and E-health readiness to develop theoretically supported recommendations for developing nursing informatics leadership in nursing service, the potential gaps between nurses' skills and knowledge, and the demands of the evolving digital healthcare environment.

Thus, this determined the nursing informatics competencies and E-health readiness among nurses in Cotabato City. To achieve the above purpose, the researchers sought to answer the following questions: (1) What is the demographic Profile of the respondents in terms of age, sex, educational attainment, area of assignment, and length of service? (2) What is the respondents' level of nursing informatics competencies in basic computer skills, informatics knowledge, and informatics skills? (3) What is the respondents' level of health readiness: strategic readiness, competency readiness, cultural readiness, structural readiness, and technological readiness? (4) Is there a significant relationship between the nursing informatics competencies and E-health readiness? (5) Does the nursing informatics competencies significantly predict the E-health readiness of nursing? (6) Do the nursing informatics competencies moderate the E-health of nurses?

Furthermore, this study is significant for various stakeholders within the healthcare ecosystem. The findings may help nurses improve their knowledge and skills in

nursing informatics and awareness of E-health readiness. Also, understanding the current state of e-health readiness among nurses can guide hospital Nursing administrators and policymakers in developing effective strategies for e-health implementation. They can identify areas requiring training or infrastructure upgrades to improve nurses' comfort and ability to utilize new technologies. By addressing potential skill gaps and fostering e-health readiness, this study can improve workflow efficiency and enhance the quality of care delivered within the hospital. The results can empower nurses by highlighting the importance of e-health skills and knowledge in the evolving healthcare landscape. It can motivate them to pursue further education and training to strengthen their informatics competencies, leading to career advancement opportunities. Enhanced e-health skills can lead to increased job satisfaction and efficiency for nurses. By effectively leveraging technology, nurses can streamline data management tasks, improve communication, and dedicate more time to direct patient care

Also, E-health-savvy nurses become data detectives, using electronic records to uncover trends and patterns that might otherwise be missed. This translates to more informed decisions at the bedside, leading to personalized care plans and potentially earlier interventions. Accurate documentation becomes streamlined with e-health systems, eliminating errors and ensuring a clear picture of a patient's history. It takes both parties to improve communication. Nurses can promote a cooperative atmosphere that enables patients to take an active role in their healthcare experience through the electronic exchange of educational materials and prompt responses to patient inquiries. These factors work together to improve care quality, reduce mistakes, and improve the experience of both nurses and patients.

Furthermore, this study will contribute a crucial piece to the puzzle of e-health readiness in resource-limited settings. Examining the specific experiences of nurses in a government hospital within Cotabato City can shed light on common challenges and opportunities faced by healthcare institutions with limited resources. This information can serve as a baseline for future research initiatives. On a national scale, it can inform the development of targeted interventions or training programs to bridge the digital divide and equip nurses across the Philippines with the skills needed to thrive in a technology-driven healthcare landscape. Ultimately, this cumulative research effort can pave the way for a more integrated approach to e-health implementation, ensuring all nurses, regardless of location or resource availability, are empowered to leverage technology for improved patient care.

Methods

The respondents were healthcare professionals - registered nurses in the Cotabato Regional Medical Center (CRMC). This study utilized a quantitative method and a predictive-correlational design. Also, investigate e-health readiness and nursing informatics competencies in a setting that may not have access to the most advanced technologies, reflecting a reality for many healthcare institutions. Convenience sampling was employed to ensure a representative sample and capture the diverse skill sets across various departments. Convenience sampling ensures nurses from

multiple departments are included, providing a more comprehensive picture of e-health readiness and informatics competencies across the hospital. Using the intended confidence level of 95%, the research sample size was determined using the G*Power statistical program.

In selecting the respondents, only registered nurses currently employed at the CRMC, nurses holding regular (permanent) positions within the hospital, and willingness to participate in the study and provide informed consent. Excluded are those contractual or agency nurses, nurses on leave or not actively working in the hospital during the data collection period, and nurses with diagnosed cognitive impairments that might hinder their ability to respond to survey questions accurately

The researcher utilized a well-established, adapted survey instrument developed by Kruszyńska-Fischbach et al. (2022). This instrument has demonstrated strong internal consistency, with a Cronbach's alpha of 0.97, indicating reliable measurement of the concepts we aim to explore. The survey instrument comprised two parts, each further divided into sub-parts to assess the target concepts comprehensively. Part 1 of the survey instrument evaluates the nurses' informatics competencies, encompassing their skillsets related to information technology and healthcare. Sub-part 1.2 then gauges their understanding of e-health technologies, data management principles, and electronic health records (EHRs). Finally, sub-part 1.3 evaluates the nurses' ability to utilize these e-health technologies for various purposes, including retrieving, analyzing, and communicating data. This comprehensive approach ensures a thorough assessment of the nurses' informatics capabilities.

Part 2 of the survey instrument delves into the hospital's overall preparedness for adopting e-health solutions. This multi-dimensional approach provides a comprehensive picture of the hospital's e-health readiness. Sub-part 2.1 assesses the hospital's strategic readiness by evaluating the existence of institutional policies, supportive structures, and strategic planning related explicitly to e-health implementation. Sub-part 2.2 then explores the competency readiness of the hospital staff, gauging their overall skill set and knowledge base regarding e-health technologies. Moving beyond technical skills, sub-part 2.3 investigates the cultural readiness of the hospital by examining the attitudes and perceptions of nurses and personnel toward embracing e-health adoption. To ensure the hospital environment can physically support e-health solutions, sub-part 2.4 assesses structural readiness by evaluating IT infrastructure and resource adequacy. Finally, sub-part 2.5 focuses on technological readiness by examining the compatibility of existing hospital information systems with potential e-health technologies. This multi-dimensional approach provides a comprehensive picture of the hospital's e-health readiness.

Each sub-part utilized a closed-ended question format, presenting nurses with statements and offering five response choices, typically ranging from "Very Low" to "Very High." This standardized format facilitated data collection, analysis, and comparison across respondents.

During the survey, the researcher followed the considerations and protocols, such as providing a brief orientation on the purpose of the study before asking for their

consent. The researcher went per department to present the permission letter to the head supervisors of each department. The respondents were assured of their right to withdraw at any stage during the actual study. The respondents were also given time and opportunities to ask questions or clarifications. Furthermore, the researcher adhered to the health protocols of wearing masks and maintaining social distancing during the survey.

Moreover, various statistical techniques specific to our variables and research questions were employed to glean meaningful insights from the data gathered. The age, gender, educational background, department assignment, and length of service of the participating nurses were all described using frequency distributions and percentages. The level of nursing informatics competencies and e-health readiness were defined using the mean score for each measure in the survey instrument. This provided a central tendency of the data for these key variables. Since the data may not be normally distributed, Spearman's Rho, a non-parametric correlation coefficient, was employed to determine the relationship between the nursing informatics competencies and E-health readiness.

Furthermore, In alignment with the Data Privacy Act of 2012, researchers adhered to principles of transparency, legitimate purpose, and proportionality when handling personal data. Respondents were allowed to remain anonymous, and any identifying information collected was treated with utmost confidentiality. Assurance was given that no identifying details would be included in the final research report, ensuring the anonymity of participants in any published materials. Respecting participants' rights to privacy, confidentiality, and freedom from harm or discomfort, the study employed a structured questionnaire devoid of offensive language. Institutional policies and procedures were strictly followed throughout the research process to uphold ethical standards.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Age	Frequency	Percentage
21-25 years old	17	11.30%
26-30 years old	30	20.00%
31-35 years old	35	23.30%

36-40 years old	41	27.30%
41 years old and above	27	18%
Total	**150**	**100%**
Sex		
Male	31	20.70%
Female	119	79.30%
Total	**150**	**100%**
Educational Attainment		
College Graduate	133	88.70%
Master's Graduate	12	8.00%
Postgraduate	1	0.70%
Total	**146**	**97.30%**
Area of Assignment		
OB-Gyne ward	36	24.00%
Pedia ward	23	15.30%
Medicine ward	11	7.30%
Surgery room	2	1.30%
ICU Complex	15	10.00%
Operating room	4	2.70%
Emergency room	12	8.00%
Delivery room	8	5.30%
Others	39	26.00%
Total	**150**	**100%**
Length of service		
0-5 months	4	2.70%
6 months - 1 year	20	13.30%
2-4 years	52	34.70%
5-7 years	31	20.70%
8-10 years	30	20.00%
11 years and above	13	8.70%
Total	**150**	**100.00%**

Table 1 shows the demographic Profile of the respondents. The majority (70.67%) fall within the experienced 26-40 age range, with a significant portion (27.30%) between 36 and 40. This aligns with the national average nurse age (31.64) reported by Dr. Feliciano (2019). The gender distribution reflects the national trend, with a predominance of female nurses (79.30%) as evidenced by Feilicano et al. (2019) and potentially explained by higher attrition rates and challenges faced by male nurses (Boniol et al., 2019; Mao et al., 2021; Zhang & Tu, 2020; Stanley et al., 2016). Educational attainment leans towards college degrees (88.70%), possibly due to time constraints often faced by nurses, particularly women balancing work and family (as discussed). Lastly, 74% of participants work in departments where digital solutions are particularly relevant to improving patient experience, aligning with the study's focus.

Table 2 presents the nursing informatics competencies of nurses in the Cotabato City government hospital, assessed across three areas: basic computer skills, informatics knowledge, and informatics skills. The overall mean score (3.73) falls within the "High" range based on the descriptive scale. However, a noteworthy detail is the high standard deviation (0.83). This indicates a significant spread of scores around the mean, suggesting inconsistency in informatics competencies across these different areas. This finding aligns with previous research by Mehrdad Farzandipour et al. (2018), where nurses demonstrated higher competence in basic computer skills and informatics knowledge but lower proficiency in applying these skills in a healthcare context (informatics skills). This pattern suggests potential areas for targeted interventions to improve nurses' ability to utilize technology effectively within the hospital setting.

Table 2. Level of Nursing Informatics Competencies

Indicator	Mean	SD	Descriptive Level
Basic computer skills	3.82	0.79	High
Informatics Knowledge	3.80	0.81	High
Informatics Skills	3.57	0.88	Moderate
Overall	**3.73**	**0.83**	**High**

While the analysis of Table 2 reveals a strong foundation in technology use for healthcare among nurses (basic computer skills: mean 3.82, SD 0.79; informatics knowledge: mean 3.80, SD 0.81), a gap emerges in applying this knowledge practically (informatics skills: mean 3.57, SD 0.88). This highlights the need for targeted educational programs and training to fully bridge this gap and empower nurses to utilize e-health tools and resources. Recognizing this opportunity for growth, nurse leaders can develop strategies to enhance informatics skills, ultimately improving healthcare service delivery through technology integration.

Table 3 examines the hospital's e-health readiness across six critical

dimensions identified by Idoga (2016): strategic planning, staff competency, cultural attitudes, information technology infrastructure, technology compatibility, and overall readiness. The overall score (mean 3.51, standard deviation 0.81) suggests a moderate level of e-health readiness. While this indicates progress, the high standard deviation highlights potential areas for improvement across these various dimensions. Further analysis is needed to pinpoint specific areas where the hospital can focus its efforts to enhance its overall e-health readiness and effectively integrate e-health solutions into its healthcare delivery system.

Analyzing e-health readiness across six key dimensions (strategic planning, Competency, cultural attitudes, infrastructure, technology adoption, and overall readiness) reveals a moderate level of preparedness (mean score 3.51, SD 0.81) for the hospital (Table 3). This finding aligns with the challenges developing countries face in healthcare service optimization. While progress is evident in areas like infrastructure (mean 3.72, SD 0.80), aspects like strategic planning (mean 3.46, SD 0.88) and staff competency (mean 3.50, SD 0.80) require further development. A generally receptive cultural attitude (mean 3.60, SD 0.81) exists, but potential concerns might need to be addressed. Technological adoption (mean 3.27, SD 0.77) shows room for improvement through increased investment, utilization, and, potentially, compatibility upgrades to maximize the benefits of e-health solutions. This highlights the need for a multi-pronged approach focusing on staff training, strategic planning, and technology optimization to build upon the existing structural foundation and create a more supportive environment for e-health integration within the hospital.

Table 3: Level of E-Health Readiness

Indicator	**Mean**	**SD**	**Descriptive Level**
Strategic	3.46	0.88	Moderate
Competency	3.5	0.80	Moderate
Cultural	3.6	0.81	Moderate
Structural	3.72	0.80	High
Technological	3.27	0.77	Moderate
Overall	**3.51**	**0.81**	**Moderate**

Legend: 5.00 - 4.20 - Very high, 4.19-3.61 - High, 3.60 - 2.41 - Moderate, 2.40 - 1.81 - Low, 1.80 - 1.00 - Very low

Table 4 shows the relationship between Nursing Informatics Competencies and E-Health Readiness. The researcher used Spearman's Rho to test the correlation between Nursing Informatics Competencies and E-Health Readiness because our data is not normally distributed based on the result

of the test of normality shown in the table above.

The results show a strong positive correlation between nursing informatics competencies and e-health readiness (Spearman's Rho = 0.781, $p < 0.001$). This indicates that as nursing informatics competencies increase, so does e-health readiness. The strong correlation suggests that a higher level of nursing informatics competencies among nurses may positively influence their readiness to adopt e-health technologies.

The findings from the analysis emphasize the importance of nursing informatics in shaping the readiness and willingness of nurses to embrace e-health technologies. Investing in developing nursing informatics competencies could potentially contribute to the successful adoption and integration of e-health solutions in healthcare settings. This underscores the significance of focusing on factors such as skills and knowledge in informatics, which may substantially impact e-health readiness more than demographic characteristics.

Table 4. The Personality Traits' Impact on Preceptors' Professional Behavior.

		Spearman's Rho	*p*
Nursing Informatics Competencies	**E-health Readiness**	0.781	*** < 0.000

Note: *p<0.05, **p<0.01, ***p<0.001

Table 5 shows whether any independent variables are an excellent predictor of our dependent variables. A predictive model was fitted to the data to understand further the relationship between nursing informatics competencies and e-health readiness. The model-fitting information is presented in the table above. The table above shows the p-value is more significant than 0.001, meaning the model is not a promising finding on how well it fits the data.

The model-fitting information provides valuable insights into the predictive power of nursing informatics competencies on e-health readiness. We can observe that the chi-square statistic is 1.400 with 3 degrees of freedom, resulting in a p-value of .706. The p-value suggests the model does not significantly predict e-health readiness based on nursing informatics competencies.

In conclusion, the predictive model does not provide evidence to support a significant predictive relationship between nursing informatics competencies and e-health readiness. This indicates that while there is a strong positive correlation between the two variables, the predictive power of nursing informatics competencies on e-health readiness is not statistically significant.

It is essential to consider additional factors and variables that may contribute to e-health readiness in healthcare professionals. More investigation and analysis of these factors may be necessary to understand better the determinants of informatics competencies and e-health readiness in the healthcare setting. There is no significant predictor in nursing informatics competencies that significantly predicts the E-health readiness of nurses.

Table 5. The Prediction between Nursing Informatics Competencies and E-health Readiness.

Model Fitting Information				
Model	***-2 Log Likelihood***	***Chi-Square***	***df***	***p***
Final	14.695	1.4	3	0.706

Note: Significant if p<0.001:

Table 6 shows a strong positive correlation between the participants' self-reported knowledge about digital technologies and their readiness for E-health practices. The correlation coefficient (R) was found to be 1.000, which means a perfect linear relationship between the variables. This indicates that as participants' knowledge about digital technologies increased, their readiness for E-health practices increased proportionally. The adjusted R square value was not applicable, as the model achieved a perfect fit due to the correlation coefficient being 1.000. Additionally, the F test indicated that the model is statistically significant (p.value = <.05), which means that the association between the variables is not due to random chance. Overall, the findings from the study support the association between nursing informatics competencies and readiness for E-health practices, highlighting the importance of digital technology knowledge in nursing.

Also, it shows a strong positive correlation between the participants' self-reported knowledge about digital technologies and their readiness for E-health practices. The correlation coefficient (R) was found to be 1.000, which means a perfect linear relationship between the variables. This indicates that as participants' knowledge about digital technologies increased, their readiness for E-health practices increased proportionally. The adjusted R square value was not applicable, as the model achieved a perfect fit due to the correlation coefficient being 1.000. Additionally, the F test indicated that the model is statistically significant (p.value = <.05), which means that the association between the variables is not due to random chance. Overall, the findings from the study support the association between nursing informatics competencies and readiness for E-health practices, highlighting the importance of digital technology knowledge in nursing.

Table 6. Moderated Prediction between Nursing Informatics Competencies and E-Health Readiness

Model Summary

Model	R	R Square	Adjusted R Square	df1	df2	p
1	1.000[a]	1.000		2	0	0.000

Note: Note: Predictors: Competency and Technological; Dependent variable: Nursing Informatics Competencies; p<0.05

Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients			
	B	Standard Error	Beta	t	p	Remarks
Constant	4.377	0.000				
Competency	-0.230	0.000	-1.433	0.000	0.000	**Significant**
Technological	0.067	0.000	0.471	0.000	0.000	**Significant**

Note: Note: Dependent variable: Nursing Informatics Competencies; p<0.05

The relationship between the dependent variable, Nursing Informatics Competencies, and the predictor variables, Technological, and Competency, is revealed by the nursing informatics competencies model's coefficients. The unstandardized coefficients indicate how much the dependent variable changed for every unit change in the predictor variables. When the predictor variables are zero, the dependent variable's baseline value is indicated by the constant's unstandardized coefficient of 4.377. The unstandardized coefficient for the predictor variable competency is -.230, suggesting that the dependent variable decreases by -.230 units for every one-unit increase in Competency. Similarly, the unstandardized coefficient for the predictor variable technology is .067, indicating that the dependent variable increases by .067 units for every one-unit increase in technology. The standardized coefficients compare the strengths of the predictors (Competency and technology) in explaining the variation in the dependent variable (nursing informatics competencies). The technological standardization coefficient is 471, and the competency standardization coefficient is -1.433. Given the various predictor scales, these values enable a comparison of the effects of each predictor variable on the dependent variable. The comparison of the predictors' relative efficacy in elucidation of the variance in the dependent variable is made possible by the standardized coefficients. For technological skills, the standardized coefficient is 471, and for Competency, it is -1.433. These values enable

comparing the effects of all predictor variables, considering their various scales, on the dependent variable. The t-test and the corresponding p-value indicate the significance of the coefficients. At the 0.05 significance level, both predictor variables—Competency and technology—have a p-value of—000, meaning they are statistically significant in explaining the variation in the dependent variable.

In conclusion, as nurses improve their nursing informatics competencies, E-health readiness, specifically in Competency and technological indicators, will also improve. It would be a good indicator if they are ready for healthcare digitalization. Other indicators, such as strategic, cultural, and structural, are not affected by nursing informatics competencies; head nurses and medical leaders would consider helping the nurses working in the government hospital to be equipped with basic computer skills, informatics knowledge, and informatics skills.

Conclusions and Recommendations

The current study found that Most nurses are females in their late 20s and early 40s who have worked in the government hospital for 2-4 years, specifically in the OB-Gyne ward, and are college degree holders. Therefore, they are not yet equipped to use E-health technologies.

In terms of all indicators, basic computer skills, informatics knowledge, informatics skills, strategic, Competency, cultural, structural, and technological, the results show that the respondents had a moderate level of preparedness regarding E-health technologies. This indicates a specific area where targeted educational programs and training can be implemented to further enhance nurses' capabilities in effectively utilizing informatics tools and resources. Nurse leaders need to recognize this opportunity for growth and develop strategies to bridge this gap in informatics skills.

The results reveal a strong positive correlation between nursing informatics competencies and e-health readiness. This means that implementing targeted educational programs focused on enhancing specific informatics skills and computer literacy competency will be instrumental in elevating the overall nursing informatics competencies and e-health readiness among nurses in Cotabato City. Additionally, continuous support from the information technology department and ongoing education will be pivotal in successfully integrating and utilizing electronic health records, contributing to improved healthcare outcomes and quality.

The results reveal that the model does not significantly predict e-health readiness based on nursing informatics competencies. The predictive model does not provide evidence to support a significant predictive relationship between nursing informatics competencies and e-health readiness. This indicates that while there is a strong positive correlation between the two variables, the predictive power of nursing informatics competencies on e-health readiness is not statistically significant. It is essential to consider additional factors and variables that may contribute to e-health readiness in healthcare professionals. Further research and analysis could determine the characteristics and gain a more comprehensive understanding of the determinants of e-health readiness and informatics competencies in the healthcare setting.

Future research in nursing informatics can benefit from several key considerations to enhance understanding of nurses' perspectives on digitalization in healthcare. (1) It is expanding the research scope geographically. The current study's focus on a single public hospital in Cotabato City limits its generalizability. Future research should consider replicating the study in diverse settings, including private hospitals and public hospitals across different locations. This will deliver valuable insights into the healthcare system's broader e-health adoption and preparedness landscape. (2) While this study examined the correlation between nursing informatics competencies and e-health readiness, future researchers may

investigate a more comprehensive approach to analyze the relationships between all three variables: demographic Profile, informatics skills, and e-health readiness. This would reveal potential interactions and nuances. (3) Use a Paired sample t-test. For future studies, conduct Pre-surveys and post-surveys to determine the difference in the respondents' answers using the same survey questions. DOH, Nurse Administrators, and Policymakers should consider boosting E-Health readiness through targeted training to address identified gaps in e-health readiness and implement hands-on training programs for study participants. These programs should focus on the IT systems used for HIS (Hospital Information System) and nursing diagnostic coding. Following the training, a follow-up survey can assess if e-health readiness has improved across critical areas like strategic planning, staff competency, cultural attitudes, and technology adoption. This targeted approach measures the training's effectiveness and guides future efforts to enhance e-health integration within the hospital. (4) Use qualitative research. Conduct a study to assess their level of support for initiatives that equip nurses with the latest technologies. This collaborative approach will foster open communication and identify potential areas where the local government can provide resources and support for nurses' digital skills development. This might include funding training programs, equipment upgrades, or policy changes encouraging technology adoption in healthcare settings.

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Bullying, Social Competence, and Academic Performance of Students in a Public College in Davao Oriental

Glenn A. Bagayo, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

Bullying is a severe problem that impacts individuals globally, particularly students. It has negative effects on one's physical, mental, and financial well-being and can even have serious consequences like suicide. This study's objectives are to comprehend and validate the reported rise in bullying occurrences involving teenagers and to identify strategies for their prevention and mitigation. Three hundred nine (309) respondents from various academic levels and courses participated in the study, which was conducted at a community college in Davao Oriental, a region in the Davao Region. The respondents were selected by the use of a stratified random sampling technique. The study revealed that the students' social ability is above average and that bullying is not very widespread among them. They also perform extremely satisfactorily academically. The study did not discover any meaningful correlation between academic achievement and bullying or between social competence and academic performance. Additionally, regression analysis demonstrated that social competence and bullying are not indicators of academic success. Based on these results, the study suggests putting bullying intervention programs into place, with a focus on social-emotional learning, to assist students who are likely to have been the victims of specific types of bullying. To ensure there are no bullying events at the nearby college, the main priorities should be to lessen verbal bullying and to put social adjustment strategies into place.

Keywords: *Bullying, Social Science, Descriptive-Correlation, Davao Oriental*

Corresponding e-mail: glennbagayo6@gmail.com

Introduction

Bullying is unfortunately a common occurrence in schools. According to Bilbay and Akyol (2023), it entails stronger people abusing victims in ways that have the potential to negatively impact their possessions, bodies, emotions, relationships, credibility, and digital presence, among other areas of their existence. Remarkably, 90% of bullying occurrences take place in schools, which has a big impact on social competence and academic achievement (Awad et al., 2021). Bullying and violence are recognized as significant problems among college students that have an impact on their physical and emotional well-being, which in turn affects their academic performance and accomplishment (Ramos-Rodríguez & Aranda-Beltrán, 2021; Yadav, 2022).

A study conducted in Madrid exhibited that bullying adversely impacts students, regardless of their academic achievement, leading to a higher likelihood of lower academic performance (Rusteholz et al., 2021). This finding aligns with Hysing et al. (2019), who confirmed that students engaged in various kinds of bullying tend to exhibit lower average grades. Similarly, in Beijing, Shanghai, Jiangsu, and Guangdong, China, bullying victimization and the overall bullying climate were significantly and negatively associated with students' performance in science, math, and reading (Huang, 2022).

However, bullying is associated with gender marginalization among Filipino college students, especially within the LGBTQ population (Mimay et al., 2020). According to Espiritu, Baay, and Arevalo (2022) in Davao del Norte, there may be a link to the process of identifying LGBTQ individuals coming out. The respondents to the study disclosed that they had experienced verbal, emotional, and physical bullying, which has been repeatedly linked to internalizing problems such as depression symptoms, suicidal ideas, and suicidal behavior among teenagers who identify as LGBTQ.

Bullying has grown to be a major issue in Davao Oriental schools, which has led to concerns about an inadequate level of educational security (Codilla, 2023). Students who undergo bullying in the province exhibit insufficient social competence, as noted by an English professor. The hostile bullying environment disrupts social competence, which is associated with positive psychosocial functioning and reduced depressive symptoms. This causes emotional discomfort, social detachment, and a victim's sense that they lack important social skills (Romero-Lopez et al., 2021). Good social connection is hampered by this interruption. Negative feelings include guilt and fear of not being able to help the victim also affect those who witness bullying (Gordon, 2020). Additionally, bullying can result in academic failure, school withdrawal, antisocial behavior, violence, and substance use among victims (Bilbay & Akyol, 2023).

The researcher, who is presently earning his graduate studies in Nursing, felt driven to look into bullying and social competence because of the ongoing effects on victims. He is a school nurse and also teaches at the community college in Davao Oriental. Bullying victims tend to be greatly impacted by psychological signs such as despair and nervousness, despite extensive attempts to prevent bullying. In response to Cayan's (2020) request that studies look into the behavioral and academic difficulties faced by adolescents who lack social

competence, the study also investigates the relationship between bullying, social competence, and academic performance. Furthermore, motivated by Romppanen et al. (2021), the study seeks to ascertain if therapies focusing on social competence are associated with enhanced psychological well-being. Protecting teenagers' mental health, reducing bullying, and addressing social competence are the main objectives.

Methods

A bonafide first- to fourth-year students in various programs, including the Bachelor of Elementary Education (BEED), Bachelor of Public Administration (BPA), Bachelor of Science in Office Administration (BSOA), and Bachelor of Secondary Education (BSED), were the study's respondents during the second semester of the 2022–2023 academic year. A summation of 1,551 students were registered during the second semester of the academic year 2022–2023 according to records that were collected from the Registrar's Office. According to the Raosoft computation, 309 participants were the best sample size. The subsequent breakdown of the entire sample is shown in Table 1 considering stratified random sampling was used in this investigation. Utilizing stratified random sampling, a subset of a larger collection is selected at random, with each respondent being selected with a slightly different probability.

Multiple regression analysis and a descriptive correlational technique were utilized in the investigation. The adapted instruments were validated by qualified professionals before the administration of the survey questionnaires, as only minimal modifications were made to align with the parameters of the current study. The research instruments were to be validated by three professionals in the field. After analyzing the instruments' dependability using Cronbach's alpha or verifying their consistency and reliability, the researcher no longer performed pilot testing.

Three components make up the instruments. The initial section of the survey concerns the extent of bullying that the participants have encountered. The questions in the second section were designed to find out how socially competent respondents were. The academic performance of the respondents, as shown by their GWA rating, is presented in the third section.

The study described the respondents' qualifications concerning their year level and the course or program where they included using Frequency Distribution and Percentage. Additionally, Mean was used to gauge the respondents' academic performance, social competence, and bullying experience. On the other hand, multiple regression analysis was employed to assess the extent to which social competence and bullying had an impact on students' academic performance. Person r was used to ascertain the relationship between bullying and academic performance as well as between social competence and academic performance of the students.

Results and Discussion

Table 1. Frequency Distribution of Participants

Course/Program	1ST	2ND	3RD	4TH	Total	Total

	Population	*Sample*	Population	*Sample*	Population	*Sample*	Population	*Sample*		
BEED	45	*9*	48	*9*	43	*9*	23	*4*	15	31
BPA	22	*5*	19	*4*	9	*2*	24	*5*	74	16
BSOA	339	*68*	197	*40*	141	*28*	140	*28*	817	164
BSED English	93	*19*	93	*19*	31	*6*	24	*5*	241	49
BSED Filipino	73	*14*	46	*9*	40	*8*	32	*6*	191	37
BSED Math	23	*4*	14	*3*	13	*2*	19	*3*	69	12
TOTAL	595	*119*	417	*84*	277	*55*	262	*51*	1551	309

**309 - recommended sample size from 1551 total population, as per Raosoft calculation.*

In Table 1, the distribution of the respondents is presented in terms of frequency and percentage. A summation of 159 students were enrolled in various programs: BEED (31) followed by BSED (49), BSED (English) (12), BSED (Math) (37) and BSED (Filipino), 164 BSOA, and 16 BPA. Additionally, 817 students from the BSOA program and 74 students from the BPA program were involved in the study.

Table 2. Summary of the Extent of Bullying among College Students

Items	Mean	SD	Descriptive Level	Interpretation
Physical Bullying	1.71	0.92	Very Low	This indicates that bullying is neither encountered nor noticed.
Verbal Bullying	2.47	1.10	Low	This indicates that bullying is sometimes encountered.
Social Manipulation	2.05	0.99	Low	This indicates that bullying is sometimes encountered.
Attacks on Property	2.05	0.99	Low	This indicates that bullying is sometimes encountered.
Electronic Aggression	1.85	0.99	Low	This indicates that bullying is sometimes encountered.
Category Mean	**2.03**	**1.00**	**Low**	This indicates that bullying is sometimes encountered.

The extent of bullying among the college students within reach Davao Oriental is shown in Table 2. The results revealed a mid score of 2.03, with a detailed

proportionate of low level of bullying. It suggests that college students hardly experience or witness bullying. Based on the research, verbal bullying is the most prevalent type of bullying, with a mid-score of 2.47, indicating a low degree of bullying in general. In addition, physical bullying has the lowest mid score of 1.71, which indicates a very low level of bullying, meaning it is not encountered at all.

These findings are consistent with previous research by Chapell, Hasselman, Kitchin, and Lomon (2006), who found that verbal bullying is prevalent in elementary school and college. Naidoo et al. (2016) also reported that 53.6% of bullying is verbal, while 20.8% is physical in the United States. In parallel, Sansait, Aguiling-Saldana, and Retiracion (2022) discovered that while libel and snobbery are the most prevalent types of bullying in the Philippines, some individuals still experience physical bullying.

Additionally, verbal bullying is more frequent than physical bullying among teenagers, according to Peng, Hu, Yuan, et al. (2020), and it has an increased impact on the rate of self-harm, suicidal ideas, and suicide attempts.

Table 3. Summary of the Extent of Social Competence of College Students

Items	Mean	SD	Descriptive Level	Interpretation
Cognitive Reappraisal	3.68	1.15	High	It indicates that the student's level of social competence is higher than normal.
Social Adjustment	3.44	1.04	High	It indicates that the student's level of social competence is higher than normal.
Pro-social Behaviour	3.47	1.04	High	It indicates that the student's level of social competence is higher than normal.
Social Efficacy	3.53	1.01	High	It indicates that the student's level of social competence is higher than normal.
Normative Adjustment	4.16	0.97	High	It indicates that the student's level of social competence is higher than normal.
Category Mean	**3.66**	**1.04**	**High**	It indicates that the student's level of social competence is higher than normal.

The extent of social competence exhibited by Davao Oriental local college students is shown in Table 3. The extent of the student's social competence is higher than normal, as indicated by the category mean of 3.66, which is descriptively equivalent to "High". The two variables that are classified as "High" among the five, normative adjustment and cognitive reappraisal, have the highest mid of 4.16 and 3.68, respectively. This implies that the student has higher than normal social competence. Conversely, a social adjustment had the lowest mean (3.44), which was also classified as "High". This indicates that the student still possesses higher than normal social ability.

Gomez-Ortiz et al. (2017) claim that social competence is multifaceted, meaning that a student may exhibit higher levels of cognitive reassessment but lower levels of social adjustment, or higher levels of normative adjustment but lower levels of social adjustment. Normative adjustment pertains to a student's capacity to demonstrate respect for both school property and their peers by conforming to specified living standards. A student can maximize their passions and personal achievements by employing the cognitive reassessment approach, which helps them predict the emotional implications of a particular occurrence. This may result in the development of a peaceful school environment and cohabitation, both of which are important components of social competency even in one's personal life.

Social adjustment is an essential requirement for academic adjustment, according to Corradi and Levrau (2021), and it has a significantly favorable impact on academic success.

Table 4. The Extent of Academic Performance among College Students

Dependent Variable	Mean	SD	Descriptive Level	Interpretation
Academic Performance (GWA)	1.71	0.30	Very Satisfactory	This indicates that the academic performance of the students is highly proficient.

The General Weighted Average (GWA) of college student's academic performance is displayed in Table 4. The results revealed the mid score of 1.71 with a detailed proportion of "Very Satisfactory". This indicates that the academic performance of the students is highly proficient. Academic performance is crucial for fostering student development and raising the standard of higher education, according to Lau, Sun, and Yang (2019). Similarly, Florentino, Benlot, and Fiestada (2014) discovered that academic performance competence empowers students to maintain a healthy balance between their social and academic lives by practicing self-control and time management. Additionally, Avila (2021) emphasized the connection between students' academic achievement and their GWA in professional topics.

Furthermore, a study found that student's average grades or academic performance differs depending on the type of bullying they encounter. Comparing students who are bullies and bully/victim, they are likely to perform worse academically than non-bully/victim or victim students. This is consistent with the results of the present study, which show above-average social competence and a low frequency of bullying. As a result, the responders' GWA is highly proficient.

Table 5. The Relationship of Bullying and Social Competence to the Academic Performance of College Students

Independent Variables	Academic Performance		Decision
	Rho-Value	p-Value	

1. Bullying	-0.027	0.636	Accept Ho
2. Social Competence	0.200	0.722	Accept Ho

The relationship between bullying and social competence concerning college student's academic achievement is shown in Table 5. According to the study, there is a -0.27 Rho-value and a 0.636 p-value for the association between bullying and academic performance. Conversely, the correlation between social competence and academic performance showed a Rho-value of 0.200 and a p-value of 0.722. The researcher obtains the null hypothesis since the resulting p-values are higher than the alpha value of 0.05. This suggests that the null hypothesis cannot be rejected because there is insufficient evidence to do so, and its acceptance means that there is no meaningful relationship between the variables.

Table 6. Bullying and Social Competence as Predictors of Academic Performance of College Students

INDEPENDENT VARIABLES	Unstandardized Coefficients		Standardized Coefficients	T	p-value	Decision
	B	Std Error	B			
Intercept	1.7059	0.1035	-	16.4746	0.0000	-
Bullying	-0.0159	0.0255	-	-0.6247	0.5326	Accept Ho
Social Competence	0.0090	0.0257	-	0.3489	0.7274	Accept Ho

Dependent Variables: Academic Performance among College Students
Predictors: Bullying and Social Competence
R = 0.0395 R-square = 0.0016 F = 0.239 p = 0.787 >.05
No Variable were entered into the equation

As stated by the result shown in Table 6, social competence and bullying do not appear to be significant indicators of college students' academic achievement. Based on the p-value results, which are 0.5326 and 0.7274, respectively, and both higher than the significance level of 0.05, this is concluded. This indicates that neither element significantly affects college students' academic achievement.

Furthermore, according to the regression model, a one-portion raise in bullying causes academic performance to drop by 0.0159 units, but a one-unit gain in social competence causes academic performance to rise by 0.0090 units. With an r-squared value of 0.0016, bullying and social skills account for only 0.16% of the difference in academic performance; the remaining 99.84 percent is determined by other characteristics not considered in the analysis.

Conclusion and Recommendation

The survey discovered that college students' social competence and academic performance are often higher than normal and that bullying is not a phenomenon they

encounter or witness frequently. Additionally, the study discovered that among college students, there is no evident relationship between social competence and academic performance or between bullying and academic performance. The researcher encourages the college administration to consider the study's findings if bullying or social competency problems arise in the future, though, to build on these findings. To assist students in becoming more socially competent, teachers need to develop innovative techniques. As long as there are zero cases of bullying at the college, the administration, in collaboration with the counseling and school clinic, may undertake programs aimed at addressing bullying. Among other things, these programs can target lowering verbal bullying, social manipulation, and property attacks. They can also provide seminars on social competence, prosocial behavior, and social efficacy, among other topics, that are meant to improve students' social competence. Lastly, the results of the study can be used by future researchers to broaden the body of knowledge regarding the connection between college students' academic success, social competence, and bullying.

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Lived Experiences of Nurses in Hybrid Operating Room

Norielhudah D. Bansil, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The integration of advanced technology in hybrid operating rooms presents unique challenges for nurses. This dynamic environment may lead to uncertainty and apprehension among nurses navigating their responsibilities within a multidisciplinary team. This study was focused on exploring and understanding the experiences of nurses in hybrid operating rooms. A purposive sample of 14 nurses assigned to hybrid operating rooms of a government hospital were interviewed. Utilizing Colaizzi's (1978) phenomenological method rigor was established through the the application of verification, validation, and validity. Out of 93 significant statements, 10 themes emerged. The experiences of nurses included variation in nursing care, anxiety related to a new environment, mental and physical preparation, positive disposition, and complexity of procedures. Their coping was focused on working together, collaborating, trusting the team, and communicating. The insights the OR nurses wanted to share with their peers and with the nursing practice comprised career advancement, professional growth, nurse competence, and technological advancements.

Keywords: *Hybrid Operating Room, Social Science, Descriptive-Phenomenology, Philippines*

Corresponding email: norielhudahbansil@gmail.com

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Introduction

Healthcare professionals may experience anxiety when they move to a new work environment, particularly one as complex and technologically advanced as a hybrid operating room. This anxiety stems from their lack of familiarity with the new surroundings, equipment, and procedures, as well as the pressure to perform well in a setting that is highly demanding and crucial (Laschinger et al., 2018). Integrating advanced technology in hybrid operating rooms presents unique challenges for nurses, including the need for continuous training and skill development to operate and troubleshoot complex equipment effectively. Also, these environments' complexity and high-tech nature can contribute to stress and anxiety among nurses, as they must adapt to new technologies and procedures while ensuring patient safety and optimal outcomes. This dynamic environment may lead to uncertainty and apprehension among nurses navigating their responsibilities within a multidisciplinary team.

The transition to hybrid operating rooms has increased the demand for skilled nurses, and many of these positions are currently unfilled due to a nationwide nursing shortage. While this shortage of qualified nurses is a cause for concern, the healthcare system needs to address the growing needs of patients and ensure a safe environment for nurses by providing ongoing training and education opportunities. Due to its complexity, ongoing evolution, and vulnerability to challenges that could threaten patient safety, the operating room environment has long been a fascinating research topic.

In addition, Hybrid Operating Room (OR) staff must mentally and physically prepare to ensure optimal performance and patient safety. To prepare mentally, the OR team should practice mindfulness, relaxation techniques, and regular self-reflection to manage stress and enhance focus. To prepare physically, OR staff should maintain a healthy lifestyle and adequate sleep to promote endurance and resilience.

The hybrid operating room of a particular tertiary hospital where the researcher conducted her study is brand new. It is challenging to have more employees in an OR's already dynamic, complicated, and time-sensitive environment (Etheringt et al., 2019). Therefore, assessing the nursing staff's experiences in the three distinct disciplines of radiography, anesthesia, and surgery concerning their daily work and collaborative efforts in a hybrid OR is imperative.

Methods

The study was conducted in the hospital of Cotabato City, particularly a hybrid operating room. This study utilized the purposive sampling technique to select the research participants, and 14 nurses were selected as participants. This study conducted a face-to-face, in-depth interview with 7 participants and a focus group discussion with 7 participants.

The descriptive phenomenological style of qualitative research design was used in this study to gain a thorough knowledge of the experiences and difficulties faced by nurses in hybrid operating rooms. This approach can explain responses, behaviors, thoughts, feelings, and impressions from the current study's data. These variables thoroughly established the participants' level of comprehension of their experiences and difficulties, as well as how they overcame such challenges. Additionally, this study focused groups and in-depth interviews to collect data, both in line with qualitative inquiry approaches. Qualitative

methods encourage high depth and detail in data collecting and provide a significant quantity of information about a group of nurses (Patton, 2015).

The study utilized the qualitative descriptive phenomenological type of research design particularly the the descriptive phenomenological approach to describe and understand the lived experiences of nurses in the hybrid operating room. This approach was employed using an in-depth interview and focus group discussion technique to establish experiences, coping, and insights of nurses in hybrid operating rooms.

The following steps were made in the data collection process. Since all data needed in the study was taken from in-depth personal interviews, interview protocols were strictly observed. In addition to brief field notes, the interviews were recorded and transcribed personally by the researcher for analysis. Open-ended questions were prepared to leave room for any other related discussion that may emerge during the interviews.

The panel of experts validated the content of the interview protocol. All members of the validating committee are holders of a master's degree with experience in conducting qualitative research. The instrument was subjected to content validity to check and ensure that all fields and facets would be covered in the interview and that the data gathered were suitable to answer the research question.

After consultations and getting approval to conduct the study from the Master of Arts in Nursing Program Chair of Davao Doctors College, Inc., the researcher then wrote a formal letter to the institution where the study was conducted.

The data gathered were analyzed using Colaizzi's strategy of descriptive phenomenological data analysis. Accordingly, Colaizzi's method of data analysis is rigorous and robust, and therefore a qualitative method that ensures the credibility and reliability of its results. It allows researchers to reveal emergent themes and their interwoven relationships (Wirihana et al, 2018). This strategy helps to understand Descriptive phenomenology meaning of people's lived experiences.

Significant words and statements about the experiences of nurses in the hybrid operating rooms were formulated. Significant statements were derived from semi-structured interview transcripts. The researcher became familiar with the data through repeated review of each transcript until a comprehensive understanding of the material had been achieved. Meanings were then formulated from the significant statements and theme clusters were developed. These clusters were reviewed and consolidated for conciseness and three emergent themes arose from the identified cluster themes. Significant statements and themes were verified. An exhaustive description and fundamental structure of the phenomenon were formed and presented back to participants for further validation of the findings. Participants reported the findings to be true and represented an accurate reflection of their experience.

A total of 93 significant statements were formulated, and cluster themes were derived through the grouping or clustering of the formulated meanings that represented similar ideas related to the objectives of the study. Ten cluster themes were identified.

From those ten cluster themes, three emergent themes arose to form the foundation of the findings reported in the study that answer research questions: 1. What are the experiences of nurses in a hybrid operating room? 2. How do the participants cope with the challenges that they experienced? 3. What insights can the participants share with their peers and the nursing practice in general?

Results and Discussion

The research participants' ages ranged from 31-39. The chosen participants were based on inclusion criteria that satisfied the researcher, that the individuals selected could provide information on the experiences and challenges of nurses in hybrid operating rooms.

The study findings generated ten (10) cluster themes namely: anxiety related to new environment, mental and physical preparation, positive disposition, complexity of procedures, collaboration, trusting team, communication, professional growth, nurse competence, and technological advancement. These lead to the formation of the (3) three emergent themes of the study namely: (1) variation in nursing care, (2) working together, and (3) career advancement.

Emergent Theme 1: Variation in Nursing Care

Variation in nursing care in a hybrid operating room refers to the differences and diversity in the provision of nursing care within a specialized surgical environment that combines both traditional surgical procedures and advanced imaging technologies. Hybrid operating rooms are designed to facilitate minimally invasive procedures and complex interventions, allowing surgeons to perform a range of procedures in a single location. As such, nursing care in hybrid operating rooms requires specialized knowledge and skills to support both surgical and imaging components.

Nurses play a crucial role in assisting surgeons during procedures by ensuring proper patient positioning, maintaining a sterile environment, providing necessary surgical instruments, and managing surgical equipment. The level of nursing support required may vary depending on the complexity of the procedure and the surgeon's preferences. The variation in nursing care in hybrid operating rooms is influenced by factors such as the complexity of the procedure, surgeon preferences, technological advancements, and individual nursing expertise. Standardized protocols and guidelines are often developed to ensure consistent and safe nursing practices within this specialized environment (Collins, R., & Brown, J. (2018).

Cluster Theme 1.1 Anxiety Related to New Environment

In this theme, the anxiety experienced by nurses in hybrid operating rooms can be attributed to several factors related to the new environment. Firstly, the technology and equipment complexity in a mixed operating room may pose a steep learning curve for nurses accustomed to traditional operating room settings. The need to familiarize themselves with advanced imaging systems and interventional

devices can be daunting, leading to feelings of inadequacy and anxiety. Additionally, the interdisciplinary nature of hybrid OR procedures, which involve collaboration between surgeons, radiologists, anesthesiologists, and nursing staff, may create a sense of pressure and heightened responsibility for nurses. The seamless coordination required in these multidisciplinary teams demands a high level of adaptability and expertise from nurses, contributing to their anxiety in this environment. The following statements from the participants further expressed this:

"I'm anxious because this is my first time, and the training was

completed so long ago, in 2018." IDI P1, Line 46-47

"Incredibly anxious upon first exposure."

IDI P2, Line 218-219

"Sometimes we also encounter that we are stressed

because when our supervisor is stressed, we are also stressed,

but understand." FGD 3, Line 1073-1074

"I was initially hesitant because I was transitioning

from ICU to OR." IDI P3, Line 306

The transition to a new work environment, especially a complex and technologically advanced setting like a hybrid operating room (OR), can generate anxiety among healthcare professionals. This anxiety arises from the unfamiliarity with the new surroundings, equipment, and procedures, as well as the pressure to perform effectively in a highly demanding and critical setting (Laschinger et al., 2018).

Cluster Theme 1.2 Mental and Physical Preparation

In this cluster theme, mental and physical preparation, nurses working in hybrid operating rooms play a crucial role in supporting surgeons and other healthcare professionals during procedures and ensuring patients' safety and well-being. Firstly, mental preparation for hybrid operating room nurses involves developing a deep understanding of the technology and equipment used in these advanced surgical suites. Additionally, mental practice for hybrid OR nurses consists of honing critical thinking skills and adapting quickly to changing circumstances. In the fast-paced environment of a hybrid OR,

nurses must be able to anticipate the needs of the surgical team, troubleshoot technical issues, and respond effectively to unexpected developments.

Physical preparation for nurses working in hybrid ORs is also essential. The nature of procedures performed in hybrid ORs often requires prolonged standing or maintaining specific positions during imaging or surgical interventions. As such, nurses need to maintain good physical fitness and endurance to meet the demands of their role. This was all expressed through some of the sample statements from the participants:

"Prepare mentally and physically before going to work

because there is no room for error because we are dealing

with people's lives." IDI P2, Line 295-296

"We need to prepare mentally and physically

for duty because the Hybrid Operating Room is one of the things

we are proud of." FGD 2, Line 1054-1055

Adequate mental and physical preparation is crucial for Hybrid Operating Room (OR) personnel to ensure optimal performance and patient safety. Mentally, OR personnel should cultivate mindfulness, practice relaxation techniques, and engage in regular self-reflection to manage stress and enhance focus. Physically, they should maintain a healthy lifestyle (Exercise and balanced diet) and adequate sleep to promote endurance and resilience. Additionally, OR personnel should undergo comprehensive training, workshops, and webinars to stay up-to-date with the latest technologies and procedures (ASHRM,2020).

Cluster Theme 1.3 Positive Disposition

This cluster theme, having a cheerful disposition, is essential for nurses working in hybrid operating rooms due to the demanding nature of their responsibilities. A positive attitude can contribute to a supportive and collaborative work environment, which is essential for effective teamwork and patient care. A positive disposition can also help nurses with the high-pressure and fast-paced nature of hybrid operating room settings, enabling them to remain focused, calm, and attentive to the needs of both patients and surgical teams.

Also, a positive disposition for hybrid operating room nurses benefits their well-being and job satisfaction. It significantly promotes effective teamwork, communication, and patient-centered care in complex healthcare settings. These were further mentioned by the participants with the following statements:

"I'm just thinking I can learn and fix what I don't

know yet. Sooner or later, I will learn, too. Work hard,

that's also the motivation to study." FGD 4, Line 1094-1095

"Develop a passion for the work." IDI P6, Line 826-827

"Happy because it's good for my personal growth

as well as your professional development

as a nurse" IDI P2, Line 184-185

A cheerful or positive disposition among staff in the hybrid operating room (HOR) is crucial for maintaining a safe and efficient work environment. Studies have shown positive emotions enhance teamwork, communication, and problem-solving (Goleman, 2006). Additionally, a positive attitude can reduce stress and burnout among healthcare workers (Dyrbye et al., 2018).

Cluster Theme 1.4 Complexity of Procedures

In this cluster theme, the Complexity of Procedures for hybrid operating room nurses is their role in coordinating and integrating advanced imaging technologies with surgical interventions. Nurses in this study mentioned hybrid operating room nurses must be adept at managing complex patient care scenarios that may arise during procedures involving both open surgery and minimally invasive techniques. The complexity of processes for hybrid operating room nurses extends to their involvement in preparing and maintaining specialized equipment used in these settings. This includes proficiency in setting up and troubleshooting advanced imaging systems, robotic surgical platforms, and other high-tech devices that are integral to the success of hybrid procedures. They are often required to anticipate the needs of surgeons during complex processes and respond swiftly to emergent situations that may arise during surgery. This is further expressed through some of the statements from the participants:

"Apart from our angiography, the other procedure is difficult

because you need to become acquainted with the tools

because each procedure has a unique set of instruments."

IDI P7, Line 886-888

"I was unfamiliar with the procedure. I wasn't really

prepared, and I didn't understand him at first, but now I do."
IDI P7, Line 868-869

Hybrid operating rooms (HORs) are specialized surgical suites that combine the capabilities of a traditional operating room with advanced imaging modalities, such as angiography and fluoroscopy. This unique environment allows surgeons to perform complex procedures that would otherwise be too difficult or risky in a conventional operating room (Van der Fluit et al., 2020).

Emergent Theme 2: Working Together

This cluster theme, working together, is the interdisciplinary nature of a hybrid operating room that necessitates a collaborative approach among healthcare professionals, with nurses serving as integral team members. Their contributions extend beyond direct patient care to encompass quality improvement initiatives, staff education, and participation in multidisciplinary meetings. Thus, working together in a hybrid operating room requires a cohesive team effort, where each member's expertise is leveraged to deliver optimal patient outcomes.

Working together interprofessional is essential in a hybrid operating room, where nurses are critical in coordinating and facilitating teamwork among healthcare professionals. On the other hand, difficulties include a lack of education and training, role ambiguity, and communication barriers. Due to radiology's integration into the conventional OR setting, nurses may experience confusion about their roles and responsibilities. Language barriers, hierarchical structures, and time restraints can all impede communication, which is crucial for smooth interprofessional collaboration (Johansson & Svedberg, 2018).

Nurses might also need specific training to meet the particular requirements of hybrid operating rooms, including cutting-edge imaging technology. Despite these obstacles, nurses can improve interprofessional collaboration by exchanging knowledge, participating in joint decision-making, and receiving cross-training. This may result in patient-centered, safer, and more effective care in hybrid operating rooms. Strategies such as frequent team meetings, well-defined roles, and continuous training should be implemented to maximize interprofessional collaboration. Nurses play a crucial role in promoting effective interprofessional collaboration to ensure patients receive the best care possible in the complicated environment of hybrid ORs. (I. Johansson and C.-M. Svedberg. 2018).

Cluster Theme 2.1 Collaboration

In this cluster theme, collaboration for hybrid operating room nurses involves coordination and teamwork among healthcare professionals to provide comprehensive care in a hybrid operating room setting. Nurses must be able to adapt to the dynamic nature of hybrid operating rooms and work closely with multidisciplinary teams to address the unique challenges presented by these advanced medical settings,

just like what mentioned by study participants. By fostering effective teamwork, communication, and ongoing education, healthcare institutions can support nurses in providing optimal care for patients undergoing procedures in hybrid operating rooms. Participants discussed this with the following statements:

"To be prepared for any issues that may arise,

we have already gotten in touch with Biomed and

Engineering." IDI P3, Line 330-331

"Time management is essential. It is dependent on the team

because teamwork is essential." IDI P2, Line 274

Collaboration is a crucial aspect of patient care in the hybrid operating room (OR), where a diverse team of healthcare professionals works together to deliver complex and often life-saving procedures. Effective collaboration fosters a culture of teamwork, shared responsibility, and open communication, leading to improved patient outcomes (Bazzi et al., 2019).

Cluster Theme 2.2 Trusting Teams

This cluster theme, trusting team for hybrid operating room nurses, fosters an environment where nurses can rely on one another, communicate effectively, collaborate seamlessly with other healthcare professionals, and make timely and well-informed decisions. This level of trust is built on mutual respect, clear communication, shared goals, and a commitment to excellence in patient care. Trust among nurses in the hybrid OR extends beyond technical competence to encompass emotional support, empathy, and a shared sense of responsibility for patient well-being. This holistic approach to trust fosters a cohesive team dynamic that enhances resilience in the face of challenges and promotes a culture of continuous improvement. Participants with the following statements expressed this:

"We've built trust with our team." IDI P1, Line 86

"We're like brothers and sisters here, and they're always

there for you every day."IDI P5, Line 606-607

"We already know how to lift each other."

FGD 4, Line 1087-1088

In the dynamic and complex hybrid operating room (OR) environment, fostering trust among team members is crucial for ensuring patient safety and achieving optimal outcomes. Trusting teams exhibit a cohesive and collaborative spirit characterized by mutual respect, open communication, and a shared commitment to excellence. They effectively share information, anticipate needs, and support one another, creating a psychologically safe environment where individuals feel empowered to contribute their expertise without fear of judgment or reprisal. This collaborative synergy enhances team performance, improving patient care and satisfaction. (Borchardt et al., 2022; DeLaurentis & Salas, 2018; Lingard et al., 2020).

Cluster Theme 2.3 Communication

Effective communication is essential for operating room nurses to collaborate with the surgical team, relay important information, and provide clear instructions before, during, and after surgery. Also, communicating with patients and their families to address concerns and provide education about post-operative care. Participants with the following statements mentioned this:

"I pose that question to the seniors and

the doctors." IDI P2, Line 255

"The operating room is the most toxic area because

almost all of the stressful environments are here because

you have to communicate with doctors, patients, and staff

who are mostly novices. " IDI P4, Line 440-444

I'm talking to my friends if I have clarifications.

IDI P2, Line 380

Communication is the foundation of effective collaboration in the hybrid operating room (OR), where a team of diverse healthcare professionals works together to provide complex and often life-saving procedures. Clear, concise, and timely communication is essential for ensuring patient safety, optimizing workflow, and achieving positive patient outcomes (Bazzi et al., 2019).

Emergent Theme 3: Career Advancement

In the hybrid operating room (OR), career advancement is essential to addressing the complex needs of patients undergoing various procedures. Advanced nursing practice nurses are vital to maintaining patient safety, encouraging the best possible results, and fostering smooth interprofessional teamwork. They are in charge of giving medication, monitoring vital signs, handling equipment, and educating patients. They are specially trained in critical care, perioperative nursing, and cardiovascular interventions. These nurses ensure comprehensive and customized care by coordinating with other medical professionals. Research has demonstrated that these nurses improve patient outcomes; patients in hybrid operating rooms (ORs) staffed by ANP nurses are less likely to experience complications and stay in the hospital for shorter periods (Smith et al., 2020).

Strong communication and teamwork skills, adaptability, and resourcefulness are necessary in this dynamic and demanding environment. Notwithstanding these difficulties, ANP nurses are dedicated to furthering the practice of ANP in this particular setting and find their work exciting and fulfilling. Brown, A., Jones, S., and Smith, J. In 2020.

Cluster Theme 3.1 Professional Growth

This cluster theme, Professional Growth, is a crucial aspect of a nurse's career development, encompassing continuous learning, skill enhancement, and personal development. This is true for the nurses of the study as they felt how essential it is to engage in ongoing professional growth to be equipped and to provide high-quality patient care and adapt to the evolving healthcare landscape as a hybrid operating room is new to their institution. By actively pursuing further education and skill development opportunities like training, nurses can continue to evolve professionally and make significant contributions to their field. Professional growth for operating room nurses encompasses continuous education, skill development, leadership opportunities, and staying updated with the latest evidence-based practices in their area.

" Through our training, we gained a thorough understanding

of the Hybrid Operating Room, its capabilities, and the diverse

range of procedures performed within its walls." IDI P1, Line 20-21

"Search the internet, read journals, and if training is

available, even better." IDI P5, Line 551

Professional growth in nursing is a lifelong process of acquiring new knowledge, skills, and competencies to enhance one's practice and advance one's career. It encompasses a range of activities, including formal education, mentorship, self-directed learning, and participation in professional development opportunities (Sullivan, 2019). Continuous professional growth is essential for nurses to stay

abreast of the latest evidence-based practices, adapt to the evolving healthcare landscape, and provide high-quality patient care (American Nurses Association, 2021).

Cluster Theme 3.2 Nurse Competence

Nurse competence in the operating room requires strong critical thinking abilities to assess situations quickly, anticipate potential complications, and make timely decisions to ensure patient safety during surgical procedures. Nurses in hybrid OR must possess advanced clinical skills related to surgical procedures, patient assessment, anesthesia administration, and post-operative care. They are responsible for preparing the operating room, assisting surgeons during operations, and monitoring patients' vital signs throughout surgery. There was expressed through some of the sample statements from the participants:

"We are trained to be general practitioners, and then

we specialize as a result of our training and experience."

IDI P5, Line 781-782

"Workplace challenges include the need to be adaptable

and always be prepared."

IDI P6, Line 736-737

Nurse competence in the hybrid operating room (OR) encompasses specialized knowledge, skills, and critical thinking abilities that enable nurses to effectively manage patient care in this complex and dynamic environment. Hybrid OR nurses must comprehensively understand surgical procedures, anesthesia techniques, and advanced medical technologies. They must also demonstrate proficiency in sterile technique, patient monitoring, and rapid response to critical events. Additionally, hybrid OR nurses must exhibit strong communication and teamwork skills to collaborate effectively with surgeons, anesthesiologists, and other healthcare professionals (Aschenbrenner & D'Angelo, 2018).

Cluster Theme 3.3 Technological Advancement

This cluster theme, Technological advancement, has significantly impacted the field of nursing, particularly in specialized areas such as hybrid operating rooms. This is equipped with advanced medical imaging devices and surgical equipment, allowing traditional open surgery and minimally invasive procedures to be performed in the same space. Nurses in this study working in hybrid operating rooms require specialized training and knowledge to effectively utilize these technologies or machines and provide

optimal patient care. These imaging systems provide real-time patient anatomy visualization during surgical procedures. This is further expressed through some of the statements from the participants:

"Many machines are used in the Hybrid Operating Room,

and you will learn how to use many of them."

IDI P1, Line 79-80

"I believe we are modern, cutting-edge, and up-to-date."

IDI P5, Line 546

"Since hybrid OR is new, completing the supplies and

equipment is difficult." IDI P5, Line 348

Hybrid operating rooms (ORs) have emerged as a cornerstone of modern healthcare, transforming the surgical landscape by integrating advanced imaging modalities and surgical capabilities. These versatile environments facilitate a seamless transition between open and minimally invasive procedures, offering a comprehensive platform for complex interventions. Integrating advanced imaging systems, such as angiographic suites and computed tomography (CT) scanners, enables real-time guidance and visualization during surgical procedures, enhancing precision and reducing complications (Bogaert et al., 2018).

Hybrid ORs have become indispensable for various specialties, including cardiovascular surgery, vascular surgery, and interventional radiology, fostering minimally invasive techniques and improving patient outcomes (Hachisuka et al., 2020; Koul et al., 2021).

Conclusion and Recommendation

The following themes emerged and were discussed in detail: variation in nursing care, working together, and career advancements. These three themes also capture the participants' experiences, their coping, and the insights they had learned. The insights garnered from the themes and subthemes shared by nurses in the hybrid operating room hold significant implications for nursing practice, research, and education.

In nursing practice, the multifaceted role of nurses' flexibility, determination, and potential in assisting patients in hybrid operating rooms is a testament to the importance of further nurse competency training. Understanding that flexibility and determination play a pivotal role in coping with the challenges they experience. Nurses should encourage collaboration with other team members, acknowledging their insights, and offering guidance that aligns with the hybrid operating room practices.

In nursing research, understanding the perspective of nurses in hybrid operating rooms can inform the development of tailored interventions and support systems. Further studies may focus on the effectiveness of nurses' competency in promoting better outcomes.

In nursing education, these insights can inform curriculum development to include competency in a hybrid operating room like seminars. Nursing students should be prepared to acknowledge and learn practices in mixed operating rooms, ensuring they can provide competent care. Educators can integrate case studies related to hybrid operating rooms. Furthermore, nursing programs can emphasize the importance of equipping future nurses an advanced nursing practice lectures.

Ultimately, these insights from nurses in hybrid operating rooms can enhance the quality of nursing care, promote competent practices, and facilitate research that addresses the unique needs of nurses in a new environment mixed operating room.

The result benefited nurses, healthcare workers, hospital administrators, and future researchers. The study aids in understanding the different experiences of nurses in the hybrid operating room. These experiences will increase consciousness of the various situations that nurses go through. Further, they will be prepared on what to expect concerning their duty in a hybrid operating room.

Healthcare workers benefited from the study result also. This will serve as a guide and an eye-opener in managing patients in their workplaces. Other nurses may also be able to learn and acquire learnings to use in their personal experiences, if applicable and suitable. In addition, the hospital administrators determine how well the nurses in the hybrid operating room handle the challenges in their workplace. This will also give them insights into the various challenges, and they may deliberate on multiple solutions to address them. Finally, the study helped future researchers serve as references in future studies and provide ideas to those interested in conducting relatively the same with the topic.

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The Influence of Perceived Supervisory and Collegial Support in the Turnover Intention of Nurses in Private Hospitals in Tacurong City

Angelie Vingno Batisla-ong, RN

Davao Doctors College Inc.

Davao City, Philippines

Abstract

High turnover rates among nurses pose significant challenges to healthcare institutions. This study investigated how supervisory and collegial support influence turnover intentions among nurses working in hospitals within Tacurong City. A descriptive-predictive research design was employed, and 134 staff nurses were selected through stratified random sampling as respondents of the study. Results revealed that most respondents were female, aged 28-33 years old, unmarried, with 3-5 years of experience. Nurses perceived a generally high level of supervisory support with conflict resolution receiving the highest mean score and recognition receiving the lowest; a high level of collegial support with knowledge sharing receiving the highest mean; and turnover intentions to be moderately high. Interestingly, higher perceived supervisory support was related to lower turnover intention, suggesting a potential influence on expectation levels. Collegial support did not exhibit a statistically significant association with turnover intentions. This highlights a significant challenge of high nurse turnover rates for healthcare institutions in Tacurong City. The findings suggest that focusing on supervisory support, particularly in career development and conflict resolution, can be a key strategy for retaining nurses.

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Corresponding email: angeliebatislaong28@gmail.com

Introduction

The problem of turnover rate of employees has emerged as a critical concern for many companies according to the study made by Smama'h et al. (2023). Fukui et al. (2019) stated as well that turnover indeed, is a serious problem for health professionals. Thinking and planning to leave one's job or turnover intention, is the most dependable predictor of actual turnover (Huang et al., 2024). Moreover, turnover intentions led to turnover after some time, implying that turnover was a multistage process rather than a one-time event (Ki & Choi-Kwon, 2022).

Recent trends have shown a global shortage of 2.4 million nurses in 57 countries, particularly in Africa, Southeast Asia, and the Eastern Mediterranean (WHO, 2020). Meanwhile, nursing workforce shortages as a common occurrence for healthcare institutions worldwide, and the global healthcare system indeed, faces a serious and pervasive problem with nurse turnover (Wu et al., 2024).

According to Lyu et al. (2024), nurses' intentions to leave, differ across different nations. For example, in Korea, 22.2% of nurses stated they wanted to depart, whereas 43% of registered nurses in Lebanon stated their intention to leave within a year. A total of 20.2% of mental health nurses in China and 47.3% of Wuhan nurses indicated that they intended to quit within six months of the survey. Labrague et al. (2020) also reported that 46.1% (n=253) and 78.9% (n=433) of registered nurses from six hospitals in the Central Philippines reported planning to leave their organizations at one- and five-years time. lastly, the study of Ramoga (2023) provided useful insights into the aspects influencing organizational commitment among healthcare staff, including job satisfaction, organizational trust, and quality of work-life. It was revealed that among the three variables, job satisfaction and quality of work-life influence organizational commitment the most. However, the study by Ramoga, (2023) did not delve into the specific dimensions of each variable (job satisfaction, organizational trust, quality of work-life). While it revealed that job satisfaction and quality of work-life influence organizational commitment the most, further exploration into the underlying aspects of these factors could provide even more granular insights.

Though research by Hu et al. (2022) investigates the interceding role of job satisfaction in the relationship between supervisory support and turnover intention, they have also acknowledged a gap in understanding the specific types of supervisory support that

might be most impactful. Furthermore, whereas hospital bed capacity and job stress were found to be significant predictors of Filipino nurses' intention to quit in the study by Labrague et al. (2020), no particular work-related factor was found to contribute to nurses' desire to leave.

Thus, this study aims to address a gap in understanding which specific types of supervisory and collegial support influence turnover intentions among nurses working in private hospitals and to determine what specific supportive behaviors demonstrated by supervisors and colleagues can lead to nursing retention in these hospitals.

Methods

The residents of RH 3, Cotabato City were the respondents of this study. This study utilized a descriptive-predictive design to determine the level of supervisory support, collegial support, and turnover intention and to determine the relationships between them using IV-DV and the Proposed Intervention Program model. A total number of 134 participants were selected using stratified-random sampling with the following inclusion criteria: must be 22 years of age and older; must be employed as staff nurses in one of the five participating private secondary-level hospitals within Tacurong City, Sultan Kudarat; and had to demonstrate a willingness to participate in the study.

The data for this study were gathered using a four-part questionnaire. The first area of the questionnaire identified the demographic profile of the respondents.

The second area of the questionnaire contains 25 questions with five (5) Point Likert Rating Scale used in evaluating the supervisory support. The questionnaire was validated by the three experts in the Master of Arts in Nursing program and reliability testing. For career development, 5 out of 18 items in the questionnaire for career development were adapted, with Cronbach's alpha score of 0.971. For items in conflict resolution, effective communication, and health and safety wherein 15 out of 30 items were adapted with Cronbach's alpha scores of 0.9713 on conflict resolution; 0.9524 on reward and recognition; 0.9762 on effective communication; and 0.9524 on health and safety on reliability testing.

The third part of the questionnaire contains 12 questions to know the level of perceived Collegial support in terms of knowledge sharing (4), rendering help (4), and giving respect (4), using the adapted instrument from Yang, Ma, Liu et al., (2019) entitled Perceived social support and presenteeism among healthcare workers in China and Good People: How Coworker Competence and Support Influence Engagement and Contextual Performance of Tringale, Allison M. The five (5) Point Likert Rating Scale was used in evaluating collegial support. The questionnaire was validated by the three experts in the Master of Arts in Nursing program and reliability testing, resulting in Cronbach's alpha scores of 0.9635 on knowledge sharing; 0.9819 on rendering help; and 0.9841 on giving respect.

Lastly, part four of the questionnaire contains 4 questions to determine the level of turnover intention of the participants, using the adapted questionnaire from Hill, K. D., Chênevert, D., & Poitras, J. (2018). Changes in relationship conflict as a mediator of the longitudinal relationship between changes in role ambiguity and turnover intentions, wherein 4 entire questions were adapted The Five (5) Point

Likert Rating Scale was used in evaluating turnover intention with Cronbach's alpha score of 0.9873 in reliability testing.

The study employed Frequency Distribution and Percentage to describe the respondents' demographic profile in terms of age, sex, marital status, and length of service. Moreover, Mean and Standard Deviation were used to determine the average level of supervisor support, collegial support, and turnover intention. Additionally, Spearman's rho was used to measure the strength and direction of the relationship between ordinal variables (supervisor support, collegial support, and turnover intention.). lastly, Kernel regression was used to analyze how supervisory and collegial support influences a nurse's likelihood of leaving their job.

Results and Discussions

Table 1. Demographic Profile of the Respondents

Demographic Profile	Frequency (n=134)	Percentage (%)
Age		
22-27 y/o	31	23.1
28-33 y/o	**53**	**39.6**
34-39 y/o	26	19.4
40-45 y/o	8	6.0
46-51 y/o	10	7.5
more than 51 y/o	6	4.5
Total	**134**	**100.0**
Sex		
Male	47	**35.1**
Female	**87**	**64.9**
Total	**134**	**100.0**
Civil Status		
Single	**72**	**53.7**
Married	60	44.8

Divorced	1	7
Separated	1	7
Total	**134**	**100.0**
Length of Service		
Less than 6 months	7	5.2
6 months, 1 day- 1 year	18	13.4
1 year, 1 day-3 years	23	17.2
3 years, 1 day- 5 years	**35**	**26.1**
5 years, 1 day- 7 years	29	21.6
7 years. 1 day- 9 years	10	7.5
More than 9 years	12	9.0
Total	**134**	**100.0**

Table 1 presents the demographic profile in terms of age, sex, civil status, and length of service of the staff nurses who participated in this study. Based on the tabulated data shown, the age bracket of 28–33 represents the largest segment, comprising 40% of the total with 53 respondents, while those above 51 years constitute the smallest segment at 4.5% with only 6 respondents. Regarding gender distribution, females represent the majority at 64.9%, leaving males at 35.1%. Moreover, in terms of civil status, most of the respondents in this study were single at 53.7 % with 72 respondents, with 1 divorced and 1 separated respondent accounting for 7%. Finally, when considering the length of service, the majority fall within the category of 3 years, 1 day to 5 years, comprising 26.1% with 35 respondents, while those with a tenure of less than 6 months, comprising 7 respondents represent the smallest group at 5.2 %.

Table 2. Perceived supervisory support of nurses per indicator

Professional Performance	**M**	**SD**	**Interpretation**
Career Development	3.75	0.84	High
Conflict Resolution	3.76	0.96	High
Reward and Recognition	3.49	0.81	High
Effective Communication	3.58	0.85	High
Health and Safety	3.72	0.84	High
Overall mean	**3.66**	**0.86**	**high**

Legend: 1.0-1.80 (very low); 1.81-2.60 (low); 2.61-3.40(moderate); 3.41-4.20 (high); 4.21-5.00 (very high).

Table 2 Table 6 illustrates the perceived level of supervisory support in each dimension. Generally, it shows an overall mean score of 3.66 with a standard deviation (SD) of 0.86. this suggests a generally high level of perceived supervisory support among the staff nurses. The SD indicates some variability in these perceptions which suggests that supervisory support is not uniformly perceived by all nurses, but the mean itself leans towards the positive side of the scale. This is aligned with the study made by Fukui et al. (2019) where they reveal that an employee's emotional attachment to their work and the organization is reportedly stimulated by supervisors' appreciation. Career progression (Hussain et al., 2019), eventually leads also to nurses' prolonged employment at a company.

Conflict management (M= 3.76) got the highest score which means that among the dimensions of supervisory support, staff nurses felt most supported when supervisors can manage conflict effectively. This reflects that supervisors are perceived as being most effective in providing guidance and assistance in situations involving conflict, potentially leading to better resolution and a more harmonious working environment. This is contradicting though to the study made by Galanis et al. (2024) which reveals that the main factors related to nurses' turnover intention are their working environment and conflicts with colleagues and supervisors. These conflicts according to Van Gramberg et al. (2019), if not managed effectively, can have a detrimental impact on employee turnover, workplace morale, and ultimately, patient safety.

Table 3. Perceived collegial support of nurses per indicator.

Professional Performance	Mean	SD	Interpretation
Knowledge sharing	4.04	0.830	High
Giving respect	3.98	0.761	High
Rendering help	3.90	0.812	High
Overall mean	**3.97**	**0.80**	**high**

Legend: 1.0-1.80 (very low); 1.81-2.60 (low); 2.61-3.40(moderate); 3.41-4.20 (high); 4.21-5.00 (very high).

Table 3 illustrates the perceived level of supervisory support in each dimension. Overall, the mean score for collegial support is M= 3.97 (High) on a 5-point Likert scale. This indicates that staff nurses generally perceive their colleagues as highly supportive in all three measured categories: Knowledge Sharing (M= 4.04), Giving Respect (M= 3.98), and Rendering Help (M=3.90). This suggests a positive and collaborative work environment where nurses feel comfortable sharing information, respecting each other, and readily offering help.

The highest mean score is in Knowledge Sharing (4.04), suggesting that nurses readily share information and collaborate for improved performance. The high score for Giving Respect (3.98) indicates a respectful and supportive work environment.

This aligns with the emphasis on social competence, empathy, and communication skills highlighted by Anselmann and Disque (2022) as essential for nurses. Effective communication and collaboration are crucial for knowledge exchange and teamwork in healthcare settings, ultimately impacting patient care. The current study's descriptive statistics suggest a potential link between collegial support and knowledge sharing. Moreover, Kanitha and Naik (2021) also identified a significant relationship between workplace incivility and turnover intention among nurses. Their study found that incivility from coworkers was positively correlated with stress and ultimately, turnover intention. They reported that 35% of nurses surveyed indicated they would consider leaving their jobs for another opportunity, highlighting the potential impact of workplace incivility on nurse retention.

On the other hand, a Standard Deviation (SD) of 0.80 for the overall collegial support score suggests heterogeneity in staff nurse perceptions. It is important to understand that while the mean score indicates a generally positive perception, this variability warrants further investigation. Future research could explore potential moderating variables that might influence collegial support experiences such as department affiliation, work shift, or nurse experience level are associated with differences in perceived collegial support. Qualitative research methods, such as focus groups or in-depth interviews, could be employed to gather richer data on specific departments or work areas where collegial support might be perceived as lower. This information can then be used to develop and implement evidence-based strategies to foster a more uniformly positive and collaborative work environment for all staff nurses.

Table 4. Turnover intentions of nurses in the hospital.

Professional Performance	Mean	SD	Verbal Description

I often consider leaving my organization	3.18	.84	Moderate
I may look for a job in another organization	3.14	.90	Moderate
I may leave my current organization in the next year	3.17	.86	Moderate
If I were offered a job with similar conditions elsewhere, I would most likely take it	3.13	.86	Moderate
Overall mean	**3.23**	**.82**	**Moderately High**

Legend: 1.0-1.80 (very low); 1.81-2.60 (low); 2.61-3.40(moderate); 3.41-4.20 (high); 4.21-5.00 (very high).

The mean score (M = 3.23) suggests a moderately high tendency of turnover intention among respondents. This indicates a cause for concern, as it suggests a significant portion of the respondents are contemplating leaving their current jobs. The standard deviation (SD = 0.82) highlights heterogeneity in turnover intentions among staff nurses. While the mean suggests a moderate tendency to consider leaving, the variability indicates that some nurses might have strong intentions to leave (higher scores) while others might be highly satisfied (lower scores).

The survey results indicate that some employees might frequently consider leaving (highest mean score of 3.18 for considering departure). This suggests a need to delve deeper into the reasons behind these thoughts. Interestingly, the lowest mean score (3.13) was for the item about readily accepting another similar job offer. This implies that for some employees, specific aspects of their current job might be driving their turnover intentions, rather than overall dissatisfaction with the organization itself.

It is worth noting that despite the high level of perceived supervisory and high level of perceived collegial support among the staff nurses, consideration of leaving is still present maybe with some other underlying factors. These elements include job possibility and stability, burnout and depression, and stress and exhaustion from the job (Galanis et al., 2024). This is supported by the study made by Smama'h et al. (2023) where they revealed that turnover intention was not significantly correlated with any leadership styles. Galanis et al. (2024) though, stated that Organizational commitment plays a crucial role for nurses in considering leaving their organizations because of perceived low organizational support. Additionally, Boateng et al. (2022) found that a significant portion (74%) of nurses considered leaving their jobs due to poor working conditions

On the flip side, the SD together with the moderately high mean score suggests a need to explore the reasons behind turnover intentions. Understanding why some nurses are considering leaving despite the perceived support from supervisors and colleagues can help the organization address those concerns and improve retention rates. The organization should investigate what factors are contributing to these thoughts about leaving and develop strategies to create a more positive work environment and reduce turnover.

Table 4. Relationships Between Supervisory Support and Turnover Intention.

	Correlation			
	Spearman's rho	**P-value**	**Decision on Ho_1**	**Interpretation**
Supervisory Support- Turnover Intention 0.21		0.01	Rejected	Significant
Career development	0.26	<0.01	Rejected	Significant
Conflict Resolution	0.20	0.02	Rejected	Significant
Reward and Recognition	0.21	0.01	Rejected	Significant
Effective Communication	0.27	<0.01	Rejected	Significant
Health and Safety	0.21	0.01	Rejected	Significant

*Assumption Check: *Shapiro-Wilk=0.70, p<0.01; ** Shapiro-Wilk=0.88, p<0.01*

Table 4 shows Spearman's rank correlation coefficients (rho) between supervisory support, career development, conflict resolution, reward and recognition, effective communication, health and safety, and turnover intention. Spearman's rho is a non-parametric correlation coefficient making it suitable for analyzing the relationships for these variables due to the non-normal distribution of the datasets (Shapiro-Wilk=0.70, p<0.01). All correlations are statistically significant ($p < 0.05$), indicating a relationship between these variables and turnover intentions.

Effective Communication (rho = 0.27) has the strongest positive relationship with turnover intention, suggesting better communication may decrease turnover. Clear and open communication with supervisors can foster trust, address concerns, and provide a sense of control. Nurses might feel more valued and supported, leading to a lower desire to leave.

Hospitals therefore should prioritize clear communication channels and encourage open dialogue between nurses and supervisors. Career Development (rho = 0.26), Reward and Recognition (rho = 0.21), Conflict Resolution (rho = 0.20), and Health and Safety (rho = 0.21) all have positive correlations with turnover intention, although weaker than communication. This implies that employees with higher perceptions of these factors may be less likely to leave.

These findings present the importance of addressing factors that contribute to nurse turnover. Hospital administrators should prioritize strategies to improve nurses' work environment, such as providing opportunities for career development, fostering effective conflict resolution practices, and implementing recognition and reward programs that acknowledge nurses' contributions. Understanding the factors influencing turnover intention can inform strategies to improve nurse retention (Wu et al., 2024). This aligns with research by Boateng et al. (2022) who identified management support as a significant predictor of turnover intention. Therefore, supervisory support matters, since the nurses who perceive

greater supervisory support are less likely to consider leaving their jobs.

Table 5. Relationships Between Collegial Support and Turnover Intention.

	Correlation			
	Spearman's rho	**P-value**	**Decision on Ho_2**	**Interpretation**
Collegial Support- Turnover Intention 0.29		<0.001	Rejected	Significant
Knowledge Sharing	0.83	<0.001	Rejected	Significant
Rendering Help	0.81	<0.001	Rejected	Significant
Giving Respect	0.86	<0.001	Rejected	Significant

In Table 5, a correlation analysis between perceived collegial support on the turnover intention of nurses. Knowledge Sharing, Rendering Help, Giving Respect, and Turnover Intention. Similarly, Spearman's rank correlation coefficient (rho) is used to assess the strength and direction of association between these variables indicated by the Shapiro-Wilk Test for Normality (Shapiro-Wilk=0.88, p<0.01).

The results indicate significant positive correlations (rho > 0) between all the variables (p-value < 0.001). This means that as nurses reported higher levels of knowledge sharing, receiving help, and feeling respected (higher rankings), their intention to leave (rankings) also tended to decrease.

Interestingly, the overall collegial support measure had a weaker positive correlation (rho = 0.29, p-value < 0.01) with turnover intention compared to the individual aspects. This suggests that nurses might be more sensitive to the specific experiences of knowledge sharing, receiving help, and feeling respected by colleagues, rather than a general perception of collegial support. Through knowledge sharing, mutual help, and respect can be beneficial in reducing employee turnover intentions.

These results align with previous research by Lyu et al. (2024) who identified unsuitable personal work settings, unbalanced collegial connections, and inadequate personnel levels as key factors influencing turnover intention. Similarly, Hoeve et al. (2019) documented a strong correlation between negative relationships with colleagues and negative emotions, particularly among novice nurses. This, in turn, weakens commitment to the profession. Furthermore, Al-Mansour (2021) emphasizes the potential importance of social support, which includes coworker support, in mitigating the impact of stress on nurses and reducing turnover intention. This aligns with the current study's findings, suggesting that different types of support can be beneficial

for reducing psychological stress and consequently, turnover intention.

In conclusion, the current study highlights the importance of fostering a supportive and collaborative work environment that goes beyond a general perception of collegial support. By actively promoting knowledge sharing, opportunities for mutual help, and a culture of respect among nurses, hospitals may be more effective in reducing turnover intentions.

Table 6. Test of Influence of Supervisory Support on the Turnover Intentions of the Respondents

Domains	Observed Estimate	Bootstrap SE	z	p-value	Remarks	Decision
Mean						
Turnover Intentions	3.11	0.073	42.670			
Effect						
Career Development	0.423	0.206	2.050	0.040	Significant	Reject Ho
Conflict and Resolution	-0.108	0.213	-0.500	0.614	Not Significant	Accept Ho
Rewards and Recognition	-0.241	0.233	-1.040	0.301	Not Significant	Accept Ho
Effective Communication	0.177	0.186	0.950	0.341	Not Significant	Accept Ho
Health and Safety	-0.1693955	0.134	-1.260	0.206	Not Significant	Accept Ho

R-squared =0.6515

Table 7. Test of Influence of Supervisory Support on the Turnover Intentions of the Respondents

Domains	Observed Estimate	Bootstrap SE	z	p-value	Remarks	Decision
Mean						

Turnover Intentions	3.19					
Effect						
Knowledge Sharing	-0.108	0.263	-0.410	0.682	Not Significant	Accept Ho
Giving Respect	-0.043	0.207	-0.210	0.835	Not Significant	Accept Ho
Rewards and Recognition	-0.074	0.297	-0.250	0.804	Not Significant	Accept Ho

R-squared =0.2836

The results show that career development under supervisory support significantly influenced the turnover intentions of the respondents ($p<0.05$, R-squared=0.6515). This is supported by the study of Laschinger, et al. (2021) who mentioned that nurses who experienced higher levels of supervisory support in career development demonstrated increased job satisfaction, highlighting the importance of managerial support in professional growth. The current result also supports the work of Hu et al. (2022) who found that supervisor coaching positively influences nurses' perceptions of career development opportunities and satisfaction. This, in turn, could potentially lead to lower turnover intentions. This finding also resonates with the growing emphasis on supportive leadership in healthcare (Wu et al., 2024).

On the other hand, the rest of the domains under supervisory support didn't show an association with the turnover intentions of respondents. This contradicts the studies made by Lyu et al. (2024) and Cao, et al. (2021) which emphasized the importance of encouraging work conditions to promote lower turnover and raise employee satisfaction and that providing people with clear expectations, really showing concern for them, acknowledging their accomplishments, and supporting their efforts to advance their careers were all considered as key components of a supportive work environment.

lastly, the analysis of collegial support in Table 12, also revealed no statistically significant association with turnover intention ($p>0.05$, R-squared = 0.2836). This implies that while collegial support is generally considered important for workplace satisfaction, the findings suggest it may not be a primary driver of turnover intention in this specific context, which is contrary to the study made by Lyu et al. (2024), where it says that Support from head nurses and coworkers at work is crucial for nurses because it can lower their stress and anxiety levels, which will enhance the quality of care they provide to patients and ultimately encourage them to stay in the nursing profession.

Conclusion and Recommendations

The current study concluded that supervisory support was generally perceived as high across all aspects, with the highest mean score for conflict resolution. Collegial support was perceived as high across all aspects, with the highest mean score for knowledge sharing, and nurses reported a moderately high level of turnover intention. Moreover, all aspects of supervisor support (communication, career development, reward and recognition, conflict resolution, health, and safety) showed statistically significant positive correlations with turnover intention using Spearman's rank correlation. This suggests that better work environments might be associated with a lower likelihood of nurses leaving, and all aspects of collegial support (knowledge sharing, receiving help, feeling respected) showed strong positive correlations with turnover intention. This suggests that nurses who perceive a more supportive and collaborative work environment (higher ratings on these aspects) are less likely to consider leaving. Finally, nurses who perceived their supervisors as supportive and had access to career advancement paths within the organization were less likely to want to leave their jobs. Interestingly, collegial support, while not statistically significant in this study, suggests a potential area for further investigation. Moreover, the lack of significance for conflict resolution, rewards and recognition, effective communication, and health and safety suggests that these areas may not be as crucial for this specific nurse population.

Study results suggest that nursing services Invest in training programs to equip supervisors with better skills in career development discussions, conflict resolution, and providing regular recognition and rewards to staff nurses, and evaluate and potentially revise existing reward and recognition programs to ensure they are meaningful and effectively acknowledge staff achievements and that hospital administrators and human resource officers will develop and implement comprehensive retention strategies that address the specific needs of nurses, career advancement opportunities, and a supportive work environment; to analyze the data on supervisory support to identify areas for improvement and provide targeted training or support to address identified weaknesses; and to Consider implementing programs or policies that support work-life balance for nurses, which can contribute to increasing job satisfaction and reduced turnover intention.

It is recommended that future researchers conduct studies that will identify the effectiveness of the implementing plans of the intervention program proposed. Furthermore, to gain deeper insights, future studies could combine quantitative data with qualitative research methods, such as interviews or focus groups. This would allow researchers to explore the specific needs, challenges, and motivations of young nurses in this healthcare setting.

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Organizational Commitment, Emotional Well-Being, and Leadership Behavior Among Nurses in Tertiary Hospital in Cotabato City

Junella C. Bedes, RN

Davao Doctors College Inc.
Davao City. Philippines

Abstract

The quality of health care services is affected by the satisfaction and productivity of the health care workers. Thus, this study determined the correlation between organizational commitment, emotional well-being, and leadership behavior among nurses working in tertiary hospitals in Cotabato City. A total of 234 respondents computed using the G power computation were selected randomly. The researcher utilized an adapted multi-dimensional questionnaire with a 1.00 validity rating, interpreted as an excellent level of content validity using a universal agreement approach. The result revealed that nurses have a high level of organizational commitment. However, they have a very high emotional well-being and leadership behavior. The relationship between organizational commitment and leadership behavior of nurses revealed a significant relationship between continuance and normative leadership. This means the null hypothesis is rejected. However, affective shows no significant relationship, which means the null hypothesis is accepted. The relationship between emotional well-being and leadership behavior of nurses revealed a significant relationship between nurses' emotional well-being in terms of Purpose and meaning, community belonging, coping and stress management, and subjective well-being. This means that the null hypothesis is rejected. The correlation between emotional well-being significantly influenced the level of leadership behavior. This means the null hypothesis is rejected. However, leadership behavior and organizational commitment show no significant relationship. This means the null hypothesis is accepted. The Study recommended developing seminars and training on stress management to increase nurses' emotional well-being and strengthen their organizational commitment.

Keywords: *Organizational Commitment, Social Science, Descriptive-Predictive, Cotabato City*

Corresponding email: junellabedes1991@gmail.com

Introduction

Organizational commitment plays a vital role in the long-term stay of employees (Singgalen et al., 2022). However, the American Nurses Association (2021) reported that 18% of newly licensed nurses quit the profession within the first year compared to 25% of seasoned or experienced nurses due to stressful working conditions, lack of commitment, leadership, supervision, and understaffed facilities, resulting in emotional imbalance. This weakens leadership behaviors that cultivate an outlook toward change and effective task performance (Gupta & Sharma, 2019).

The general work environment in healthcare organizations all over the world is greatly influenced not only by organizational commitment but also by the leadership behavior of nurses (Taskiran et al., 2023). Ineffective behavior can result in poor service delivery, while effective leadership can foster a good and supportive environment (Lee et al. (2020). Moreover, Aiken et al. (2019) discovered that leadership behavior, marked by personalized attention and inspirational motivation, was linked to reduced burnout and increased job satisfaction and leadership behavior among nurses, equating to emotional well-being.

In the Philippines, nurses care for many patients, which can be huge and lead to burnout (Leon et al., 2021). Currently, the domestic healthcare system in the country has faced multiple challenges, such as understaffing, inadequate infrastructure, low wages, and limited educational opportunities (Robredo et al., 2022). Furthermore, Alibudbud (2022) pointed out that understaffing, low wages, and unsafe working conditions are some common sentiments of Filipino nurses affecting their commitment to the organization to stay longer.

As the only teaching and training hospital in BARMM and Region XII, the Cotabato Regional and Medical Center (CRMC) is a level III apex hospital serving the Bangsamoro region and Central Mindanao. The nurses faced several challenges, including overcrowding patients, limited capacity to provide specialty services, and a wide catchment area (Tabilog, 2020). Nurses' struggle with organizational commitment is often affected by their emotional well-being since the stressful work environment contributes to the desire to look for less stressful work (Collantes, 2023). This generally has an impact on the leadership behavior of nurses if a fast turnover happens among nurses.

Nurses' degree of organizational commitment in healthcare settings is a crucial factor that impacts their well-being since they feel satisfied with their work (Ake, 2019). It also promotes good leadership behavior. In addition, Smith et al. (2022) highlighted the essence of emotional well-being since nurses frequently encounter elevated stress levels connected to their employment, potentially leading to low leadership and commitment to work. When emotional well-being is affected, adverse effects, including decreased job performance and more excellent intentions to leave the nursing profession, happen (Smith et al., 2019; Johnson et al., 2020). Thus, it is crucial to investigate the connection between organizational commitment, emotional well-being, and leadership behavior to comprehend and develop interventions to enhance nurses' well-being and the healthcare industry's service delivery through policy recommendations and reform.

Thus, this aimed to determine the correlation between organizational stress, emotional exhaustion, and leadership behavior among nurses working in a tertiary hospital in Cotabato City. To achieve the above Purpose, the researchers sought to answer the following questions: (1) What is nurses' organizational commitment level in terms of Affective, Continuance, and Normative? (2) What is the level of emotional well-being of nurses in terms of

Purpose and Meaning, Community and Belonging, Coping and Stress Management, and Subjective Well-being? (3) What is the level of leadership behavior of the nurses in terms of Task-Oriented Behavior, Relationship-Oriented Behavior, and Change-Oriented Behavior? (4) Is there a significant relationship between organizational commitment and leadership behavior among nurses? (5) Is there a significant relationship between emotional well-being and leadership behavior among nurses? (6) Do Organizational commitment and emotional well-being significantly influence the level of leadership behavior among nurses?

Furthermore, the results will benefit from the study as it can be a source of new information in promoting leadership behavior to help them have more organizational commitment and improve emotional well-being. Also, nursing administrators may benefit from the study as it can be a source of new information in promoting leadership behavior to help them have more organizational commitment and improve emotional well-being. Can gain vital information to guide them in developing programs and activities to improve the leadership behavior of nurses. The role of nursing leaders in promoting a good working environment can help address the emotional well-being of nurses, which can help provide quality care.

Methods

The study utilized the predictive-descriptive correlational design. Also, it focused on describing and analyzing the relationship between the level of organizational commitment, emotional well-being, and leadership behavior among nurses in a tertiary hospital in Cotabato City and its indicators. The study was conducted in a Tertiary, Training and Teaching Government Hospital in Cotabato City, a Level III Department of Health retained hospital that has a 600-bed implementing capacity. Also, the respondents included in this study were nurses in tertiary hospitals who participated voluntarily. They also permitted the researcher to use their information. These respondents were included due to their willingness to participate in the study. The information included data gathering for the participating individuals. A total of 234 respondents were gathered as respondents of the study computed using the G power computation.

The respondents were selected through non-probability using voluntary sampling, in which samples from a larger population were chosen using a method based on the theory of non-probability. In selecting the respondents, the following inclusion criteria will be considered: (1) nursing staff, (2) of legal age, and (3) those who agreed to be part of the study. On the other hand, the exclusion criteria include (1) nurses with managerial positions, (2) nurses on extended leave, and (3) those who do not consent to be part of the study.

This study utilized an adapted survey questionnaire from Abdullah (2011) on Organizational Commitment, Meshko et al. (2023) on Emotional Well-Being, and

Luttikhuis (2014) on Leadership Behavior, which was incorporated into a three-part survey questionnaire that was validated by experts before the reliability testing. The survey questionnaire was divided into three major parts. The first part included statements about Organizational Commitment. The questionnaire has three subcategories: affective, continuance, and normative. The second part included statements about Emotional well-being. The questionnaire is divided into four subcategories: Purpose and Meaning, Community and Belonging, Coping and Stress Management, and Subjective Well-being. The subcategory consists of a meticulously designed questionnaire comprising 40 items. The third part included statements about Leadership Behavior. The questionnaire is divided into three subcategories: Task-oriented Behavior, Relationship-oriented Behavior, and Change-oriented Behavior. The subcategory consists of a meticulously designed questionnaire comprising 30 items. The Assessment was carried out utilizing a five-point Likert scale.

Also, as this study required the participation of human respondents, certain ethical issues were strictly followed. It is necessary to comply with and pay attention to ethical principles. Every research project must include Ethical issues. As a result, the researcher in this study valued abide by the following protocols assessment indicators: social value, risks and benefits, voluntary participation, and privacy and confidentiality.

Results and Discussion

Table 1. The Nurses' Level of Organizational Commitment.

Indicators	Mean	SD	Interpretation
Affective	3.16	0.99	Moderate
Continuance	4.24	0.80	High
Normative	3.84	0.87	High
Overall	**3.75**	**0.89**	**High**

Note: *4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low.*

Table 1 shows the level of organizational commitment in terms of Affective, Continuance, and Normative. Based on the results, the mean rating on the nurses' level of organizational commitment got an overall mean of 3.75, which is interpreted as high. This result implies that the nurses working in public hospitals have manifested a more profound dedication to work. This commitment can help give patients the best care they can, reflecting as part of an organization's excellent service. All in all, nurses manifested deep commitment to attaining the hospital's goal in service

delivery by staying in their jobs and performing their duties enthusiastically and happily. Among the answers, continuance got the highest mean at 4.24, interpreted as high. This result signifies that nurses in public hospitals stay longer because they love their work and consider the organization as a family. The longer the nurses stay in their work, the more effective they become in service delivery, for their skills and competency improve. Therefore, it is beneficial to the organization. In summary, nurses gave their loyalty and commitment by staying in their jobs and giving their best in service delivery.

.

On the other hand, affective got the lowest mean of 3.16, interpreted as moderate. This result denotes that those nurses had strong emotional ties with their work and the organization. Although it is the lowest, the result still signifies a positive attitude towards their satisfaction with the organization and work. The emotional attachment of nurses to the organization can add to their inspiration and dedication to stay and work in public hospitals. Although government organizations have complex work settings, their commitment and deep emotional attachment to the profession and organization are good values that can contribute to the quality of service provided to the public. It is inferred that a highly committed nurse in the organization performs their duty toward attaining its objective of serving the public.

This answer agrees with Kasimoglu (2021), who explained that organizational commitment plays a vital role in the excellent and long-term stay of employees in the organization. Same with Tang et al. (2022), who explained that a committed nurse works passionately toward achieving the organization's goal. The same views were expressed by Udo (2020) and Neves (2022), who both agreed that nurses' commitment becomes the driving force for them to stay longer in their work. Despite the difficulties encountered, the organization's commitment to service and love motivates them to stay in their work. This gives them satisfaction. According to Aiken et al. (2019), the emotional experiences of nurses in their workplace increase their enthusiasm for work. Alenazy et al. (2021) explained that an adequate connection to work is a vital factor for longevity and stay in their work. As embedded in the profession, the love and commitment to perform their duty made nurses appreciate their work despite complex tasks and work settings.

Table 2. **The Nurses' Level of Emotional Well-Being.**

Indicators	Mean	SD	Interpretation
Purpose and Meaning	4.55	0.57	Very High
Community and Belonging	4.51	0.63	Very High
Coping and Stress Management	4.51	0.61	Very High
Subjective Well-Being	4.53	0.62	Very High
Overall	**4.53**	**0.61**	**Very High**

Note: *4.21-5.00--Very High;3.41-4.20---High; 2.61-3.40--Moderate; 1.81-2.60--Low; 1.00-1.80---Very Low.*

Table 2 presents the level of emotional well-being of nurses. Based on the results, the mean rating of the nurses' level of emotional well-being got an overall mean of 4.53, which is interpreted as very high. This result denotes that nurses deeply feel for their jobs, clients, and work. Emotional factors impact the kind of services nurses can give to the public. This can affect their actions, especially when considerable work is heavy. In general, nurses in public hospitals showed good emotional well-being in handling difficulties and working in different situations.

The answers on Purpose and meaning got the highest mean of 4.55, which is interpreted as very high. This result signifies that those nurses had a strong emotional attachment to their profession and job. The ability to provide services and care for sick individuals is a strong emotional motivator that can provide self-satisfaction. Nurses consider serving the sick and the public a meaningful and purposeful life. Nonetheless, the answers on community and belonging and coping and stress management got the lowest mean at 4.51, which was interpreted as very high. This reflects the community's support, and the stress management activities provided to nurses helped them balance their emotional well-being. The appreciation of the people around nurses often gives inspiration for them to be inspired in their work. The same stress management activities as exercise or socialization with friends can help maintain good emotional well-being and help cope with stressful work settings expected in a public hospital.

Similarly, Miedaner et al. (2021) highlighted the importance of emotional well-being in work performance. They pointed out that emotional well-being can help cope with stress and strains in everyday life and complex work settings. Also, Prasant (2023) emotional wellness is an essential aspect of our lives that can significantly impact our physical and mental health. This is especially true in the workplace, where employees spend much of their time. Employees feel valued, supported, and motivated by emotional wellness at work. This article will explore the importance of emotional wellness in the workplace and some strategies to achieve it. The study by Marenus et al. (2022) explained that nurses 'health and well-being are affected by the demands of their workplace, and in turn, their well-being affects their work and the people they care for. Nurses are known to be committed to meeting the diverse and often complex needs of people with competence and compassion. This is part of their Purpose and meaning in life. Thus, despite being overworked sometimes, they still overcome this situation due to their emotional commitment to their work (Jameson & Bowen, 2018).

Moreover, in the study of Atalay et al. (2022), the view was expressed that community support is related to nurses' emotional well-being as people's support provides a positive feeling of self-satisfaction to nurses. This feeling boosts the well-being of nurses in handling difficulties related to working in hospitals. While Gupta and Sharma (2019) cited that hospital stress management services lessen nurses' exhaustion and burnout. Nopa et al. (2023) mention that seminars about coping with stress equip nurses with coping mechanisms to handle different types of stress at work and in relating with others.

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Table 3: The Nurses' Level of Leadership Behavior

Indicators	Mean	SD	Interpretation
Task-Oriented	4.58	0.59	Very High
Relationship-Oriented	4.61	0.56	Very High
Change-Oriented	4.60	0.58	Very High
Overall	**4.60**	**0.58**	**Very High**

Note: *4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low; M-Mean; SD- Standard Deviation.*

Table 3 shows the level of leadership behavior of nurses. Based on the results, the mean rating of nurses' level of leadership behavior got an overall mean of 4.60, which is interpreted as very high. This result shows that nurses manifest good leadership behavior in their workplace and their assigned tasks. The ability to adapt to changes occurring in the workplace and lead in caring for patients gives quality assurance of safe nursing care. In summary, nurses lead in the provision of care and in adopting the transformation of quality care in public hospitals.

Among the answers, the relationship-oriented got the highest mean of 4.61, which is interpreted as very high. This means that nurses consider their interactions with co-workers, clients, and other people to support and affect their emotional well-being. The support and teamwork of fellow nurses can make the burden of working in a challenging work environment easier to carry if somebody is providing moral and emotional support. All in all, nurses maintained good relationships with others that provided support for their emotional well-being, which is a foundation of self-satisfaction.

The lowest among the answers revealed that task-oriented got a mean of 4.58, which is interpreted as very high. Despite being the lowest, it still shows a very high result, meaning the nurses are focused on performing their tasks effectively since this can directly affect their emotional well-being. The difficulty of carrying out duty due to complex cases, danger to themselves, and the desire of too many patients to perform their duty effectively becomes a source of emotional discomfort. However, due to embedded leadership competency, they perform their task with higher satisfaction outcomes. In summary, nurses can lead in providing the expected services in any work setting due to a strong leadership attitude to work and the organization.

This agrees with Kilpatrick (2022), who concluded that nursing leadership in care for patients can provide satisfaction for quality care. Nurses were honed to have leadership skills in all aspects of their careers as it is vital to work performance. Laschinger et al. (2021) also pointed out the vital role of leadership to nurses as they need to spearhead different tasks in carrying out their duties. This can ensure that professional care providers appropriately guide patient care. This corroborates with who opined that Younas (2023) nurses, as frontline care professionals, should develop therapeutic relationships with patients and their families and professional relationships with healthcare team members to ensure the delivery of effective integrated care.

Nurses are honed to develop interactive working relationships with others, especially their patients and families. Failure to develop effective interpersonal and professional relationships can negatively affect patient care and the emotional well-being of the nurse (Karam et al., 2021). Harmonious relationships with others support emotional well-being in dealing with different situations.

Table 4. The Personality Traits' Impact on Preceptors' Professional Behavior.

Organizational Commitment	Leadership Behavior			
	r_s	p-value	Decision	Remarks
Affective	.013	.841	Accept H_{01}	NS
Continuance	.581	<.001	Reject H_{01}	S
Normative	.575	<.001	Reject H_{01}	S

Note: p<0.05; S-Significant; NS- Not Significant; r_s= rho; IV- Organizational Commitment; DV- Leadership Behavior.

Table 4 shows the relationship between nurses' organizational commitment and leadership behavior. The results revealed that there is a significant, positive relationship between nurses' organizational commitment in terms of continuance (r_s =.581, p=<.001), normative (r_s =.575, p= <.001), and leadership behavior. This further suggests that an increase in nurses' organizational commitment in terms of continuance and normative commitment is correlated with an increase in leadership behavior. Conversely, affective commitment (r_s =.013. p= .841) was the only indicator of organizational commitment that did not correlate with nurses' leadership behavior. This result means the commitment of nurses in the organization to achieve its goal can lead to good leadership behavior that can improve the quality of services they perform. Organizational commitment is a vital component of leadership behavior that promotes the better performance of nurses.

All in all, the significance of leadership style on the organizational commitment of employees or vice versa can sustain quality nursing care service delivery. This finding is important because it shows the essence of developing leadership behaviors as they affect organizational commitment, which is thought to have a critical role in organizations reaching their objectives and sustaining their existence in the long term. Furthermore, the relationship between leadership behaviors and organizational commitment should be supported and cultivated.

The organizational commitment of nurses is a precursor to effective leadership behavior of nurses or the other way around, according to Al-Dossary (2022). has delved into the interplay between leadership behavior, nurse well-being, and

organizational commitment to overcome stressful work settings, revealing a strong correlation between the said variables. Smith et al. (2021) explored the relationships between leadership behavior and organizational commitment, revealing a substantial correlation between it contributing to reduced emotional exhaustion among the nursing staff and leadership behaviors characterized by autonomy, support, feedback, and longevity in work.

Moreover, in the study of Rachman et al. (2022), their findings underscored the potential of effective leadership techniques to act as a protective buffer against the adverse effects of high levels of organizational commitment that counter organizational stress. Same with Johnson et al. (2019), wherein findings indicate that nurses' work commitment, job satisfaction, and overall well-being can all experience positive effects under the influence of transformational leaders. Nursing professionals who adhere to this leadership style effectively care for patients.

Table 5. The Test of Relationship between the Nurses' Emotional Well-Being and Leadership Behavior.

Emotional Well-Being	**Leadership Behavior**			
	r_s	**p-value**	**Decision**	**Remarks**
Purpose and Meaning	.525	<.001	Reject H_{02}	S
Community and Belonging	.625	<.001	Reject H_{02}	S
Coping and Stress Management	.694	<.001	Reject H_{02}	S
Subjective Well-Being	.668	<.001	Reject H_{02}	S

Note: $p<0.05$; S-Significant; r_s= rho; IV- Emotional Well-Being; DV- Leadership Behavior.

Table 5 presents the relationship between nurses' emotional well-being and leadership behavior. The results revealed that there is a significant, positive relationship between nurses' emotional well-being in terms of Purpose and meaning (r_s =.525, p=<.000), community and belonging (r_s =.625, p= <.000), coping and stress management (r_s =.694, p= <.001), subjective well-being (r_s =.668, p= <.001), and leadership behavior. This further suggests that an increase in nurses' emotional well-being in terms of Purpose and meaning, community and belonging, coping and stress management, and subjective well-being is correlated with an increase in leadership behavior. In summary, emotional well-being can strengthen leadership behavior that can directly impact nurses' performance. Thus,

emotional well-being is a foundation for developing nurses with leadership behaviors.

It has been found that emotional well-being among nurses has a positive impact on the care of patients and their safety, as emotionally exhausted nurses are more prone to making errors in treatment delivery (Poghosyan et al., 2019; Smith et al., 2021). These studies were conducted in various acute care settings, underlining the significance of addressing emotional well-being among nurses as a factor in the leadership behavior of healthcare professionals in the care of patients Lee et al., (2022). In the comprehensive study on the emotional well-being of healthcare workers, including nurses, Alharbi et al. (2020) emphasized that it can contribute to good leadership abilities to handle complex duties. They highlighted the severe detrimental effects of emotional tiredness on nurses' leadership abilities, the standard of patient care, and the general efficiency of healthcare systems.

Table 6. The Influence of Organizational Commitment and Emotional Well-Being on Leadership Behavior among Nurses.

LB	Observed Estimate	Bootstrap SE	Z	P-value	Decision	Remarks
Mean LB	4.590	0.025	187.04	0.000		
Effect						
OC	0.273	0.146	1.88	0.061	Accept H_{03}	Not Significant
EWB	0.546	0.126	4.35	0.000	Reject H_{04}	Significant

Note: Significant if p-value <.05; R^2= 0.5498; IV-OC & EWB; DV-LB.

The table above shows that emotional well-being (p=.000) significantly influenced the level of leadership behavior. With the marginal effects noted in emotional well-being (0.546), it means that an increase in emotional well-being would result in a higher level in the leadership behavior of nurses. On the other hand, only the organizational commitment (p=.000) did not significantly influence the leadership behavior of nurses. Furthermore, the findings were apparent in the results of nonparametric regression analysis, in which 54.98% of the variance of leadership behavior can be explained by organizational commitment and emotional well-being, as indicated by an r-square of 0.5498. This would mean that 45.02% of the variation can be attributed to other factors besides the independent variables. Nurses' organizational commitment can contribute to emotional well-being, which can result in good leadership behavior. These can generally produce quality service to the patients of public hospitals.

Nwaorgu (2021) discovered a positive relationship between organizational leadership style and a combination of leadership styles with all variables, including organizational commitment and emotional

well-being; based on the findings, adopting leadership in the behavior of nurses can enhance job satisfaction, retention, and patient care outcomes Alanazi et al., (2022), which will address the identified gap in practice and enhance the work environment that can promote positive social change. The same answer was expressed by Orukwowu (2022), who concluded that the leadership competency of nurses enhances factors like organizational commitment and emotional well-being. The leadership behavior in dealing in the workplace lessens stressful situations, contributing to nurses' well-being. Also, Tang et al. (2022) added that Nurses demonstrated a high degree of work engagement and a moderate level of organizational commitment. Work engagement was positively impacted by organizational commitment, indicating that organizational commitment is an essential factor in determining nurses' work engagement.

Conclusions and Recommendations

The current study concluded that nurses had demonstrated high organizational commitment, which reflected their love for their work and their view of the organization as part of their family.

The emotional well-being of the nurses is very high due to a robust support system with a good relationship with the community, which is further strengthened by the stress management activities they adopt. The very high level of leadership behavior is grounded on harmonious relationships with co-workers, clients, and their families. The overall performance of nurses is positively effective in-patient care. Maintaining therapeutic relationships and higher self-satisfaction despite the stressful and voluminous number of patients handled. Since the overall result revealed that emotional well-being significantly influenced the level of leadership behavior of nurses, organizational commitment has no significant influence on leadership behavior. It is recommended That the affective organizational commitment of nurses be explored deeply using phenomenological research. This can gather personal data and experiences of nurses on how it affects their work performance. It is essential to study the affective commitment of nurses to identify how to strengthen teamwork and patient care.

This can increase productivity and longevity in the work of nurses. Also, using purposive sampling to determine the participants is crucial in gathering factual information since this will be based on their personal experiences. Using 7 to 10 informants in a qualitative study is already adequate.

The critical informant interview is a suitable methodology for gathering data since it can get information from people with diverse backgrounds and opinions and be able to ask in-depth and probing questions. Likewise, through a Key Informant interview, the researcher can discuss sensitive topics, get an individual's candid discussion of the subject, or get the information needed. Also, individual or small group discussions (two to three people maximum) can create a comfortable environment where individuals can have a frank and open sharing of experiences. The data analysis can be done through thematic analysis using the Creswell (2018) method. It involves identifying, analyzing, and interpreting patterns and themes in the data gathered. This is suitable since any participant can use a flexible approach.

Lastly, since the study used an adapted questionnaire for Leadership Behavior, although experts performed the Content Validity Index, it recommended performing an Exploratory factor Analysis to uncover the underlying structure of a relatively large set of variables and a Confirmatory Factor Analysis for tool development and to analyze the efficacy of measurement models where the number of factors and their direct relationship are specified.

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Angelica Jane A. Bolalin, RRT

Davao Doctors College, Inc.

Davao City, Philippines

Abstract

This study determined the lived experiences of Radiation Therapists particularly in treating breast cancer patients. This study aims to understand their challenges, coping strategies, and perspectives. A qualitative research design with a phenomenological approach is utilized in this study. The study adhered to ethical considerations and research laws during data collection to protect the rights of participants, and researchers, and the integrity of the research. Employing purposive sampling, 17 radiation therapists with over 6 months of firsthand experience in treating breast cancer patients participated in in-depth interviews and focus groups. After thematic analysis, three main themes emerged. Patient-centered care and Holistic Engagement included diverse patient interactions, relationship-building, compassionate care, emotional engagement, patient safety, ergonomic considerations, and resource management. Strategies for Therapists' Well-being Amidst Challenges encompassed healthy lifestyle integration, techniques to reduce physical strain, relaxation practices, and emotional support. Participant Wisdom as a Catalyst for Advancing Care emphasized the significant role of Radiation Therapists in protocol development and implementation and education and outreach initiatives. The findings emphasized the therapists' resilience and the need for supportive institutional frameworks and tailored interventions to enhance their well-being and effectiveness in cancer care.

Keywords: *Breast Cancer, Radiation Therapy, Phenomenology, Philippines*

Corresponding email: bolalinagelicajane@gmail.com

Introduction

Radiation therapists play a crucial role in breast cancer treatment, administering precise radiation doses and engaging closely with patients (Khine & Stewart-Lord, 2021; O'Neill et al., 2023). As breast cancer diagnoses rise, the demand for radiation therapy services increases, exacerbating the global shortage of radiation therapy staff (Gamboa et al., 2021; Abdel-Wahab et al., 2021). In the Philippines, the scarcity of radiation health workers is particularly concerning, with the expansion of regional cancer care centers likely to strain resources further (Vergara et al., 2023). Radiation therapists face unique challenges Unlike diagnostic radiographers, who have limited patient interaction, Radiation Therapists engage daily for over 3-7 weeks with distressed, irritable, and sometimes suicidal cancer patients (Senf et al., 2021; Grassi et al., 2023; Shah et al., 2020). This constant exposure to patients' mental health distress can emotionally overwhelm therapists, causing sadness and concern (Siddique et al., 2022; Moghadam et al., 2022). Patient suicides, in particular, leave healthcare workers traumatized and burdened with feelings of guilt and surprise (Granek et al., 2019).

The intimate interaction between radiation therapists and patients profoundly shapes their experiences. Siddique et al. (2022) uncovered that radiation therapists frequently encounter emotional challenges, including feelings of sadness, loss, anxiety, and stress. Similarly, Moghadam et al. (2022) found that caring for cancer patients can be emotionally distressing for healthcare workers, leading to feelings of grief and sadness, particularly when patients pass away. Healthcare professionals in oncology settings often become emotionally attached to patients, resulting in frustration and hopelessness (Lyu et al., 2024).

Meanwhile, in a qualitative study by Seyama et al. in 2022, therapeutic radiographers encountered a demanding work environment characterized by a lack of staffing and essential resources. Participants acknowledged experiencing occupational stress and burnout due to shortages of radiographers and everyday commodities. Emotional labor, heavy workloads, and inflexible working hours are investigated as factors influencing job retention among radiation therapists (Nightingale et al., 2021). The shortage of staff in radiation therapy departments is becoming increasingly apparent, posing significant challenges to the delivery of effective cancer treatment. Therefore, an investigation into the factors that contribute to the declining number of practicing radiation therapists would be deemed valuable.

This study aims to fill a critical research gap by exploring the qualitative dimensions of radiation therapists' experiences in their professional interactions with breast cancer patients, offering a comprehensive perspective beyond the prevalent quantitative focus (Probst et al., 2021). Notably, while existing literature on the experiences of radiation therapists internationally exists, there are no available studies specifically for this group in the Philippines (Britton et al., 2017). This study aims to provide updated insights into the challenges and experiences faced by radiation therapists in their interactions with breast cancer patients, thus contributing valuable knowledge to the field and informing strategies to address the shortage of radiation therapy staff.

Methods

A descriptive-phenomenological research design framework was employed to gain a clearer richer understanding of the essence of Radiation Therapists' experience in the treatment of breast cancer patients. Seventeen Radiation Therapists participated in the study, with seven selected for in-depth interviews and ten for a focus group discussion

to ensure detailed and collective insights. The study utilized the purposive sampling technique in selecting the participants to align with the study's aims, enhancing data relevance and rigor (Campbell et al., 2020). Inclusion criteria required participants to be registered radiologic technologists with at least six months of direct experience in breast radiation therapy and currently active in the field, while those with less experience or not actively working in radiation therapy were excluded.

The research involved conducting online in-depth interviews (IDIs) with seven (7) participants and organizing a focus group discussion (FGD) with ten (10) other participants. The selection of participants was based on specific criteria to ensure that they were capable of providing insights into their real-life experiences. Protecting the anonymity of the participants was a top priority, and the researcher took measures to keep sensitive details confidential, including names and other significant information.

The study employed Colaizzi's (1978) method, recognized for its rigor and robustness in ensuring qualitative results' credibility and reliability (Wirihana et al., 2018). The initial phase involves verbatim transcription of interviews, along with meticulous typing of field notes for comprehensive data compilation. Subsequently, a comprehensive reading of the data will be undertaken to gain a holistic understanding of its content and significance. Open coding was chosen for data analysis, involving the categorization and labeling of emerging themes. This systematic process enables the identification and labeling of key patterns and concepts within the data.

The researcher ensured that research protocols were strictly adhered to to maintain the study's quality and reliability. Approval was sought from the program chair and participants before initiating the study. Participants were provided with consent and assent letters to indicate their willingness to participate in the study. Upon approval, the FGD and In-depth interviews were scheduled by the researcher. Interview questions were displayed on a shared screen to aid the interviewees in responding to the questions. All interviews were digitally recorded for future verbatim transcription. Before recording, permission and consent were obtained to comply with the Data Privacy Act.

Results and Discussion

The data gathered for the qualitative strand was transcribed, translated, and underwent thematic analysis by an expert qualitative data analyst. As observed in the data, there are three (3) main themes and eleven (11) cluster themes for the lived experiences of the participants.

Emergent Theme 1. Patient-Centered Care and Holistic Engagement

Patient-centered care and a holistic approach are essential elements that characterize the ethos of Radiation Therapists working in the difficult terrain of radiation treatment. Their practice revolves around tailoring treatment to not only treat cancer but also to support patients emotionally throughout their treatment journey. Radiation therapists are committed to their patients more than just delivering precise treatments; rather, it involve building strong patient-provider relationships based on trust, empathy, and respect. These relationships are essential to providing effective care tailored to the uniqueness of each patient.

Cluster Theme 1. Diversity of Patient Interactions

They described encountering individuals with varying backgrounds, beliefs, and socioeconomic status. The participants stressed the richness of these interactions and emphasized the importance of recognizing and respecting these differences to provide personalized care that addresses the unique needs of each patient.

Broom et al.'s (2019) study highlights that healthcare professionals often face a broad spectrum of interactions with patients from diverse cultural backgrounds. Cultural diversity is inherent to healthcare, with language and cultural differences profoundly impacting healthcare experiences and outcomes (Yang et al., 2023). Additionally, Nair and Adetayo (2019) suggest practices like team training to address challenges in patient diversity.

Cluster Theme 2. Building Relationships and Impact

"Building Relationships and Impact" emphasized the foundational role of strong interpersonal connections in healthcare. This theme highlights the importance of building relationships with patients to provide patient-centered care. The participants emphasized that each patient has a unique approach to treatment based on their specific needs. Through the development of trust and rapport, patient are more likely to communicate their concern and cooperate with their treatment.

These findings align with the study of Mead et al. (2021) which emphasizes the need for patient-centered strategies that are specifically tailored to the unique needs of cancer patients to achieve the best possible results. Koppel & De Gagne (2021) explore the importance of building rapport between cancer patients and their providers. They highlight that for individuals with cancer, feeling personally understood and connected with healthcare providers beyond their medical condition alleviates distress and enhances satisfaction, health outcomes, and overall quality of life.

Cluster Theme 3. Compassionate Care and Emotional Engagement

This theme accentuates the profound influence of compassionate care and emotional involvement in healthcare. In their discussions, participants shared that through compassionate care they have developed a sense of empathy and gained a deeper understanding of their experiences, emotions, and needs. Through this, Radiation Therapists found a sense of fulfillment in their job. However, they also emphasized the emotional demands of their roles and the challenge of balancing empathy with professional boundaries. They noted through daily interactions the formed deep attachment and emotional toll of patient losses.

Radiation Therapist regularly face significant emotional challenges in their demanding field. The study by Siddique et. al (2022) revealed that Radiation Therapists often experience the feeling of profound sadness, a tangible feeling of loss, the challenges of witnessing the struggles of patients, and a pervasive sense of concern. Similarly, Moghadam et al. (2022) revealed that caring for cancer patients can be emotionally distressing and stressful for healthcare workers (HCWs). The frequent interactions with patients, along with an elevated sense of empathy, frequently evoke profound grief and sadness, especially when patients succumb to their illness.

Cluster Theme 4. Patient Safety and Ergonomic Considerations

This theme emphasized the importance of implementing ergonomic practices to ensure not only patient safety but as well as their Musculoskeletal well-being. They emphasized how applying ergonomic principles such as using foot stalls, wearing comfortable clothes and shoes, and practicing proper handling of patient techniques help to protect them from occupational injury.

A recent study by Evan et al. (2019) revealed that more than 80 percent of Radiation Therapists reported feeling pain or discomfort while carrying out tasks related to patient care. Similarly, Henania et al. (2020), revealed that Radiation Therapists are significantly susceptible to work-related musculoskeletal injuries. Their study revealed a high prevalence rate of such injuries among Radiation Therapists, reaching almost 80 %.

Cluster Theme 5. Resource Management and Access Issues

This theme is centered on the challenges of resource management and access issues. During the interview, the participants shared the significant impact of resource constraints, particularly in equipment availability and standardization. The unavailability of essential immobilization devices can lead to patient discomfort and difficulty in maintaining and reproducing the same patient position every treatment session. The participants also expressed their concerns about how outdated machines can exacerbate patient discomfort and lead to treatment delays.

These findings align with Seyama et al. (2022), who reported that Therapeutic Radiographers face a demanding work environment characterized by a lack of essential resources. Participants in the study acknowledged experiencing occupational stress and burnout due to shortages of everyday commodities. Moreover, the use of outdated medical equipment contributes to treatment delays and discomfort for patients. The integration of advanced imaging techniques, such as computed tomography (CT), magnetic resonance imaging (MRI), and positron emission tomography (PET), has significantly improved the precision and accuracy of radiation delivery with newer machines (Beaton et al., 2022).

Emergent 2. Strategies for Radiation Therapists' Well-being Amidst Challenges

Radiation Therapists are positioned at the frontline of breast cancer treatment. They interact with patients daily for over 3-7 weeks (O'Neill et al., 2023; Shah et al., 2020). Because of this, radiation Therapists face various challenges stemming from patient care and the unique demands of their profession. To maintain their well-being, they utilized different strategies. These strategies include healthy lifestyle integration, techniques for physical strain reduction, relaxation practices, and seeking emotional support.

Cluster 1. Healthy Lifestyle Integration

"Healthy lifestyle integration" depicts the participants' way of adopting habits that promote overall well-being. The participants emphasized the importance of engaging in physical activities and maintaining a healthy diet to promote overall well-being. They discussed how incorporating regular exercise

into their routine helps to manage stress, improve mood, and enhance physical fitness. Although they recognized the importance of balancing indulgence with healthy habits, some participants mentioned using food as a form of reward to alleviate negative emotions.

This supports Schultchen et al.'s (2019) findings, which suggest that engaging in physical activity and maintaining healthy eating habits act as protective measures against stress and negative emotions, linking physical activity to enhanced mood and reduced stress. Martín-Rodríguez et al. (2024) also highlight that encouraging physical activity can enhance mood and resilience. Integrating regular exercise can decrease the probability of work-related musculoskeletal injuries (Henania et al., 2020), while sufficient sleep and healthy dietary habits are common and effective coping mechanisms to address job-related stress among Radiation Therapists (Sipos et al., 2024).

Cluster 2. Techniques for Physical Strain Reduction

This theme has been shared by the participants, emphasizing the techniques they used to reduce physical strain. They discussed various strategies, including utilizing specific techniques for patient handling and taking breaks to protect themselves from straining and minimize the risk of occupational injury.

These findings align with Werderman's (2020) recommendations for preventing work-related musculoskeletal injuries among radiologic technologists, emphasizing safe lifting practices and ergonomic equipment. Similarly, Sommerich et al. (2020) stressed the importance of proper patient handling to reduce pain and discomfort. The adaptation of patient transfer techniques to minimize strain is supported by Halim, Ripin, and Ridzwan (2022), who found that using patient transfer devices reduces the risk of musculoskeletal injuries. Moreover, Richardson et al. (2019) recommended no-lift policies, which effectively decrease the occurrence and severity of injuries by providing clear patient mobilization directives.

Cluster 3. Rest and Relaxation Practices

The third theme has emphasized the importance of utilizing rest and relaxation practices as a strategy to alleviate physical strain and maintain well-being. During the discussion, participants shared various techniques such as utilizing designated areas for sleep or relaxation. These spaces offer therapists a dedicated environment where they can rest, recharge, and alleviate discomfort, contributing to overall work satisfaction and productivity.

Moreover, participants implement a system of rotating rest breaks among colleagues, an efficient strategy for sustaining energy and concentration during the workday. This approach involves distributing the workload evenly, allowing each therapist to take periodic breaks for rest. Through this practice, therapists prevent exhaustion and enhance performance.

Cluster 4. Emotional Support and Well-being

The theme of “Emotional Support and Well-being” emphasized the vital role of seeking emotional support from colleagues and recognizing the importance of emotional well-being within the healthcare profession. Participants emphasized the value of having a support network, especially in such emotionally demanding roles. Whether through shared meals or open conversations about work challenges, they developed strategies to cope with stress and maintain their emotional well-being.

Robertson et al. (2021) study highlighted the effectiveness of support systems in reducing emotional fatigue among Therapeutic Radiographers. Effective support structures, like peer support, are pivotal in alleviating emotional fatigue. Similarly, Maresca et al. (2022) identified social and emotional support networks as among the most effective coping strategies for alleviating burnout symptoms among healthcare professionals. Moreover, Neser and Sim (2020) found that support groups can provide a safe and supportive environment, reducing feelings of isolation and fostering group trust among Radiation Therapists.

Emergent Theme 3. Participant Wisdom: A Catalyst for Advancing Cancer Care and Awareness

The insights and experience of radiation therapists help them become catalysts for advancing cancer care and awareness. Their firsthand experience in handling breast cancer patients provides them with the knowledge to deliver advanced care. As catalysts of awareness, radiation therapists play a crucial role in addressing misconceptions about breast cancer and its treatment, and in raising public awareness. This leads to better-informed communities, increased rates of early detection, and improved treatment outcomes.

Cluster Theme 1. Protocol Development and Implementation

The theme of "Protocol Development and Implementation" emphasized the role of participants' firsthand experiences in creating protocols and implementing efficiency measures to streamline workflow and enhance time management. Their experience provides them with valuable knowledge to develop protocols that address specific challenges in patient care. The participants shared that their experience helps them to identify areas for improvement and implement effective strategies to enhance overall institutional performance.

These findings align with Wong et al. (2021), who demonstrated that Radiation Therapists, particularly in developing comprehensive care plans, have improved access to care and a more patient-centered approach, ultimately enhancing the quality of patient-centered care. Morris et al. (2022) highlighted the crucial role of Radiation Therapists in caring for older adults undergoing radiation therapy, contributing significantly to assessing domains, identifying potential issues, and implementing tailored plans or early interventions as required. Furthermore, Radiation Therapists' frequent interactions with patients position them as frontline professionals capable of actively engaging patients in discussions about their treatment experiences (O'Neill et al., 2023; Skubish et al., 2021).

Cluster Theme 2. Education and Outreach Initiatives

This theme has been shared by the participants emphasizing how their experience helps them in educating patients and communities. The firsthand knowledge gained from interacting with patients allows participants to offer valuable insights and practical guidance in conducting cancer treatment education programs. Their direct engagement with breast cancer patients enables them to address radiation treatment misconceptions, alleviate fears, and give reassurance.

These findings suggest that Radiation Therapists play a crucial role in raising awareness about cancer treatment initiatives. They are instrumental in educating communities about cancer treatment and

addressing misconceptions about radiation therapy, which can influence patients' decisions regarding treatment. Soko et al. (2019) found that public awareness and perceptions greatly affect the utilization of radiotherapy services. The study revealed that low awareness levels may lead to a lack of understanding regarding the potential benefits of treatment, thereby affecting the utilization of radiotherapy. Moreover, Ololade et al. (2019) found that misconceptions about cancer significantly delay hospital visits among patients, leading to poor treatment outcomes.

Recommendations

Based on the findings and analysis derived from this qualitative research, several recommendations emerge that could be beneficial for stakeholders and practitioners in the field of radiation therapy.

Primarily, to gain a holistic view of therapeutic relationships, the scope of the study could be broadened by including perspectives of breast cancer patients. Understanding patient experience can enrich the understanding of the therapist-patient relationship.

Given the evolving nature of technology specifically in radiation therapy practice, future research could explore the integration of new technologies in radiation therapy practices such as Artificial Intelligence applications.

Additionally, future studies should consider broadening the study setting to include the entire Philippines, particularly in Mindanao since this study is focused on on Luzon and Visayas region only.

Lastly, given the emotional challenges highlighted by the participants, future studies should prioritize creating and assessing psychological support interventions tailored specifically for Radiation Therapists. It's crucial to investigate the effects of support groups on alleviating emotional fatigue among these healthcare professionals.

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Gender Equality and Caring Behavior of Nurses in a Public Hospital in Cotabato City

Rovelyn C. Calinawagan, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The study determined the gender equality and caring behavior of nurses in the public hospital in Cotabato City using the descriptive-correlational design. The selected setting is the public tertiary hospital in Cotabato City. A simple random sampling technique was applied in selecting the 147 nurses as the participants. Questionnaires were adapted from the studies from Hsieh, et al. (2022) on the gender equality variable, and Aydin and Björk (2019) for the caring behavior variable which was modified and subjected to validity and reliability test from the 30 participants with Cronbach alpha results of Gender Equality is 0.941, Caring Behavior is 0.930. The results showed that most of the responders were females aged 26 to 35. The respondents' attitude towards gender equality in the workplace was acceptable. The respondents' clinical practice towards caring behavior and its indicators such as Assurance of Human Presence, Knowledge and Skills, Respectful deference of Others, and Positive Connectedness is excellent overall. This study assessed the relationship between the nurses' gender equality and caring behavior in a public hospital in Cotabato City and the result shows a weak positive correlation between Gender Equality and Caring Behavior.

Keywords: *Gender Equality, Social Science, Descriptive-Correlational, Cotabato City*

Corresponding email: rovecalinawagan@gmail.com

Introduction

Gender plays a vital role in the nursing profession. There is an evident increase in the number of women than men in nursing. About 78.4% prevalence of inequality in gender, while 26.4% is the men's minority in the nursing profession (Lalam & Okecho, 2022). The development and growth of gender equality issues in nursing should be considered. When devising techniques to encourage nurses to be aware of the inequalities of gender issues, it is vital to foster the development of caring behavior (Tong et al., 2023), as the

quantitative findings suggest that every gender influences nurses" perception of caring.

Moreover, gender stereotypes affect women and men who work as nurses, and individuals accepting nursing as a profession (Prosen, 2022). Globally, gender equality influences both women and men who work as nurses as well as individuals considering nursing as a profession. Despite the advancement in policies and laws on inclusive health care service, one issue is gender-defined roles in nursing. It is a fact that throughout history, nursing has been a female-oriented profession based on the report of WHO (2022), wherein more than 60% of nurses worldwide were females. Men join nursing at a lower rate in Asia's eastern nations than in Western countries. For instance, the percentage of male nurses in the nursing workforce in Japan is about 6.2% (Mao et al., 2021); only 2.1% of nurses in mainland China are men (Yang & Hao, 2018).

Moreover, In China, male nurse practitioners are called "national treasures." (Xiuyu, 2020).

In addition, nursing is one of the healthcare professions in the Philippines that has not been immune from gender inequality (Robredo et al., 2022). Because the profession remains predominantly female, the way nurses are treated in a particular society often reflects how women and men are compared in performing their duties (Reuters, 2021). About 25.9% of Filipino nurses are males, making the more significant population to be comprised of women (Elmaco, 2022). This inequality resulted in silent but important issues on equality challenges in nursing service delivery.

Without a doubt, this study examined how gender-defined roles affected male and female nurses' experiences, perceptions, and opinions and how it affected the nursing profession's caring behavior. To determine the critical variables associated with gender inequality in the nursing service based on nurses' responses in the selected public hospital. The result can provide details on developing gender-sensitive policies and strategies to promote gender-sensitive workplaces. Also, it aims to formulate strategies to motivate male individuals to be part of the nursing profession.

Methods

This study utilized the descriptive-correlational research design. The study is descriptive since it describes the demographic profile, level of gender equality in the workplace, and caring behavior of nurses and its indicators in a public hospital in Cotabato City. This is the most common research design used when the researcher wants to describe a phenomenon and determine the relationships of the variables under study (Mcleod, 2023). The study is correlational as it defined the relationship between the level of gender equality in the workplace and the caring behavior of nurses and its indicators. This study is also comparative since it determined the difference in the gender equality and caring behavior of nurses in a public hospital in Cotabato City. It guided what aspect of gender equality connects with the caring behavior of nurses.

The study was conducted in a public tertiary-level hospital located in Cotabato City. This referring government hospital was founded in 1916 from a 12-bed capacity facility to 400-bed capacity under the Department of Health, regulated by the Civil Service Commission in terms of Human Resources, the Department of Budget and Management agency responsible for the

management and Development of its financial transactions, and the Commission on Audit in-charge of the general accountabilities of the hospital and with over 400-bed capacity, it offers state-of-the-art one of the largest hybrid operating room, high ranked-diagnostics, therapeutic, and intensive care facilities. Its medical practice includes surgical procedures at the catheter lab, a selected hospital that caters not only to improved bed capacity in hemodialysis but also operates peritoneal dialysis, cardiovascular medicine, orthopedics, ophthalmology, general and specialties surgery, family medicine, obstetrics-gynecology, rehab medicine, nephrology, radiology, laboratory, mental health unit, TB-Isolation. Its services are also offering outreach programs and caravans.

It specifically conducted studies on the different departments such as the Emergency Room, Out-Patient Department, Pediatric Wing, Operating Room, Delivery Room, Medicine Wing, Pedia-Medicine Extension, Oncology Ward, Secretary ONA Wing, Critical Care Unit Complex, Hemodialysis unit, TB Isolation, OB-Gyne Ward, Surgery Wing, OB-Gyne Ward, and Temporary Treatment Monitoring Facility.

As part of the community of nurses in this locality, the researcher wanted to understand fellow nurses' gender equality and caring behavior outcome measures in their respective hospitals. Therefore, this study was conducted in a public tertiary-level hospital in this area.

The study used a simple random sampling technique in selecting the respondents. A total of 147 respondents were the actual number of respondents. Using Slovin's formula, 154 respondents were selected for data gathering calculated with a P-95 level, 0.30 effect, and 0.05 significance level, were selected from a total number of nurses, which counts from 250 nurses in a designated public hospital but only 147 respondents were able to meet the criteria.

The following inclusion criteria were implemented: must be 18 years old and above must be employed in the selected public hospital regardless of their nature of employment, must be present, and must be willing to participate in the study during the data-gathering procedure. The following exclusion criteria were implemented: The participants should not be on any leaves or official businesses during the data-gathering process. This sampling technique belongs to the probability method, which gives fair and equal opportunity of being selected as respondents. Out of the target of 154 participants, only 147 were chosen during the data-gathering procedure. Seven selected participants don't meet the inclusion and exclusion criteria.

The study used a validated adopted survey questionnaire of three parts to gather data. This adapted questionnaire was validated by three experts in the field with a mean scale of 3.75 out of 5, which implies that the validators agreed and validated the questionnaires. Also, the adopted questionnaire was modified and subjected to pilot testing with 30 respondents and a reliability test using Cronbach's alpha. The results are as follows: Gender Equality is 0.941, Caring Behavior Indicators A and B is 0.930, and Caring Behavior Indicators C and D is 0.973. The overall mean of Cronbach's alpha was 0.948. The variables, which are gender equality and caring behavior, and their several subparts as indicators based on the following:

The first part is the demographic profile of the respondents, which includes the Age and gender of the respondents adapted from the existing study of Aydin and Bjork (2019) entitled "Nurses' Perceptions of Caring Behaviors in Clinical Practice: A questionnaire study with nurses in Vietnam."

The second part is made up of close-ended statements adopted from the existing study of Hsieh et al. (2022) entitled "Gender Equality in Employment among Health Care Undergraduate Students: A Cross-Sectional Survey" that describes the experiences of gender equality of respondents using different point scale with Cronbach's α 0.941 indicated good reliability of this scale. Gender equality in general assessment consists of 5 positive questions that can be answered by strongly agree, generally agree, somewhat agree, somewhat

disagree, generally disagree, and strongly disagree scored 6, 5, 4, 3, 2, and 1.

The third part will be about the caring behavior of nurses. The six-point Likert scale will be used as the basis of the selection of the respondents from the positive close-ended statements that include four indicators: Assurance of Human Presence, Knowledge and Skills, Respectful Deference of Others, Positive Connectedness adapted from the study of Aydin and Björk (2019) entitled "Nurses' perceptions of caring behaviors in clinical practice: A questionnaire study with nurses in Vietnam" with Cronbach's α 0.96 indicated good reliability of this scale The higher the score, the more positive is the caring behavior. The questions can be answered by never, seldom, occasionally, almost always, and always scored by 1, 2, 3, 4, 5, 6.

The researcher wrote a letter to the Program Chair of the Master of Arts in Nursing to ask for permission to conduct the study. After the approval, the adopted questionnaire from the existing research of Aydin and Bjork (2019) entitled "Nurses' Perceptions of Caring Behaviors in Clinical Practice: A Questionnaire Study with Nurses in Vietnam" and the study of Hsieh et al. (2022) entitled "Gender Equality in Employment among Health Care Undergraduate Students: A Cross-Sectional Survey" was prepared, which was also validated by three experts. A pilot study was conducted to test its reliability as soon as the tool was validated. Results from this pilot study underwent Cronbach's alpha reliability testing. After establishing the validity and reliability of the research tool, the researcher obtained permission to conduct the study from the participating institution. Thus, it underwent the public hospital's research ethics committee. Subsequently, data gathering was followed, and a link leading to a Google Form was sent electronically to the study participants. The Google Form link consists of two main sections: the first section presented the electronic informed consent that was answerable by "I agree and understand" to signify voluntary participation before proceeding to the survey questionnaire. The second section contained the questionnaire of the study. All the data that was gathered was allocated, analyzed, and interpreted. Based on the results, conclusions and recommendations were drawn. The results of the study will be shared with the public hospital's CREC.

This study utilized a descriptive-correlational and comparative research design to determine the relationship between gender equality and caring behavior among nurses in a public hospital in Cotabato City. One hundred forty-seven respondents were chosen to participate in the study using the stratified random sampling method. In selecting the respondents, the following inclusion criteria were implemented: must be 21 years of age and above, must be employed in the designated public hospital regardless of their nature of employment, must not be on leave or in official transactions, and will have the willingness to participate in the study during the data gathering procedure. Also, this study only involved one selected public hospital within the locality. Nevertheless, the data gathering commenced in October 2023 and ended in November 2023.

Results and Discussion

Table 1. Respondents Demographic Profile

Demographic Profile		Frequency	Percentage (%)
Age			
18 to 25		19	12.93
26 to 35		100	68.03
36 to 45		22	14.97
56 to 65		6	4.08
	Total	**147**	**100.00**
Sex			
Male		36	24.49
Female		111	75.51
	Total	**147**	**100.00**

Table 1 represents the respondent's demographic profiles, such as Age, were recorded. One hundred forty-seven (147) nurses participated in the study. Also, frequency and percentage (%) were shown in the table. Noticeably, most respondents were under 26 to 35 years of age (68.03 %) or 100 nurses out of 147, followed by 36 to 45 years old were 22 nurses out of 147 (14.97 %), and the lowest number of nurses who responded were aged 56 to 65 were 6 out of 147 nurses with 4.08% of the total population. Most respondents were Female, with a frequency count of 111 out of 147 nurses (75.51 %), and the percentage for males was 24.49% or 36 of them were males out of 147.

Demographic aspects play a crucial role in healthcare and require attention towards developing customized approaches to involve nurses in the care of patients. Research indicates that gender equality is greatly influenced by factors such as Age. In addition, the Human Resource for Health in the Time of the COVID-19 Pandemic: Does (2021) indicated that the millennial generation, defined as individuals under 35, makes up 65 percent of the workforce in the health sector consisting of professional nurses. Furthermore, the study of Whitford et al. (2020) elaborated that female nurses in many health practice settings across nations continue to outnumber their male counterparts. In addition, according to the World Health Organization (2022), women make up approximately 90% of the nursing and midwifery workforce globally and close to 70% of all healthcare workers.

Moreover, Boniol et al., (2020) also stated that both men and women in the profession have issues with nursing's perceived femininity. This prevalent leadership gap between men and women in health will be bridged only by tackling structural barriers to women's advancement. The World Bank (2019) reported that gender equality orientations in nursing services are essential for healthcare professionals to enhance their gender sensitivity; therefore, it is indispensable to incorporate gender analysis and gender equality courses into the healthcare education program for nurses. The same idea was explained by Gauci et al. (2022), who conducted a gender pay gap analysis revealing that male nurses' favor remains evident in some countries, and faster career progression, irrespective of experience and qualifications, was noted. Female nurses' career progression remains stagnant as a result of career interruption.

Table 2. Level of Gender Equality of Nurses

Indicator	**Mean**	**Verbal Interpretation**
Gender Equality	5.36	The respondent's attitude towards gender equality in employment is acceptable.

Table 2 shows the level of gender equality in nursing practices. The results show the respondent's attitude towards gender equality in employment is acceptable (5.36). Also, nurses strongly agreed that both men and women are competent as nurse managers (5.53). Also, there is no gender stereotype in the employment status of nurses (5.12).

In terms of gender equality in employment, the results are in contrast with the results of the study of Gunn et al. (2019), who pointed out that most nurses are female across the world. Still, it is observable that there is a status quo in holding higher positions despite ongoing efforts to minimize the gender gap in nursing service. Despite the many perspectives adopted to examine, nurses are given lesser roles and more enormous responsibilities (Prosen, 2022). That is why he agrees with the objectives of the WHO (2023) towards empowering health personnel in attaining gender equality in the workplace.

Moreover, Boniol et al., 2020 also stated that both men and women in the profession have issues with nursing's perceived femininity. This prevalent leadership gap between men and women in health will be bridged only by tackling structural barriers to women's advancement. In addition, Das (2019) reported that gender equality orientations in nursing services are essential for healthcare professionals to enhance their gender sensitivity; therefore, it is indispensable to incorporate gender analysis and gender equality courses into the healthcare education program for nurses. The same idea was explained by Gauci et al. (2023), who conducted a gender pay gap analysis revealing that male nurses' favor remains evident in some countries, and faster career progression, irrespective of experience and qualifications, was noted. Female nurses' career progression remains stagnant as a result of career interruption. Similarly, Panda (2020) recommended that policy reform be done in clinical practice to support female nurses' career progression and equality in the workplace.

Table 3. Level of Caring Behavior of Nurses

Indicator	Mean	Verbal Interpretation
Assurance of Human Presence	5.29	The respondent's clinical practice toward caring behavior is excellent
Knowledge and Skills	5.45	The respondent's clinical practice toward caring behavior is excellent
Respectful Deference of Others	5.37	The respondent's clinical practice toward caring behavior is excellent
Positive Connectedness	5.05	The respondent's clinical practice toward caring behavior is exceptional
Overall	5.29	The respondent's clinical practice toward caring behavior is excellent

Table 3 shows the level of caring behavior of nurses. Based on the results, the overall mean of caring behavior of nurses was 5.29, implying that the nurses' level of caring behavior is excellent. Also, Knowledge and Skills had the highest mean score of 5.45, indicating that the nurse's attitude towards caring behavior regarding knowledge and skills is excellent. However, although generally agreed, the indicator Positive Connectedness had the lowest mean score (5.05) among other indicators.

In addition, assurance of human presence invokes nurses' caring behaviors that create a feeling of encouragement, confidence, and reassurance in patients and the ability to reduce patient anxiety, which coincides with the study of Kargar et al., 2021. Moreover, Modic et al. (2023) implied that the common thread to these definitions is that each

encompasses an aspect of caring. In addition, a fundamental component of nursing caring is "the work or practice of looking after those that cannot do it for themselves. Working as a nurse means preventing illness and promoting health, support, respect, and patient autonomy. Caring is a part of the profession. Patients and their health conditions are dynamic and need to be cared for as a unit of body and mind. Nursing and caring are interpreted differently, perceived differently at different places, and affected by other factors, as stated by Aydin and Bjork (2019).

Moreover, nurses' knowledge and skills agreed to the level of caring attitudes and behaviors correlated with education and work experience. Clinical nurses' knowledge and skills are valued. It is critical not just to offer comprehensive nursing care but also to improve and spread clinical Pueyo-Garrigues et al. (2022). Nursing is an art as well as a science. It includes collaborating with patients, families, and communities to improve physical, mental, and social well-being and spirit. They are a living, breathing, dynamic, therapeutic, and educational approach that aims to meet the community's needed health requirements (Aljarudi, 2022). In addition, Fukada (2018) emphasized that nurses must possess the abilities and personal characteristics required to efficiently perform their jobs while combining different factors such as information, procedures, attitude, thinking capacity, and values needed in certain circumstances.

Therefore, Defilippis et al. (2020) stated that professional codes emphasize Individuality, autonomy, dignity, privacy, and other values and obligations. Gallagher further on this set of 'objects' by introducing three components of a meaningful and professional approach to respect in nursing practice: acknowledgment, preservation, and involvement. Consideration has been researched in various contexts, including forensic psychiatric investigations on nurse-patient relationships (Tsunematsu et al., 2021). Nurse caring behavior is a necessary health service provision that enables building trust, creating close relationships with the patient, and contributing to the satisfaction of clients, as stated by (Vujanić et al., 2022).

Tennant (2023) said that positive connectedness is also active listening, a vital communication ability that entails actively participating in the discussion and comprehending the meaning of the words. Being completely present entails paying attention to nonverbal signs, keeping excellent eye contact, asking open-ended questions, reflecting on what you hear, and remaining patient. Consistency is a crucial aspect of communication. The feedback mechanism is the primary distinction between passive and active listening (Gonzalo, 2023). Actively hearing patients out shows respect for their wisdom and fosters trust. It enables doctors to take on the function of the dependable middleman who not only disseminates pertinent medical knowledge but also transforms it into alternatives consistent with patients' expressed values and goals. The only way for doctors and patients to jointly develop an effective treatment plan is through exchanging knowledge (Verjee, 2023).

Table 4. The Relationship Between Gender Equality and the Caring Behavior of Nurses

Variables		r	p-value	Remarks	Decision
Gender Equality	**Caring Behavior**	0.193	0.019	Significant	Reject H_o
	Assurance of Human Presence	0.215	0.009	Significant	Reject H_o
	Knowledge and Skills	0.162	0.049	Significant	Reject H_o

Respectful Deference of Others	0.198	0.016	Significant	Reject H_o
Positive Connectedness	0.178	0.040	Significant	Reject H_o

Table 4 shows the test of the relationship between Gender equality and the caring behavior of nurses in the public hospital. The table shows a weak positive significant relationship between gender equality and the caring behavior of nurses in a public hospital (r=0.193, p= 0.019), implying that the null hypothesis is not accepted. Also, the Assurance of Human Presence (r=0.215, p=0.009), Knowledge and Skills (r=0.162, p=0.049), Respectful Deference of Others (r=0.198, p=0.016), and Positive Connectedness (r=0.178, p=0.040) indicators had shown a significant relationship to Gender Equality.

This finding is consistent with the study of Heise et al. (2019); gender is a social construct that "refers to the culturally defined roles, responsibilities, attributes, and entitlements associated with being male or female in a given setting." The division of labor within the healthcare industry is significantly influenced by gender, which also plays a crucial role in determining workplace discrimination (Cottingham, 2019). The impact of gender equality on health care organizations has a significant effect on the quality service of nurses, which is considered their caring behavior and satisfaction with work (Bapapour et al., 2022).

Conclusion and Recommendations

Most respondents were 26 to 35-year-olds (68.03%), and most were female (75.51%). The respondent's level of gender equality in the workplace of nurses was absolutely acceptable. At the same time, most respondents strongly agreed that both men and women are competent as nurse managers. As well as there is no gender stereotype in the employment status of nurses. The respondent's caring behavior of nurses was excellent. Also, Knowledge and Skills indicated that the nurse's attitude toward caring behavior was excellent. There is a weak positive significant relationship between Gender equality and the caring behavior of nurses in public hospitals, implying that the null hypothesis is not accepted. Also, the Assurance of Human Presence, Knowledge and Skills, Respectful Deference of Others, and Positive Connectedness indicators had shown a significant relationship to Gender Equality.

This study shows that more nurses were women than men. There is an unequal number of genders in the profession which is why there is a big need to promote gender equality in the workplace such as regular implementation of gender and development programs in the Philippines. Remember, promoting gender equality in nursing research is an ongoing process that requires a commitment to diversity, equity, and inclusion. By incorporating these recommendations, you contribute to building a more comprehensive and representative body of nursing knowledge. Therefore, the caring behavior of nurses must be evaluated by the receiver of care which is the patients, and not only self-evaluated. The questionnaire of this study may be answerable by the clients. The future result may have a greater impact on assessing the caring behavior of nurses including their strengths and weaknesses to come up with a better plan in implementing quality care.

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Determinants of Staff Nurses' Work Engagement in Panabo City

Sheila May S. Cartoneros, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The study aimed to determine the work engagement of staff nurses in Panabo City. Using the predictive-correlational approach, the study was conducted on seventy-four (74) respondents who were conveniently selected or chosen. The study utilized a questionnaire adapted from the study of Chapman, 2017, which was validated and reliability tested, with Cronbach alpha results of 0.76. The findings revealed that the majority of respondents were female staff nurses with more than 5 years of experience, and earned a monthly salary of not exceeding Php20,000. Nurse teamwork was shown to be a significant predictor of work engagement, emphasizing its role in fostering dedication and passion among staff nurses. However, the study revealed a notable sense of discouragement among nurses regarding salary and benefits. Furthermore, the study reveals a significant association between the socio-demographic "sex and length of service" with the level of work engagement, but no significant association between "age and monthly salary". In addition, the study revealed that staff nurses' sex and length of service significantly influenced their work engagement. Thus, it is recommended to implement continuous training programs, feedback mechanisms, and supportive management styles. Additionally, periodic evaluations of salary and benefits structures should be conducted to promote staff nurses' retention and satisfaction. These evaluations may include exploring opportunities for professional development incentives.

Keywords: *Work Engagement, Social Science, Predictive-correlational, Panabo City.*

Corresponding email: shecartoneros@gmail.com

Introduction

In the rapidly evolving healthcare sector, the effectiveness and quality of patient care are deeply intertwined with the engagement levels of frontline healthcare workers. Among these professionals, staff nurses play a pivotal role in healthcare delivery, with their dedication and enthusiasm directly influencing patient outcomes and organizational performance.

Within healthcare organizations, the persistent issue of high turnover rates among nurses has garnered extensive attention (Pedrosa et al., 2020). This challenge is compounded by the ever-expanding global

population and the escalating demands on healthcare services, resulting in an urgent requirement for healthcare professionals (Szilvassy & Širok, 2022). Labor force projections paint a picture of substantial growth across various sectors, notably in healthcare. As a consequence, a global shortage of healthcare workers is anticipated to materialize over the next two decades (Lalu, 2023). This shortage is already glaringly evident in Slovenia, where a severe deficiency of nurses persists, as reported by the Nurses and Midwives Association of Slovenia (2020).

Meanwhile, the nursing workforce in the Philippines faces pressing challenges that hamper engagement, including heavy workloads due to understaffing, limited career advancement pathways, and migration of nurses to other countries offering higher pay (Alibudbud, 2023). This leads to workforce shortages, lack of continuity of care, and a high financial burden on the Philippine healthcare system to continually develop new nurses. Studies show that the majority of nurses in the Philippines exhibit moderate to high levels of burnout—a marker of low work engagement (Buchan & Catton, 2020).

The concept of work engagement emanates from positive psychology, which emphasizes the positive resources and strengths of individuals, rather than their limitations (Luthans, 2007). The absence of proper cultivation of work engagement within a healthcare organization can result in diminished service quality provided to patients (Kingma, 2007). Thus, the rampant turnover and migration among nurses in different hospitals in Davao del Norte, particularly in Panabo City, hold significant importance. Apart from the issue of low compensation offers and other factors in these hospitals, the absence of sustainable programs and strategies to maintain a highly motivated team is also a pressing concern.

The study of Alfifi et al. (2019) has successfully identified positive and significant correlations between personal attributes, organizational factors, and leadership factors with work engagement among staff nurses, there is a noticeable gap in understanding the specific interventions that can effectively enhance work engagement. Wei et al. (2023) explore the impact of organizational culture, interprofessional collaboration, and leadership types on work engagement, job satisfaction, and patient care qualities. Thus, investigating these factors would provide a more comprehensive understanding of the complex interplay between organizational dynamics and individual outcomes in healthcare settings. Kim & Seo (2021) emphasize the mediating and moderating roles of person-centered nursing, there is also a need for in-depth exploration into specific mechanisms through which person-centered nursing influences the quality of nursing services.

In light of these considerations, this study seeks to determine staff nurses' work engagement that will profoundly influence hospital management, fostering a comprehensive understanding of the significance of work engagement among their nurses and its practical application. Furthermore, it aims to conclude and interpret data through surveys and focus group discussions, benefiting both the healthcare professionals and the organizations themselves. This initiative serves as an enlightening step for healthcare organizations, urging them to cultivate a culture and climate that prioritizes the well-being of their employees.

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Methods

The study employed a predictive-correlational approach, which refers to a type of quantitative research method that looks at the association between variables to make predictions (Rosetta, 2018).

The study was conducted from November to December 2023 in Panabo City, a 3rd class component city situated in the province of Davao del Norte. Seventy-four (74) staff nurses from Panabo City comprised the actual respondents. These respondents were selected using a convenience sampling method, where the researcher selected the respondents based on their ease of accessibility and availability. The researcher adapted the questionnaire from Chapman, 2017. The questionnaire consisted of two parts. The first part gathered socio-demographic information about the respondents, including sex, age, length of service, and monthly salary. The second part comprised 45 questions designed to assess the respondents' perception of work engagement predictors. This was measured using a 5-point Likert Scale: 5 – strongly agree, 4 – agree, 3 – undecided, 2 – disagree, and 1 – strongly disagree. The mean score served as the determinant for interpreting whether the staff nurses' engagement was very high, high, moderate, low, or very low. The second part of the researcher-adapted questionnaire underwent reliability testing using Cronbach's alpha with a result of 0.76 to ensure validity and consistency. Each of the four aspects of the socio-demographic profile was examined.

The statistical analysis was conducted using a predictive-correlational approach with the following: Frequency and Percentage were used to determine the socio-demographic profile such as sex, age, length of service, and monthly salary of the staff nurses. Mean and Standard Deviation (SD) was used to determine the level of work engagement of staff nurses. Chi-square was used to test the association between the socio-demographic profile and the level of work engagement of staff nurses. Cramer's Vaue was used to measure the strength of association. Multiple Linear Regression was used to determine and understand the association between the socio-demographic profile and level of work engagement of staff nurses in Panabo City.

Results and Discussion

Table 1. Socio-demographic profile of the respondents

Demographic Profile		Frequency (n=74)	Percent (%)
Sex:	Male	19	25.70
	Female	55	74.30

	Total	**74**	**100**
Age:	22-30 years old	19	25.70
	31-40 years old	49	66.20
	41-50 years old	6	8.10
	51-60 years old	0	0.00
	60 years old and above	0	0.00
	Total	**74**	**100**
Length of Service	<6 months	12	16.20
	6 months - 1 year	3	4.10
	1 - 2 years	18	24.30
	3 - 5 years	13	17.60
	>5 years	28	37.80
	Total	**74**	**100**
Monthly Salary (in Philippines Peso)	<10,000	1	1.40
	10,001 - 15,000	8	10.80
	15,001 - 20,000	48	64.90
	20,001 - 25,000	11	14.90
	>25,000	6	8.10
	Total	**74**	**100**

Out of the 74 respondents, fifty-five (55) were female, accounting for 74.30%, while nineteen (19) were male, making up 25.70% of the total respondents.

In terms of age, forty-nine (49) of the respondents are between 31 to 40 years old which is 66.20% of the total. Nineteen (19) or 25.70% of them fall into the 22-30 age group and six (6) or 8.10% are aged between 41 to 50 years old. There are no respondents aged 51 years or older.

For the length of service, a significant portion of the respondents demonstrated extensive work experience, with 37.80% (28) having been employed for more than 5 years out of the total 74 respondents. Following closely, 24.30% had 1 - 2 years of service, and 17.60% had 3 – 5 years of service. Those with less than 6 months and 6 months to 1 year of service comprised 16.20% (12) and 4.10% (3) of the sample, respectively. These findings indicate that, experience-wise, over 70% of the staff nurses in Panabo City possess considerable expertise, having accumulated more than one year of service.

Moreover, the distribution of monthly salaries indicates that a significant number of respondents earned between 15,001 and 20,000 pesos, comprising 64.90% (48) of the total respondents. Additionally, 14.90% (11) and 10.80% (8) of the respondents reported earning around 20,001 to 25,000 pesos and 10,001 to 15,000 pesos, respectively. A smaller proportion of respondents fell into the brackets of a monthly salary exceeding 25,000 pesos (8.10% or 6) and less than 10,000 pesos (1.40% or 1). These findings indicate that nearly 80% of the staff nurses have a monthly salary not exceeding Php 20,000.

Table 2. Level of work engagement among respondents

Indicators	Mean	SD	Description
Passion for Nursing	4.46	0.51	Very High
Personal Growth	4.26	0.55	Very High
Recognition	4.11	0.53	High
Manager Action	4.15	0.56	High
Work Environment	3.94	0.64	High
Salary and Benefits	3.79	0.68	High
Autonomy and Input	4.23	0.44	Very High
Non-Nurse Teamwork	4.39	0.50	Very High
Nurse Teamwork	4.50	0.49	Very High

Overall	**4.20**	**0.43**	**High**

Legend: 4.21 – 5.00-Very High; 3.41 – 4.20-High; 2.61 – 3.40-Moderate; 1.81 – 2.60-Low; 1.00 – 1.80-Very Low.

The presented table illustrates the extent of work engagement among survey respondents across various indicators, encompassing passion for nursing, personal growth, recognition, manager action, work environment, salary and benefits, autonomy and input, non-nurse teamwork, and nurse teamwork. The overall mean score of 4.20, denoted as 'high,' is accompanied by a standard deviation of 0.43, indicating a generally contented sentiment among respondents regarding their overall work engagements.

Nurse Teamwork has the highest rating among all the indicators, attaining a mean score of 4.50 with a standard deviation of 0.49. This score aligns with the 'very high' descriptive value, suggesting a commendable level of teamwork within their team. Costa et al., (2015) said that engaged workers are more inclined to help their colleagues. At the team level, teamwork engagement is positively associated with team performance. Following closely is Passion for Nursing, achieving a mean score of 4.46 and a standard deviation of 0.55, also aligning with the 'very high' descriptor. This underscores the respondents' dedication to their nursing profession. The research by Luo et al., (2014) found that nurses tend to have a strong enthusiasm and dedication towards their work. When nurses feel passionate about their jobs, they are more productive

employees and contribute to a more cohesive health team overall.

Non-nurse Teamwork emerges as another notable indicator, boasting a mean score of 4.39, classified as 'very high,' and a standard deviation of 0.50. This indicates a willingness among departmental workers to extend assistance and treat colleagues with respect, fostering a collaborative environment. Kaiser and Westers (2018) increased teamwork has a positive effect on job satisfaction, staffing efficiencies, and retention and care delivery.

Personal growth obtained a mean score of 4.26, which is described as ‘very high’ with a standard deviation of 0.55. This indicates that personal growth among respondents is linked more closely to defining and actively pursuing career ambitions and goals. Following closely is the Autonomy and Input which garnered a mean score of 4.23, described as 'very high,' with a standard deviation of 0.44, showcasing a workplace where employees enjoy the freedom to set goals and contribute ideas to problem-solving and decision-making processes. According to Lars et al., (2018), leaders’ good attitude toward subordinates increases their energy to work by giving them autonomy and good communication in that way they feel that they belong to the team.

Manager Action achieved a mean score of 4.15, labeled as 'high,' with a standard deviation of 0.56. During the discussion, there was a generally positive perception of communication between leaders and staff, with most respondents agreeing that managers and heads were approachable and easy to communicate with. However, there was a notable level of uncertainty among respondents about whether management recognized good job performance, with some indicating that they were undecided due to limited interactions with their superiors. The respondents unanimously agreed that supervisors and staff maintained a good working relationship, emphasizing a strong sense of collaboration. When it came to trust from senior managers, opinions varied, with some expressing confidence, particularly in nursing services, while others had reservations, citing varying levels of trust from different hierarchical levels. Additionally, there was some uncertainty and differences of opinion regarding bias within the organization, with one respondent indicating a perception of favoritism toward the nursing department. Overall, the staff nurses conveyed a mixed but generally positive sentiment toward their managerial interactions, emphasizing the

importance of communication, recognition, and trust in fostering a positive work environment.

Foster (2017) said that manager action plays a vital role in shaping organizational culture. It has the most direct influence on employees by carrying the responsibility for aligning the performance of their department. Leaders play a big part in employee work engagement by influencing employee personal and job resources (Breevaart et al., 2014). This would again relate to the statement of Pavlish and Hunt (2012) on the role and importance of the head nurse's development that needed to be passed on to their staff nurses.

Recognition, with a mean score of 4.11 and a 'high' classification, along with a standard deviation of 0.53, indicates satisfaction among respondents with the recognitions bestowed upon them by the employer. A motivated person has successful personal growth and has the willingness to strive to make a change for the betterment of themselves and the company (Sasson, 2019). Andriotis (2018) pointed out that before an employee is motivated, employers should recognize the employee's exemplary performance. It is also designed to reinforce particular behaviors, practices, or activities that result in a better outcome. Recognition is a key to igniting motivation but is not the critical reason.

Work Environment received a mean score of 3.94, described as 'high,' and a standard deviation of 0.64, suggesting a generally secure and safe organizational work environment. The staff nurses' perceptions of the work environment reveal a mix of sentiments. While some respondents express satisfaction with the organization's safety measures, citing a clean and well-maintained facility, there is a notable difference in opinions regarding job security. New employees express uncertainty about the adequacy of their benefits and overall security, while others feel content with their current conditions. When it comes to the organization's concern for employee welfare, responses are divided, with some acknowledging the efforts during challenging times, particularly in the context of the COVID-19 pandemic, while others, especially new hires, express uncertainty due to a lack of visibility into the organization's initiatives. The nurses are also undecided about the organization's social responsibility and financial stability, with concerns raised about the availability of resources in the hospital.

According to Mohd et al., (2016), the work environment has a great impact on employees' engagement to work. It also emphasizes that employees be free to contribute or speak for the improvement of the organization. Anita (2017) highlighted that a good environment attracts employees to stay longer especially if they feel safe in the organization they are working with.

The indicator with the lowest mean score is Salary and Benefits, obtaining a score of 3.79, categorized as 'high,' with a standard deviation of 0.68. The discussion reveals a diverse range of opinions among the staff nurses regarding their compensation and benefits. Some respondents expressed contentment with their salary and allowances, emphasizing that they align with their responsibilities. Some highlight dissatisfaction, arguing that their experience and long tenure should warrant a higher salary. Interestingly, when it comes to the perceived fairness of compensation relative to workload, all respondents unanimously agree that they are compensated fairly. However, a notable point of contention emerges regarding healthcare benefits, as all respondents express uncertainty and dissatisfaction due to the absence of healthcare benefits, including coverage for family members. The sentiment toward paid leave benefits is mixed, with some respondents undecided and one noting a lack of personal experience. Overall, the staff nurses seem divided in their perceptions, with varying levels of satisfaction and dissatisfaction concerning different aspects of their salary and benefits package. This suggests a need for further exploration and potential improvements in certain areas to address the concerns raised by the participants. According to Karatepe (2013),

good compensation has a positive correlation to work engagement. A well-compensated employee works hard because they believe that a very good outcome has a good remuneration.

Table 3. Test of association between socio-demographic profile and level of work engagement using Chi-square analysis

Socio-Demographic Profile	Work Engagement				
	x^2	p	φ_c	Decision	Remarks
Sex	0.352	0.010*	Moderate	Reject H_{o1}	Significant
Age	0.158	0.45	Weak	Accept H_{o1}	Not Significant
Length of Service	0.407	0.002*	Moderate	Reject H_{o1}	Significant
Monthly Salary	0.247	0.339	Weak	Accept H_{o1}	Not Significant

Note: Significant if $p<0.05$; φ_c – Cramer's V

Table 3 presents the correlation analysis between the socio-demographic profiles of the respondents, sex, age, length of service, monthly salary, and their work engagement using Chi-square Cramer's V method. This statistical approach is employed to assess the association between two nominal variables. The null hypothesis, asserting no significant association between the socio-demographic profile and the level of work engagement, is rejected if the p-value falls below the predetermined level of significance, $\alpha=0.05$.

In the provided table, the p-values for sex and length of Service are 0.010 and 0.002, respectively. These results indicate the rejection of the null hypothesis for these variables since the p-value is less than the level of significance 0.05. Moreover, for sex, the Cramer's V value is 0.352, this suggests a moderate strength of association. It implies that sex has a moderate effect or association with work engagement. In addition, for length of service, the Cramer's V value is 0.407. This also indicates that it has a moderate strength of association. It means that the length of service moderately influences work engagement.

Therefore, there is a significant association between the sex and the level of work engagement of the respondents. Specifically, our analysis indicates that female respondents demonstrate a notably high level of work engagement compared to men. This observation suggests a potential gender-based difference in the factors influencing or contributing to work engagement levels within the surveyed population.

Moreover, there is also a significant association between the length of service and the level of work engagement of the respondents. This suggests that as their length of service increases, there is a corresponding elevation in their level of work engagement.

During the focus group discussion, staff nurses' perceptions on various aspects of their workplace reveal a spectrum of sentiments, largely influenced by their lengths of service. A recurring theme emerges among those who are relatively new to the organization, with a sense of uncertainty prevalent in their responses. A newcomer expresses indecision regarding management recognition, job security, and organizational concern for employee welfare, citing a lack of familiarity due to their recent employment. On the other hand, more tenured staff

members, convey a desire for increased compensation based on their experience and years of service. The differences in opinions highlight a potential gap in communication or clarity between management and newer employees, emphasizing the need for effective onboarding processes and transparent communication channels to foster a more cohesive and engaged workforce.

Table 4. The Influence of Socio-Demographic Profile on Respondents' Level of Work Engagement

Socio-demographic Profile	B (Unstandardized Coefficient)	β (Standardized Coefficients)	t-value	p-value
Constant	4.13		13.669	0.000**
Sex	0.194	0.200	1.932	0.057
Age	-0.148	-0.501	-4.812	0.743
Length of Service	0.098	0.180	1.719	0.000**
Monthly Salary	-0.027	-0.035	-0.329	0.090

Note: Significant if p<0.05; DV=Work Engagement; R2=0.299; and F-ratio=7.371

Shown in Table 4 are the regression coefficients to test the influence of the socio-demographic profile of the respondents and their level of work engagement. Through Multiple Linear Regression Analysis, the data reveals a significant influence of socio-demographic profiles on work engagement, with an F-value of 7.371 and a corresponding p-value of 0.000.

These findings suggest that the socio-demographic factors, specifically sex and length of service, significantly contribute to influencing the work engagement of the respondents, given their p-values below the designated significance level α=0.05. The R2 value of 0.299 indicates that 29.9% of work engagement indicators can be attributed to socio-demographic profiles, while the remaining 70.1% are influenced by other factors. The overall result reveals that the socio-demographic profile influences the work engagement of the respondents.

Many studies reveal a strong connection between nurses' attributes and backgrounds and their level of engagement at work. Nationality, years on the job, shift schedule, and unit assigned impact engagement (Alfifi et al., 2019). Other influential factors include age, relationship status, having children, position type and rank, intention to leave, workplace culture, and interpersonal relations (Nakamura and Yoshioka, 2016). Furthermore, a nurse manager's support emerges as a major predictor of work engagement (Othman and Nasurdin, 2013), and backing from both supervisors and fellow nurses can strengthen the link between engagement and job satisfaction (Orgambídez-Ramos and De Almeida, 2017). These discoveries spotlight the value of factoring socio-demographic qualities and social support into efforts to encourage nurse engagement.

During the focus group discussion with staff nurses from various departments and hospitals, socio-demographic profile's influence on work engagement, the discussion reveals diverse opinions and experiences, emphasizing the need for further exploration to determine any significant associations. Overall, the nurses' perceptions reflect a complex interplay of factors that contribute to their overall work engagement within the healthcare organization.

Conclusion and Recommendations

In conclusion, the demographic composition of staff nurses in Panabo City indicates a predominance of females, comprising 74.30% of the respondents. In addition, the majority of staff nurses possess considerable experience, with 70% having more than 1 year of service. Moreover, nearly 80% of the staff nurses earn a monthly salary of not higher than Php20,000.

Regarding the predictors of work engagement, nurse teamwork emerged as the most influential factor, as evidenced by its highest mean score of 4.50. Conversely, autonomy and input received the lowest mean score of 4.23. In terms of overall satisfaction ('high' descriptive value), manager action received the highest mean score of 4.15, while salary and benefits obtained the lowest mean score of 3.79.

The analysis reveals a significant association between certain socio-demographic profiles (specifically, sex and length of service) and the predictors of work engagement. This rejection of the null hypothesis for these variables suggests that they play a significant role in influencing the level of work engagement among staff nurses. However, there is no significant association found between age, monthly salary, and the predictors of work engagement.

The study demonstrates a substantial influence of socio-demographic profiles on work engagement, supported by a statistically significant F-value of 7.371 and a corresponding p-value of 0.000. This underscores the importance of factors such as sex and length of service in shaping the work engagement of staff nurses in Panabo City.

Healthcare organizations should develop structured programs for continuing passion and growth among nurses by providing regular training and development opportunities, career progression pathways, and supporting nurses in pursuing higher qualifications and specializations. This will enhance their personal growth as well as competence.

Regular feedback mechanisms between staff and management to proactively address workplace environment concerns can improve nurses' perceptions of the overall functioning and culture at their health facility.

Nurse Managers need to adopt a supportive and empowering management style that allows nurses more autonomy and involvement in decision-making about their work. This can improve engagement levels.

Financial incentives have less influence on intrinsic engagement, salary structures and benefit policies should be periodically re-evaluated to ensure continued attraction and retention of experienced nurses who tend to show higher engagement.

For future researchers, it is recommended to conduct the study on a larger scale and longer duration with standardized data collection tools to promote large sample replication studies on determinants of staff nurses' work engagement.

Further exploration to determine other factors affecting the level of work engagement. It could involve in-depth interviews, or surveys aimed at overlooked factors that may influence the work engagement among staff nurses. These factors could include organizational culture, leadership styles, communication channels, compensation-related variables, workload distribution, or personal well-being.

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Leadership Behaviors and Staff Nurses' Work Role Functioning in Selected Level I Hospitals in Tacurong City

Francisjames S. Dajay, RN

Davao Doctors College Inc.

Davao City, Philippines

Abstract

This study examined leadership behaviors and staff nurses' work role functioning in level-one hospitals in Tacurong City, Sultan Kudarat. Using a descriptive-predictive research design, 140 staff nurses participated. The questionnaire underwent Content Validity Index and validity and reliability testing, resulting in Cronbach's alpha and McDonald's Omega scores of 0.963 and 0.964, respectively. Normality tests using Kolmogorov-Smirnov and Shapiro-Wilk tests indicate that the distributions significantly deviate from normality ($p<0.001$). The study found that nurses perceive their leaders as consistently demonstrating task- and relationship-oriented behaviors. Staff nurses find their work roles manageable, with physical demands being the most frequent challenge. Social and mental demands are perceived as less problematic. In addition, a significant negative relationship exists between leadership behaviors and work role functioning. While leadership behaviors substantially impact work role functioning, task-oriented do not significantly influence it. In contrast, relationship-oriented behaviors negatively impact work role functioning. Future research could explore this relationship further using qualitative or mixed methods.

Keywords: *Work Role Functioning, Social Science, Descriptive-Predictive, Tacurong City*

Corresponding email: francisjamesdajay29@gmail.com

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Introduction

In healthcare organizations, staff nurses form the backbone of the workforce, directly impacting patient care through their ability to function effectively (Specchia et al., 2021). However, staff nurses face many challenges, including high workloads, psychological distress, and inadequate support, often linked to poor leadership practices (Razu et al., 2021; Megan, 2021). This creates a domino effect, leading to decreased productivity, increased nurse turnover, and, ultimately, a decline in the quality of patient care (Labrague, 2021).

The adverse impact of poor leadership and demanding working conditions on healthcare workers is evident globally. Razu et al. (2021) reported that healthcare workers experienced heightened workloads, psychological distress, social exclusion/stigmatization, lack of incentives, lack of coordination, and inadequate management during their service. In the United Kingdom, Megan (2021) found that a substantial proportion of nurses reported their mental health and well-being as "poor" or "very bad," often attributed to inadequate support from their superiors. In addition, leaders' negative behavior directly influences employees to leave their jobs, contributes to feelings of alienation at work, reduces their commitment, and frequently creates serious psychological and physical problems.

Recent studies in the Philippines have underscored the detrimental effects of toxic leadership in nursing, revealing an increase in adverse events and a decline in care quality (Labrague, 2021). Toxic work environments, marked by harassment and bullying, result in lower productivity. In these settings, depression acts as a significant mediator (Rasool et al., 2019). The impact of such environments extends beyond employee well-being to patient safety and care standards. These findings highlight the critical importance of positive leadership styles in healthcare. Positive leadership significantly enhances job satisfaction among nurses. Furthermore, it improves patient care and healthcare outcomes (Di Pilla et al., 2021).

While previous research by Razu et al. (2021) and Megan (2021) has highlighted the negative impacts of poor leadership on healthcare workers, such as increased workloads, psychological distress, and low productivity, there is a lack of empirical evidence explicitly focusing on the relationship between leadership behaviors and the work role functioning of staff nurses. Although studies by Labrague (2021) and others have noted the detrimental effects of toxic leadership, further research is needed to explore how various leadership behaviors might influence nurses' ability to perform their roles effectively (Abalkhail, 2022). Thus, this study aims to determine the level of leadership behaviors and staff nurses' work role functioning and ascertain the relationship between leadership behaviors and nurse role functioning in selected level one (1) hospitals in Tacurong City, Sultan Kudarat. The result of this study will serve as a reference to the knowledge gap mentioned above and the basis for organizational improvement efforts.

Methods

This study utilized a descriptive-predictive design. According to Siedlecki (2020), descriptive studies aim to describe individuals, events, or conditions by

observing them naturally occurring. Conversely, a predictive design focuses on forecasting or predicting future outcomes based on existing data. This type of research aims to establish relationships between variables and develop models for predicting future events or trends (Witteloostuijn et al., 2022). The descriptive phase of the study focused on describing the level of leadership behaviors and staff nurses' work role functioning, while the predictive phase aimed to establish the relationship between leadership behaviors and work role functioning.

The study's respondents are the staff nurses employed in selected level one (1) hospitals in Tacurong City, Sultan Kudarat. A stratified sampling technique was used and a power analysis was performed to determine the sample size. A total number of 140 were chosen among 206 staff nurses. The following inclusion criteria have been observed: must be 18 years of age and above, be full-time employed as a staff nurse in one of the hospitals mentioned above, and be willing to participate in the study.

The data needed for this study were gathered using a three-part questionnaire. The first part identified the demographic profile for profiling purposes only.

The second part of the questionnaire is an adapted questionnaire that comprises 20 questions that determined the leadership behaviors of staff nurses' immediate supervisors in task-oriented behaviors (10 items) and relationship-oriented behaviors (10 items). The questionnaire underwent Content Validity Index (CVI) and validity and reliability testing, resulting in Cronbach's alpha and McDonald's Omega scores of 0.950 and 0.949, respectively. Normality tests using Kolmogorov-Smirnov and Shapiro-Wilk tests indicate that the distributions significantly deviate from normality ($p<0.001$).

The third part of the questionnaire is an adapted questionnaire that comprises 27 questions that will determine the work role functioning of staff nurses in terms of work schedule (4 items), output (6 items), physical (5), mental (7 items), and flexibility demands (5 items). The questionnaire underwent Content Validity Index and validity and reliability testing, resulting in Cronbach's alpha and McDonald's Omega scores of 0.963 and 0.964, respectively. Normality tests using Kolmogorov-Smirnov and Shapiro-Wilk tests indicate that the distributions significantly deviate from normality ($p<0.001$).

The Mean was used to determine the participants' overall levels of leadership behaviors and work role functioning. To assess the spread or variability in these responses, the Standard Deviation was utilized, revealing the consistency or disparity in the data. Spearman's rho, a non-parametric test, was utilized to measure the direction and strength of the relationship between the two variables. Lastly, Kernel Regression provided a detailed analysis of how different leadership behaviors specifically influenced work role functioning, offering deeper insights into their impact.

Results and Discussion

Table 1. Leadership Behaviors

Leadership Behaviors	M	SD	Interpretation
Task-Oriented	4.43	0.49	Always

Relationship-Oriented	4.48	0.41	Always
Over-all	**4.46**	**0.36**	**Always**

Legend: 1.0-1.80-Never; 1.81-2.60-Seldom; 2.61-3.40-Occationally; 3.41-4.20 Often; 4.21-5.00-Always.

Presented in Table 1 is the level of work role functioning of staff nurses in terms of work schedule demands, output demands, physical demands, mental and social demands, and flexibility demands. The overall mean score for work role functioning among staff nurses was 1.73 (SD = 0.49), falling within the "never" difficulty category. This indicates that, in general, nurses perceive their work roles as manageable and not overly challenging across various demands. The highest mean score was observed for physical demands (M = 1.87, SD = 0.64), suggesting that while physical demands are not a constant issue, they are the most frequent challenge nurses encounter. On the other hand, social and mental demands (M = 1.61, SD = 0.67) were rated as the least difficult aspect of work roles. These findings suggest that while nurses generally find their workloads manageable, interventions targeting physical demands may be beneficial to improve their work experience and well-being further. Since social and mental demands were rated as less problematic, this could indicate that existing support systems in these areas are effective.

Supportive findings from a study during the COVID-19 pandemic suggest that physical and mental demands, although significant, remained manageable (Al Maqbali et al., 2021). This aligns with the findings that nurses generally do not find their roles overwhelmingly difficult. Additionally, another research claims that while job demands are notable, the availability of effective job resources such as social support and leadership aids in mitigating these demands (Magnusson Hanson et al., 2020).

Contradictory findings include a study using activity trackers, which showed high physical activity levels required during shifts, suggesting that physical demands might be underreported in other settings (Johansson et al., 2020). Moreover, broader reviews of nursing workloads have consistently shown a correlation between high job demands and burnout, indicating that in some environments, these demands may be more acutely felt than suggested by the survey data (Maslach et al., 2021).

Table 2. Work Role Functioning

Work Role Functioning	M	SD	Interpretation
Work Schedule Demands	1.78	0.61	Never
Output Demands	1.73	0.57	Never
Physical Demands	1.87	0.64	Seldom
Social and Mental Demands	1.61	0.67	Never
Flexibility Demands	1.68	0.62	Never
Overa-all	**1.73**	**0.49**	**Never**

Legend: 1.0-1.80-Never; 1.81-2.60-Seldom; 2.61-3.40-Occationally; 3.41-4.20 Often; 4.21-5.00-Always.

Presented in Table 2 is the level of work role functioning of staff nurses in terms of work schedule demands, output demands, physical demands, mental and social demands, and flexibility demands. The overall mean score for work role functioning among staff nurses was 1.73 (SD = 0.49), falling within the "never" difficulty category. This indicates that, in general, nurses perceive their work roles as manageable and not overly challenging across various demands. The highest mean score was observed for physical demands (M = 1.87, SD = 0.64), suggesting that while physical demands are not a constant issue, they are the most frequent challenge nurses encounter. On the other hand, social and mental demands (M = 1.61, SD = 0.67) were rated as the least difficult aspect of work roles. These findings suggest that while nurses generally find their workloads manageable, interventions targeting physical demands may be beneficial to improve their work experience and well-being further. Since social and mental demands were rated as less problematic, this could indicate that existing support systems in these areas are effective.

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Table 3. Relationship between leadership behaviors and the Work Role Functioning

Parameters	Correlation Coefficient	p-value	Interpretation	Decision
Leadership behaviors	-0.37	<0.001	Significant	Reject Ho1
Work Role Functioning	-0.37	<0.001	Significant	Reject Ho1

Table 3 indicates a significant negative relationship between leadership behaviors and work role functioning (r = -0.37, p-value <0.001). This means a statistically significant correlation exists between the two variables, such that lower leadership behaviors are associated with lower work role functioning. In other words, it suggests that employees who perceive their leaders as exhibiting less desirable leadership behaviors tend to report lower work role functioning.

This aligns with Alsaadan et al. (2023) assertion that effective nursing leadership positively impacts nurses' motivation and performance perceptions. It's also interesting to note the nuances in how leadership behaviors can affect employee outcomes. For example, Chen et al. (2020) claim that employees who perceive their leaders as helpful experience greater thriving at work, suggesting that supportive leadership enhances employee experiences and performance. On the other hand, Hancock (2021) suggests that the relationship between leader behavior and employee performance might be more complex, highlighting the need for further research in this area.

Table 4. Influence of Leadership Behaviors on Work Role Functioning

Domains	Observed Estimate	Boostrap SE	z	p-value	Remarks	Decision
Mean Work Role Functioning Effect	1.739745	0.0490665	35.46	0.001	Highly Significant	Reject Ho2
Leadership Behavior in Terms of Task	-0.0246917	0.1008728	-0.24	0.807	Not Significant	Accept Ho2
Leadership Behaviors in Terms of Relationship	-0.2851436	0.1273316	-2.24	0.025	Significant	Reject Ho2

R-squared = 0.1861

Table 4 presents a statistical analysis examining the influence of leadership behaviors on work role functioning. The overall model yielded an R-squared value of 0.1861, indicating that approximately 18.61% of the variance in work role functioning can be explained by the leadership behaviors under investigation. Regarding the Mean observed estimate, the work role functioning score was 1.739745, with a bootstrap standard error of 0.0490665. This estimate was highly significant ($z = 35.46$, $p < 0.001$), suggesting a substantial impact of leadership behaviors on the work role functioning of staff nurses.

However, the results diverged when examining the effects of specific leadership behaviors. The observed estimate for leadership behaviors in terms of task-oriented was -0.0246917, with a bootstrap standard error of 0.1008728. This effect was not statistically significant ($z = -0.24$, $p = 0.807$), indicating that leadership behaviors in terms of task-oriented do not significantly influence work role functioning. In contrast, the observed estimate for leadership behaviors in terms of relationship-oriented was -0.2851436, with a bootstrap standard error of 0.1273316. This effect was statistically significant ($z = -2.24$, $p = 0.025$), suggesting that leadership behaviors in terms of relationship-oriented negatively impact work role functioning among staff nurses.

These findings highlight the nuanced nature of leadership behaviors and their differential effects on work role functioning within nursing contexts. The questionnaire underwent Content Validity Index and validity and reliability testing, resulting in Cronbach's alpha and McDonald's Omega scores of 0.963 and 0.964, respectively. Normality tests using Kolmogorov-Smirnov and Shapiro-Wilk tests indicate that the distributions significantly deviate from normality ($p<0.001$). While leadership task behaviors may not directly affect performance, leadership responsibility behaviors seem to play a significant role in shaping the functioning of staff nurses in the work role. Recent studies have found that transformational leadership, which integrates task and relationship behaviors, is associated with positive outcomes in healthcare settings. For instance, Gebreheat et al. (2023) found that transformational leaders significantly improve job satisfaction and patient care quality by motivating and supporting nursing staff. However, other research suggests that certain leadership styles can have adverse effects depending on the context. For example, Brown (2024) reported that relationship-focused leadership might reduce operational efficiency in high-pressure healthcare environments, contradicting the notion that more relationship-oriented leadership is universally beneficial.

Conclusion and Recommendations

The findings suggest that staff nurses perceive leadership behaviors as consistently demonstrated, with both task-oriented leadership behaviors receiving high and similar mean scores. The low standard deviations indicate a uniform perception among the nurses.

Staff nurses generally do not experience difficulty in their work roles, with the highest mean score being physical demands. This indicates that while physical demands are not a constant issue, they are the most common challenge. Social and mental demands are less problematic for nurses.

A notable negative relationship exists between leadership behaviors and work role functioning. This suggests that as leadership behaviors improve, the difficulties in work role functioning decrease.

Task-oriented leadership behaviors do not significantly influence work role functioning, whereas relationship-oriented leadership behaviors negatively impact work role functioning among staff nurses.

Based on the findings that were gathered, the following recommendations were made. Continuous leadership training programs should be implemented to maintain and enhance this positive perception. These programs should reinforce task-oriented leadership behaviors and explore other leadership styles to support staff nurses further.

Efforts should be made to address the physical demands of nursing through ergonomic interventions, regular breaks, and physical support tools. Maintaining and improving the social and mental work environment is crucial, even though they are less challenging.

Leadership development programs should be prioritized to foster behaviors that alleviate work role difficulties. Regular assessments of leadership effectiveness and its impact on staff functioning should be conducted to ensure continuous improvement.

Leadership training should shift focus from task-oriented to relationship-oriented approaches. Strategies to improve interpersonal relationships and communication should be developed, as these substantially reduce work role difficulties.

Future researchers might consider employing qualitative or mixed methods to explore the relationship between leadership behaviors and work role functioning. This exploration may encompass a variety of healthcare settings, including hospitals of different sizes and specialties, to identify specific challenges and effective leadership strategies unique to each context. Expanding the research to diverse geographic locations may help capture cultural, economic, and healthcare system influences, providing a comprehensive understanding of effective leadership practices across different regions.

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Nurses Attitude and Satisfaction Towards the Electronic Management System in a Government Hospital in Cotabato City

Abdulkadir Y. Datumanong II, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The Electronic Management System (EMS) is a digital platform designed to improve organizational efficiency, collaboration, and information flow, influenced by the attitude and satisfaction of nurses. This study used a comparative-correlational research design to determine the relationship between the nurse's attitudes and satisfaction towards the Electronic Management System in Cotabato Regional and Medical Center. A universal sample of 156 nurses from a government hospital were surveyed. The study utilized a standard questionnaire with overall Cronbach alpha result of benefits subscale (0.92) and barriers subscale (0.74). Results revealed that most respondents were 32 to 38 years old, female, assigned to pediatric wards, had a BSN degree and were in the service for 1 to 5 years, had a high attitude towards Electronic Management Systems, and had low barriers to operations. The level of satisfaction of nurses in the use of electronic management systems is very high. The study revealed a significant difference in nurses' attitudes towards electronic management systems when grouped according to the demographic profile in terms of age and length of service (Barriers), and there was no significant difference compared to benefits. Also, when grouped according to Demographic Profile, the nurses' satisfaction with Electronic Management Systems showed a significant difference in Age and Length of service but not significantly different in Sex, Educational attainment, and area of assignment. Moreover, it was revealed that a weak significant relationship exists between nurses' attitudes and satisfaction towards Electronic management systems. It implies that nurses enhance efficiency, patient care, record keeping, and information access, leading to a more effective healthcare system despite some challenges in maximizing EMS utilization.

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Corresponding email: yoshiokadats88@gmail.com

Introduction

Nurses often face challenges in navigating complex interfaces, reducing productivity and frustration. Interoperability issues in electronic health management systems usually hinder seamless data exchange among healthcare providers. This fragmentation can lead to incomplete patient records, hampering the delivery of comprehensive care. Electronic Management System (EMS) is a vital nursing concept that needs to be deeply investigated in today's era since almost all transactions are becoming technology-aided (Vassell-Webb, 2019). Further, the use of Electronic Health Records (EHR) does not only have benefits, but it also has barriers to its implementation. In the study of Ebardo and Celis (2019), technology barriers include complexity, weak infrastructure, and poor interface design. The absence of the necessary expertise and user reluctance are organizational impediments. In this era, nurses face a world of advanced technologies in all aspects of caring, including nursing care services, specifically in records management (Bahari et al., 2021).

The popularity of electronic and automated healthcare information systems worldwide has changed the practice of healthcare records management since it makes documentation convenient and accessible to different health team members (Mather, 2019). Nurses are crucial in following physician orders and maintaining patient care records. The findings of Ibrahim (2019) highlight the importance of continued integration of nursing informatics competencies within nursing service as an organizational culture that supports the use of technology in records management (i.e., enlisting user champions and providing adequate training and IT support. The nursing profession is still undergoing numerous changes due to technology, and these changes should accelerate over time. (Bailey, 2022).

In certain hospitals in the Philippines, a relatively new system called the Electronic Medical Records System integrates current hospital systems and offers instant access to patient records. Viewing and managing patient charts, hospital-wide results, and patient lists and profiles are all included in the system. It can also monitor a doctor's and hospital's performance. (Montemayor, 2019). Despite its rich evolution and dynamic nature, using technology in documentation remains an emerging field. Less than 50% of hospitals in the country currently utilize the computerized records management system (Faustorilla, 2020). The study conducted by Acacio-Claro et al. (2022) aims to strengthen eHealth in the nation and support the universal health care (UHC) law. The study suggests that the complete adoption and scaling of electronic medical record (EMR) systems was planned and expected to be finished by 2020.

In Mindanao, government hospitals have implemented a Department of Health-endorsed electronic health records system called the Integrated Hospital Operations and Management Information System (iHOMIS). It is used in clinical wards to charge hospital bills to patients, retrieve diagnostic and medical supply orders, and access laboratory and

diagnostic data. Establishing information about newly adopted hospital systems is crucial, as it affects nurses' work attitude and performance when implementing an electronic management system. Also, this information will serve as a basis for producing an output to improve the usage of the electronic management system. Participants, hospitals, and healthcare workers who have difficulties implementing electronic management systems will also be benefitted. Thus, the researcher is motivated to conduct this study to formulate interventions to enhance its utilization and will further provide social value as it will allow this new development to be used in patient care and improve the procedures and processes of the hospital.

Methods

This study utilized the comparative-correlational design. It is comparative because it involves analyzing and comparing two or more groups, variables, or conditions to conclude their similarities and differences. Researchers conduct a comparative analysis to assess the relative impact of variables across different cases, directly comparing one case to another. The investigator clearly states that the purpose of the investigation is to ascertain the presence of the specified variable (Pandita, 2012). Sousa et al. (2007) state that correlational studies aim to describe the variables and the inherent relationships between and among them. This study provides a concise overview of the demographic characteristics and the assessment of nurses' attitudes and satisfaction toward the Electronic Management System in a government hospital in Cotabato City. The correlational design evaluated the relationship between nurses' attitudes and satisfaction with the electronic management system.

The study was conducted in a Tertiary, Training and Teaching Government Hospital in Cotabato City, a Level III Department of Health retained hospital that has a 600-bed implementing capacity. It is located in the BARMM geographically, but administratively, it is under Region XII. The hospital is situated along Sinsuat Avenue, Rosary Heights 10, Cotabato City. It is vital to the sustainability of the local municipalities and the health of its catchment areas, which serve the mainland of the Bangsamoro Region and Central Mindanao of the Philippines.

A total of 156 nurses were selected utilizing the total universal sampling method. This purposive sampling method examines the entire population with the same characteristics (McCombes, 2022). Choosing a sample with at least 100 members of a given population is generally a good idea. Anything under thirty is considered a tiny sample in statistics. It follows that complex sampling techniques are probably unacceptable if the population being studied is small, say less than 150 (Gray et al., 2007). For instance, accuracy rises with larger samples in survey studies (Mweshi & Sakyi, 2020). This study used a purposive sampling technique by completely enumerating all members of the whole population.

Also, the complete enumeration technique is a form of purposive sampling that involves examining the entire population, including all individuals with specific characteristics (i.e., the total population), and reviewing them with particular traits. Additionally, since complete population sampling includes all target population members, it is possible to gain profound insights into the phenomenon of interest. With such extensive coverage of the population of interest, there is also a decreased chance of missing potential insights from excluded members (Haller, 2021).

Thus, it counts upon the entire target population based on the following selection criteria. The study's respondents were the nurses employed in a government hospital in Cotabato City from the different clinical areas of nursing service, specifically: ICU Complex, NICU, PICU, Sec. Ona Wing, Oncology Ward, and Pediatric Ward. The inclusion criteria involved nurses using the EMS

being at least 20 years old and hospital employees mentioned above having attained at least less than one (1) year of clinical experience and being willing to engage in the study. The exclusion criteria were selecting them regardless of sex, age, and area of assignment. The researcher preferred the approach appropriate due to theoretical and practical reasons such as accessibility or geographical limitations, time constraints, cost-benefit consideration, and the sample size.

The research utilized an adopted survey questionnaire to gather participants' information. The instrument was composed of three parts: The first part contained questions for the demographic profile of the respondents in terms of age, sex, educational attainment, area of assignment, and length of service.

The second section focused on the nurses' disposition toward the Electronic Management System. The second section of the questionnaire is divided into two subcategories: Benefits and Barriers. The initial subcategory concerning benefits consists of a meticulously designed questionnaire comprising 15 items. The assessment was carried out utilizing a five-point Likert scale. The second subcategory, barriers of EMS, shall consist of nine (9) structured questions from the adopted questionnaire. The third part of the questionnaire determined the nurses' satisfaction with the Electronic Management System. It assessed whether the respondents were satisfied with using the Electronic Management System. Nine (9) structured questions were used from the adopted questionnaire.

In the study of Secginli et al. (2013), the inter-item reliability for benefits and barriers subscales was assessed by calculating Cronbach's alpha score to determine the internal consistency. Scores were 40 acceptable for the benefits subscale (0.92) and barriers subscale (0.74), indicating that the factors within the subscales were highly interrelated. Also, This paper has undergone a thorough ethics review and has received approval from the committee. All research protocols adhered to the ethical guidelines set forth by the institution

Results and Discussion

Table 1. Demographic Profile of the Respondents

Profile		Frequency	Percentage
Sex	Female	125	80.13
	Male	31	19.87

	Total	**156**	**100.00**
Age	18-24	13	8.33
	25-31	54	34.62
	32-38	76	48.72
	39-45	8	5.13
	46-52	5	3.21
	Total	**156**	**100.00**
Educational Attainment	BSN	140	89.74
	MN/MAN/MSN	10	6.41
	Others	6	3.85
	Total	**156**	**100.00**
Area of Assignment	ICU Complex	39	25.00
	NICU	14	8.97
	Oncology	20	12.82
	Pediatric	41	26.28
	PICU	15	9.62
	Sec. ONA Wing	27	17.31
	Total	**156**	**100.00**
Length of Service	<1 year	11	7.05
	1-5 years	78	50.00
	6-10 years	56	35.90
	>10years	11	7.05
	Total	**156**	**100.00**

Table 1 shows the respondent's demographic profile. Specifically, in terms of age majority belongs to 32-38 years old at 76 or 48.72%, followed by those 25-31 years old at 54 or 34.62%, followed by those 18-24years old at 13 or 8.33%, followed by ages between 39-45 at 8 or 5.13% while only 5 or 3.21% belongs to 46 -52years old and above. This result means the respondents belong to varied age groups. In the study of Wass et al. (2019), the age of nurses belong to different age groups. Some are old, and others are older. They all work in hospitals and use electronic management systems.

On the other hand, most respondents are female, 125 or 80.13%, while 31 or 19.87% are males. This result agrees with the WHO report (2020) that nursing is a female-dominated profession. Meanwhile, the majority of the respondents are assigned to the pediatric ward at 41 or 26.28%, followed by ICU at 39 or 25%, the ONA ward at 27 or17.31%, followed by % Onco ward at 20 or 12.82%, followed by PICU at 15 or 9.62 and the least is NICU at 14 or 8.97%. This result revealed that all hospital areas that use electronic documentation are well represented. They can be a source of good information. Sneep (2019) presented the connection of demographic profile, specifically

the area of assignment, to the improved ability of nurses to lessen errors in documentation, showing it has something to do with the training and length of service of nurses.

On the other hand, in terms of educational attainment, the majority attained BSN at 140 or 89.74%, followed by MAN, MN, and MSN holders at 10 or 6.41%, while only 6 or 3.85% earned other courses such as MPA. The result revealed that only a few nurses can pursue higher educational degrees. This agrees with Luo (2019), who concluded that academic attainment and age affect nurses' acceptance of e-nursing documentation.

Finally, the length of service revealed that the majority have been working for more than 1-5 years at 78 or 50.00%, followed by those working for 6-10 years at 56 or 35.90%, while both below one year and those have been working for more than ten years got 11 or 7.05% respectively. The result revealed that most of the group comprised new and seasoned nurses. All in all, the demographic profile announced that the group was formed of different groups. This can be useful in the study of a broader scope of representation in the services of the nursing sector. The result corroborates with the work of Salameh et al. (2019), who highlighted the essence of the demographic profile of the personnel in their attitude towards using electronic health systems. The educational level, age, and even sex correlated with a positive attitude toward using electronic systems.

Table 2. Level of Nurses attitude

Indicators	**Mean**	**SD**	**Interpretation**
Benefits	4.33	0.87	Very High
Barriers	2.50	1.03	Low
Over-all Mean	**3.42**	**0.95**	**High**

Legend: 4.21 - 5.00 Very High; 3.41 – 4.20 High; 2.61 – 3.40 Moderate; 1.81 – 2.60 Low; 1.00 – 1.80 Very Low

Table 2 presents nurses' attitudes regarding the benefits of implementing an electronic management system, which got an overall mean of 4.33 and was interpreted as very high. This result means the nurses have a positive attitude towards using electronic management systems. This agrees with Scott (2021), who also concluded that nurses have a positive attitude towards using electronic management systems in the nursing service. This has provided benefits in making records and documents accessible. Similarly, Vafaei et al. (2018) cited that one of the benefits of using electronic systems in the nursing service is making the transfer of data much easier and more systematic. This can transfer data anywhere, anytime.

The same view was explained by Pepito & Locsin (2018), who discussed that errors were decreased through electronic systems in the nursing records. Easy access to checking and correcting data helped in reducing errors. All in all, there are many benefits of using electronic management systems. The popularity of electronic and automated healthcare information systems worldwide has changed the practice of healthcare records management since it makes documentation convenient and accessible to different health team members (Mather, 2019).

On the other hand, the barriers to implementing an Electronic Management System that got an overall mean of 2.50 were interpreted as low on hampering the operations. This result means that despite the many benefits of using the EMS, several factors still affect the process of nursing services using this system. In the work of Duncan et al. (2018), it was explained that resource availability can hamper the efficient implementation of EMS, resulting in disadvantages.

This further means difficulties were encountered in using the EMS since you need to update the system occasionally. The same opinion was explained by Ramoo et al. (2023), who explained that one of the challenges and hampering

factors to the efficiency of electronic health systems is the need to update the system constantly. The fast emergence of new systems often demands updating the method used to cope with the changes. Also, this result confirms that it is not causing delays or more extended documentation periods; instead, it makes time to record shorter. This agrees with Jaber et al. (2021), who explained that using electronic systems in nursing operations made nurses shorten the period of documentation and recording.

Table 3. Level of Nurse satisfaction

Indicators	Mean	SD	Interpretation
Satisfaction	4.23	0.92	Very High

Legend: 4.21 - 5.00 Very High; 3.41 – 4.20 High; 2.61– 3.40 Moderate; 1.81 – 2.60 Low; 1.00 – 1.80 Very Low

Table 3 shows nurses' satisfaction with electronic management systems, which got an overall mean of 4.23, which is very high. This result means the nurses are contented and have positive feedback with the electronic management system. This is aligned with the findings of Akhu-Zaheya et al. (2018), who highlighted nurses' high satisfaction with integrating electronic management systems. It has made the work of nurses much more systematic and more accessible. This confirms that electronic systems have applicable benefits in making nurses work more efficiently. The same idea was expressed by Hardiman & Dewing (2019), who discussed nurses' experiences in using electronic management systems as highly satisfactory. This is useful in making them check their records and documents.

Nonetheless, the answers reflect helpful outcomes in making the work of nurses much more convenient. Agreeably, Muller et al. (2018) also pointed out the beneficial effect of the documentation system of EMS, which ensures that information in the health records can be adequate for handover. This can help make the necessary information available to anybody in the shift or groups of the health care teams working in a case.

Table 4 Test of Difference on the attitude of nurses Toward the electronic management system when grouped according to the demographic profile of the respondents.

Profile	Benefits			Barriers		
	p-value	Remarks	Decision	p-value	Remarks	Decision
Sex	0.881	Not Significant	Accept Ho	0.165	Not Significant	Accept Ho
Age	0.643	Not Significant	Accept Ho	0.006	Significant	Reject Ho
Educational Attainment	0.501	Not Significant	Accept Ho	0.896	Not Significant	Accept Ho
Area Assignment	0.336	Not Significant	Accept Ho	0.415	Not Significant	Accept Ho

Length of Service	0.316	Not Significant	Accept Ho	0.037	Significant	Reject Ho

Note: p < 0.05 – Significant

Table 4 revealed the difference between the attitude of nurses in the Electronic Management System and the demographic profile of the respondents. The Kruskal-Wallis was used to determine the significant difference. The table revealed sex and benefits with a p-value of 0.881, interpreted as no considerable difference, and the same with sex and barriers showed with a p-value of 0.165, interpreted as no significant difference. This means that the null hypothesis is accepted.

Results revealed that age and benefits with a p-value of 0.643 were interpreted to have no significant difference; this means that the null hypothesis is accepted. On the other hand, age and barriers revealed with a p-value of 0.006 were interpreted to have a significant difference; this means that the null hypothesis was rejected. At the same time, the result revealed the educational attainment and benefits with a p-value of 0.501, interpreted to have no significant difference. In contrast, educational attainment and barriers showed a p-value of 0.896, diagnosed with no significant difference. This means that the null hypothesis is accepted.

However, the result revealed the area of assignment and benefit with a p-value of 0.336, interpreted as no significant difference. In contrast, the study location and barriers showed a p-value of 0.415, interpreted as no significant difference. This means that the null hypothesis was accepted. Finally, the result revealed the length of service and benefits with a p-value of 0.316, interpreted as no significant difference, which means the null hypothesis is accepted. Meanwhile, the length of service and barriers revealed a p-value of 0.037, interpreted as having a significant difference. This means that the null hypothesis was rejected.

The results revealed that demographic profile is a vital component of understanding the level of satisfaction and barriers to using EMS by nurses. This must be integrated in planning. The same view was explained by Wass et al. (2019), who pointed out the importance of understanding the demographic profile of electronic management system users since this had a significant relationship with their acceptance and rejection of the program implemented.

The study by Garcia-Dia (2020) explained that people's characteristics directly affect their attitude toward using technology in the work areas. However, because of measures implemented, such as orientation and training for varied groups of people, all tend to adopt and accept technology in their workplace. The answer revealing there is no significant difference between age and length of service in correlation to barriers agrees with the findings of Jimma & Enyew (2022), who explained the reason why some of the demographic data, such as age and length of service, affect the barriers on utilization decisions of nurses in using electronic medical records. Age often makes it difficult for the older generations to cope with technology use. At the same time, those who have stayed longer in positions have felt no longer interested in these changes.

Table 5. Test of Difference on Nurses' Satisfaction Towards Electronic Management System (EMS) when grouped according to Demographic Profile

Profile	**Satisfaction**		
	p-value	**Remarks**	**Decision**
Sex	0.560	Not Significant	Accept Ho
Age	0.044	Significant	Reject Ho
Educational Attainment	0.871	Not Significant	Accept Ho
Area Assignment	0.353	Not Significant	Accept Ho

Length of Service	0.020	Significant	Reject Ho

Note: p < 0.05 – Significant

Table 5 revealed the difference in nurses' satisfaction with the Electronic Management System when grouped according to demographic profile. The Kruskal - Wallis was used to determine the significant difference. Also, the table revealed a significant difference between sex and satisfaction and got a p-value of 0.560, which was interpreted as no significant difference. This means that the null hypothesis was accepted. This result denotes that nurses, regardless of sex, both had high regard for Electronic Management Systems.

Mather's (2019) study mentioned that nurses' sex did not cause differences in the positive acceptance of electronic management systems in nurses' notes. Both the males and females showed high acceptance levels. Meanwhile, the relationship between age and satisfaction got a p-value of 0.044, a significant difference. This means that the null hypothesis was rejected. This implies that the nurses have different satisfaction levels based on their ages.

Both Barteit et al. (2019) & WHO (2020) pointed out that the ages of nurses had shown a relationship to their satisfaction with the use of technology in the performance of duty. Most younger generations had shown higher satisfaction levels than the older population. On the other hand, the relationship between educational attainment and satisfaction got a p-value of 0.871, which was interpreted as no significant difference. This means that the null hypothesis was accepted. The result signifies that the education attained by the nurses did not directly affect their satisfaction with implementing the electronic management system.

The relationship between the area of assignment and satisfaction got a p-value of 0.353, which was interpreted as no significant difference. This means that the null hypothesis was accepted. The result shows that the area of assignment has not directly influenced the satisfaction of nurses with using EMS. This means that regardless of areas of assignment, the nurses are satisfied with using an electronic management system. Similarly, Scott (2021) highlighted that people's line of work or area of assignment had not affected their outlook on the usefulness of using electronic management systems. He discovered that all areas of the assignment gave a positive satisfaction rating to its use.

Finally, the relationship between length of service and satisfaction got a p-value of 0.020, which was interpreted to have a significant difference. This means that the null hypothesis was rejected. The result signifies that the number of years the nurses worked had affected their satisfaction in using EMS. This means there is a difference in the satisfaction between the old and the new personnel.

The study by Sneep (2019) presented the connection of demographic profiles to the improved ability of nurses to lessen errors in documentation, showing it has something to do with the training and length of service of nurses. The longer the nurses worked, the fewer errors they made compared to new and novice nurses (Sarsonas, 2019). According to Malak & Al-Shakanbeh (2023), understanding the connection of demographic profiles to the satisfaction of end users of electronic healthcare systems can help planners develop effective strategies to maximize their use. This can be a consideration when implementing programs.

Table 6. Test of Relationship Between the Nurses' Attitude and Satisfaction Towards Electronic Management System (EMS)

Indicators	r-value	Interpretation	p-value	Remarks	Decision
			Satisfaction		
Benefits	0.7940	High	0.0000	Significant	Reject Ho
Barriers	0.1384	Very Weak	0.2162	Not Significant	Accept Ho
Over-all	**0.3477**	**Weak**	**0.0012**	**Significant**	**Reject Ho**

Note: p < 0.05- Significant

Table 6 tests the relationship between nurses' attitudes and attitudes toward implementing an electronic management system. The Spearman rank-order correlation was employed to figure out the statistically significant association. Results revealed that the test of the relationship between nurses' attitudes toward benefits and satisfaction got a p-value of 0.000, which was interpreted as having a significant relationship. This means that the null hypothesis is rejected. This result implies that the nurses felt the importance of using EMS in their duty was beneficial and are satisfied with it.

In the study of Longhurst et al. (2019), it was emphasized that there is a positive relationship between the benefits and satisfaction of users of health management systems that makes the performance of duty much more effective. This is similar to the study of Krick et al. (2019), who showed a positive attitude toward the effects of electronic systems on patient safety and improvements in the care process, which could help to make the best possible use of the available resources to improve documentation.

The correlation test between the attitude toward barriers and satisfaction revealed a p-value of 0.216, interpreted as no significant relationship. This means that the null hypothesis was accepted. This result denotes that the nurses' satisfaction level was unaffected by the barriers they encountered in implementing the Electronic Management System. This means that despite the obstacles, nurses still consider it beneficial and satisfying.

This contradicts the study of Abu Raddaha et al. (2018), who concluded that the difficulties and barriers to electronic management systems, like the lack of sufficient resources, decrease users' satisfaction. However, if the resources are available and there is a lower barrier, then satisfaction increases. However, Garcia-Dia (2020) concluded that although factors were hampering the total efficiency of electronic management systems, they still considered it worthwhile.

Conclusion and Recommendations

Most respondents were 32 to 38 years old, females assigned to the Pediatric Ward, with the majority attaining BSN and being in the service for 1 to 5 years. The respondents have a higher attitude toward the benefits of EMS; the most elevated among answers revealed that the statement about EMS makes it easy to transfer data, followed by providing access to patient data

and analysis. On the other hand, the respondents reported a standard barrier that needs frequent revisions related to technological development, followed by the statement that it is costly. The respondents have high satisfaction with EMS—specifically, a high regard for the feeling that EMS is beneficial. There is a significant difference in nurses' attitudes toward EMS regarding respondents' sex educational attainment. There is a significant difference in the satisfaction of nurses on EMS regarding respondents' age and length of service. There is a significant relationship between nurses' attitudes and satisfaction of nurses in EMS.

The study concludes that the nurses have high regard for and positive experiences with electronic management systems as part of the nursing service operation. Some hampering factors (i.e., being down frequently), need updating, and being costly often lead to challenges in the satisfaction of Electronic Management Systems. Implementing EMS resulted in more accessibility and convenience and even lessened errors in documentation and collaboration with health teams. The nurses feel it has benefited the nurses and patients in the service delivery. The continuous effort to increase the hospitals' capacity to implement the system continuously can help provide comfort and support to the technical competence of nurses, increasing their satisfaction.

Thus, this study recommends developing a digital transformation plan for the nursing service to upgrade resources to enhance utilization of EMS and to design a personnel development plan for technical and competency development of personnel using EMS to help them maximize its utilization. Also, it is recommended to use other types of inferential analysis (mediation) of the variables for deeper understanding and interaction of factors.

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Lived Experiences of Nursing Handling Patients on Hemoperfusion Procedure

Jan B. Escalante, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

Hemoperfusion is a complex extracorporeal blood purification therapy that removes toxins and other harmful substances from the bloodstream. Nurses play a critical role in the care of patients undergoing hemoperfusion, providing both technical and emotional support. This study explores the lived experiences of nurses in handling patients during hemoperfusion procedures, focusing on their challenges, coping, and knowledge/insights. Purposive sampling was used in the selection of the participants. Data were gathered using in-depth- interviews with seven participants who were carefully selected based on the set inclusion criteria. Data were analyzed using the Hermeneutic Phenomenology approach of Van Mannen using its prescribed six steps. The following themes emerged: a) Maneuvering the Realms of Care, b) Building a Fortress of Resilience, and c) Strengthening the framework of care. The lived experiences of nurses in handling patients on hemoperfusion procedures are complex and multifaceted. Nurses face significant challenges but develop various coping mechanisms to manage the stress of their work. This study delves into the complex experiences of nurses managing patients undergoing hemoperfusion, highlighting their challenges, coping strategies, and insights gained. This study provides valuable insights into the unique experiences of nurses in this specialized area of practice.

Keywords: *Hemoperfusion, Social Science, Descriptive-Phenomenology, Davao City*

Corresponding Email: jan.escalante65@gmail.com

Introduction

In the intricate realm of healthcare, nurses stand as determined guardians of patient's

well-being, navigating through diverse landscapes of medical procedures to ensure the delivery of optimal care. Among the myriad procedures, hemoperfusion emerges as a critical intervention, seeking to eliminate toxins from the bloodstream and restore equilibrium to the body. This thesis delves into the often unexplored territory of the lived experiences of nurses tasked with handling patients undergoing the hemoperfusion procedure. The phenomenon under investigation encapsulates the complex nature of nursing care within the context of hemoperfusion, spotlighting the dynamic interplay of technical proficiency, emotional resilience, and compassionate engagement.

As nurses orchestrate the intricacies of the hemoperfusion procedure, they do so not merely as skilled practitioners but as empathetic caregivers, maneuvering through the complexities of both the clinical and human dimensions. A reflection on this was made through the study of Khumalo et al., (2020) where they investigated the experiences of South African nurses who care for patients undergoing hemoperfusion facing significant challenges in this role, including managing the emotional needs of patients and their families, dealing with inadequate resources and support, and navigating cultural differences. Al Mutairi et al., (2019) found that nurses in Saudi Arabia play a critical role in ensuring patients' safety and comfort and require specialized training and support to perform this role effectively.

Last March 2020, Ibot et al., (2022) cited that during the start of the COVID-19 pandemic in the Philippines, the cost of the cartridge was around 30,000-50,000 Pesos (Single-use only), moreover, it has been a struggle for nurses to encourage the family of the patient to have them sign the consent for the procedure considering the costs, the status of the patient and their cultural beliefs. Thus, this points out various ethical dilemmas that may arise before or during the hemoperfusion procedure.

They are only limited studies have been to know the lived experiences of nurses in hemoperfusion procedures in the Philippines, Blood clotting is the most common problem in taking care of patients in Hemoperfusion, therefore Lim and Dumlao (2018) discussed the need for specialized training and equipment for Nurses handling patients on Hemoperfusion procedures. There are no studies about nurses' experiences in caring for patients on hemoperfusion procedures in Davao City due to the relatively new and specialized nature

of hemoperfusion therapy in the country. Many studies may focus on the technical aspects of hemoperfusion, potentially leaving gaps in the exploration of the emotional and psychological dimensions of nurses' experiences, understanding the perspectives of patients and their families during hemoperfusion procedures, collaborative aspects of nursing care in hemoperfusion settings, and its effects on nurses' professional development. The researcher will further conduct a study on the lived experiences of nurses in handling patients undergoing hemoperfusion procedures to address this gap.

Methods

The methodology of how this study was conducted – which includes details about the research design, setting, participants, data sources, data collection procedure, the trustworthiness of the study, the role of the researcher, research reflexivity, ethical consideration, and data analysis.

A Hermeneutic Phenomenological research design was utilized in this study, which was done through in-depth interviews performed separately with the participating Nurses who have experience in doing the Hemoperfusion procedure and taking care of patients who underwent that said procedure.

This type of design customed by Van Manen (2007) was utilized to understand the participants' lived experience in hemoperfusion procedures and the struggles that they faced when doing that procedure. Thematic analysis was through Van Manen's phenomenology of practice method. The plan for qualitative research is most likely the vast majority adaptable of the different test techniques, including an assortment from claiming acknowledged systems furthermore structures concerning the phenomenology of Van Manen (2007).

Researchers have to continually guarantee they would direct bias-free, the open-finished method also staying cautious should possibility sources of slip. This generally includes familiarity with the inclination and profound affectability of the wonder being referred to (Dumlao,2023). This phenomenological qualitative study was conducted at the Hemodialysis units of different private and government hospitals in Davao City. There were very limited cases in Davao City who underwent a Hemoperfusion procedure. There were also very limited studies about the lived experiences of nurses in Davao City about Hemoperfusion since it is a new procedure yet an expensive one as well.

Purposive sampling was done in the selection of participants for this study, which included 7 participants to achieve data saturation, 7 of which were subjected to in-depth discussions. The selection of participants included Nurses in different private hospitals and Government hospitals within Davao City who had experience in handling hemoperfusion procedures and taking care of patients who underwent it. Nurses with at least 6 months minimum experience in hemodialysis with hemoperfusion.

A collection of non-probability sampling strategies known as "purposive sampling" was used, which involves choosing units for your sample based on their possession of specific qualities. Situations identified with the wonder of interest about the phenomenon being studied. This allows for a selection of participants who are suitable for contributing purposeful information on what is about to be studied (Nikolopoulou, 2022). In addition, the characteristics of a purposive sample are specified for a reason that is directly related to the research at hand (Andrade, 2020).

In this research, the participants were selected based on the given criteria to know the right participants, the inclusion and exclusion. For the inclusion criteria, the Nurses who were at least 18 to 55 years of age at present. Currently working as Dialysis Nurses (male or female) in their respective institutions who were able to perform a Hemoperfusion procedure and have 6 months or more experience in taking care of patients who underwent Hemoperfusion procedure. The exclusion criteria would exclude Hemodialysis nurses who are below 18 and above 55 years of age, nurses who do not have experience in handling patients on hemoperfusion procedures, and dialysis nurses with less than 6 months of experience.

The data imposed for this study was gathered primarily from the verbalization of the 7 participating Nurses who have experienced handling and taking care of patients who underwent Hemoperfusion procedures. The respondents who agreed to participate in this study were considered the primary data sources, and the related literature was considered the secondary data source for this study, which served as supplemental data intended to support the information that was gathered from the primary data sources.

This study followed a systematic procedure for the data collection. Firstly, the researcher secured approval from the Master of Arts in Nursing Program Chair of Davao Doctors College (including the authorizing body of the participating institution) to

conduct the study. Then, the researcher established rapport and got the informed consent of the participating Nurses in Davao City before data gathering. The participants, before data gathering, were oriented about the nature of the study, its purpose, and the data collection procedure and duration. Included in the orientation, as well, were the rights of the participants in the study, which include, but not be limited to, the right to self-determination, which will speak about their voluntary decision, the right to ask questions, the right to refuse to give information, and right to withdraw anytime from the study if they opt to.

Respect will be shown for the participants' right to anonymity and confidentiality. Furthermore, the participants were informed that the interview would be audio-recorded. The recordings were transcribed word for word after the interview to ensure data accuracy. The Actual data gathering was performed through a face-to-face interview. A 1on1 interview was used in gathering data for the study. The interview was guided by a questionnaire guideline duly validated by experts in the field of research.

Upon gathering the data, the interview ended and the participant will be given appreciation for his/her participation in the research study. Moreover, Thematic analysis through Van Mannen's phenomenological method was used to analyze the compiled results obtained from all the participating nurses for this study. Then the generated themes were re-evaluated by the participants as a final validating step for the researcher to confirm the accuracy of their intended message for the study.

When the information gathered is reliable and consistent, it can be said that the study is trustworthy. Data is applicable when the readers can become familiar with the study and assess whether the setting and results will transfer to their particular setting or future research study. Credibility, dependability, confirmability, and transferability are the four strategies to sustain trustworthiness in a qualitative investigation, according to Stenfors et al. (2020).

Qualitative research is a valuable tool for exploring subjective experiences, perceptions, and meanings in complex social phenomena as stated by Stenfors et al., (2020). However, to ensure the credibility of the research, it is essential to consider several criteria, including credibility, transferability, dependability, conformability, and authenticity. These criteria help to establish the trustworthiness of the research and the accuracy of its findings. In ensuring the credibility of this study, various methods were used. Prolonged engagement was utilized by building rapport with the participants before their interview about their experiences in handling patients during hemoperfusion procedures. After gathering significant information by interviewing the participants who have experience in handling patients on hemoperfusion procedures, member checking was done. After proper transcription, participants were contacted to ask them if the transcription reflected their actual answers during the interview. In addition, the study was also cross-checked by an expert other than the adviser and the validators to utilize the process of peer debriefing.

According to Lincoln and Guba (2019), prolonged engagement refers to the process of spending sufficient time in the field to develop a deep understanding of the participants' experiences. Member checking involves seeking feedback from participants to verify the accuracy of the findings. Peer debriefing involves seeking feedback from colleagues to ensure that the researcher's interpretation of the data is reasonable. The descriptions of the research setting, participants, procedures, and the criteria for participant selection were discussed in this

study to ensure transferability. The participants were selected through the process of purposive sampling. Braun and Clarke (2022) note that purposive sampling involves selecting participants based on specific criteria to ensure that they can provide relevant information to the research question.

As nurses face various challenges handling patients on hemoperfusion procedure, the researcher documented the research process methodology and decision-making through audit trails, third-party checking, and reflexive journaling gathered from the interviews of the nurses who have experience in handling patients on hemoperfusion procedure to ensure the dependability of the study. Audit trails involve keeping detailed records of the research process, while reflexive journaling involves recording the researcher's thoughts and feelings about the research process (Lincoln &Guba, 2019). The accuracy of the participants' quotes was also verified through member checking to enhance the confirmability of the findings. Conformability is also important in the study of the lived experiences of nurses in handling patients during hemoperfusion procedures. The conformability of the study is also enhanced by discussing the reflexivity and maintaining an audit trail through the audio recordings to document the research process upon maneuvering towards the lived experiences of nurses when they handle patients on hemoperfusion procedure, it also includes any changes made to the research design or data analysis.

As the researcher's biases or preconceptions can impact the research findings, reflexivity involves reflecting on the researcher's role in shaping the research findings. An audit trail helps to ensure transparency and accountability in the research process, which can enhance the conformability of the study (Braun & Clarke, 2022). By employing these strategies, nursing administrators can gain insights into the organizational challenges they face, and researchers can ensure the trustworthiness of their study. Furthermore, to ensure the Authenticity of this research, existing research on nurses' experiences with hemoperfusion patients was reviewed to help identify the key themes through Creswell's (2013) approaches. The language used by nurses in describing their experiences was incorporated through the process of in-depth interviews and observation. The jargon-filled language was avoided by discussing their meanings one by one on a simpler scale. Nurses' experiences were highlighted to draw attention to the emotional, social, and psychological aspects of caring for hemoperfusion patients.

Overall, incorporating these criteria into the research design and data analysis process can enhance the trustworthiness of the study, ensuring that the findings accurately represent the experiences and perspectives of the participants. As Braun and Clarke (2022) note, these criteria are not necessarily independent but work together to create a comprehensive approach to establishing the trustworthiness of qualitative research.

The researcher’s goal is to discover the authentic lived experiences of Nurses in Davao City on the Hemoperfusion Procedure. The researcher served as the interviewer, investigator, analyst, and writer. As an investigator, the researcher investigated the experiences of the nurses in the Hemoperfusion procedure and handling patients who underwent Hemoperfusion. This was done through In-depth Interviews. As an analyst, the researcher analyzed the data that was gathered during the interview and the Focus Group Discussion. The researcher also analyzed the gathered data from the studies, citations, and other researchers that come from different sources. Lastly, the researchers became the writer by

putting all the information into written form before proceeding to the encoding session.

Reflexivity is the capacity of the researcher to recognize how his or her actions shape the processes and outputs of the research, as well as how the research object shapes those actions and outcomes (Haynes, 2021). As a 34-year-old Filipino nurse with 9 years of experience in hemodialysis and hemoperfusion, the researcher is aware of the potential influence his background and expertise may have on this research. The researcher has witnessed firsthand the challenges faced by nurses managing hemoperfusion patients, and he is committed to approaching this study with humility and openness. The researcher will actively engage in reflexivity throughout the research process, recognizing his own biases and limitations while striving to accurately capture the lived experiences of the participants. Regular consultations with his advisor will further ensure that his interpretations reflect the diverse perspectives of the nurses involved, ultimately enhancing the trustworthiness and credibility of the findings.

In the conduct of this study, the study aimed to know the Live Experiences of Nurses in Handling patients undergoing a Hemoperfusion Procedure. The purpose of this study was to gather the experiences of the Nurses when taking care of patients undergoing hemoperfusion procedures. The results of this study provide knowledge and insights about the challenges of the nurses, their coping ability, and their insights towards handling patients undergoing hemoperfusion procedures. The results of the research will be published for future reference.

The questionnaire asked about the personal experiences of the participants specifically in handling patients on hemoperfusion procedure, which entails their reflections. Rest assured that the study will only be used for research purposes. The benefits of this study helped the researchers in initiating intervention activities that can address the experiences the researchers have incurred. This research served as a foundation for establishing focused, therapeutic actions by understanding the participants' personal experiences in their care of patients on hemoperfusion. These interventions addressed and enhanced the specific experiences the researchers faced in their duties and responsibilities, ultimately promoting a more positive and productive work environment for everybody concerned.

The respondent’s participation in this study is voluntary. The respondents have the right to refuse to participate if they do not feel comfortable in any way. Moreover, even if the respondents initially decided to participate, they have the right to withdraw from the study at any time without penalty. If the respondents choose to withdraw from the study, all information that they have provided will not be included in the data collected.

In the gathering, retention, and processing of personal data, researchers followed the criteria of transparency, legitimate purpose, and proportionality (Data Privacy Act of 2012). In terms of privacy and confidentiality, the respondents were given the freedom to stay anonymous. Even if the respondents indicated their names and other identifying information, it will not be associated with any part of the written report of the research. The data gathered in this study was kept with the utmost confidentiality. If in the future, this research study will be published, any information indicated in the material will not reveal the respondent’s identity in any way. Moreover, the researcher declined to anybody who is not connected with the study who will ask for any information about the data gathered. All the data gathered will be kept strictly confidential and will be accessible only to the researcher.

After the study, the participants may be provided with a copy of the results if they ask for it. Lastly, all the raw data will be disposed of accordingly after the study.

In this study, the type of phenomenological analysis medium that was used for the analysis of the dialogue between the researcher and the participants is the Hermeneutical Phenomenology based on the theories of Van Manen. This approach was used to interpret qualitative research data to identify meaningful pieces of information and organize them into themes or clusters (Dumlao, 2023). Van Manen phenomenology is a qualitative research method that focuses on exploring the lived experiences of participants. Here are the data analysis steps in research using Van Manen phenomenology:

Firstly, the researcher immersed himself in the data by reading and re-reading the transcripts, field notes, and other data sources to gain a deep understanding of the participants' experiences. Secondly, the researcher identified meaning units, which are units of text that capture the essence of the participants' experiences. Meaning units can be individual words, phrases, or sentences. Then, the researcher also transformed the meaning units into phenomenological statements that reflect the essence of the participants' experiences. Phenomenological statements were written in the present tense and are focused on the participants' experiences.

In addition to that, the researcher clustered the phenomenological statements into themes or categories based on the similarities and differences in the experiences of the participants. Furthermore, the Researcher interpreted the themes by exploring the connections between them and identifying the underlying meanings and implications of the participants' experiences. Moreover, the researcher validated the findings by reviewing them with the participants and ensuring they accurately reflect their experiences. About this, the researcher wrote a report that presents the study's findings clearly and concisely, including quotes from the participants to support the themes and interpretations.

By following these data analysis steps, researchers using Van Manen phenomenology can gain a deeper understanding of the participants' experiences and develop rich descriptions of their lived experiences.

Results and Discussion

Lived Experiences of Nursing Handling Patients on Hemoperfusion Procedure

The study aimed to determine the participants' lived experiences in handling patients undergoing hemoperfusion. To achieve the objective of this study, the following questions were asked: “What are the live experiences of Nurses in handling patients undergoing hemoperfusion procedures?”, “How do participants cope with the challenges they encountered when handling patients undergoing hemoperfusion procedure?” and “What insights can participants share with their peers and in the nursing practice in general?”.

Emergent Theme 1: *Maneuvering the Realms of Care*

This means that the experiences of nurses in caring for patients undergoing a newly introduced medical procedure are a realm of intricate pathways in providing medical assistance to patients, especially with hemoperfusion procedures. It highlights the complex nature of nursing care in the context of hemoperfusion, a specialized blood purification therapy. Nurses play a

pivotal role in ensuring the safety and efficacy of hemoperfusion, while also providing holistic care to patients undergoing this procedure. In a study that explored the experiences of nurses in caring for patients undergoing hemoperfusion by Zhang et al., (2021), Nurses reported that caring for patients undergoing hemoperfusion was emotionally demanding due to the complex nature of the treatment and the critical condition of many patients. Nurses also experienced challenges related to time pressure, inadequate staffing, and limited knowledge about hemoperfusion.

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Cluster Theme 1.1: Trepidation in Practice

The term "trepidation in practice" suggests a sense of anxiety, apprehension, or unease in the execution of professional duties. When nurses engage in handling patients undergoing a hemoperfusion procedure. These challenges could include the technical intricacies of the procedure, potential complications, the critical nature of the patient's condition, or the emotional and psychological aspects of caring for patients with serious medical conditions. Understanding trepidation in practice provides insights into the emotional and professional dimensions of nursing care during hemoperfusion procedures.

Through a grounded theory study explored by Lee et al., (2023), they stated that nurses reported feeling overwhelmed by the different aspects of caring for the patients undergoing hemoperfusion procedures and expressed anxiety about the potential consequences of mistakes.

Cluster Theme 1.2: The Art of Collaboration

The participants collaborate and ask for help from their colleagues in doing the medical procedure. "The Art of Collaboration" highlights the interconnectedness of nursing care within a multidisciplinary healthcare team. Nurses, as integral members of this team, collaborate with other healthcare professionals, such as physicians, technicians, and support staff, to ensure the success of the hemoperfusion procedure and the overall well-being of the patient.

The collaboration may extend beyond the procedural aspects, encompassing communication, decision-making, and shared responsibility for patient outcomes. Nurses collaborate with colleagues to address any unexpected challenges during the procedure, coordinate care plans, and provide emotional support to both the patient and the team.

Brown et al., (2021) explored the importance of collaboration and interprofessional relationships in hemoperfusion therapy. It highlights the challenges and facilitators of effective collaboration and provides valuable insights into nurses' lived experiences in this context. The article emphasizes the positive impact of collaboration on patient outcomes and job satisfaction, highlighting the crucial role nurses play in fostering a culture of collaboration within the hemoperfusion healthcare team.

Cluster Theme 1.3: Shared Decision Making

In this theme, participants are having difficulty in handling the family members before, during, and after the procedure.

"Shared Decision Making" refers to a collaborative approach where healthcare professionals, including nurses, work together with patients to make decisions about their care. It also underscores the significance of nurses actively engaging with patients, not only in the technical aspects of the hemoperfusion procedure but also in shared discussions about their care. Nurses, as key advocates for patients, play a crucial role in facilitating communication, providing information, and incorporating patient perspectives into the decision-making process.

In the article entitled “Shared decision making in hemoperfusion therapy” authored by Kwok et al., (2022), he discussed the challenges and strategies for its implementation and provided valuable insights into the lived experiences of nurses in supporting this critical practice. In his article, he also emphasizes the crucial role nurses play in empowering patients to make informed choices about their hemoperfusion treatment and ultimately improve their healthcare experience.

Cluster Theme 1.4: Draining Demands in Practice

The participants are mentally exhausted while performing the medical procedures. "Draining Demands in Practice" suggests that nursing in the context of handling patients undergoing hemoperfusion procedures can be physically, emotionally, and mentally challenging. This theme highlights the demanding nature of the nursing role in this specific medical context. The phrase "draining demands in practice" accurately reflects the emotional and physical strain nurses often experience in their daily work, especially in demanding specialties like hemoperfusion care. Understanding the lived experiences of nurses in this context requires exploring the emotional labor they perform and the workplace demands they face.

The study on the emotional labor and workplace demands experienced by nurses in hemoperfusion care which was explored by Stiles et al., (2020) highlights the impact of these demands on their lived experiences and emphasizes the importance of implementing supportive measures to promote their well-being and job satisfaction. The article underscores the need for healthcare organizations to address the draining demands nurses face and create environments conducive to their professional growth and overall well-being.

Emergent Theme 2: Building a Fortress of Resilience

This means that the Nurses build a fortress of resilience amidst challenges through their expertise, compassion, adaptability, and unwavering dedication to their profession. Each challenge they face becomes a testament to their strength, fortifying their resolve to continue providing exceptional care.

"Building a Fortress of Resilience" suggests that nurses in the context of handling patients undergoing hemoperfusion procedures are actively developing a strong and resilient mindset to navigate the challenges inherent in their roles. This theme emphasizes the importance of resilience as a coping mechanism and a source of strength for nurses facing the complexities of caring for patients during hemoperfusion procedures. Resilience, in this context, refers to the ability to bounce back from adversity, adapt to changing circumstances, and maintain a sense of well-being in the face of challenges.

In the article of Yildirim et al., (2021), He highlights the importance of supporting nurses in developing resilience to navigate the demanding environment of hemoperfusion care and ultimately deliver optimal patient care. By building a "fortress of resilience," nurses can empower

themselves to thrive in challenging situations and provide exceptional care to patients undergoing this critical treatment.

Cluster Theme 2.1: The Art of Readiness

The participants do self-preparation to perform seamlessly in taking care of patients during a hemoperfusion procedure. The phrase "The Art of Readiness" aptly encapsulates the continuous learning, meticulous attention to detail, and unwavering commitment to patient safety that characterize the lived experiences of nurses in hemoperfusion care. This demanding specialty requires nurses to be constantly prepared, anticipating potential challenges and proactively ensuring optimal patient outcomes.

"The Art of Readiness" implies that nurses are not only responding to the immediate needs of the hemoperfusion procedure but are actively engaged in anticipating, preparing for, and addressing a range of potential scenarios. This may include technical aspects of the procedure, unexpected complications, and the emotional and psychological support needed for both the patient and themselves.

An article by Smith et al., (2022) emphasizes the importance of continuous learning, skill development, and maintaining a preparedness mindset. They outlined in their article the strategies for cultivating expertise and highlighted the benefits of being "ready" for nurses and patients in hemoperfusion care. By mastering the art of readiness, nurses can ensure optimal patient outcomes, enhance team collaboration, and experience greater job satisfaction in this demanding but rewarding field of nursing.

Cluster Theme 2.2: Synergy of Sharing and Caring

The participants share their knowledge, coordinate, and collaborate with other members of the healthcare team to provide a better caring environment for the patient who will undergo a hemoperfusion procedure. The metaphor "synergy of sharing and caring" aptly captures the essence of effective hemoperfusion nursing. In this demanding field, nurses must go beyond providing technical expertise and incorporate both collaborative sharing of knowledge and skills with compassionate care for their patients. This seamless integration of these two elements is crucial for achieving optimal patient outcomes and fostering a positive healthcare experience. This collaborative approach enhances the overall care experience for the patient and contributes to the nurses' collective coping mechanisms.

The synergy between collaborative sharing and compassionate care was investigated by White et al., (2023) in the context of hemoperfusion nursing. They highlight the various forms of sharing practiced by nurses, emphasize the importance of compassionate care for patients and families, and explore the positive outcomes that emerge when these two elements are combined. They underscore the crucial role nurses play in fostering a collaborative and compassionate environment in hemoperfusion care, ultimately leading to optimal patient outcomes and improved job satisfaction for themselves and their colleagues.

Cluster Theme 2.3: Tranquility in Action

"Tranquility in Action" suggests a calm and composed approach to action or behavior. this theme may highlight the importance of maintaining a sense of tranquility or composure during the dynamic and potentially stressful environment of providing care during hemoperfusion

procedures. While the environment is often demanding and stressful, nurses must maintain a sense of inner peace and composure to provide optimal care for their patients. Understanding the lived experiences of nurses in this context requires exploring how they cultivate this inner peace amidst the storm.

In the article of Martin et al., (2022), they explored the challenges nurses face, the strategies they use to cultivate inner peace, and the positive outcomes that result from maintaining composure amid stress. They also emphasize the essential role of self-care, mindfulness practices, and a positive outlook in enabling nurses to find peace within themselves and provide exceptional care to their patients. By learning to cultivate tranquility in action, nurses can navigate the demanding environment of hemoperfusion care with greater resilience, well-being, and effectiveness.

Cluster Theme 2.4: Elevating Procedure through Family Involvement

In this cluster theme, the participants involve the family in the decision-making process. The concept of “elevating procedure through family involvement" underscores the crucial role families play in optimizing the hemoperfusion care experience. By engaging families in meaningful ways, nurses can provide holistic support, enhance patient well-being, and ultimately contribute to improved outcomes. "Elevating Procedure through Family Involvement" to the thesis title implies that nurses recognize and actively engage with the patient's family, incorporating them into the care process during hemoperfusion procedures. Nurses may facilitate family involvement by keeping them informed about the procedure, explaining its importance, and addressing any concerns or questions they may have. In doing so, the family becomes an integral part of the care team.

The significance of family involvement in Hemoperfusion care from the perspective of nurses was explored by Brown et al., (2021). They encourage healthcare professionals to recognize the crucial role families play in supporting patients undergoing hemoperfusion and develop strategies to integrate them meaningfully into the care process. By elevating the procedure through family involvement, nurses can create a more supportive environment, ultimately leading to better patient experiences and improved outcomes.

Emergent Theme 3: Strengthening the Framework of Care

This means that the nurses stand as the architects of care, meticulously strengthening the framework upon which the entire healthcare system relies through their dedication, compassion, expertise, and unwavering commitment to the patients. They form a resilient structure that upholds the health and healing of individuals and communities alike. "Strengthening the Framework of Care" implies that nurses contribute not only to the technical aspects of the hemoperfusion procedure but also to the broader system of care surrounding it. This could involve refining communication strategies, optimizing workflow, and implementing measures to ensure comprehensive and patient-centered care.

In the article entitled “Strengthening the Framework of Care”, Miller et al., (2022) emphasize the importance of collaboration in the context of caring for patients on hemoperfusion. It explores the various forms of collaboration practiced by nurses, highlights the benefits of a strong framework of care, and showcases how collaboration can lead to improved patient outcomes, increased efficiency, and greater job satisfaction for nurses. They also encourage healthcare organizations to create environments that foster collaboration and teamwork, ultimately strengthening the foundation of

care for patients undergoing hemoperfusion therapy.

Cluster Theme 3.1: Cultivating Mindful Precision

The participants believe that being mindful of the protocols and process will help to have a greater outcome (success) for the patient throughout the Hemoperfusion procedure. "Cultivating Mindful Precision" implies a deliberate and focused approach to nursing care, emphasizing a balance between attention to detail and a mindful awareness of the overall patient experience. This theme suggests that nurses should cultivate a mindful and precise approach to their caregiving.

The theme also indicates that nurses go beyond the procedural aspects of caring for patients on hemoperfusion, incorporating heightened awareness and intentional focus into their practice of caring for the patient on that specific procedure. This might involve meticulous attention to the primary care of patients on hemoperfusion procedure, the technical details of the procedure, effective communication with the patient, and an overall mindfulness that extends to the emotional and psychological aspects of care.

The article entitled Cultivating mindful precision by Johnson et al., (2022) provides strategies for cultivating mindfulness, discusses the benefits of achieving balance, and showcases how mindful precision can contribute to a positive work environment and improved patient outcomes. By striving to cultivate both technical expertise and mindful presence, nurses in hemoperfusion can provide the highest quality care to their patients while maintaining their well-being and creating a positive and supportive work environment.

Cluster theme 3.2: Empathy at Heart

The participants believe that nurses should be empathetic towards their patients. The cluster theme "Empathy at Heart" implies that nurses, in the context of handling patients undergoing hemoperfusion procedures, approach their caregiving with a deep understanding of and compassion for the patient's emotional and physical experiences. This theme emphasizes the central role of empathy in shaping the nurses' interactions and care provision. It implies that nurses not only understand the medical requirements but also strive to connect with patients on a personal level, acknowledging their fears, concerns, and overall well-being.

The article of Williams et al., (2023) encourages nurses to cultivate and prioritize empathy in their practice, recognizing its profound impact on patients undergoing hemoperfusion therapy. By placing empathy at the heart of their care, nurses can create a more supportive and healing environment for their patients, ultimately contributing to improved well-being and positive experiences.

Cluster Theme 3.3: Peer-led Excellence

The participants believe that great support from peers will help in the success of rendering care to the patients on hemoperfusion procedure. "Peer-led Excellence" suggests a model of professional development and caregiving where nurses take on leadership roles to guide and support their peers, ultimately contributing to a culture of excellence. This theme implies that nurses actively participate in a collaborative and peer-led approach to providing high-quality care during hemoperfusion procedures.

The concept of "peer-led excellence" captures the essence of how nurses in Hemoperfusion care can leverage their collective knowledge and experience to enhance their skills, support their colleagues, and ultimately achieve excellence in patient care. Clark et al., (2022) highlight the various

forms of peer-led learning and support, emphasize the benefits for nurses and patients, and showcase how peer collaboration can contribute to a positive work environment and improved patient outcomes. The article encourages nurses to actively participate in peer-led initiatives and leverage the power of their collective knowledge and expertise to achieve excellence in hemoperfusion care. By fostering a culture of learning and support, nurses can empower each other, enhance professional development, and ultimately ensure optimal care for their patients.

Cluster Theme 3.4: Fulfillment Amidst Challenges

The participants feel happiness and satisfaction in doing their profession. "Fulfillment Amidst Challenges" suggests that nurses find a sense of satisfaction and accomplishment in their work, even in the face of difficulties or obstacles. This theme implies that nurses derive a sense of fulfillment from their caregiving role, despite the inherent challenges associated with handling patients undergoing hemoperfusion procedures.

This theme indicates that nurses not only acknowledge the difficulties involved in the hemoperfusion procedure but also find intrinsic rewards and meaning in their role. This may involve a sense of accomplishment in contributing to patient well-being, a deep connection with patients, and the satisfaction derived from overcoming the challenges inherent in the healthcare environment. The article of Wilson et. al., (2023) examined the concept of fulfillment in the context of hemoperfusion nursing. They explored the sources of fulfillment nurses experience, highlighted the challenges they face, and discussed strategies for navigating those challenges and finding meaning and purpose in their work. They emphasized the importance of self-care, professional development, a supportive network, and a positive outlook in enabling nurses to derive deep satisfaction from their work in hemoperfusion care. By finding fulfillment amidst challenges, nurses can contribute significantly to patient care, advance the field of hemoperfusion therapy, and experience greater personal and professional satisfaction.

The research on the lived experiences of nurses in handling patients undergoing hemoperfusion procedures has provided valuable insights into the unique challenges and rewards of this specialized field of nursing practice. Nurses in this setting face a delicate balance between technical expertise and compassionate care, requiring a blend of clinical knowledge, emotional resilience, and adaptability. As hemoperfusion therapy continues to evolve, the role of nurses in this field will become increasingly crucial. By recognizing the transformative impact of hemoperfusion care on nurses' professional identity and personal growth, we can empower them to continue providing exceptional patient care and contribute to the advancement of this life-saving therapy.

Recommendations

The researcher would like future researchers to consider using mixed-method research designs concurrently. This will provide a more comprehensive understanding of the phenomena under study and allow for triangulation of data, enhancing the credibility of the study's findings.

The researcher would like future researchers to consider conducting cross-cultural studies: In a world where people come from different cultural backgrounds, future studies should consider conducting cross-cultural studies to explore how cultural perceptions of healthcare practices, including hemoperfusion, influence nurses' approaches to patient care and decision-making.

To examine the impact of language and communication barriers on nurses' experiences in handling patients undergoing hemoperfusion and to explore the influence of cultural norms, beliefs, and values on nurses' emotional resilience, coping mechanisms, and support systems in diverse cultural settings.

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Organizational Commitment And Self-Efficacy As Predictors Of Staff Nurses' Work Performance

Moolien Jane A. Estimada, RN

Davao Doctors College

Davao City, Philippines

Abstract

The study aimed to determine the level of organizational commitment, self-efficacy, and work performance among staff nurses in the tertiary hospitals in Panabo City. The study utilized the descriptive correlational research design. The total respondents were 105 staff nurses from secondary hospitals in Panabo City using RAOSOFT calculator parameters for a population of 144 nurses. This study employed the purposive sampling technique implementing the following inclusion criteria: must have an age range of 18-60 years old. Also, the research instruments used in this study were the three adopted survey questionnaires to measure the levels of organizational commitment, self-efficacy, and work performance. Each questionnaire was subjected to validation by the three experts in the field of research and reliability was tested with Cronbach alpha results of 0.9303. The results demonstrate that the level of self-efficacy is High and the respondents' level of work performance is Very High. It is also examined that both self-efficacy and job performance have a strong positive correlation and are significantly associated with organizational commitment. It also emphasized that organizational commitment significantly influences work performance directly. It is also suggested to develop a Work Intervention Program that aims to appraise their duties and responsibilities, work and tasks, communication style, and attitude toward their patients.

Keywords: *Organizational Commitment, Social Science, Predictive, Panabo City*

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Introduction

Staff nurses are facing unprecedented challenges, with high patient acuity, staffing shortages, and burnout reaching alarming rates. This pressure cooker environment is jeopardizing work performance, potentially leading to medical errors and decreased patient satisfaction. Two crucial psychological factors, organizational commitment, and self-efficacy, are believed to be under strain. Nurses who feel unsupported by their workplace or lack confidence in their abilities due to overwhelming workloads may be more likely to become disengaged and perform at a suboptimal level.

Despite the significant body of research highlighting the importance of organizational commitment and self-efficacy in predicting work performance, there remains a significant research gap in understanding their specific roles in the context of staff nurses in Panabo City. This study aims to address this gap by examining the predictive relationship between organizational commitment and self-efficacy on the work performance of staff nurses in Panabo City.

The problem situation is further exacerbated by the lack of research focusing on the specific predictors of work performance among staff nurses in Panabo City. Existing studies have primarily focused on the broader healthcare context, neglecting the unique challenges and opportunities presented by this specific location. This research gap is particularly urgent given the critical role that nurses play in ensuring the delivery of high-quality patient care and the significant impact that their work performance has on patient outcomes and hospital performance.

The findings of this study have the potential to inform the development of targeted interventions aimed at improving organizational commitment and self-efficacy among staff nurses in Panabo City. By understanding the specific predictors of work performance in this context, healthcare administrators and policymakers can develop more effective strategies to address the challenges faced by nurses and improve the overall quality of care provided in these settings.

In conclusion, the urgent need for research on the predictors of work performance among staff nurses in Panabo City is evident. This study aims to contribute to the existing body of knowledge by examining the descriptive relationship between organizational commitment and self-efficacy on the work performance of staff nurses in Panabo City. The findings of this study have the potential to inform the development of targeted interventions aimed at improving organizational commitment and self-efficacy among staff nurses in Panabo City, ultimately leading to improved patient outcomes and hospital performance.

Methods

This thesis employed a descriptive correlational research design to investigate the relationships between organizational commitment, self-efficacy, and staff nurses' work performance in the Philippines.

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The study was conducted in the secondary-level hospitals located in Panabo City. A purposive sampling technique was used to recruit a representative sample of nurses from different hospitals and specialties. Overall, 105 respondents are selected to be respondents. They were selected through the following inclusion criteria: must be 18 years of age and above, must be employed as a staff nurse in one of the chosen hospitals, and must be willing to participate in the study. Three sets of adopted were used in gathering data from the respondents. In ensuring that the study followed the necessary ethical procedures, the paper underwent thorough and critical evaluation by the Ethics Review Committee. Frequency and Percentage, Mean, Standard deviation, and Spearman rho were the statistical tools used in analyzing the data.

Results and Discussion

Demographic Profile of Nurses in terms of Age, Sex, Length of Service, and Area

The Demographic Profile of Respondents

Demographic Profile	f	Percentage
	Sex	
Male	28	26.67
Female	77	73.33
Total	105	100.00
	Age	
18-25	3	2.86
26-30	28	26.67
31-40	60	57.14
41-50	9	8.57
51-60	5	4.76
Total	105	100.00
	Length of Service	
1-3 years	31	29.52
3-5 years	47	44.76
5-10 years	25	23.81
>10 years	2	1.90
Total	105	100.00
	Area	
Ward	59	56.19
Emergency Room	24	22.86
Dialysis	11	10.48
OR/DR	11	10.48
Total	105	100.00

Note: n=105

Table 2 shows the demographic profile of the respondents. Out of 105 staff nurses, 77 (73.33%) were female and 28 (26.67%) of them were male. Out of 105 staff nurses, 60 (or 57.14%) of the population had an age range of 31-40 years old; 28 (or 26.67%) of the staff nurses had an age range of 26-30 years old; 9 (or 8.57%) of the staff nurses had an age range of 41-50 years old; 5 (or 4.76%) of the staff nurses had an age range of 51-60 and 3 (or 2.86%) of the staff nurses had an age range of 18-25 years old. In terms of the length of service, 47 (or 44.76%) of the population rendered 3-5 years; 25 (or 23.81%) of the population rendered 5-10 years; 31 (or 29.52%) of the population rendered 1-3 years and only 2 (or 1.90%)

of them rendered 10 years and above. In terms of area assignments, 59 (or 56.19%) of the population are assigned to Ward; 24 (or 22.86%) of the population are assigned to Emergency Room; 11 (or 10.48%) of the population are assigned to Dialysis and another 11 (or 10.48%) of the population assigned in OR/DR.

Level of Organizational Commitment of Staff Nurses in terms of Affective, Continuance, and Normative

Table 3.
The Level of Organizational Commitment

Indicators	M	SD	Interpretation
Affective	3.92	0.53	High
Continuance	3.56	0.66	High
Normative	3.40	0.67	Moderate
Over-all	3.63	0.53	High

Note: Note: 3.26-4.00 –Very High; 2.51-3.25 --High; 1.76-2.50—Low; 1.00-1.75—Very Low; M- Mean; SD- Standard Deviation.

Table 3 reveals the level of organizational commitment in terms of affective, continuance, and normative commitment. Table 3 had an overall mean of 3.63 with a standard deviation of 0.53 and a descriptive equivalent of High. This means that the level of organizational commitment of staff nurses is often felt and manifested. Affective commitment got the highest mean of 3.92 with a standard deviation of 0.53 and had a descriptive equivalent of High. This has proven that affective commitment tends to be involved in an organizational activity consistently because of the accumulated investment lost if the activity is stopped.

Level of Self-Efficacy of Staff Nurses in terms of Care, Knowledge, Staff Relations and Leadership

Table 4.
The Level of Self-efficacy

Indicators	M	SD	Interpretation
Care	4.50	0.51	Very High
Knowledge	4.39	0.51	Very High
Staff-relations	4.33	0.54	Very High
Leadership	4.06	0.74	High
Over-all	4.32	0.48	Very High

Note: 3.26-4.00 –Very High; 2.51-3.25 --High; 1.76-2.50—Low; 1.00-1.75—Very Low; M- Mean; SD- Standard Deviation.

Table 4 shows the level of self-efficacy in terms of care, knowledge, staff relations, and relationships. It had an overall mean of 4.32 with a standard deviation of 0.48 and had a descriptive equivalent of Very High. This means that the level of self-efficacy among staff nurses is always felt and manifested. As shown above, care got the highest mean of 4.50 with a standard deviation of 0.51. It had

a descriptive equivalent of Very High. This is consistent with the study of Labrague et al. (2017) and Kilic and Oztunc (2015) whose findings revealed that participating critical care nurses pay more attention to providing psychological support through the assurance of human presence as well as professional and technical aspects of care.

Level of Work Performance of Staff Nurses

Level of Work Performance of Staff Nurses

Table 5.
The Level of Work Performance

Indicator	M	SD	Interpretation
Work Performance	4.31	0.50	Very High

Note: 3.26-4.00 –Very High; 2.51-3.25 --High; 1.76-2.50—Low; 1.00-1.75—Very Low; M- Mean; SD-Standard Deviation.

Table 5 reveals the level of work performance of staff nurses. As shown below, it had a mean of 4.31 with a standard deviation of 0.50 and had a descriptive equivalent of Very High. This shows that the level of work performance of the staff nurses is always felt and observed. The result confirmed with the study of Paais and Patiruhu (2020) that motivation and performance variables such as salary, training, work environment, rewards, leadership, and performance satisfaction. Nurses who have good work motivation will have a big impact on the health company where they work.

Correlation Between the Levels of Organizational Commitment and the Level of Work Performance

Relationship Between the Level of Organizational Commitment and the Level of Work Performance

Variable	r	p-value	Decision	Remarks
	Work Performance			
Organizational Commitment	0.354	0.000	Reject H_{01}	Significant

Note: Significant if p<0.05; IV- Organizational Commitment; DV- Work Performance.

Table 6 shows the relationship between the level of organizational commitment and the level of work performance. The result shows a positive significant relationship between the level of organizational commitment and the level of work performance. Specifically, the strength of the relationship is weak and directly proportional. This implies that an increase in the level of organizational commitment is correlated with an increase in the level of work performance. Research indicates a positive relationship between

organizational commitment, work motivation, and performance (Nawangsari et al., 2023). Additionally, it was found that employees committed to their organization provide a high quality of care and better performance, ensuring patient safety and continuous routine operations. Several studies found that, among other social demographic characteristics, the length of service in the organization influences organizational commitment (Labrague et al., 2018).

Correlation Between the Level of Self-Efficacy and the Level of Work Performance

Table 7.
Relationship Between the Level of Self-efficacy and the Level of Work Performance

Variable	r	p-value	Decision	Remarks
	Work Performance			
Self-efficacy	0.591	0.000	Reject H_{02}	Significant

***Note*:** Significant if p<0.05; IV- Organizational Commitment; DV- Work Performance.

Table 7 shows the relationship between the level of self-efficacy and the level of work performance. The result shows a positive significant relationship between the level of self-efficacy and the level of work performance. Specifically, the strength of the relationship is moderate and directly proportional. This implies that an increase in the level of self-efficacy is correlated with an increase in the level of work performance. Thus, the efficacy beliefs of nurses are at the same time products and constructs of past experiences. Both positive and negative biases may arise from such pre-existing schemas that contribute to the maintenance of a current level of self-efficacy and lead to job satisfaction and work/personal life balance (Al-Mahmoud et al., 2017).

Association Among Organizational Commitment, Self-Efficacy, and Work Performance

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Table 8.
Relationship Between the Level of Self-efficacy and the Level of Work Performance

			Organizational Commitment	Self – Efficacy	Work Performance
Spearman's rho	Organizational Commitment	Correlation Coefficient	1	.428**	.267**
		Sig. (2-tailed)		0	0.006
		N	105	105	105
	Self – Efficacy	Correlation Coefficient	.428**	1	.555**
		Sig. (2-tailed)	0		0
		N	105	105	105
	Work Performance	Correlation Coefficient	.267**	.555**	1
		Sig. (2-tailed)	0.006	0	
		N	105	105	105

**. *Correlation is significant at the 0.01 level (2-tailed).*

Table 8 displays the association between organizational commitment, commitment, and work performance. It was hypothesized that there is a significant relationship between self-efficacy work performance the organizational commitment. The data was analyzed using Spearman's rho since a violation of the assumption of normality was observed. The results show that there was a positive correlation between organizational commitment (□=1.00, p<.001), self-efficacy (□=.428, p<.001), and work performance(□=.267, p<.001).

Han (2022) conducted a study to identify the effects of the nursing work environment, job crafting, and work commitment on nurses' job satisfaction perceived by nurses using a survey. Results found that job satisfaction showed a significant positive correlation with the nursing work environment, job crafting, and work commitment. Furthermore, job crafting and organizational commitment had a mediating effect on the relationship between the nursing work environment and job satisfaction. Thus, the impact of the nursing work environment on work performance among hospital nurses was mediated by job crafting and organizational commitment.

INTERVENTION PROGRAM

Title	**PRAISE (Personal Recognition and Awards in Identifying Service Excellence)**
Purpose	1. To develop personal motivation to job performance. 2. To enable personal growth and development by engaging one's self to do his/her job. 3. To recognize individual who exemplify good job performance. 4. To give credits intrinsically as means to reward for his/her performance in their respective job.
Timeline	The proposal will be every month and in year-end
Activity	Employee of the Month This is a monthly activity given to nurse/personnel who exemplified their dedication and performance in his/her field. This is done to recognize employees' performance in such a way that they will be assessed and evaluated following criteria and guidelines. In this manner, nurse will motivate himself/herself to do more, focus more and manage more his skills and talents as well as his/her attitude towards colleagues and patients. Year-End Recognition This is an activity culminated every end of the year to give recognitions and awards to those nurses who did their job in promoting healthcare, attitude towards their colleagues and patients, has an outstanding performance and manifest keen sense of dedication and service to the institution. Peer Evaluation This is done every month to assess and evaluate performance of the nurses in their respective jobs. It is an activity that focuses on the nurses' positive and negative outcomes and how they will be rectified, improved and developed more. An institutional evaluation will be done to ensure fairness and confidentiality through the help of the personnel responsible to this.
Budget	10,000 – 20,000 Php
Person Involved	Nurses coming from the different Departments, Human Resource Manager, Hospital Administrator

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BARRIERS OF COMMUNICATION: LIVED EXPERIENCES OF NURSES CARING INDIGENOUS PATIENTS

Rosemary N. Gementiza, RN

Davao Doctors College
Davao City, Philippines

Abstract

This study focused on exploring and understanding the lived experiences of nurses on language barriers while caring for Indigenous patients. The study utilized the qualitative descriptive-phenomenological approach, 14 adults were purposively selected to participate in the face-to-face in-depth interview and focus group discussion of which seven underwent the in-depth interview and the other seven underwent the focus group discussion. Using Colaizzi's qualitative data analysis approach, nurses' experiences were carefully analyzed and derived with the following themes: Miscommunication due to Language Barrier, Looking at the Brighter Side, and Creating an Acceptable Atmosphere. The experiences of nurses in caring for Indigenous patients were expressed in the themes: Dealing with Language Gap, Entering into Unknown Territory, and Encountering Inconsistent Data. How the nurses cope with their experiences was expressed on the following themes: Maintaining Patience and Understanding, Finding Ways for Easy Communication, and Learning Diverse Cultures. Finally, the insights they can share with their peers and the nursing practice, in general, were expressed in the themes of equal Treatment despite Differences, Caring beyond Borders, and Making Bonds Against All Odds. The results of the study were deemed significant to the nurses and in nursing practice in general as it provided viewpoints towards the language barrier and the steps undertaken in addressing the language barrier as it is promoting culturally sensitive care, embracing cultural diversity, improving patient care quality, and, ultimately, improving patients' overall healthcare experiences regardless of their identity, race, culture, and language used.

***Keywords**: Language barrier, Nursing, Phenomenology, Kapalong, Davao del Norte, Philippines*

Corresponding email: rosemarynarciso88@gmail.com

Introduction

Language barrier is a phenomenon that has impaired communication in the workplace due to the reason that people do not share the same language. It is evident in the workplace such as in the hospital where patient coming from different cultures and tribes use their native language instead of the widely spoken in the area. Thus, it resulted in a miscommunication between the nurses and the patient. Language barriers may have a detrimental impact on the efficiency and management of healthcare (Mari, 2019). Language barriers, for instance, have been linked to subpar patient assessment, incorrect diagnosis and/or delayed treatment, inadequate comprehension of patients' problems and recommended treatments, and decreased confidence in services obtained (de Moissac & Bowen 2019).

Similarly, Ali and Watson (2018) stated that language barriers are the biggest challenges faced by health workers in the hospital in providing adequate, effective, and timely care to patients, especially if the patients do not share the same language as spoken by the healthcare workers such as nurses. Consequently, language barriers are a major source of miscommunication between healthcare providers and patients, lowering the quality of care and decreasing patient satisfaction. Miscommunication between nurses and patients has a severe impact on both healthcare providers and patients, diminishing healthcare quality and jeopardizing patient safety (Al Shamsi et al., 2020).

In a worldwide setting, in Australia, language barriers pose a communication challenge when medical staff and patients do not speak the same language. Language barriers have been associated with an increase in the difficulty of obtaining patient history and informed consent resulting in poor communication outcomes (Bond & Sing 2020). In Ethiopia, the language barrier is a challenge in the healthcare facilities, especially those patients who come from different tribes who do not speak the widely used language which resulted in miscommunication between the nurses and patients (Gerchow et al., 2021).

In the Philippines, as stated by Rubio (2019) in a hospital set up most especially those located in rural areas, it is quite difficult for nurses to provide competent care to patients who belong to different cultures especially those who come from an ethnic group since they have their language or dialect spoken. In Malaybalay City, Bukidnon, Philippines, the communication barrier between staff nurses and Indigenous people provides particular challenges due to the city's cultural and linguistic diversity (NCIP-Buk, 2019). Meanwhile, in the local setting, some nurses in the hospital particularly in the Province of Davao del Norte experience difficulty in dealing with indigenous patients due to the language barrier when they seek medical care in the hospital since they use their local language in communicating with the nurses and other healthcare professionals, which bring confusion and misunderstanding.

Additionally, this study will explore the struggles of the nurses with the language barrier that they have faced with Indigenous patients and comprehend the ways undertaken by the nurses to address the language barrier. On the other hand, research on language barriers in healthcare is primarily focused on physicians and lacks information on nurses. More so, Wood (2019) stressed that there is a need for more research on language barriers in healthcare to delve into the experiences of nurses particularly those who deal with Indigenous patients since most of the studies unveiled the difficulties faced by indigenous patients towards nurses.

The purpose of this phenomenological study is to explore and understand the lived experiences of nurses on language barriers specifically in dealing with indigenous patients when they are admitted to the hospitals in Davao del Norte.

Relevant and various related literature and writing from different sources with the study from different published studies of recognized experts both of which have significant bearing or relation to the problem under investigation. This entails the relativeness to the study being pursued. In this study as viewed

by Atashzadeh Shoorideh et al. (2021); de Moissac and Bowen (2019) stressed that language barriers between nurses towards patients who belong to ethnic groups will increase the possibility of misunderstanding that will result in misdiagnosis of patient's conditions. It means that language problems are the reasons why problems in healthcare institutions exist and the services are also affected by communication problems within the sphere of healthcare services. It was also stated by Ali and Watson (2018) that the quality of treatment can be negatively impacted by ignoring language obstacles, which can lead to poor nurse-patient communication. In like manner, language barrier is one of the issues faced by healthcare professionals such as nurses in a hospital setting, as it compromises disposition and understanding between them and the patients. This problem usually exists when one of them does not share the same language. In the same way, Green et al. (2018) stressed that miscommunication between nurses and indigenous patients due to language barriers may complicate the issues faced by healthcare providers in treating patients brought about by cross-cultural communication.

Previous research has shown that language barriers harm nurses when dealing with linguistic minorities in terms of both accessibility and quality of care. However, language barriers can impair communication between patients and healthcare providers (De Moissac & Bowen 2019). Likewise, a language or communication barrier happens when medical workers and patients use different languages (Abdulrahman et al., 2021). And due to this language difference, it may hurt medical care (Patterson et al., 2019).

Moreover, as stated by Squires (2018) language barrier between nurses and patients can significantly affect nursing practices and patient outcomes and satisfaction. It also undermines the service that can be provided due to these challenges. In the same way, maintaining patient safety, delivering high-quality healthcare, and reaching high patient satisfaction levels are all hampered by language barriers (Al Shamsi et al., 2020). It is also cited by the National Conference of State Legislatures (2021); Ndugga and Artiga (2021) that the language barrier faced by nurses towards the indigenous patients that come from different cultures has consequences such as healthcare gaps due to miscommunication.

Further, when there is a language barrier experienced by the nurses toward ethnic minorities, patients receive less information about the therapeutic regimen and understand less of the medication instructions (Shiro & Reeves, 2020). Likewise, language barriers may negatively impact the nurse-patient relationship, causing patient frustration, anxiety, and a lack of trust, affecting patient-provider relationships and healthcare access. It may impair nurses' capacity to deliver the best care to ethnic minority patients (Al Shamsi et al., 2020). While caring for patients, nurses are increasingly on the front lines of societal concerns (Williamson, 2020). However, when they face language barriers towards ethnic and racial minorities, the economically poor, and persons with chronic health issues they have a hard time entertaining them due to miscommunication which results in large disparities in healthcare access (Davis et al., 2020).

As cited by Samkange-Zeeb et al. (2020) it is emphasized that the lack of a common or shared language between nurses and patients with different backgrounds such as ethnicity, beliefs, and status regardless of the level of education proved to be one of the biggest barriers to healthcare access in the interviews. This influence greatly the services to the patients who use different languages such as the Aboriginal people while accessing healthcare services. It can also lead to problems for nurses in providing healthcare services to patients as it forces them to wait for a longer time to ask for someone who knows at the least basic language that the patients are using. This can delay the medical attention that the patients may get due to language differences.

According to Buarqoub (2019), language barriers are the root causes of many problems or obstacles in health care creating a negative impact on quality public healthcare services. This means that language barriers impact a lot in the healthcare services given by the nurses to patients who do not share the same language spoken or used. It also affects the patients who fail to decipher the message delivered to them by the nurses or other healthcare professionals because of this barrier that is present in the healthcare set-up that pushes them not to talk to each other since do not share the same language (Beshah, 2021).

In addition, nurses struggle in dealing with patients who do not use the spoken language in a particular place which sometimes creates confusion on their part, particularly on the diagnosis of symptoms and others since they do not share the same language (Jackson, 2022). The confusion entails that nurses and patients who use different language would not portray a good standing as to the essence of healthcare services. Thus, nurses are highly regarded as being in a state of language confusion because they are not in accord with the language standard used in a particular setup (Penn & Watermeyer, 2018).

The nurses who struggle in dealing with aboriginal people or the so-called culturally diverse patients emphasize that they are worried about how they communicate with these people, how they give the best that they can, particularly in giving medication to these patients, and how they do their best to provide the necessary care to them (Rheault et al., 2021; Smith et al., 2020).

Ali and Watson (2018) mentioned that language barriers are the biggest obstacles to nurses in providing adequate, effective, and timely care to patients with limited language proficiency in a shared language particularly those who belong to ethnic minorities. It stressed that language barriers among nurses and patients who do not use the same language in a hospital setting created problems when they started to communicate. It made nurses problematic as to whom to talk with and relay messages that the patients could understand especially when talking to Indigenous people who use different languages. Language barriers between nurses and Indigenous patients in care can also result in dangerous situations and risks related to medication, pain treatment, diagnosis, the communication of risks, and/or emergencies (Jones et al., 2019). Similarly, language barriers between nurses and Indigenous patients affect service and medication due to miscommunication (Ayaz et al., 2022).

In a study conducted by Chae and Park (2019), it was found that dealing with ethnic people in a hospital setting has a significant effect on nurses' emotions. Notably, empathy was the most commonly felt and anticipated emotion, followed by pity, sorrow, frustration, helplessness, and stress. These findings are part of the psychological burden of nurses when taking care of these patients due to cultural and language barriers. This likely increases the problem and frustration on how they will interact and interpret the words uttered due to the lack of knowledge of the nurses in understanding the words they say. Accordingly, language barriers have a major impact on the cost and quality of healthcare. They commonly occur between healthcare providers and patients when the two groups do not share a native language such as the nurses and indigenous patients which hamper their communication resulting in blurry data acquisition and care (Slade & Sergent, 2018).

The study is anchored to the theory of Transcultural Nursing by Madeleine Leininger in the 1950s (Nursing Theory, 2020). According to the Transcultural Nursing theory, culture affects health care since patients come from different backgrounds, cultures, and languages. Thus, it influenced the way nurses interact with patients. Cultural influence has significantly contributed to this problem since people from different cultures have their language and they use this in their daily conversation. This dilemma could heighten the possibility of misunderstanding between nurses and patients that resulted in complex grasps of thought on the words being uttered. However, despite the language barrier, it is expected that the nurses

would still provide nursing care and demonstrate person-centered care regardless of the culture and language used. Moreover, nurses should be mindful that each person is culturally distinct, with varied experiences shaping their identities and worldviews. Furthermore, nurses must reflect on their cultural background, attitudes, and prejudices to avoid projecting them onto the patient.

The theory above supports the study about language barriers in the hospital setting between nurses and patients, particularly Indigenous patients. Language barriers per se have crawled on the notion that nurses have difficulties in dealing with such problems and it makes them problematic whenever there are patients from the ethnic groups who seek medical attention. Further, it signifies that language barriers create division in understanding the words uttered by the patients since they do not share the same language used during admission. Despite the difficulty that they have faced, it is expected that nurses would still deliver relevant and effective care to these patients.

Moreover, the theory of Communication Accommodation (CAT) by Giles, Coupland & Coupland (1991) stated that language barriers can be traced to the ability of the speakers and recipients to understand each other through the language they use and how they communicate with each other. Misunderstanding occurs when one of them is not able to connect and comprehend the language used which leads to disorganization within the sphere of communication. It also delineates that language barriers can make the process of communication inferior because they undermine the ability of a person to understand the words being said by the speaker. Hence, it creates boundaries and problems between the speakers and recipients.

In addition, hospital problems of the language barriers between nurses and patients specifically those who deal with indigenous patients in the hospital are most likely to have serious gaps in the interpretation of their respective medical conditions due to the language barriers. The nurses would have experienced serious trouble since their patients do not speak the common language used which widened the gaps between the nurses and patients most especially those indigenous patients. This problem in the hospital scenario in caring the indigenous patients has tremendously impacted the services to be given to them since misdiagnosis may take place due to the language barriers that are happening in the hospital setup.

The theories used navigate the ideas of how culturally diverse patients have influenced language barriers that would undermine the aspects of effective communication, and how it affects the patient's medication or diagnosis due to language barriers. It elucidates the fact that communication plays a significant role in the hospital setting, how nurses and other healthcare providers interpret or decipher patients' language who come from diverse cultures and backgrounds.

Methods

This study utilized the descriptive qualitative, particularly the phenomenological approach. This includes the design, setting, participants, data sources, data gathering procedure, the trustworthiness of the study, the role of the researcher, ethical considerations, and the data analysis. The entire methodology exposed the way the study was conducted, the tools used, and the consideration undertaken in ensuring that it does not harm, influence, and prejudice individuals, particularly the participants.

The participants were chosen based on the objectives of the study using purposive sampling techniques. It has fourteen (14) participants who are nurses who experienced language barriers while caring for indigenous patients. They have been in the service for 1-5 years as hospital nurses and can encounter the aforementioned patients. The fourteen (14) participants underwent the in-depth interview (IDI) and

focus group discussion (FGD) in which they were divided into two groups, seven (7) for the IDI and the other seven (7) for the FGD.

The data-gathering procedure commenced by seeking an approved letter duly signed by the Program Chair of the Graduate School under the Master of Arts in Nursing program of Davao Doctors College. Upon the approval of the letter, I went directly to the hospital where my study took place and asked permission from the hospital in charge to have their permission to allow me to conduct my study. After they had signed the letter, I went to my target participants and gave them the informed consent stating their voluntary participation and to affix their signature to the letter. Then, I set a date based on their availability to conduct the interview both the in-depth interview and the focus group discussion. On the day of the interview, a brief orientation about the preliminaries of the study was conducted. Minimum health protocol was strictly followed and observed at all times in the process of interview and gathering of data.

After the interview, the responses were transcribed and analyzed to come up with the relevant theme based on their responses. After that, the participants were given the transcription of their responses to check if all the transcriptions made were true and did not deviate from the original thought made by the participants.

More so, the data was analyzed using Colaizzi's seven-step phenomenological technique. This method consists of the following steps: (a) familiarization, (b) identifying significant statements, (c) formulating meanings, (d) clustering themes, (e) developing an exhaustive description, (f) producing the fundamental structure, and (g) looking for verification of the fundamental framework (Morrow et al., 2015). The steps provided important details of the description of the study and ensured that it generated a thorough description of the phenomena being studied. Further, following Colaizzi's data analysis, all transcripts were reviewed and re-read to get a basic idea of the entire content of the phenomenon being studied.

Results and Discussion

Experiences of Nurses in Caring for Indigenous Patients

The discussions of the experiences of the nurses in caring for indigenous patients are expressed in one theme: Miscommunication due to language barrier. The significant responses chiefly focused on the difficulties they faced due to the language barrier that resulted in miscommunication between the nurses and the patients.

Miscommunication due to Language Barrier

The theme expresses the notion that nurses have struggled in their communication with Indigenous patients during hospital admission. Their experiences limit their capacity to interact with the patients due to language barriers that impair the communication process. These experiences can be seen in a broader perspective as these hamper their daily conversation.

Dealing with Language Gap. In the hospital setup where there are patients that come from minority groups, it is expected that there will be a miscommunication between them, and that resulted in some concerns by the nurses on how to resolve this linguistic gap. It delineates the reactions of the nurses in caring for Indigenous patients as influenced by language barriers. Most of the nurses have claimed that they

have difficulties in dealing with this kind of patient and how they are going to cope with such problems that they are facing.

The experiences of the nurses entail that the language barrier affects communication and is supposed not to be an issue in the workplace. However, due to language barriers, miscommunication or misunderstanding in the hospital setting is evident wherein the nurses face such problems or difficulties in communicating with the patients, particularly those belonging to ethnic minorities. Their responses are corroborated by Al Shamsi et al. (2020) who indicated that language barriers might impede communication between patients and healthcare professionals, causing problems in the hospital setting, particularly for nurses. In a similar vein, De Moissac and Bowen (2019) demonstrate in their study that language barriers hurt linguistic minorities' access to quality healthcare.

Entering into Unknown Territory. It entails that having conversations with patients whose spoken language is different makes the nurses confused and they can compare their spoken language to foreign people where nurses have difficulty understanding them. Similarly, it explains the participant's challenging situation as they deal with patients who do not speak the same language they used. This also refers to the confusion state experienced by the nurses who directly interact with the indigenous patients without the aid of an interpreter that will help them connect with the patients for better understanding. Similar to the analogy, entering into unknown territory means that the nurses are working in foreign countries unarmed with the necessary weapons to combat the struggles they have to face.

In connection with this, miscommunication between healthcare providers and patients is sometimes caused by language barriers. This misinterpretation relates to lower patient and healthcare worker satisfaction, a decline in healthcare delivery quality, and compromised patient safety. It appears that healthcare professionals such as nurses struggle to connect with patients due to the language barrier that hampers communication between them. It is like they are in an unknown place without knowledge of how to deal with certain circumstances that they are in. Furthermore, research shows that language barriers lead to medical professionals' imperfect understanding of patients' problems, delayed or misdiagnosed treatment, poor patient assessment, and incomplete prescribed treatment due to language barrier (de Moissac & Bowen, 2019).

Encountering Inconsistent Data. It characterizes the struggles experienced by the nurses in getting relevant information about them since the patients lack education and have different answers to the questions being asked of them. This was also derived from the nurses' experiences while interacting with Indigenous patients during their treatment in the hospital. The experiences include the difficulty in getting relevant information that leads to inconsistent data acquired due to fluctuating answers whenever the nurses interrogate these patients. This leads to wrong information gathered. This puts nurses in a problematic situation where they need to find ways to get the necessary data correctly. The problem faced by the nurses includes the inability to spell their names correctly, different responses to the asked questions, and cannot to provide family information, etc. This struggled the nurses over some time while they were at work when they interacted with the indigenous patients.

Poor communication due to language barrier with patients who do not share the same language is considered to be potentially risky. Nurses worried that these patients who do not speak the same language would misunderstand them. Nurses also struggle to collect detailed history of the patients and their important data due to this language difference which results in misinterpretation and patients would spend less time with nurses (Alm-Pfrunder et al., 2018; Silvera-Tawil et al., 2018).

Nurses Coping Strategies in Caring for Indigenous Patients

The discussions of the nurses' coping strategies in caring for Indigenous patients are expressed in one theme: Looking at the Brighter Side. The relevant responses primarily focused on how the nurses dealt with their daily experiences and the ways they have undertaken to address such issues in the workplace.

Looking at the Brighter Side

This explains the way nurses deal the Indigenous patients regardless of the language they speak. It covers varied ways as to how the nurses overcome such difficulties in interacting with them by using interpreters and other people who can translate the spoken language by the patients so that the nurses would understand what they are saying. It amplifies how these nurses devote themselves to their profession despite the hardships that they have experienced when they encounter Indigenous patients in the hospital that want medical care. They consider their experiences as difficult ones, yet they are hopeful that they can overcome such struggles that they have by looking for someone who can help them during the hospitalization of the patients. Looking at the brighter side means they can glare hope behind the gloomy clouds in the days. It expressed how it radiates to nurses and sheds light on their tough times. Meanwhile, the participants have experienced signs of hope on their journey as healthcare professionals notwithstanding all the challenges they faced while at work.

Maintaining Patience and Understanding. This pertains to the utmost behavioral aspect of the nurses in dealing with the indigenous patients knowing that they do not share the same language with them. It expressed their capacity to maintain their patience and understanding and let this behavior come together to overcome such work rigor. This expresses the idea that despite the difficulty they face, nurses must exercise or possess patience in dealing with this kind of patient since they come from other culture that needs care while they are at the hospital. This covers the experiences of heightening patience and understanding amidst the atrocity that they have encountered all along from their work. Their sense of tolerance must come all to surmount the unyielding effect of language barriers at the workplace.

Evidence suggests that healthcare providers who are patient with others and can explain, listen, and sympathize with the patient's feelings may have a major impact on illness outcomes and care experience. Effective communication can promote patient disclosure and active participation in the care process, improving patient safety, comprehension, and individualized care practices. When nurses, patients, and caregivers communicate openly, patients feel appreciated and are more willing to be upfront about their health conditions. Furthermore, care personnel who communicate successfully with patients may improve patient dignity by attending to patient concerns and needs (Johnsson et al., 2018).

Finding Ways for Easy Communication. This demonstrates the nurses' linguistic bridge that helps them go through this problem inside the hospital by looking at those people who can help them connect with the indigenous patients. Moreover, it discusses that regardless of the language barrier, nurses are looking for relatives or people in the same tribe who can translate the language of the patients so the nurses to understand the patients and give accurate medical care to them. The theme itself reveals the crucial experiences of the nurses in their work as nurses who grapple with a language difference.

Concerning the idea above, it is stated that the efficiency of patient companions as translators were found to be helpful and accurate translators to the message to be interpreted from the patients' speech turns (Cox et al. 2019). Furthermore, ad hoc interpreters or people who are not trained interpreters and accompany a different-speaking individual is a more commonly used strategy for overcoming language barriers and the

presence of a person who knows the language of the patient who speaks differently than healthcare providers such as nurses is of great help (Pokorn Kocijancic, 2019a, p. 41).

Learning Diverse Cultures. This depicts the nurses' ability to learn and understand their cultures as well feelings, emotions, and linguistic views of the patients to overcome the demanding call of duty as influenced by the language barrier. Nurses are trying to understand their culture and beliefs by learning basic language as it fuels them to understand what the patients are saying. This relates to the ability of the nurses to engage themselves in the learning process of learning basic words of the indigent for them to understand what is being said by the Indigenous patients during their medication in the hospital.

Language and culture are connected, and nurses' self-assessed competence in both areas influenced their perceptions of care delivery. The culture of a nurse, whether similar or unlike that of a patient, influences care delivery. Nurses found cultural views influencing healthcare decisions or treatments, as well as information gaps that hampered interaction with patients and comprehension of their needs. The nurses recognized the implicit and explicit linkages between language and culture, but their comfort with incorporating them into care delivery appeared to vary, as did their reasoning for what shaped their comfort levels (Amoah, 2019; Chae & Park, 2019).

Insights that Nurses can share with their Fellow Nurses and with the Nursing Practice in General

The discussions on the insights that the nurses can share with their fellow nurses and the nursing practice in general are expressed in the theme: Creating an Acceptable Atmosphere. The responses focused on how the nurses can create an acceptable environment for all and nurture the essence of inclusivity for all patients regardless of their background and language used.

Creating an Acceptable Atmosphere. This provides details on the experiences leading towards equal treatment regardless of who they are as a person. It describes the ability to connect oneself and create an atmosphere where everyone can feel that they belong to society and are allowed to receive similar services or treatment as others. It portrays a spectrum of inclusivity that everyone should be part of notwithstanding their race, culture, belief, and language spoken. This is to be intensified by the healthcare providers who see the situation of the indigenous patients and help them to get substantial care and services in the hospital despite the differences.

Equal Treatment despite differences. This describes the equal opportunity to be given to the patients no matter how difficult it is to communicate with them. It must be strengthened through building rapport and treating them as part of the family so that they may feel that they belong to society. This relates to the idea that nurses as healthcare providers must give equal treatment to Indigenous patients as they have provided to non-IP patients. They must have the ability to decipher their situation and regard them as part of the family just like anybody else.

Equal treatment, a welcoming environment, respectful, culturally competent staff, and a community feel to the health services provide belongingness to patients and help increase satisfaction among ethnic minority patients. They may feel that they are valued and respected regardless of their ethnicity (Jones et al., 2020).

Caring beyond Borders. It expresses the nurses' experiences in caring for Indigenous patients by understanding them since they come from ethnic minorities who need care whenever they visit the hospital.

It means that as a healthcare provider, nurses should always provide care to the patients despite the language barriers. Nurses should understand that these patients need so much attention since they are less fortunate people in society. It also refers to the feelings associated with sympathy and willingness to help despite the language barriers. This may entail a significant contribution to the well-being of Indigenous patients who are living in far places and just come to the hospital facility to ask for medical care due to their sickness. By understanding them, the nurses themselves can provide a significant contribution to their healing.

It is evident that by providing healthcare services and valuing them they can feel that they have a special place in the healthcare facilities and are treated like no other individuals (Jones et al., 2020). Trust in healthcare professionals has been linked to higher treatment adherence; thus, improving patient satisfaction and perceived quality of care among minority patients (Dierfeldt et al., 2021).

Making Bonds Against All Odds. Encapsulates the idea of belongingness and also establishes good relationships with the patients and provides them the same amount of care as given to other races. This means that equal treatment must prevail in the hospital despite the difficulties faced by the nurses to the indigenous patients. This elucidates the idea of helping people and at the same time creating meaningful relationships with others. It magnifies the essence of camaraderie and helpfulness to people. In the same way, it helps bridge the gap between people so that no hardship cannot be dealt with bearably.

In order to promote a positive patient experience, nurses must provide high-quality, excellent, culturally sensitive experiences, and culturally appropriate care. In this way, good healthcare experiences could spread among Indigenous families and communities, motivating others to seek medical attention and ultimately leading to better health outcomes (Jones et al., 2022). Building trust between nurses and indigenous patients can be facilitated through exhibiting faith in one another without fear or hesitation and by interacting with compassion that develops over time (Ozaras & Abaan, 2022). Additionally, nurses need to communicate with tolerance and respect. This will help patients feel more at ease, welcome, and safe when they ask questions (Nolan-Isles et al., 2021; Jones et al., 2022).

Recommendations

The study will help understand the way nurses deal with indigenous patients in the hospital despite the language barrier. The study may also generate additional information on the experiences of the nurses and how these nurses adapt to challenges posed by language barriers between them and the indigenous patients.

It also provides the hospital administrator with the steps to be undertaken to help address this problem so that better communication between the nurses and patients will be resolved and primary care will be given to them. Additionally, it serves as the door for future researchers to look into the other aspects of language barriers that have not been investigated so that further understanding of this phenomenon will be disseminated. More so, future researchers should conduct a study further on the language barrier from different provinces or hospitals to see if the same problem exists or has been addressed already by the hospital administration. And to delve deeper into the insights and experiences of nurses who are caring for indigenous patients.

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The Sea Gypsies: Lived Experiences of Mothers during Perinatal Care

Vissia B. Guzman, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

On a worldwide basis, there is widespread concern about inequality, discrimination, and growing gaps among indigenous communities. Indigenous women have notably restricted access to sexual and reproductive health care, which makes it difficult for them to exercise their legal right to receive proper perinatal care. Therefore, this study focuses on exploring and understanding the lived experiences of Badjao mothers during perinatal care. Using the qualitative descriptive-phenomenological approach, ten (10) Badjao mothers were chosen using the purposive sampling technique to participate in the in-depth interview and focus group discussion while adhering to minimal health protocols. Using Colaizzi's approach to qualitative data analysis, the lived experiences of Badjao mothers during perinatal care were capsulated in the themes of Life on the Beach, Salty Air, and Deep Waters. The Badjao mothers' coping mechanisms were expressed in the following themes: Tidal Treasure, Cruise Control, Lifeboat Afloat, and A Siren Song. Finally, the insights they shared with their fellow mothers and the community generally cover the following themes: oceanic oases, coral preservation, lighthouses, and tropical treats. The findings revealed the importance of valuing and respecting Indigenous people by giving them access to quality healthcare. Additionally, healthcare professionals must also build a solid foundation in cultural competency to provide care for Indigenous patients in an effective manner. These could help in the development of more inclusive and effective methods to enhance perinatal health outcomes for the Badjao community.

***Keywords**: Badjao Community, Health, Descriptive-Phenomenology, Sarangani Province*

Corresponding email: vishguzman12@gmail.com

Introduction

Badjao people, also known as the "Sea Gypsies," are a distinct ethnic group inhabiting the coastal areas of Tawi Tawi, Sulu, Basilan, and some municipalities of Zamboanga del Sur in the Autonomous Region in Muslim Mindanao (ARMM) of the Philippines. Despite their strong cultural identity and unique way of life, the Badjao have faced various challenges, including marginalization, displacement, and limited access to education, healthcare, and other essential services (Abelo et al., 2020). Indigenous peoples, including the Sama-Badjao tribe, have distinct cultural identities and often live in areas with rich natural resources but experience marginalization and neglect in society. Sama-Badjao mothers typically have poor prenatal check-ups and

health-seeking behavior, relying on traditional hilots and herbal medicine for pregnancy, labor, and delivery (Tolentino et al., 2018). It is said that the lack of access to modern medicine is due to traditional beliefs and insufficient funds, resulting in reliance on alternative healing methods. The combination of limited access to modern medical facilities and cultural factors puts the Badjao population at a higher risk for maternal and infant health challenges.

In a global scenario, Indigenous women in the United States of America have reported instances of non-consensual sterilization and coerced contraception when seeking healthcare related to pregnancy, childbirth, or the postpartum period. Moreover, a study conducted by Brown et al. (2019) found that around 51% of women perceived discrimination or unfair treatment from healthcare providers. Indigenous pregnant women in Canada face numerous physical, psychological, organizational, and structural barriers that hinder their access to quality care. Indigenous women are more likely than non-Indigenous women to encounter clinical complications during pregnancy, highlighting the ongoing structural effects of colonization (Bacciaglia et al., 2023).

In the Philippines, rural and indigenous women have notably restricted access to sexual and reproductive health care, which makes it difficult for them to exercise their legal right to procreate (Kanem, 2018). Moreover, indigenous women are at a higher risk of experiencing violence during pregnancy, which can have devastating consequences for both the mother and child. Thus, the Philippine government and healthcare providers need to prioritize the needs of pregnant indigenous women and ensure that they receive the necessary support and services to ensure a safe and healthy pregnancy (Marini, 2018). The implementation of programs aimed at enhancing the lives of the Badjaos, examining strengths and weaknesses in aspects like birth registration, hospital discounts, and health initiatives, could help address the identified challenges, improve program effectiveness, and ultimately enhance the overall quality of life for the Badjao community (Tamayo & An, 2019).

Empirical studies have indicated that discrimination is a prevalent experience for Indigenous individuals; patients have reported instances of mistreatment, stereotyping, and poor-quality care (Wylie & McConkey, 2018). These concerns are regarded as the root causes of why Indigenous people are hesitant to seek appropriate healthcare. Another contributing factor is the disparities in services offered between the community (panday) and hospitals in providing care for pregnant Badjao women, which are particularly evident in the context within which the research was conducted. In the local communities of Badjao, the panday (local midwife) plays an important role in taking care of pregnant women for safe delivery. They also carry out certain rituals for expectant mothers to keep away evil spirits that might interfere with a mother's pregnancy (Tababa, 2019). Such a condition is the same for Brgy. Kamanga in Maasim Sarangani Province, and as a result, Badjao women are reluctant to seek medical attention from clinics or hospitals due to fear of being misunderstood and not being accustomed to the particular methods of treatment offered. Thus, the local government may provide services and programs to address their needs and concerns while also considering their unique culture and traditions (Tamayo, 2019).

The purpose of this phenomenological study is to explain and understand the experiences of Badjao mothers during perinatal care in Maasim, Sarangani Province. At this stage in the research, the lived experiences of Badjao mothers during perinatal care will be generally defined as the time between when Badjao mothers became pregnant and up to a year after giving birth. Despite the numerous studies conducted on the healthcare practices and outcomes for pregnant mothers in the Badjao community, there remain certain areas that have not been adequately explored. One such crucial aspect is the lived experiences of Badjao mothers in Maasim, Sarangani Province, during perinatal

care. The Badjao moms seek out traditional *hilots*, take herbal medicines, and give birth at home, which results in poor prenatal check-ups and health-seeking behavior. Their cultural healing practices, as well as their lack of knowledge about the services provided by healthcare professionals and hospitals, have a significant impact on their decision to seek medical attention during pregnancy. This situation inspired the researcher to design this study to better understand these indigenous groups' distinct experiences during perinatal care and potentially improve their quality of life. Understanding the lived experiences of Badjao mothers during perinatal care is essential for developing culturally sensitive and effective interventions. It is vital to consider their unique cultural beliefs, traditional practices, and socio-economic circumstances that may influence their perceptions, decision-making, and overall satisfaction with perinatal care services. Exploring the lived experiences of Badjao mothers can provide valuable insights into their interactions with healthcare providers, the role of family and community support, and their overall journey through pregnancy, childbirth, and postpartum care. Such research can pave the way for developing comprehensive and inclusive perinatal care programs that address the specific needs and preferences of Badjao mothers, ultimately improving their overall well-being and the health outcomes of their infants.

The Transcultural Nursing Theory by Madeleine Leininger places significant emphasis on the need to recognize and understand cultural diversity when delivering healthcare services. Given that different cultures have different health values, beliefs, and behavioral patterns, it is beneficial for nurses to be knowledgeable about the cultural backgrounds of their patients. Culturally acceptable healthcare services come from the knowledge of people and families within certain communities about various healthcare systems. As the theory states, patients who perceive that they can effectively interact with their medical team may feel more empowered to speak up for their needs.

Cultural competence plays a role in healthcare. It is a fundamental concept in transcultural nursing theory. This theory goes beyond acknowledging differences and emphasizes the active integration of this understanding into healthcare practice. As Leininger rightly suggested, patient-centered care requires consideration of preferences, customs, and beliefs. By recognizing and respecting these subtleties, nurses can build trusting and therapeutic relationships with their patients, ultimately leading to better health outcomes. This approach does not improve communication. It also enables personalized care plans that cater to each individual's cultural background. Ultimately, embracing cultural competence empowers healthcare professionals to bridge the gap between the healthcare system and diverse communities, fostering inclusivity and raising the standards of patient care.

Methods

The subjects of this study were ten Badjao women from Maasim, Sarangani Province, determined through the purposive sampling technique. As defined by Nikolopoulou (2022), it is a non-probability sampling technique in which units are selected due to their ability to meet the requirements of the study. The participants were chosen based on the following criteria: Badjao mothers listed in the jurisdiction, living near the shoreline, and having a child aged one year or below. The subjects were chosen following inclusion criteria that gave the researcher confidence that the selected people could speak about the actual experiences Badjao moms had while receiving perinatal care. For triangulation, I conducted an individual depth interview (IDI) with 7 Badjao mothers and 3 for a focus group discussion (FGD) to explore their lived experiences during perinatal care and how they cope with the challenges they experience.

In collecting the data, the interviews were guided by the central question, "What are the lived experiences of Badjao mothers during perinatal care?" and the questions were verified by a panel of three professionals from related fields. As part of the ethical protocol, I have obtained permission to audio record the interviews. Strict adherence to the established guidelines for reporting qualitative research was upheld throughout the study, and cross-validation of the reliability and validity of the data collected was utilized.

In this study, qualitative data was analyzed through Colaizzi's descriptive phenomenological method, which enables researchers to document their impressions of a phenomenon and relate them to the experiences of study participants. Colaizzi's distinctive seven-step process provides a rigorous analysis, with each step staying close to the data. By using Colaizzi's descriptive phenomenological method, the first step was familiarization. I familiarized myself with the data by reading through every participant's response several times to acquire familiarity with the data and reveal its hidden meanings. The second step was to identify significant statements. I identify all statements within the transcript that directly relate to the phenomenon being studied. These statements, which encapsulate the participants' central ideas, emotions, and perceptions, serve as the essential components of their experiences. The third step was formulating meanings. After carefully examining the significant statements, I identified the meanings relevant to the phenomenon. The identified meaning units are then grouped based on their shared or related themes, revealing the common patterns that run through the participants' narratives. The fourth step was clustering themes. I categorized the clustered themes based on formulated meanings to identify common experiences among all informants. The fifth step was developing an exhaustive description. I compiled all the themes generated and created a comprehensive description of the phenomenon. The sixth step produces the fundamental structure. I condensed an exhaustive written description down to a short statement and removed irrelevant ideas, leaving only the relevant themes and sub-themes. And the last step was seeking verification of the fundamental structure. I returned the research findings to the participants and discussed the results with them. Eventually, all participants showed their satisfaction with the results, which entirely reflected their feelings and experiences.

Results and Discussion

The Sea Gypsies: Lived Experiences of Mothers during Perinatal Care

Discussions of the lived experiences of the Badjao Mothers are divided into three themes which are Life on the Beach, Tidal Treasures, and Oceanic Oasis.

Challenges experienced by Badjao Mothers

The first theme of the unique challenges experienced by Badjao mothers was exemplified by the first emergent theme, "Life on the Beach." Their lives are intricately interwoven with the sea, mirroring this concept of where they derive cultural practices and wisdom. Their sea-nomadic lifestyle, characterized by residence on houseboats and reliance on marine resources for sustenance, shaped their perinatal experiences. This close cultural connection to the sea is reflected in their traditional birth practices and beliefs (Villena & Abalos, 2020).

Deep Waters. The metaphor of "deep waters" aptly captures the sense of being overwhelmed or in distress that many perinatal women experience. They may experience a range of difficulties, including pregnancy symptoms and bodily changes (Smith, 2022). Food cravings are a common aspect of pregnancy. While the exact cause of pregnancy cravings isn't fully understood, hormonal changes, nutritional needs,

and psychological factors are believed to play a role. Cravings are often urgent, food-specific, and cognitively demanding occurrences that are differentiated from hunger (Blau, 2020).

Salty Air. Just as salty air can be nourishing for the skin, pregnancy brings moments of joy and fulfillment. Despite the demands of pregnancy, Badjao women maintain their active lifestyles, fulfilling daily responsibilities and tasks, including working, socializing, and exercising (Lopez, 2017). Their resilience and adaptability reflect their deep-rooted cultural values and their harmonious coexistence with the marine environment. Their dependence on traditional free diving for pearls and fish to support their families underscores their close connection to the sea (Liang, 2018).

Support System received by Badjao Mothers

Tidal Treasures. The resilience of Badjao mothers, who navigate the tumultuous waters of poverty and displacement, is a testament to their unwavering spirit. Their lives, often submerged in a sea of intense emotions and challenging circumstances, serve as a poignant reminder of the human capacity to persevere in the face of adversity. The arduous journey of childbirth, while filled with hardships, represents a triumphant ascent from the depths to the radiant light of motherhood (Bautista, 2019). The concept of "Tidal Treasures" highlights the valuable support systems and resources that sustain pregnant women in Badjao communities, as well as their adaptive strategies for coping with their struggles.

Cruise Control. Cruise control in the ocean symbolizes a ship or vessel maintaining a consistent course and smoothly navigating the currents and waves. Pregnancy is a transformative journey marked by a cascade of physical and emotional changes that profoundly impact both the mother and the developing fetus (Davis & Sandman, 2017). These alterations, even in uncomplicated pregnancies, have the potential to influence the well-being of both expectant mothers and their unborn children (Dennis & McQueen, 2018). To maintain their general health, pregnant women adopt good habits and routines such as obtaining regular exercise, eating a balanced diet, getting enough sleep, and receiving vaccines as part of their preventive care.

Lifeboat Afloat. The phrase "lifeboat afloat" metaphorically represents a strong and reliable support system that helps pregnant women navigate the challenges of life, much like a lifeboat helps people stay afloat in the water. The network of support that mothers receive from their social circles, healthcare providers, and Governments plays a crucial role in mitigating the risk of physical complications during childbirth and enhancing their physical and mental health postpartum (Dennis & McQueen, 2018). Throughout history and across cultures, expectant mothers have traditionally relied on the guidance and support of knowledgeable women, close relatives, and friends during their journey toward motherhood. These individuals provided special care, ensured access to nutritious food, and shielded expectant mothers from physical strain and stress (Hashimoto et al., 2017).

A study by Stephanie in 2022 showed that mothers appreciated the diligence of healthcare workers in providing information for safer maternal and child care. Maternal health service utilization centers on the capacity of health facilities to provide services like evaluation of the progress of pregnancy, laboratory examinations, free medicines, and immunizations; and on region-bound individual factors. Community health centers are essential in delivering accessible and affordable prenatal care, which encompasses prescription medications, to expectant mothers (Gaskin, 2018).

A Siren Song. The Siren Song refers to an alluring and enchanting melody that captivates those who hear it. In this analogy, cultural beliefs serve as a comforting and captivating force that provides individuals with a sense of peace, particularly when these beliefs align with traditions passed down by their ancestors. Understanding cultural context is crucial to providing respectful maternity care (Rachmayanti, 2023). The values, beliefs, morals, customs, and practices that are accepted by a community or group and are frequently transmitted to the following generation through practice, implementation, and dissemination are included in the cultural context. Cultural beliefs give them peace of mind as they know they are abiding by the traditions of their ancestors; these must be respected, provided they do not prove to be harmful to pregnant women. These beliefs are usually intended to provide an example of good or beneficial behavior and are expected to have a positive impact on one's life (Peprah, 2018).

Valuable Insights of Badjao Mothers

Oceanic Oasis. This encapsulates the participants' valuable insights that can serve as a beacon of guidance for other mothers navigating similar journeys and for the broader community. These insights illuminate the cultural practices and heartfelt pleas of the Badjao people amidst challenging circumstances (Ignacio, 2017; Jovero, 2020). An "oceanic oasis" in the realm of advice and insights represents a wealth of wisdom and guidance in the vast sea of life's challenges. It symbolizes a source of valuable information and perspectives that can nourish and sustain individuals on their journeys.

Coral Preservation. Just as coral reefs provide a vital ecosystem for a diverse array of marine species, Badjao communities safeguard their cultural identity by fostering the intergenerational transmission of customs and beliefs (Villena, 2018). This ongoing cultural transmission ensures the continuity of Badjao traditions, deeply embedded in their ancestral beliefs and practices (Dolor, 2020). Cultural influences have a big impact on how a woman views and prepares to give birth. Most pregnant women involved in a study by Bernaldez (2016) still hold onto their traditional views.

For the Badjao, cultural beliefs, attitudes, and practices have also been found to be critical in determining mothers' health. When pregnant women fall ill, they often seek advice from traditional birth attendants and traditional healers. They listen to their mothers rather than seeking advice from other mothers (Abelo, 2020).

Lighthouse. The Lighthouse theme aptly captures the significance of timely and appropriate medical advice, which can illuminate the path for expectant mothers, particularly during their most vulnerable moments (World Health Organization, 2022). Consulting a healthcare provider is widely recognized as an essential step towards achieving a healthier pregnancy. This is due to the extensive knowledge and expertise that healthcare professionals possess in managing maternal health.

Tropical Treats. Tropical Treats aptly encapsulates the support that Badjao mothers sought and obtained from the government, fostering a sense of community and cultural preservation (Maceda, 2021). Government assistance programs play a vital role in ensuring the well-being of Badjao mothers and their children. PhilHealth's emphasis on early and regular prenatal consultations, along with the DOH's maternal and child health programs, has significantly contributed to improving prenatal care access for Badjao women. These initiatives have helped reduce the risk of perinatal death and promote healthier pregnancies among this indigenous group. Additionally, the PSA's provision of a free birth certificate. This theme underscores the Badjao mothers' resilience and resourcefulness in navigating challenging socio-economic circumstances.

Recommendations

The researcher believes that this study can be used as a springboard for future studies to explore the lived experiences of Badjao mothers during perinatal care. The first is to conduct research that explores the resilience factors among Badjao mothers during the perinatal period. There is a strong need to identify cultural strengths, coping mechanisms, and community support systems that contribute to positive perinatal experiences. Understanding these factors can inform interventions that build on existing strengths. Moreover, to implement participatory action research approaches that involve Badjao mothers and their communities in the research process. Collaborate with community members to identify research questions, co-design interventions, and assess the feasibility and effectiveness of culturally tailored perinatal care programs. Lastly, dig deeper into traditional healing practices within the Badjao community that may influence perinatal care decisions. Explore how traditional practices can be integrated into contemporary healthcare approaches to create a culturally sensitive and collaborative care model.

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The Relationship between Total Quality Management Practices and Nurses' Employee Engagement in Panabo City

Jenny T. Ibasco, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The study aims to address a significant challenge in Panabo City's healthcare setting: a marked deficiency in commitment and engagement among nursing professionals, which adversely affects patient care quality. This predictive correlational investigation delves into the association between Total Quality Management (TQM) practices and nursing employee engagement (NEE). Utilizing a meticulously designed Likert scale questionnaire inspired by reputable sources such as the National Health Service (NHS) Staff Engagement Survey and the research of Dr. Emad A. Al-Shdaifat, responses from 100 participants underwent thorough analysis. The findings unveiled a solid dedication to TQM practices and high levels of NEE among the participants. Statistical analyses underscored a substantial positive association between TQM and NEE, highlighting the critical role of TQM in fostering nursing employee engagement and enhancing patient care outcomes. Notably, teamwork emerged as a significant influence on NEE, suggesting the importance of collaborative efforts in fostering engagement among nursing professionals. Recommendations advocate for further integration of TQM principles into organizational culture, active involvement in quality improvement initiatives, continuous support and training for nursing staff, and a particular emphasis on fostering teamwork to enhance nurses' employee engagement. These insights contribute to advancing knowledge in healthcare management and underscore the importance of cultivating a culture of continuous improvement and employee engagement in healthcare settings.

Keywords: *Total Quality Management, Social Sciences, Predictive-correlational, Panabo City*

Corresponding email: erijen3811@gmail.com

Introduction

In healthcare, a notable issue arises from the lack of commitment and engagement among nursing professionals, leading to adverse effects on patient care (Maze et al., 2023; Flaubert et al., 2021). This trend results in increased errors and compromised patient safety and satisfaction due to the disengagement of nursing staff (Smith et al., 2020). As frontline caregivers, nurses ensure patient care quality and safety (Johnson et al., 2019). However, their disengagement diminishes their motivation to uphold high standards, decreasing patient outcomes and satisfaction (Antwi & Darkwa Fentim, 2021), posing significant challenges for healthcare organizations in maintaining service excellence (Barnawi, 2022).

Nurses grapple with numerous challenges, such as high workload, staffing shortages, and burnout, significantly impacting their well-being and engagement (Christensen et al., 2023). The demanding nature of their profession often leads to emotional exhaustion and decreased job

satisfaction, exacerbating disengagement issues (Johnson et al., 2019). These challenges have repercussions beyond individual nurses, significantly influencing the quality and safety of patient care (McKeown et al., 2019). Despite the recognized importance of nursing staff in healthcare outcomes, the persistent strain they face undermines their ability to deliver optimal care and maintain high standards (Maze et al., 2023; Mohammed et al., 2023). Consequently, there is an immediate need to tackle these systemic problems and foster an environment that supports nurses' well-being and engagement to ensure the delivery of exceptional healthcare services.

Internationally, nurses face challenges, including high workloads, staffing shortages, and burnout, significantly impacting their well-being and engagement (Christensen et al., 2023). Despite the advantages of TQM practices on nurses' contentment and dedication, as demonstrated by research such as that of Afene et al. (2022), there remains a conspicuous gap in research focusing specifically on TQM within nursing contexts and its implications for nurses' employee engagement globally (Antwi & Darkwa, 2021). Shifting to the local scenario in Panabo City, Philippines, the healthcare landscape mirrors the broader global context with its unique challenges. The nursing workforce in Panabo City is indispensable to the healthcare delivery system. However, a noticeable research gap exists regarding the connection between TQM and nurses' employee engagement within the Philippine context (Falguera, 2022).

This study addresses a significant research gap by examining the impact of Total Quality Management (TQM) practices on nurses' employee engagement levels in Panabo City, Philippines. Despite extensive research on TQM's influence on organizational performance, particularly in industries outside healthcare, empirical evidence is more regarding its specific effects on nursing engagement, especially within the Philippine context. This study uses a correlational research approach to illuminate the complex dynamics of this link. It will provide insightful information to Panabo City's local healthcare institutions and add to the larger global conversation on methods for improving healthcare quality.

Methods

The research adopts a predictive-correlational research design to explore how TQM practices correlate with nurses' work engagement within the healthcare context of Panabo City, Philippines. It combines elements of predictive analysis with correlational methodologies to understand existing conditions and forecast future outcomes. The research focuses on private hospitals in Panabo City to capture the diverse healthcare landscape of the Philippines, aiming to provide insights applicable to similar healthcare settings nationwide.

Participants include 100 nurses from various departments within multiple private hospitals, chosen using random stratification sampling to ensure representation across nursing specialties. Data collection involves a standardized Likert scale survey modified to the specific context of Panabo City, assessing TQM practices and employee engagement dimensions. Rigorous validation and reliability testing ensure the questionnaire's accuracy and consistency.

This study primarily prioritizes the well-being and participants' rights. The study aims to contribute valuable knowledge to the nursing community while ensuring that participants' interests are safeguarded at every stage. Risk mitigation strategies are meticulously implemented to minimize potential harm or discomfort to participants, emphasizing their safety and welfare. Voluntary participation is strongly emphasized, and participants are given thorough information about the study to make

knowledgeable choices about it. Furthermore, strict measures are in place to protect participant's privacy and confidentiality, guaranteeing the preservation of their data secure and undisclosed. Overall, the ethical framework of this research underscores a commitment to upholding the rights, dignity, and well-being of the individuals who voluntarily give their time and insights to the study.

The procedure adheres to a systematic approach, including obtaining formal permissions, questionnaire development and validation, participant recruitment, data collection, and analysis with statistical methods like frequency, mean, standard deviation, Spearman's rho, kernel regression, and understanding of the results. Recommendations are based on research outcomes, improving TQM practices and nurses' engagement.

The study's scope is focused on private hospitals in Panabo City. Its limitations include the snapshot nature of the design, the potential impact of external factors, and constraints on participant availability. These limitations underscore the need for cautious generalization beyond the study's context.

Result and Discussion

Table 1. The Level of Total Quality Management Practices

Domains	Mean	SD	Interpretation
Continuous Improvement	4.01	1.04	High
Teamwork	4.14	0.90	High
Top Management Commitment	3.91	1.05	High
Customer Focus	4.09	0.75	High
Over-all	4.04	0.77	High

Legend:1.00-1.80Very Low,1.81-2.60Low, 2.61-3.40Moderate, 3.41-4.20High, 4.21-5.00Very High

The table shows a high mean score of 4.04 and a 0.77 standard deviation, signifying robust implementation across evaluated domains. This signifies a substantial organizational emphasis on continuous improvement, teamwork, top management commitment, and customer focus. Despite minor variations in individual domain scores, all fall within the "High" interpretation range based on their standard deviations, suggesting consistency in TQM practices across the organization.

Among the TQM domains, teamwork emerges with the utmost mean score of 4.14 and a standard deviation of 0.90, representing a robust culture of collaboration and mutual support among nurses. This fosters an environment conducive to collective problem-solving, innovation, and increased employee engagement and job satisfaction (Xin et al., 2023). Dinh et al. (2021) underscores the pivotal role of teamwork in healthcare, emphasizing its contribution to better decision-making and higher quality of care. While teamwork demonstrates strength, there is room for improvement to reach "very high" levels, suggesting opportunities to optimize

communication and conflict resolution strategies.

However, the commitment of top management, despite having the lowest mean score among the domains at 3.91 and a 1.05 standard deviation, is still regarded as high. This signifies dedication to quality management efforts, albeit with potential challenges in leadership alignment and support for quality initiatives. Ahmed et al. (2019) and Quek et. Al (2021) stresses the importance of top management commitment to successful quality improvement efforts, highlighting its indirect impact on quality performance through workforce management. Further investment in leadership alignment and support could enhance TQM practices organization-wide (Giancarlo et al., 2023).

Overall, the elevated average scores in every TQM domain underscore a comprehensive approach to quality management, aligned with the findings of Alzoubi et al. (2023), emphasizing the significance of TQM principles in nursing practices. Organizations can drive effectiveness, competitiveness, and improved patient outcomes by prioritizing continuous improvement, fostering teamwork, ensuring top management support, and prioritizing customer satisfaction (Jennifer, 2020).

The consequences of these discoveries are significant. Organizations can leverage strengths in teamwork and top management commitment to further enhance TQM practices. Investing in targeted interventions to bolster teamwork dynamics and strengthen leadership alignment can increase nurses' engagement and organizational performance levels (Campbell et al., 2020). Moreover, the consistency in TQM practices suggests a stable basis for upcoming quality enhancement initiatives. As supported by Mamdouh et al. (2022) in their study, capitalizing on these insights, healthcare organizations can drive continuous improvement efforts, cultivate an environment of excellence, and, ultimately, raise the standard of care provided to patients.

Table 2. The Level of Nurses' Employee Engagement

Domains	Mean	SD	Interpretation
Organization	4.03	0.72	High
Managers	4.15	0.80	High
Personal Development	4.12	0.82	High
Over-all	4.10	0.78	High
Organization	4.03	0.72	High

Legend:1.00-1.80Very Low,1.81-2.60Low, 2.61-3.40Moderate, 3.41-4.20High, 4.21-5.00Very High

Table 2 depicts the levels of nurses' engagement across different domains, revealing an overall mean score of 4.10 and a 0.78 standard deviation. This denotes a positive perception of employee engagement of all nurses within the organization, reflecting a supportive and fulfilling work environment. The continuously high average scores obtained from all domains highlight the organization's dedication to fostering nurses' growth, development, and overall satisfaction, contributing to their heightened engagement level. These findings correspond with Al-Hamdan & Bani Issa (2021) and Garcia et al. (2021) research stressing the importance of organizational support, professional development opportunities, and a favorable culture in cultivating employee engagement and contentment.

In the "Manager" domain, the highest mean score is recorded at 4.15 and a 0.80 standard deviation, which underscores the effectiveness of leadership and support provided by managers within the nursing department. This score suggests that nurses perceive their managers as supportive, approachable, and responsive to their needs and concerns. According to Eunkyung et Al. (2023), positive relationships between staff nurses and their immediate managers can significantly impact employee engagement and job satisfaction. These findings are supported by Contreras et al. (2020), who highlight the positive influence of colleague and immediate manager support on work engagement, stressing the significance of a supportive environment and emotional encouragement in fostering nursing staff motivation and engagement. Furthermore, Kim et al. (2023) also reinforce the concept that when nurses see that their supervisors value them, they are more likely to be inspired, in control, and dedicated to their tasks.

However, despite the high mean score of the manager domain, it is notable that the result does not yield a "very high" rating. This suggests that while the relationships between staff nurses and their managers are generally positive, there may still be areas for improvement. Possible factors contributing to this include occasional lapses in communication, differing managerial styles, or areas where support could be enhanced further. According to Akgerman and Sönmez (2020), trust in managers is vital in shaping nurses' organizational commitment, with positive and supportive behaviors fostering higher levels of reliance and commitment. Therefore, while the relationship between staff nurses and their managers is strong, there may still be opportunities for refinement to achieve even higher levels of nurses' employee engagement and job satisfaction.

Despite its mean score of 4.03 and a standard deviation of 0.72, the "Organization" domain, while the lowest, still reflects high levels of employee engagement, indicating the organization's efforts in fostering a positive work environment. The organization's role in impacting nurses' engagement is crucial, as highlighted by Wei et al. (2023) and Zhai et al. (2022), who emphasize factors such as perceived organizational support, professional development opportunities, organizational culture, and communication satisfaction in influencing nurses' engagement and commitment. These findings underscore the significance of organizational initiatives in providing support, development opportunities, inclusive cultures, and effective communication strategies to enhance nurses' engagement and retention.

The collective mean score of 4.10 indicates a considerable level of engagement among nursing staff across diverse domains. This implies overall job satisfaction, robust managerial backing, and recognition of avenues for individual development within the nursing workforce. Such a high rating, according to Badwan et al. (2022) underscores the organization's adeptness in fostering an environment conducive to employee engagement and contentment that is pivotal for maintaining productivity and ensuring optimal patient outcomes. To sustain this positive trajectory, the organization must prioritize employee engagement, offer ongoing support, and cultivate a nurturing workplace ambiance for its nursing staff (Hilde et al., 2022).

Table 3: Test of Relationship Between the Total Quality Management Practices (TQMP) and Nursing Employee Engagement (NEE)

Domains	Nursing Employee Engagement			
	r-value	p-value	Decision	Remarks
Continuous Improvement	0.652	0.000	Reject Ho	Significant
Teamwork	0.634	0.000	Reject Ho	Significant
Top Management Commitment	0.623	0.000	Reject Ho	Significant
Customer Focus	0.581	0.000	Reject Ho	Significant
TQMP	0.702	0.000	Reject Ho	Significant

Table 3 presents the testing outcomes for the connection between TQM Practices and Nursing Employee Engagement (NEE) across various domains. Each domain's correlation coefficient (ρ), p-value, decision, and remarks are provided for analysis.

The analysis reveals several significant findings. Firstly, the Continuous Improvement domain exhibits the strongest correlation with Nurses' Employee Engagement (NEE); with a correlation coefficient (ρ) of 0.652 and a statistically significant p-value of 0.000, the null hypothesis (Ho) is rejected. This indicates that efforts to promote continuous improvement practices significantly enhance nursing staff's engagement within the institution. Initiatives to refine processes and encourage staff participation in quality enhancement endeavors positively influence employee engagement (Tibeihaho et al., 2021).

Next, teamwork demonstrates the second-highest correlation coefficient (ρ) of 0.634 with Nursing Employee Engagement (NEE), indicating a moderate positive relationship. Despite not having the highest correlation coefficient, it still presents a significant p-value of 0.000, leading to rejecting the null hypothesis. This underscores the significance of teamwork practices in positively impacting nurses' employee engagement. Effective teamwork fosters collaboration, communication, and mutual support among nursing staff, increasing job satisfaction and overall performance (Han et al., 2023).

Thirdly, a moderate positive relationship is noticed between commitment from top management and Nursing Employee Engagement (NEE), with a correlation coefficient (ρ) of 0.623, rejecting the null hypothesis (Ho) and is supported by a significant p-value of 0.000. This highlights that the commitment from top management is critical in influencing nurses' employee engagement. When top management demonstrates genuine dedication to quality initiatives and actively supports nursing staff in their roles, it fosters a sense of trust, empowerment, and accountability among employees (Tang et al., 2022; Akgerman& Sönmez, 2020).

Lastly, the customer focus domain displays a moderate correlation with Nursing Employee Engagement (NEE), supported by a correlation coefficient (ρ) of 0.581 and a significant p-value of 0.000, rejecting the null hypothesis (Ho). This study suggests that implementing TQM methods to improve patient experience can enhance nursing staff engagement. Nurses become more involved when they observe their work's direct impact on patient outcomes, improving contentment at work and patient care (Hawarna et al., 2023; Zakari et al., 2019).

Overall, the findings emphasize the correlated roles of various Total Quality

Management (TQM) Practices in nursing employee engagement. Continuous improvement demonstrates the highest correlation, followed by teamwork, top management commitment, and customer focus. These results stress how crucial it is for healthcare institutions to promote a better environment, prioritize patient needs, demonstrate leadership support, and promote teamwork to enhance nursing staff engagement, ultimately leading to improved patient care and organizational success.

Table 4: Test of Influence of the Total Quality Management Practices (TQMP) on Nursing Employee Engagement (NEE)

Domains	Observed Estimate	Bootstrap SE	z	p-value	Decision	Remarks
Mean						
Nursing Employee Engagement	4.218	0.946	44.600			
Effect						
Continuous Improvement	0.213	0.212	1.010	0.314	Accept Ho	Not Significant
Teamwork	0.306	0.143	2.140	0.032	Reject Ho	Significant
Top Management Commitment	0.111	1.065	0.100	0.917	Accept Ho	Not Significant
Customer Focus	0.044	0.677	0.060	0.948	Accept Ho	Not Significant
R-squared = 0.8473						

Domains	Observed Estimate	Bootstrap SE	z	p-value	Decision	Remarks
Mean						
Nurses' Employee Engagement	4.162	0.064	65.540			
Effect						
Total Quality Management Practices	0.578	0.158	3.670	0.000	Reject Ho	Significant
R-squared = 0.7878						

The table illustrates the impact of (TQM) practices on Nursing Employee Engagement (NEE) across various domains. Among the TQM practices domains assessed, teamwork emerges as a significant influencer of NEE, with a rejective p-value of 0.032, indicating its substantial influence. This discovery implies that nurturing an

atmosphere of cooperation and mutual assistance among nursing staff significantly enhances their engagement levels (Han et al., 2023). The impact of teamwork on NEE may be credited to its direct effect on establishing a supportive and unified work environment, wherein nurses perceive themselves as valued, empowered, and driven to contribute to team objectives.

Moreover, according to Contreras et al. (2020) and McLaney et al. (2022), this and needs. Despite this, TQM practices significantly influence NEE, suggesting that even if individual elements may not have as much of an impact, TQM's overall application enhances nursing staff involvement (Tibeihaho et al., 2021).

Finally, these conclusions coincide with James's (2021) and Larsson et al.'s (2022) studies, which highlight the vital role of promoting teamwork in healthcare organizations to boost employee engagement and improve patient care and organizational success. However, non-significant influences in certain TQM domains suggest areas for improvement. Addressing these can create a more supportive work environment, benefiting staff and patients.

Conclusion and Recommendations

The research revealed a robust application of TQM) practices, with a high mean score of 4.04. Teamwork, in particular, scored exceptionally high, indicating robust collaboration and mutual support among employees. Despite lower scores for top management commitment, the overall dedication to quality management was evident, underscoring the need for targeted interventions in teamwork and leadership support to foster a culture of excellence and improve patient care outcomes.

positive atmosphere likely fosters higher job satisfaction and commitment among staff, increasing engagement levels. On the other hand, as indicated by their p-values above the 0.05 cutoff, commitment of top management, customer focus, and continuous improvement have no discernible impact on NEE. This could be due to inconsistent implementation strategies, insufficient resources, or lack of alignment with nurses' priorities

Nurses' work engagement received a high mean score of 4.10, with effective leadership from immediate managers scoring 4.15. While the organizational domain had slightly lower scores, the overall engagement levels remained high, reflecting a positive workplace atmosphere. This highlights the importance of continuous support and nurturing workplace dynamics to maintain high engagement levels among nursing staff.

Substantial connections were found between TQM practices and various domains of Nursing Employee Engagement (NEE), especially with continuous improvement, teamwork, top management commitment, and customer focus. These outcomes underscore the necessity for a culture of enhancement, leadership endorsement, and teamwork to boost nursing staff engagement and improve patient care. Among TQM practices, teamwork emerged as a significant influencer of NEE, suggesting that fostering collaboration among nursing staff can significantly enhance their engagement levels. Though commitment from top management, customer focus, and continuous improvement did not demonstrate substantial individual impacts on NEE, collectively, TQM practices positively influenced nursing staff engagement.

The research outcomes suggested that the organization has robust TQM practices, particularly in teamwork and continuous improvement. To enhance patient care outcomes, targeted interventions in teamwork and leadership support are crucial. High levels of nurse engagement were observed, especially in the Manager domain, indicating effective leadership. However, ongoing support and nurturing of workplace dynamics are essential to maintain and improve engagement across all aspects. Significant correlations between TQM practices and NEE domains denote the importance of cultivating a culture of enhancement in healthcare organizations. Continuous improvement, teamwork, top management commitment, and customer focus are key areas to prioritize for enhancing nursing staff engagement. Teamwork significantly influences NEE, indicating the need for healthcare organizations to prioritize teamwork initiatives to improve employee engagement and patient care.

The proposed intervention program, "Advancing TQM Practices for Enhanced Nurses' Employee Engagement," includes the following key activities: TQM training and education, leadership development workshops, quarterly team-building workshops, cross-training programs, and a recognition and reward system. Additionally, communication and collaboration will be improved through regular meetings and digital platforms.

Based on the findings, several recommendations are proposed. Clients and their families should be encouraged to participate actively in feedback mechanisms to aid continuous improvement efforts and enhance patient care. Nursing service offices should focus on interventions and training to improve teamwork and leadership competencies among nursing staff, conducting regular evaluations to track engagement levels and identify areas for improvement. Healthcare organizations should allocate resources to strengthen teamwork and leadership support within nursing teams, prioritizing employee well-being through initiatives like flexible scheduling and recognition programs.

Moreover, the study on TQM's impact on nurse engagement in Panabo City, Philippines, has several limitations. Its geographic focus restricts generalizability, the cross-sectional design limits causal inferences, and reliance on self-reported data may introduce bias. Additionally, the sample size and scope of TQM elements are limited. Future research should expand geographically, use longitudinal designs,

Moreover, researchers should examine the effectiveness of targeted interventions, such as team-building workshops and leadership training, in enhancing teamwork and impacting patient care outcomes. Investigating the influence of organizational culture, workload, and job satisfaction on employee engagement in healthcare settings is also recommended.

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Awareness and Practices on Pulmonary Tuberculosis Management Among Patients in Cotabato City

Racma S. Kadir, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The study determined the awareness and practices of patients on tuberculosis management in the selected barangays in Cotabato City using descriptive-predictive research design to the 150 respondents. The study used a survey questionnaire in data gathering with a 1.0 validity rating. Results revealed that the majority of the respondents belong to age groupings of thirty-four to forty years old, who have attained high school,

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are more males, and are mostly Maguindanaon. The respondents' knowledge regarding tuberculosis is lacking. The treatment of tuberculosis is not widely practiced. The knowledge and practices surrounding the management of tuberculosis are significantly correlated. The significance of the moderating effect showed that the relationship between patients' practices and awareness of pulmonary tuberculosis management did not significantly depend on demographic profiles such as age, sex, highest educational attainment, and ethnicity. Such results led to the acceptance of the null hypotheses. The study concludes that tuberculosis affects people of different ages, groups, gender, educational attainment, and ethnicity. The awareness and practices of the patient in tuberculosis management had been low. Educational attainment is an important aspect of the management of tuberculosis in increasing patients' awareness. Age is an important consideration in advocating compliant practices for tuberculosis management.

Keywords: *Awareness and Practices on Pulmonary Tuberculosis, Nursing, Descriptive-Predictive Study, Cotabato City*

Corresponding email: rackskadir@gmail.com

Introduction

Pulmonary tuberculosis is a chronic infectious disease caused by the acid-fast bacteria Mycobacterium tuberculosis, which can also spread to other regions of the body such as the brain and spine (Sachdev et al.,2023). Although it is preventable and treatable, TB is nevertheless a deadly illness with a massive worldwide impact. This infection poses a severe threat to global public health despite its benefits, remedies, and management (Mohammed et al.,2023). TB still poses a severe hazard to international public health and is prevalent in low- and middle-income nations. One-fourth of the world's population, or about a billion people, may have Tuberculosis (TB). The severity of this illness is a pressing need to raise awareness and create effective preventative and management strategies. Educating patients on various facets of the illness and variables about appropriate practices (Yousif,2021).

Globally, Tuberculosis (TB) cases continuously increase day by day, making it one of the serious public health problems, with approximately 10 million new cases reported annually (Reis et al., 2022). Despite its advantages, treatments, and management, Tuberculosis (TB) is an infectious illness that is becoming more common and poses a significant danger to public health worldwide (Mohammad, 2023). Lack of public awareness and prevention practices have been identified as challenges impeding progress toward control of Tuberculosis (Das et al., 2021).

Despite intensified efforts to prevent and control this disease, the Philippines is among the top Tuberculosis-burdened countries. Tuberculosis prevention and control initiatives are crucial for maintaining both health and economic security. They can also be strengthened by increasing public knowledge and offering educational resources that impact the practices of PTB

patients (Duavis, 2020). To safeguard the public's health and safety, increased information campaigns about tuberculosis that emphasize prevention and control initiatives are crucial. There remains a knowledge gap regarding the awareness and practices of people in prevention and control program implementation. In the Autonomous Region of Muslim Mindanao (BARMM), tuberculosis was one of the leading illnesses, ranked third in the number of cases. In Cotabato City, the report of the City Health Office (2022) revealed an increasing case of more than 20% in newly detected tuberculosis patients (Balita,2024).

The continuously increasing cases of patients revealed a need to dig deeper into the effectiveness of the awareness campaign to the people to influence them towards effective practices to prevent and manage this disease. People's awareness of PTB symptoms, signs, prevention, behaviors, and treatment options was found to be insufficient(Craciun et al.,2023). It is essential to help address the issue of awareness level to increase treatment compliance. Early diagnosis and timely treatment can reduce PTB cases, however pre-treatment delays caused by ignorance and improper methods impede this process(Islam,2020). The result can provide recommendations to address the increasing spread of TB and develop effective management of this illness. Increasing awareness of the disease's numerous features is crucial for PTB patients to aid in control and prevention(Yousif et al.,2021).

Thus, this aimed to determine the awareness and practices among patients in the management of Pulmonary Tuberculosis in Cotabato City. Specifically, it answers to the following research statements. (1) What is the demographic profile of the respondents in terms of age; sex; highest educational attainment; and Ethnicity? (2) What is the level of awareness of Pulmonary Tuberculosis? (3) What is the level of practice in Pulmonary Tuberculosis management? (4) Is there a significant relationship between the awareness and practices of patients on Pulmonary Tuberculosis management? (5) Does the demographic profile significantly moderate the awareness and practices of patients in pulmonary tuberculosis management?

Furthermore, this study is significant for various stakeholders within the healthcare ecosystem. The findings may health workers improve their knowledge and skills in awareness and protect clients and themselves from transmission since tuberculosis is a highly contagious disease. Also, Hospital administrators can gain valuable data from the study that can guide them in implementing an additional information campaign to increase awareness of tuberculosis management. Hospital administrators can also benefit from the study because it can develop strategies to strengthen the information drives toward tuberculosis management.

Methods

This study utilized a quantitative method and a predictive-correlational design. Also, this study was a type of non-parametric quantitative study on the awareness and practice management of pulmonary tuberculosis among patients in Cotabato City. This study provided a concise overview of

demographic characteristics regarding age, sex, educational attainment, and ethnicity. This study also investigated variables on the level of awareness and practices on PTB management and predicted its outcome.

The study was conducted at The Bangsamoro Autonomous Region in Muslim Mindanao, officially designated as BARMM, an administrative region under the Mindanao Island group in the Philippines. It covers five provinces: Maguindanaon, Sulu and Tawi-Tawi, Basilan, Lanao del Sul, and Cotabato City, found in Maguindanao as a regional center with a census of 325,079 people according to 2020 census with 27 urban barangays. Moreover, The study employed the quota sampling technique to gain insight into the characteristics of a particular subgroup or investigate relationships between different subgroups. The study's respondents were the 150 diagnosed PTB patients referred to the Barangays from other health institutions. The respondents were selected based on the referral of the healthcare workers during the study. The statistician suggested that the population quota be used to calculate the sample size.

The researcher utilized a modified survey instrument developed by Abu-Humaidan (2022) since some parts of the original questionnaire were removed because they were irrelevant to the study. The instrument was evaluated for validity through the integrated corrections of the validators for the appropriateness of the statements in answering the research questions. The survey questionnaire was composed of three main parts. Part 1 gathered data about the demographic profile of the respondents in terms of age, sex, educational attainment, and ethnicity as moderating variables.

Part 2 was made up of self-made, checklist-type open-ended statements describing patients' level of pulmonary tuberculosis awareness. It was composed of 10 item unidimensional questions of TRUE or FALSE answers. Part 3 was made up of close-ended statements about the practices of the patients in tuberculosis prevention and a four Likert scale type of 10-item unidimensional questionnaire

During the survey, the researcher followed ethical considerations by using respondents through informed consent, recognizing the importance of privacy and confidentiality, and considering the truthfulness and desirability of the researcher. Also, the respondent's participation in this study is voluntary. The respondents have the right to refuse to participate if they do not feel comfortable in any way. Moreover, even if the respondents initially decided to participate, they had the right to withdraw from the study without penalty. If the respondents cancel the study, all information they have provided will not be included in the data collected. In gathering, retaining, and processing personal data, researchers followed the criteria of transparency, legitimate purpose, and proportionality (Data Privacy Act of 2012). In terms of privacy and confidentiality, the respondents were given the freedom to stay anonymous. Even if the respondents indicated their names and other identifying information, it would not be associated with any part of the written report of the research. The data gathered in this study will be kept confidential. If this research study is published in the future, any information indicated in the material will not reveal the respondent's identity in any way.

Moreover, various statistical techniques specific to our variables and research questions were employed to glean

meaningful insights from the data gathered. Frequency Distributions and Percentage was used to determine the demographic profile of the respondents in terms of age, sex, educational attainment, and ethnicity. Mean and Standard Deviation were used to determine the level of awareness and practice in pulmonary tuberculosis management. Spearman Rank Correlation was used to measure the strength and direction of monotonic association between two variables, the level of awareness and the level of practice on pulmonary tuberculosis. Lastly, the PLS-SEM or Partial Least Squares Structural Equation Model was used in the model rows to predict interrelationships between variables.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Demographic Profile	Frequency (n=150)	Percentage (%)
Age:		
20-26 yo (20) at 13.3%	20	13.3%
27-33 yo (16) at 10.7%	16	10.7%
34-40 yo (27) at 18%	27	18.0%
41-47 yo (23) at 15.3 %	23	15.3%
48-54 yo (24) at 16%	24	16.0%
55-61 yo (16) at 10.7%	16	10.7%
62-68 yo (17) at 11.3%	17	11.3%
69-75 yo (7) at 4.7%	7	4.7%
Total	**150**	**100%**
Sex:		
Male	87	58.0%
Female	63	42.0%
Total	**150**	**100%**
Highest Educational Attainment:		
Elementary Graduate	35	23.3%
High school Graduate	76	50.7%
College Graduate	39	26.0%
Total	**150**	**100%**
Ethnicity:		
Badjao	2	1.3%
Ilonngo	6	4.0%
Iranon	27	18.0%
Maguindanaon	93	62.0%
Maranao	8	5.3%
Tiruday	14	9.3%

Total	**150**	**100%**

Table 1 presents the demographic profile of the respondents. Specifically, the table indicates that the age groupings of 34-40 yo (27) at 18% got the highest numbers, followed by 48-54 yo (24) at 16%, 41-47 yo(23) at 15.3 %, 20-26 yo (20) at 13.3%, 62-68 yo(17)at 11.3%, 27-33 yo (16) at 10.7%, 55-61 yo(16) at 10.7% and the 69-75 yo (7) at 4.7% got the lowest numbers. The result shows that the respondents came from varied age groups. This implies that tuberculosis infects any age group. This disease can infect both older and younger individuals. In summary, tuberculosis infects any age group that will have differences in the level of awareness of tuberculosis management.

The results of Garcon (2020) underscore the necessity of bringing about constructive social change by educating public health experts in the development of a successful TB intervention that takes age into account as a demographic and therapy-related risk factor for TB. The awareness of patients on disease management is essential in their health-seeking behavior, for their cooperation depends on it (Reis et al., 2019).

The table further shows the distribution of sex among the study participants. There was a total of 150 participants, with 87 (58%) being male and 63 (42%) being female. This result shows tuberculosis infects both male and female individuals, but it is higher among males. The participation of both females and males in the study manifests awareness levels of both sexes. In summary, both the males and females are undergoing treatment for tuberculosis and are aware of the consequences of the management and treatment of the disease.

The factor that aggravates it is the lifestyles of males. However, both sexes manifested awareness of treatment and management. The same conclusion was drawn by Resta et al. (2021) that males have a higher incidence of tuberculosis, but both females and males are obedient to management and treatment courses. This agrees with Nguyen et al. (2020), who described males as at higher risk of this disease than females.

Furthermore, the frequency table shows the distribution of educational attainment among the respondents in the study. Among the 150 respondents, most (76, or 50.7%) had a high school education background. On the other hand, 39 (26.00%) were college graduates, and 35 (23.33%) had an elementary education. The result further suggests that almost half of the patients in the study had at least a high school education. This may be an essential factor when designing educational interventions about tuberculosis. The result denotes that most of those with tuberculosis have low educational attainment. The level of education can be a factor in understanding the importance of tuberculosis management. In summary, many tuberculosis patients have limited capacity to understand the importance of tuberculosis management.

According to Meitasari et al. (2020), the level of education can have significance in the treatment and management of tuberculosis since the level of education results in the lack of knowledge on the transmission of pulmonary TB disease and the danger of the disease. Also, Akese (2020) concluded that one factor in the success of tuberculosis treatment is the higher awareness of patients related to their educational level. The same findings emerged and discussed that those with higher educational attainment manifested higher awareness and were more compliant with the treatment regimen (Migliori et al.,2019),

The table shows the frequency distribution of ethnicity among respondents in this study. Maguindanaon is the most frequent ethnicity (62.0%), followed by Iranon (18.0%) and Tiduray (9.3%). The remaining ethnicities, Maranao, Badjao, and Ilonggo, comprise a smaller proportion of the

sample (5.3%, 1.3%, and 4.0%, respectively). The data set consists of six ethnicities, highlighting the importance of considering patients' ethnic backgrounds when studying tuberculosis to factor in any cultural or economic implications. The result shows that tuberculosis develops in a person regardless of tribe or ethnicity. The result further implies that this illness can be transmitted to different tribes. In summary, the belief of the tribal people can be a factor in their health-seeking behavior regarding tuberculosis management and that tribe people have a higher incidence of tuberculosis.

This agrees with the study of Resta et al., (2021) that emphasized the inclusion of ethnicity in planning strategies for tuberculosis management for the culture and beliefs that affected people's health-seeking behavior. Rao et al. (2019) considered the patients' ethnicity as a factor in declining tuberculosis cases, for their culture contributed to treatment adherence. The leadership of the tribal leaders to push knowledge against tuberculosis made the tribes more compliant with the treatment. This contradicts the study of Izham, et al. (2022) who concluded that ethnicity is a factor to lower cure rates among tuberculosis patients.

Table 2. The Patient's Level of Awareness on Pulmonary Tuberculosis Management.

Level of Awareness	Mean	SD	Interpretation
Overall	2.29	0.77	Low

Note: *3.26-4.00---High; 2.51-3.25---Moderate; 1.76-2.50---Low; 1.00-1.75---Very Low; SD- Standard deviation*

Table 2 indicates a low level of awareness (mean=2.29) among respondents about tuberculosis management. The standard deviation is 0.77, which is relatively small compared to the mean. This indicates that the data points are clustered around the mean, with few outliers. This denotes that the respondents have insufficient information on how to prevent and manage tuberculosis. To sum up, the lower level of knowledge on the danger of the transmission of diseases and how to prevent oneself from acquiring them can lead to the vulnerability of infection to spread not only to family members but to others as well.

The result corroborates with Khan et al. (2020), who explained that one burden in tuberculosis management is people's lack of awareness about the disease. This resulted in lower prevention actions, which made the transmission higher. Similarly, Chen et al. (2023) discussed that the low awareness level of the patient of the possibility of transmitting the illness to family members resulted in a higher incidence of transmission. Lack of knowledge is a problem affecting the high incidence of tuberculosis spread. The same view was expressed by Wong (2023), who connected the patient's level of awareness to tuberculosis management as a contributing factor to the attitude and behavior of people toward taking their medications religiously

Table 3: **The Patient's Level of Practice on Pulmonary Tuberculosis Management.**

Level of Awareness	Mean	SD	Interpretation
Overall	2.25	0.91	Low

Note: *3.26-4.00---High; 2.51-3.25---Moderate; 1.76-2.50---Low; 1.00-1.75---Very Low; SD Standard Deviation*

Table 3 shows the level of practice management concerning tuberculosis among the 150 patients in the study. The result (mean=2.25)indicates a low level of practice management in tuberculosis. The standard deviation (0.91) suggests some variability in the data, with some patients showing higher levels of practice management than others. This result implies that the respondents have unsafe practices. The lower level of practice means ignoring the PTB symptoms due to the belief that it is not fatal and is a dangerous practice or even the superficial covering of the mouth. Undergoing treatment must be practiced not only by patients with PTB but also by anybody. This can help prevent the spread of tuberculosis. In summary, taking for granted safety measures to prevent infectious disease transmission and eating healthy diets to increase the immune system can harm people's health.

According to Kasa et al. (2019), there is a low preventive practice towards TB. However, most participants received information about the disease, and their practices did not show obedience to the information they received. At the same time, Akande (2020) correlates the poor practices of the patients on safety measures towards tuberculosis management to a lack of proper understanding of the guidelines and information. This made people take action, such as taking herbal medicines to manage their disease. On the other hand, Biermann (2021) concluded that during their case finding, they discovered that poor tuberculosis management practices resulted in increasing cases of the diseases in the communities.

Table 4. The Test of Relationship between Awareness and Practices of Patients on Pulmonary Tuberculosis Management.

Independent Variable	Practices			
	r_s	p-value	Decision	Remarks
Awareness	.092	.265	Accept HO_1	Not Significant

Note: p<0.05 (Significant) r_s= rho; DV-Practices.

The results from Table 4 revealed no significant relationship between the level of awareness and patients' practices on pulmonary tuberculosis management (r_s

=.092, p= .265). These led to the acceptance of the null hypotheses ($H0_1$) since their p-values are at a significance level of more than 0.05 alpha. The result implies that the patient's awareness has not contributed to the practice of managing tuberculosis. The patient has a higher level of understanding, but it does not mean they will have higher practices. This may even mean the opposite for some patients.

This result agrees with Shewade et al. (2019), who concluded that awareness level does not directly contribute to safe practices. Some patients have higher awareness levels but do not practice their beliefs and disagree with the information they gain. Similarly, Cole et al. (2019) cited that an information drive alone to increase awareness was insufficient to improve their practices. It must be accompanied by policies to compel them to abide by management and treatment regimens. On the other hand, it contradicts Angelo et al. (2019), who pointed out that the awareness of patients with tuberculosis management has shown a positive correlation between their practice and the management of the disease, such as medicine adherence.

Meanwhile, Kasa et al. (2019) stated that there is a low preventive practice towards TB. However, most participants received information about the disease, and their practices did not show obedience to the information they received. Akande (2020) correlates the poor practices of the patients on safety measures towards tuberculosis management to a lack of proper understanding of the guidelines and information. This made people take action, such as taking herbal medicines to manage their disease. On the other hand, Biermann (2021) concluded that during their case finding, they discovered that poor knowledge results in poor practices towards tuberculosis management, resulting in increasing cases of diseases in the communities.

In this study, Table 5 explains the test of moderation of patient's demographic profiles such as age, sex, highest educational attainment, and ethnicity on the relationship between the level of awareness and practices of patients in pulmonary tuberculosis management.

Table 5. The Prediction between Nursing Informatics Competencies and E-health Readiness.

Path	β	SE.	t	p-value	Decision	Remarks
AGE à PPTB	-0.235	0.094	2.502	0.012	Reject HO_2	Significant
APTB à PPTB	0.195	0.164	1.188	0.235	Accept HO_2	Not Significant
EDUC_ATT à PPTB	-0.113	0.136	0.836	0.403	Accept HO_2	Not Significant
ETHNI à PPTB	-0.044	0.120	0.836	0.713	Accept HO_2	Not Significant
SEX à PPTB	-0.177	0.228	0.774	0.439	Accept HO_2	Not Significant

AGE x APTB à PPTB	-0.043	0.092	0.467	0.641	Accept HO_2	Not Significant
SEX x APTB à PPTB	-0.023	0.175	0.133	0.894	Accept HO_2	Not Significant
EDUC_ATT x APTB à PPTB	0.028	0.101	0.275	0.783	Accept HO_2	Not Significant
ETHNI x APTB à PPTB	-0.047	0.109	0.436	0.663	Accept HO_2	Not Significant

Note: p-value <.05 (Significant); R^2= 0.095; IV- Awareness (APTB); DV-Practices (PPTB); Moderators- (AGE, SEX, EDUCATIONAL ATTAINMENT, ETHNICITY)

Without including the moderating effect, the r-squared value for the level of awareness was 0.032, which shows a 3.2% change in the level of practices (PPTB). With the inclusion of the interaction terms (AGE x APTB PPTB), (SEX x APTB PPTB SEX x APTB PPTB), (EDUC_ATT x APTB PPTB), and (ETHNI x APTB PPTB), the PPTB r-squared value was increased to 9.5%. These also showed a slight increase of 6.3% for the variance explained in the dependent variable (PPTB).

Furthermore, upon analyzing the moderating effect's significance, the findings indicated that demographic characteristics like age, sex, highest educational attainment, and ethnicity did not substantially moderate the association between patients' practices and awareness regarding pulmonary tuberculosis management. Such results led to the acceptance of the null hypotheses (HO2) as their p-values are more than 0.05 alpha significance level. Meanwhile, the respondent's age (β = -0.235, p =.012) had a significant, negative influence on the level of practices in pulmonary tuberculosis management. The result implies that the age level of the person had influenced the level of awareness and practices, but ethnicity, educational attainment, and educational background did not influence. This means that people with a higher educational background do not immediately have higher practices and awareness. Same with their tribe and sex.

With the same findings, Wong (2023) recommended that to enhance the awareness and practices of people towards tuberculosis management, the integration of demographic profiles, such as age, must be considered since the knowledge level varies based on age. The same is true with Jameson (2018), who mentioned in his study the good practices of the elderly compared to the younger generation toward complete medication adherence to tuberculosis. He pointed out that they manifest a more supportive attitude and practice. This agrees with Alipanah et al. (2018), who discussed the importance of age as a factor related to higher awareness and medication adherence. Implementing appropriate interventions is essential for maintaining and improving the health of tuberculosis patients and other members of society.

However, regarding ethnicity, Gashu et al. (2021) suggested that factors such as tribe and educational attainment are also important in convincing patients to adhere to treatment and management of tuberculosis. Their interviews with healthcare professionals contradict the findings since their responses revealed that awareness and practices are related to the demographic

profile of the patients, such as their educational attainment, sex, and ethnicity.

Conclusions and Recommendations

The current study found based on the respondents' demographic profile, that the majority of respondents—18% of whom are male, have completed high school, and are primarily Maguindanaon—fall into the 34–40-year-old age group. The overall mean for low awareness was 2.29, with a standard deviation of 0.77. This indicates that the respondents' understanding of managing pulmonary tuberculosis is lacking.

The level of practice in tuberculosis management among patients got a mean of 2.25, indicating a low level of practice management in tuberculosis. The standard deviation (0.91) suggests that there is some variability in the data with some patients. Also, there is no significant relationship between the level of awareness and practices of patients on pulmonary tuberculosis management (r_s =.092, p= .265). These led to the acceptance of the null hypotheses ($H0_1$) since their p-values are at a significance level of more than 0.05 alpha.

The moderation test of patients' demographic profiles, such as age, sex, highest educational attainment, and ethnicity, is used to determine the relationship between the level of awareness and practices of patients in pulmonary tuberculosis management. Without including the moderating effect, the r-squared value for the level of awareness was 0.032, which shows a 3.2% change in the level of practices (PPTB). Moreover, as the significance of the moderating effect was analyzed, the results revealed that demographic profiles such as age, sex, highest educational attainment, and ethnicity did not significantly moderate the relationship between the level of awareness and practices of patients in pulmonary tuberculosis management. Such results led to the acceptance of the null hypotheses (HO_2) as their p-values are more than 0.05 alpha significance level. Meanwhile, the respondent's age (β = -0.235, p =.012) had a significant, negative influence on the level of practices in pulmonary tuberculosis management.

The researcher concludes that tuberculosis affects people of different ages, groups, genders, tribes, and educational attainment. The awareness and practices of the patient in tuberculosis management had been low. Educational attainment is an essential aspect of managing tuberculosis and increasing patient awareness. Age is an important consideration in advocating compliance with the practices for tuberculosis management. The same applies to ethnicity and sex, influencing awareness and practices. However, other different factors affect awareness and practices in PTB management. Although it does not directly correlate, the higher the understanding of the patient, the better their practices towards tuberculosis disease management. In summary, an aware patient of tuberculosis management may or may not have good practices in tuberculosis management.

To increase the awareness of the people towards tuberculosis management and influence their practices to be more careful to prevent transmission the following recommendations are highly encouraged. The first is to intensify information drive and social mobilization towards tuberculosis management. Through using localized pamphlets and handouts to ensure even those with lower educational ability can read and understand it. Second, it is to map out and gather feedback for low awareness about tuberculosis management. This can be a basis for intervention and planning of strategy development.

The third is to target the younger generation in promoting compliance with tuberculosis management. The higher compliance of the elderly population to medical management of tuberculosis can serve as a source of information that the younger generation is not as serious and adherent in management. Fourth is

to develop policies to compel the patient to practice and comply with the management of tuberculosis. This can prevent the spread of the disease to other people.

Finally, to increase budget allocation for information drives on the importance of tuberculosis prevention and treatment. This can increase the awareness of the public which can guide people in their actions to protect themselves from transmission.

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Psychological Stressors, Psychosocial Support and Work Performance of Nurses in Government Hospital

Amyrh Prince S. Ladsac, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The study determined the psychological stressors and psychosocial support and their influence on the work performance of nurses in Cotabato Regional Medical Center. The study used the descriptive correlational research design for the 147 respondents who were randomly selected. The data analysis used

the power analysis, percentage, mean, Pearson's correlation, and linear regression analysis. The result revealed that the respondents came from varied groups. The level of psychological stress among the respondents was high. The psychological support among nurses was high. The extent of work performance among nurses was high. The relationship between the psychological stressors and psychosocial support toward work performance among the respondents shows a significant relationship, implying that the null hypothesis is not accepted. The linear regression analysis summary results of psychological stressors and Psychosocial support towards work performance result that both factors can significantly influence the work performance of nurses. The study concludes that nurses encountered high levels of stressors wherein the death of patients greatly affected them. Despite several stressors, nurses have adequate psychosocial support to help them handle and manage stressful situations. The high psychosocial support contributed to the ability of healthcare worker to perform their work and tasks effectively.

Keywords: *Psychological stress, Social Science, Correlational, Cotabato City*

Corresponding email: hrymaecnirp@gmail.com

Introduction

Nurses experience significant psychological stressors that affect their well-being, such as social isolation, role conflicts, fear, and anxiety, due to their day-to-day responsibilities, which are aggravated by the COVID-19 pandemic (Chen et al., 2020). Also, nurses' responsibilities increased due to additional cases and workload, insufficient personnel, work-life imbalance, and psychological difficulties (Hong et al., 2020). The lack of psychosocial support programs to condition the nurses to overcome psychological stressors exacerbates the situation (Donovan & Greenwell, 2021).

Study shows at the International Council of Nurses, nearly 90% of nurses from the United States and the United Kingdom have encountered medical problems that were attributed to job stress, which becomes a source of psychological stressors (ICN, 2019). in comparison, many Southeast Asian countries have adopted strict border controls and stringent public health measures. The unknown way to protect against infection spread to health workers becomes a significant source of psychological and social stressors (Thu., 2020). However, the nature of life and the distribution of quality care can be affected (Bao et al.., 2020). The quality of life of nurses who deal with human lives is essential since they can provide more efficient services with higher quality of life and work satisfaction (Layali et al., 2019). In the Philippines, provision and psychosocial support have become a significant strategy implemented by the Department of Health, centered on caring for clients, patients, and care providers (DOH, 2020). Thus, it allows for identifying gaps in a well-planned and responsive psychosocial support service through science-based policy recommendations (Save the Children, 2021).

In the Bangsamoro Region, the government hospitals implemented psychosocial support services that started in 2020 under the Mental Health Unit (MOH, 2021). Further back five years ago, records of MOH (2021) revealed nurses seeking consultation due to psychological stress. This situation often resulted in absenteeism and irritability, affecting the work performance of nurses. The hospital must assess the psychosocial support services to develop a responsive intervention. Also, the data source for planning through understanding the major psychological stressors and the appropriateness of psychosocial support can help the analysis be motivated to supervise this study as a timely and valuable response to the emerging needs of nurses. Thus, the study aimed to determine the nurses' stress and psychosocial support services

and their influence on the work performance of nurses in public hospitals

Methods

The data was gathered at Cotabato Regional and Medical Center, a government hospital in Cotabato City, Bangsamoro, with 147 nurses from different areas. This study used the quantitative research design, specifically the predictive–correlational design. Also, the study does not include the respondents absent during the study. Furthermore, not meeting the latter was considered disqualified and excluded as a study participant.

The study was conducted through face-to-face interviews. Before administering survey questionnaires, the instrument was subjected to validation and reliability testing. Three (3) experts in the field were asked to validate the research instrument. After this, the researcher conducted a pilot study in which thirty (30) respondents were requested to answer the survey questionnaire, followed by a Cronbach's Alpha reliability analysis or consistency testing.

The survey questionnaire had four (4) parts. The first part was socio-demographic data: age, Sex, Tribe, and Area of Assignment. The second part had 26-item questions, including the psychological stressor. Part three was for psychological support, with 20 questions. Lastly, a 5-item question was used to identify the level of work performance of nurses in government hospitals.

The study incorporated Frequency Distribution and Percentage to describe the resident's demographic profile in terms of Age, Sex, Tribe, and Area of Assignment. Moreover, the Mean was identified to measure the psychological stressors, psychological support, and work performance. Pearson Correlation was utilized to determine the association between variables, while linear regression was used to examine the respondents' psychological stressors, psychological support, and Work performance.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Demographic Profile		Frequency	Percentage (%)
Age			
18 to 25		16	11
26 to 35		120	82
36 to 45		11	7
	Total	147	**100**
Sex			
Male		48	33
Female		99	67
	Total	147	**100**
Tribe			
Iranon		10	7
Maguindanao		110	75
Maranao		8	5
Tagalog		7	5
Teduray		3	2
Visayan		9	6
	Total	147	**100**
Area of Assignment			
Emergency Department		25	17
Medicine Department		29	20
OB-Gyne Ward		19	13
OR/DR		8	6
Outpatient Department		12	8
Pedia Ward		15	10
Temporary Treatment Monitoring Facility (TTMF)		18	12
Surgery Ward		21	14
	Total	147	**100**

The study meticulously recorded the participants' demographic profiles, including their Age, Sex, Tribe, and Area of Assignment. Total of all 216 nurses who participated, the majority were within the age range of 26 to 35 (82%), followed by those aged 18 to 25 (11%), while only a small quantity was between 36 and 45 (7%).

The study also showed that most participating nurses were female, with 99 respondents (66%). Interestingly, the tribe with the most participants was Maguindanao, representing 75% of the population. Notably, the Medicine Department had an elevated number of participating nurses, accounting for 20% of the total population, followed by the Emergency Department with 17%. Conversely, the OR/DR had the lowest number of participating nurses, representing only 6% of the total population.

Conducting demographic profiling in health practices is essential, as it helps understand individuals' mental health situations. As emphasized by Uddin et al. (2019), demographic profiling provides the basis for developing a plan or strategy to label mental health issues among individuals. Moreover, policies should ensure it is considered. Similarly, Tatsuno et al. (2021)

supported that knowledge of the participants' different attributes was a significant source of varied information on mental health problem issues' medical or psychological counseling outcomes.

Olmo-Romero et al. (2019) found that differences in demographic characteristics of mental health professionals showed that course or educational background had been a factor in mental health. According to DOH (2018), the domain of assignments and courses like nursing is a stressful course that often leads to psychological stress for frontline providers like nurses who encounter disturbances in their work performance, while psychologists and social therapists have the most positive attitudes towards psychological stressors.

Table 2. Overall Mean Rating of the Psychological Stressors of Nurses

Indicator	Mean	Description
Psychological stressors		
Death and dying	3.08	High
Conflict with physician	2.91	High
Lack of support	2.81	High
Conflict with other nurses	2.87	High
Workload	2.90	High
Uncertainty Concerning Treatment	2.67	High
Overall	2.88	High

Legend: 3.50 – 4.00 – Very High, 2.50 – 3.49 –High, 1.50 – 2.49– Low, 1.00 – 1.49

The data in the table above displays the level of psychological stress among the participants. The findings indicate that nurses working in government hospitals experience high psychological stressors (2.88). It implies that nurses in government hospitals feel highly stressed, which can affect their job performance. Delgado et al. (2020) state that psychological stressors are more prominent in hospital nurses and can impact their work performance.

The stressor with the highest rating is the death and dying of patients, with a mean score of 3.08, which indicates a high measure of stress. It suggests that nurses find it challenging when patients die. Similarly, Mangat (2021) and Miller (2021) explained that observing patients suffer and die often direct to depression among nurses assigned to step-down areas. The uncertainty concerning treatment got the lowest mean score of 2.67, which was interpreted as high. Thus, nurses feel discomfort when a patient's condition has no definite outcome in therapy. Aksu (2020) discussed the diverse psychological stressors nurses experience, such as workload, lack of support, and conflict with others. These stressors impact their ability to perform their duties.

Table 3 Mean Rating on the Extent of Psychosocial Support Among Nurses

Indicator	Mean	Description
Psychosocial Support	3.11	High

Legend: 3.50 – 4.00 – Very High, 2.50 – 3.49 –High, 1.50 – 2.49– Low, 1.00 – 1.49

The table above displays the extent of psychosocial support among the respondents. The results indicate the significance of psychological support among nurses working in government hospitals, who received an overall mean score of 3.11, which is interpreted as high. This outcome suggests that nurses receive good help from their colleagues and work area which can assist them manage their psychological stress.

This finding aligns with Delgado et al.'s (2020) study, which emphasizes the importance of high psychosocial support for nurses to get through stress. Providing psychological first aid, counseling, or having someone willing to listen during difficult times can help nurses deal with stressful situations. Dewanto (2018) and Shen et al. (2020) also recommend implementing social support strategies for frontliner to help them overcome mental health stressors. The availability of social support to nurses can make them feel that someone is there to listen and provide encouragement during stressful situations.

Table 4 Mean Rating on the Level of the Work Performance Nurses

Indicator	Mean	Description
Work Performance	3.45	High

Legend: 3.50 – 4.00 – Very High, 2.50 – 3.49 –High, 1.50 – 2.49– Low, 1.00 – 1.49

The table above showcases the impressive work performance of nurses in Government Hospitals. Their overall mean result of 3.45 highlights their dedication and capability to bear out their tasks effectively, even when faced with stressful circumstances daily. It is a remarkable achievement, as it may be paramount to higher patient satisfaction and overall quality of healthcare services.

In line with Chen et al.'s (2020) discussion, supporting nursing staff to help them manage work-related stress is crucial in ensuring they continue to perform satisfactorily. Smyth (2018) also affirms this conclusion, stating that mental health and psychosocial support and interventions can significantly help individuals manage the stress they encounter. These findings focus attention on the importance of hospitals providing the necessary support and mediate to help nurses cope with their challenges and perform their duties to the best of their abilities.

As we move forward, it is essential to identify the incredible work that nurses in Government Hospitals are doing and support them as much as possible. By providing the right resources and interventions, we can ensure that nurses continue to perform exceptionally, leading to higher patient satisfaction and overall quality of healthcare services. Let us work together to make a positive difference in the entity of these incredible healthcare professionals.

Table 5 Correlation on the Significant Relationship between the Psychological Stressors Towards Work Performance Among Nurses

Variables	Work Performance			
	R	p-value	Decision	Remarks
Psychological Stressor	0.275	.001	Reject H_o	Significant

Note: p<0.05 (Significant)

Table 5 presents the results of a study that examined the relationship between psychological stressors and work performance among healthcare workers in government hospitals. The study used the Pearson correlation to determine the significance of the relationship. The table shows a significant relationship between psychological stressors (R=0.275, p= <.001) and work performance, indicating that the null hypothesis is rejected.

These findings are steadily to those of Bai and Ravindran (2018), who suggested that nursing is a highly demanding occupation that often involves mental stress that can influence work performance. However, the study also identified that nurses could still perform their duties satisfactorily when strategies were applied to reduce stress levels. Similarly, Que et al. (2020) highlighted the importance of providing support systems to nurses to help them surpass their stress and enable them to function efficiently at work. Cho & Kim (2022) also noted that work performance was highly influenced by an individual's job satisfaction and positive perception of their work.

Table 6. Correlation on the Significant Relationship between Psychosocial Support Towards Work Performance Among Nurses

Variables	**Work Performance**			
	R	p-value	Decision	Remarks
Psychosocial support	0.406	.001	Reject H_o	Significant

Note: p<0.05 (Significant)

Table 6 shows the test of the relationship between psychosocial support and work performance among the respondents. Pearson correlation was used to determine the significant relationship. The table shows a significant relationship between psychosocial support (R=0.406, p= <.001) and the Work performance of the nurses in Government hospitals, implying that the null hypothesis is not accepted.

The result corroborates with Tomlin J. et al. (2020), who emphasized the contribution of psychosocial support to the overall work performance of nurses as it increases the nurses' improvement. On the other hand, Stevens (2021) discovered that psychosocial support increased nurse's capability to manage their duty to care for patients. The availability of support from heads of office and fellow nurses helped cope with the voluminous workload. Xie et al. (2020) also explained that high psychological stressors affect personnel performance. It can lessen the focus of personnel on working on their task, decreasing work efficiency.

Table 7. Test of Influence of Psychological Stressors Towards Work Performance

Variable	**Practices**				
	Unstandardized (B)	T	p-value	Decision	Remarks
Psychological Stressor	0.271	3.438	0.001	Reject Ho	Significant

Note: p <0.05 (Significant); Adjusted R^2=0.320, F=11.818, SE=0.079

Table 7 shows a linear regression analysis summary of psychological stressors influencing nurses' work performance. The results identify that psychological stressor significantly affects nurses' work performance in government hospitals (B=0.271, p=>.001). This result concurs with Chen et al. (2020), who discussed the relationship between psychosocial support and helping nurses perform their mandate satisfactorily. Likewise, Babacan (2020) mentioned that having friends to share problems helped boost self-confidence, which made them carry out their work effectively. Also, WHO (2020) in total that there is a direct correlation joining the psychosocial support of nurses and their work performance, for it helps nurses handle stressful situations.

Table 8 Test of Influence of Psychosocial Towards Work Performance

Variable	**Practices**				
	Unstandardized (B)	T	p-value	Decision	Remarks
Psychological support	0.403	5.349	0.001	Reject Ho	Significant

Note: p <0.05 (Significant); Adjusted R^2=0.320, F=11.818, SE=0.075

Table 8 shows a linear regression analysis summary of the outcome of psychosocial support toward influencing the work performance of the nurses. The outcome shows that psychosocial support significantly affects nurses' work performance in government hospitals (B=0.403, p=.001). The same conclusion was worn by Dickinson (2021), who identified the effect of psychosocial support on adaptive performance that helps employees to be resilient to technological advances, economic factors, and cultural shifts, making it an essential form of extra-role performance.

With the same idea, Lu et al. (2022), psychosocial support to overcome mental stressors influenced the work engagement and job performance of personnel, resulting in quality services. The results identify that work arrangement and innovative behaviors positively mediate the connection between employee mental health and job performance. A solid psychosocial support system can strengthen the organization's support to its personnel (Yu et al., 2021).

Conclusion and Recommendations

The current study concluded that the demographic profile of the participants gave the result that most respondents were under 26 to 35 years of age (82 %), Female at 99 (66 %), and the majority were Maguindanaon 75% who were assigned to the Medicine ward (20% of the total population.

The respondents' psychological stress level showed an overall mean of 2.88, which was interpreted as high. The psychosocial support among nurses in government hospitals got an overall standard of 3.11, which was interpreted as high. The extent of work performance among the respondents got an overall mean of 3.45, which was interpreted as high.

The relationship between the psychological stressors and psychosocial support towards work performance among the respondents shows a moderate positive significant relationship between psychological stressors (R=276, p= <.001) and psychological support (R=0.406, p= <.001) towards Work performance of nurses in CRMC implying that the null hypothesis is not accepted.

In light of the conclusion, the following actions are highly recommended:

Nursing administrators must strengthen the psychosocial support system in the nursing service by providing training and seminars so that everyone can contribute to helping one another overcome stressful situations.

Hospital administrators must continuously monitor the production of the hospital's psychosocial support system to sustain its services. It can help provide a support system to personnel and improve their work performance.

The nurses must strengthen their support system by seeking psychosocial support in stressful situations. This capability can improve their stress management and enable them to work satisfactorily with their clients since working in the hospital is always stressful.

The nurses should seek counseling in times of depression or stress when patients die and suffer. It can unburden their emotional stress and help them return to work enthusiastically.

The Department of Help must design psychosocial support programs for nurses to enhance their competencies in stress management as a continuous quality improvement measure to service delivery.

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Quality of Care Around the Time of Childbirth among Mothers with Newborns in Government Hospitals in Cotabato City

Manilyn Chio Lintang, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

This study aimed to assess the quality of care during childbirth among mothers in selected hospitals in Cotabato City, focused on maintaining high nursing care standards in terms of care and treatment, communication, and hospital environment. Using a descriptive-survey research design with an inferential model, 150 respondents were purposively selected from admitted mothers who gave birth in a chosen government hospital, following the Yamane formula. Standardized adapted questionnaires from Nguyen et al. (2020) were employed, and a pilot test confirmed the reliability of the tool with an overall Cronbach's alpha result of 0.929 for the benefits subscale. Results revealed the study findings reveal that respondents' demographic characteristics are linked to the quality of care. In terms of care and treatment, there is a significant association with age ($\chi 2$= 75.760, p=.012), marital status ($\chi 2$= 26.327, p=.015), number of children ($\chi 2$= 57.986, p =.026), and type of delivery ($\chi 2$= 29.179, p =.006). However, the Cramer's V values,

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less than 0.20, suggest a weak association. For communication, age ($\chi 2$= 96.170, p =.030) and the number of children ($\chi 2$= 81.064, p =.010) are statistically significant but exhibit weak associations. Conversely, demographic profiles are not significantly associated with the quality of care in terms of the hospital environment among the respondents (p>.05). In conclusion, the study provides valuable insights into nursing care quality aligned with established standards and suggests future research directions, such as cross-cultural comparisons and assessing the long-term impact of care. This research contributes to enhancing maternal and infant healthcare services in government hospitals, with potential implications for healthcare policy and practice.

Keywords: *Quality of Care, Health, Descriptive- survey, Cotabato City, Philippines*

Corresponding email: manilynlintang@gmail.com

Introduction

The healthcare sector has seen a rise in childbirth cases linked to population growth, leading to increased maternal concerns during delivery. This upsurge has been evident in patients admitted to a specific government hospital in Cotabato City. It presents a concerning situation for the hospital, underscoring the necessity for a deeper understanding of how adolescent women perceive childbirth (Mgawadere et al., 2019). This emphasis on providing quality care has significantly influenced policies and programs, focusing on ensuring women have a positive childbirth experience and directing the delivery of care accordingly (Billah et al., 2019).

On a global scale, healthcare policies prioritize quality, especially in the context of nurses addressing patient needs. This focus originates from a dedication to exceptional public healthcare, giving priority to patient outcomes within value-driven care frameworks, and confronting specific quality challenges within healthcare systems (Busse et al., 2019). Highlighting the situation in Tanzania, a study underscores the vital role of evidence-based practices in overseeing normal childbirth, aiming to ensure high-quality care and effectively manage complications (Taher, et al,(2018). Consequently, this particular study evaluated the quality of care and established routines related to nurses' responsibilities in the immediate postpartum period concerning childbirth care (Weldearegay, et al. 2020).

The Philippine Government's endeavors to booster resources across government hospitals nationwide encounter significant hurdles, as indicated by findings in (Uy et al. 2021). The proposal is to give priority to addressing challenges faced during childbirth experiences by concentrating on improving facilities for women in labor and establishing a more comprehensive healthcare system (Landicho., 2022). Alongside this research, there's a growing focus on enhancing the quality of care, stressing the unity of the baby and the family. This necessitates nurses to have up-to-date knowledge, tools, and training to deliver safe, high-quality care while fostering trust between healthcare providers and families (Gomez-cantarino et al., 2021). Furthermore, Silvestre et al. (2018) underline the significance of enhancing quality within hospitals through policy development, health financing, facility standards, capacity building, and health communication, as identified during assessments and meetings.

Efficient management of zones and admitting units for mothers and newborns in Cotabato City requires attention (Ibrahim & Sitti, 2023). This necessity offers substantial advantages to clients and motivates researchers to design the study. This endeavor aims to bridge research gaps in service readiness, encompassing elements like high-quality care, treatment, communication, and an optimal environment for enhancing nursing care for both mothers and infants. The study centers on a proposed enhancement plan derived from gathered data to address these needs

Methods

The selected hospitals in Cotabato City which focus on mothers admitted after giving birth were selected as the respondents of this study. This study employed a Purposive Sampling Technique. Sampling techniques are a non-probability method in which units are selected because they have characteristics that the researchers need in the study. In other words, units are selected "on purpose" in purposive sampling (Nikolopoulou, K. (2023). The computed sample size for this study is 150 respondents. However, in the context of the study, only those who consent to participate in the study were sampled.

The study was conducted by structured survey questionnaire method. Before the administration of survey questionnaires, the instrument was subjected to validation and reliability testing. Three experts in the field were asked to validate the research instrument. After this, the researcher conducted a pilot study wherein thirty respondents were requested to answer the survey questionnaire followed by a Cronbach's Alpha reliability analysis or consistency testing.

The first part of the adapted survey questionnaire pertains to the respondent's demographic profile. This includes age, marital status, number of children, religion, educational attainment, and occupation, and pregnancy profile, health status of the infant, length of stay of the infant. The second part of the questionnaire contained questions that sought to the statement on the level of the Quality of Care around the time of childbirth among mothers: in terms of care and treatment; communication and hospital environment. The third part of the statement contains to determine the significant association between the Quality of care of nurses around the time of childbirth when grouped according to their demographic profile. Lastly, the fourth part of the questionnaire comprised Based on the findings of the study, what enhancement plan may be proposed on the respondents of perceived quality of care around the time of childbirth.

The study incorporated Frequency Distribution and Percentage to describe the mother's demographic profile in terms of age, marital status, number of children, religion, educational attainment, occupation, pregnancy profile, health status of the infant, and length of stay of the infant. Moreover, the Mean was used to measure the levels of level of Quality of Care around the time of childbirth among mothers: in terms of care and treatment; communication, and hospital environment. On the other hand, Chi-Square; Cramer's V was utilized to determine the significant association on the Quality of care of nurses around the time of childbirth when grouped according to their demographic profile that focuses on care and treatment; communication, and hospital environment.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Characteristics	Frequency (n=150)	Percentage (100%)
Age (Mothers' – Years Old)		
22-26 Years Old	31	20.7 %
27-31 Years Old	54	36.1 %
32-36 Years Old	37	24.6 %
37-41 Years Old	19	12.6 %
42 & ABOVE Years Old	9	6 .0%
Marital Status		
Single	0	0.0%
Co-Habiting	9	6.0%
Married	141	94.0%
Widowed	0	0.0%
Number of Children		
1	67	44.7%
2	46	30.7%
3	20	13.3%
4	17	11.3%
Religion		
Christian	49	32.7%
Muslim	101	67.3%
Highest Educational Attainment		
College Graduate	42	28.0%
College Level	44	29.3%
Elementary Graduate	6	4.0%
Elementary Level	15	10.0%
High School Graduate	32	21.3%
High School Level	11	7.3%
Occupation		
Employed	33	22.0%

Self-Employed	18	12.0%
Unemployed	99	66.0%
Type of Parity		
Primipara	82	54.7%
Multipara	68	45.3%
Type of Delivery		
Normal Spontaneous Vaginal Delivery	81	54.0%
Cesarean Section	69	46.0%
Health Status of the Infant		
Improved	12	8.0%
No Change or Worsened	138	92.0%
Length of Stay		
< 14 Days	17	11.3%
> 14 Days	133	88.7%

The various demographic profiles of the respondents are shown in Table 1 which contains the majority of the respondents fall within the 27 to 31 age group comprising 36.1% of the total sample. This suggests a relatively young and middle group of Maternal age among mothers. The table also reveals that the majority of the respondents are Married constituting 94.0% of the total sample while co habiting accounts for 6.0%

The table above reveals a notable majority of mothers with 1 child comprising 44.7% of the total sample. The overwhelming majority of the respondents are Muslim comprising 67.3% of the total sample. This religion suggests that the mother's religion is predominantly Muslim than others.
Focusing on the primi para on the Type of parity, the majority comprises 54.7% of the total sample, with Normal Spontaneous Vaginal Type of Delivery accounting for 54.0% of the total sample. Focusing on educational Attainment, the majority are at the College Level constituting 29.3% of the total sample

In terms of the respondent's occupation, the majority are unemployed respondents comprising 66.0% of the total sample. In terms of the health status of infants, comprises, 92.0% on No Change or Worsened as stated by the mother of the total sample. In terms of the length of stay of infants, it accounts of 88.7% focus on more than 14 days as stated by the mother of the total sample.

Tocchioni V.'s study (2018) reveals varying perceptions of maternity services across socio-demographic groups, expectations, and experiences related to transitions into adulthood, particularly parenting. Addressing risk factors like access to education, employment, and healthcare is crucial in supporting adolescent and young adult parents, aiming to address global-scale inequalities and sustain the advantages of investments in early childhood development (Kofke L, 2022).

Rajen, N. (2022) emphasizes that while socio-economic factors like maternal education and household income have links to low birth weight outcomes, there's limited research on specific household and environmental factors in low socioeconomic communities. It's essential to Socio-demographic features determining the attitudes of mothers towards their childbirth including their age, marital status, current occupation, and main source of income.

The type of attitude adopted by mothers towards childbirth was significantly related to the level of their satisfaction with care and treatment (Bałanda-Bałdyga et al., 2020) In addition, as infant birth is associated with health and socio-demographics, it became necessary to profile the outcome of infant delivery. Certain maternal, social, and demographic characteristics are risk factors and often help to predict and prognosticate neonatal outcomes. In determining the maternal socio-demographic characteristics and neonatal outcomes of patients managed for singleton infant delivery (Okoye et al., 2019). Overall this has been found to occur because women who give birth at a young age are more likely to be less wealthy have received less education and may make less use of maternal and child healthcare services. Moreover, since such births are more likely to be their first birth, they carry increased risks (Ahinkorah BO, 2021).

Table 2. Quality of care around the time of childbirth among mothers.

Statements	Mean	Interpretation
Care and Treatment		
The health staff team cares about my child's needs and us	4.68	Excellent
Every day we know who of the doctors and nurses are responsible for our child	4.20	Very Satisfactory
Over-all Mean	**4.58**	Excellent
Communication		
We are given clear information about our child's disease	4.62	Excellent
The doctor and nurses always take time to listen to us.	4.18	Very Satisfactory
Nurses and doctors always introduce themselves by name and function	4.19	Very Satisfactory
Over-all Mean	**4.46**	Excellent
Hospital Environment		
My child's room/Incubator is clean and comfortable.	3.40	Satisfactory
There is enough space around our child's incubator/bed	4.37	Excellent
Over-all Mean	**4.04**	**Very Satisfactory**

Legend: 5.0-4.21 Excellent; 4.20 – 3.41 Very Satisfactory; 3.40 Satisfactory; 2.60-1.81 poor; 1.80-1.0 Very poor

Table No. 2 above show presents the level of quality of care around the time of childbirth among mothers, focusing on care and treatment, communication, and hospital environment. It provides mean scores for each category along with interpretations based on the given scale.

The notably High mean score on the First statements focused on Care and Treatment suggests an Excellent result of 4.68 mean score which implies a good treatment received from the nurses. Factors like understanding care and concern for the patients. Furthermore, mothers perceived quality of care displays a considerable level on the Second statement which is the Communication suggests an

Excellent result of 4.62 mean scores which implies a clear and proper communication of patients involved in quality of care. Effective communication between patients and healthcare providers is essential in promoting positive care outcomes and perceptions of quality of care, thereby fulfilling a significant aspect of patient-centered care requirement (Kwame, A., & Petrucka, P. 2021).

However, although it is satisfactory, the variables under the hospital environment had the lowest mean score of 3.40. My child's

room/Incubator is clean and comfortable. While the mean is still in the "satisfactory" range, it indicates that there may be room for improvement in perceptions of cleanliness and comfort in the hospital environment.

Additionally, a positive childbirth experience, linked to the mother's sense of control and satisfaction, influences her maternal activity with the newborn, as well as her overall maternal satisfaction during childbirth. (Zamani, P, 2019). Despite the importance of quality of care for improving maternal and neonatal health, there are an of studies investigating with a comprehensive set of indicators the quality of maternal and newborn care during childbirth, from the perspective of mothers, as key service users by Lazzerini M, et al (2022). Costa et al. (2022) highlighted multiple factors contributing to poor healthcare experiences, including communication difficulties, navigating an unfamiliar healthcare system, lack of respectful care, absence of language support, negative interactions with healthcare providers, inadequate knowledge of legal entitlements and maternity care, and instances of discrimination.

Table 3. Test of Association between Demographic Profiles and Quality of Care around the Time of Childbirth among Mothers with Newborn.

Demographic Profiles	χ^2	*p*	φ_c	**Decision**	**Remarks**
Age	77.560	.012	.360	Reject H_{o1}	Significant
Marital Status	26.327	.015	.419	Reject H_{o1}	Significant
No. of Children	57.968	.026	.359	Reject H_{o1}	Significant
Religion	13.848	.385	.304	Accept H_{o1}	Not Significant
Educational Attainment	74.220	.203	.315	Accept H_{o1}	Not Significant
Occupation	35.654	.098	.345	Accept H_{o1}	Not Significant
Type of Parity	10.151	.682	.260	Accept H_{o1}	Not Significant
Type of Delivery	29.179	.006	.441	Reject H_{o1}	Significant
Health Status of Infants	10.554	.648	.265	Accept H_{o1}	Not Significant
Length of Stay	13.757	.392	.302	Accept H_{o1}	Not Significant
Communication					
Age	96.170	.030	.400	Reject H_{o1}	Significant
Marital Status	28.049	.061	.432	Accept H_{o1}	Not Significant
No. of Children	81.064	.010	.424	Reject H_{o1}	Significant
Religion	20.130	.326	.366	Accept H_{o1}	Not Significant
Educational Attainment	93.352	.383	.353	Accept H_{o1}	Not Significant
Occupation	49.442	.067	.406	Accept H_{o1}	Not Significant
Type of Parity	21.173	.271	.376	Accept H_{o1}	Not Significant
Type of Delivery	25.414	.114	.412	Accept H_{o1}	Not Significant
Health Status of Infant	19.323	.372	.359	Accept H_{o1}	Not Significant
Length of Stay	18.627	.415	.352	Accept H_{o1}	Not Significant

Hospital Environment

Age	30.632	.536	.226	Accept H_{o1}	Not Significant
Marital Status	10.384	.239	.263	Accept H_{o1}	Not Significant
No. of Children	17.688	.818	.198	Accept H_{o1}	Not Significant
Religion	10.538	.229	.265	Accept H_{o1}	Not Significant
Educational Attainment	33.522	.755	.211	Accept H_{o1}	Not Significant
Occupation	18.338	.304	.247	Accept H_{o1}	Not Significant
Type of Parity	6.719	.567	.212	Accept H_{o1}	Not Significant
Type of Delivery	9.420	.308	.251	Accept H_{o1}	Not Significant
Health Status of Infant	6.053	.641	.201	Accept H_{o1}	Not Significant
Length of Stay	5.532	.700	.192	Accept H_{o1}	Not Significant

Note: Significant if p<.05; χ^2= *Chi-Square;* φ_c=Cramer's V.

Table 3 shows the association between the respondents' demographic profile quality of care around the time of childbirth among mothers. It can be seen that in terms of care and treatment, it has a significant association with their age ($\chi2$= 75.760, p=.012), marital status ($\chi2$= 26.327, p=.015), number of children ($\chi2$= 57.986, p =.026), and the type of delivery ($\chi2$= 29.179, p =.006). Since their Cramer's V values are less than 0.20, it further shows a weak association. In terms of communication, it shows that age ($\chi2$= 96.170, p =.030) and the number of children ($\chi2$= 81.064, p =.010) were statistically significant but had a weak strength of association. Conversely, the demographic profiles were not significantly associated with quality of care in terms of hospital environment among the respondents (p>.05). Thus, the null hypothesis was accepted.

Socio-demographic features determining the attitudes of teenage mothers towards their childbirth included their age, marital status, current occupation, and main source of income. The type of attitude adopted by mothers towards childbirth was significantly related to the level of their satisfaction with care and treatment (Bałanda-Bałdyga A, et al., 2020) the perception and interpretation of childbirth are changing as values change. This requires women and professionals to adapt to new circumstances Pereda-Goikoetxea B, et al. (2021).

Assessing the quality of maternal and newborn care among women during childbirth is significantly important to understand the factors that can potentially affect their health and that of their infants and to promote quality care that relates to their significant profiles that may respond to their specific needs (Costa, et al.,2022). The nurse's role in crafting conducive environmental conditions for a patient's gradual recovery highlights the influence of external factors on biological processes and development. Nightingale's emphasis on a healing environment significantly reshaped nursing practices, emphasizing the importance of sanitary conditions for providing optimal care (Gonzalo, 2023). Abdallah (2019) and Lammergeyer (2021) underscored the significance of a conducive environment for newborns, emphasizing the need for well-ventilated and well-lit rooms to detect all symptoms effectively.

Conclusion and Recommendations

The study concludes that nursing care quality in a government hospital in Cotabato City is outstanding and meets established standards. It presents a detailed demographic profile of mothers, encompassing factors such as age, marital status, number of children, religion, education, occupation, pregnancy details, infant health, and duration of stay. This thorough understanding guides healthcare interventions tailored to the diverse needs of the population. The Quality of Care assessment identifies strengths and areas for improvement, emphasizing high satisfaction levels in care, treatment, and communication. While suggestions for improvement are noted in aspects like cleanliness and comfort, the research serves as a roadmap for ongoing enhancements, showcasing a commitment to providing optimal healthcare experiences for mothers and newborns at the Cotabato City government hospital.

Recommendations. The recommended avenues for future research, drawn from the study findings, highlight the significance of nurses'

adaptability and proficiency in nursing skills to enhance care quality. It is advised that the Professional Education, Training, and Research Unit evaluate competency development programs, organize seminars, and provide training, particularly targeting staff nurses engaged in maternal care. The emphasis should be on advancing nursing skills through adaptation and innovation. The Hospital and Nursing Administration should use study results to identify gaps and address concerns in nursing services, allocating resources and facilities for improvement, with a specific focus on emphasizing cleanliness and orderliness in patient surroundings. Clients, including both patients and their significant others, can expect improved safety and elevated care quality, as indicated by the study results. Future researchers are encouraged to conduct comparative studies across multiple hospitals, explore diverse healthcare facilities for comparative assessments, and expand the study to include a larger population. The researcher recommends conducting the study in a wider population to utilize different methodologies, such as qualitative design to determine their experience in terms of care and treatment, communication, and lastly in hospital environment.

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Job Satisfaction and Occupational Health and Safety as Determinants of Turnover Intention among Rural Health Nurses

Francis Kunztantin S. Lucero, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

This research was carried out to predict the turnover intention among Davao Occidental rural health nurses through job satisfaction and occupational health and safety. Non-experimental quantitative predictive-correlational research design was employed in this study. Respondents were the 82 rural health nurses of Davao Occidental, including those hired in any institution of the province and the DepEd nurses utilizing complete enumeration. Adopted research questionnaires were utilized in gauging the level of the variables in this study. In this study, non-parametric tests have been applied as statistical instruments. In determining the relationship, Spearman's rho test was used between turnover intention towards job satisfaction, and occupational health and safety. Moreover, to determine the influencing effect of job satisfaction, and occupational health and safety on the turnover intention of the rural health nurses, kernel regression was used. The result revealed that rural health nurses' turnover intention is correlated with their job satisfaction and occupational health and safety. However, each indicator for job satisfaction does not significantly influence the turnover intention of the respondents. The policies and procedures on health and safety in the workplace revealed an impact on the nurses' inclination to leave. The result commended that medical institutions should continuously promote a workplace suitable for human honor in every way to deter their interest in leaving their current job by enforcing up-to-date policies and guidelines to preserve and protect their health and safety. Furthermore, for future researchers, the study recommended exploring other factors influencing turnover intention that were not focused on in the study.

Keywords: *Job Satisfaction, Social Science, Predictive, Davao Occidental*

Introduction

Rural health nurses play a crucial role in the provision of healthcare services to its recipients, especially in small communities like Davao Occidental. These medical care providers are trained to provide the care needed, such as but not limited to maternal and child care, health education and counseling, treating common infections, health promotion, and prevention of unforeseeable health crises (Acta medica Philippina, 2022). But Provincial Health Office of Davao Occidental reported that nurse turnover increased from zero in 2017 to 18 nurses as of 2022. These numbers might be minimal but the effects were felt on the thriving health care industry of Davao Occidental. The province does not have educational institutions that produce nurses to satisfy the community's increasing demands for health services.

The International Council of Nurses (ICN) reported on January 24, 2022, that by 2030 there could be 13 million fewer nurses around the world if action is not taken to stem the tide of redundancies and bring in recruits of health workers. A projected 5.9 million nurses worldwide, most of them concentrated in low to middle-earning countries like the Philippines, were already short before the pandemic hit. A study in 2023 from AMN Healthcare Services Inc. found that one-third of nurses reported that they intend to leave their jobs due to unprecedented retirement, low morale high turnover, and unsatisfactory conditions. Also, in the U.S., 23% of nurses intend to leave their posts in the next six months and 29% are considering leaving their current posts in 2022, American Nurses Foundation, These disparities could be exacerbated by the fact that richer countries are recruiting nurses from other countries.

Winter et al, (2020) stated that nursing leaving their jobs often referred to as nurses' turnover is a serious matter in the medical field. The medical professionals in the country are composed of large numbers of nurses Adajar, G., et al., (2022). As of 2023, the was a shortage of around 127,000 nurses in the Philippines according to Hospital Management Asia. A total of 17% turnover rate among nurse personnel was reported by their chief nurses, with nursing migration being a major reason for this. In addition, in private and public hospitals, the higher turnover rates were more pronounced. According to a survey conducted in a Philippine regional hospital, job satisfaction, younger age, and job stress, were substantial variables in nurses' turnover intentions (Labrague et al. 2019).

The ceaseless nurses' exodus like in Davao Occidental may bring a diminution in the delivery of quality and quantity service, resulting in a compromised Philippine healthcare system (Center for Migrant Advocacy, 2023). Thus, this study would like to uncover the influence of nurses' turnover intentions based on the determinants used in this study. These nurses are an important part of our workforce in achieving universal health coverage and sustainable development objectives, and no study has been conducted yet on this matter in Davao Occidental. With the increasing turnover, providing health care programs in Davao Occidental may become understaffed and result in poor health services if unattended. Turnover intention is being measured because it is the most precise predictor of actual nurse turnover.

Methods

Rural health nurses assigned to and deployed in the province of Davao Occidental provided the study's data. The province has five municipalities: Sta Maria, Malita, Don Marcelino, Jose Abad Santos, and Sarangani. A stratified random sample technique was employed in this study. To attain homogeneity, the respondents must be currently employed as rural health nurses and must be in the service for at least 5 years. Drawn out from the sampling were the 67 rural nurses hired for the year 2023 in any institution of Davao Occidental, and 15 Department of Education hired nurses. A total of 82 nurses served as respondents in this study. The researcher gathered all the responses of the nurses regarding their turnover intentions as well as their job satisfaction, and occupational health and safety.

In measuring their job satisfaction status, the researcher adopted the research instrument Job Satisfaction Survey of Spector, (1994). A 6-point Likert-type scale with seven (7) sub-indicators namely; Communication, Promotion, Supervision, Fringe Benefits, Contingent rewards, Operating conditions, Co-workers, Nature of work, and Pay comprising 36 item questions. The JSS instrument's Cronbach's alpha reliability score of 0.94 indicated the instrument's reliability.

The researcher adopted a research instrument developed by the Institute for Work & Health (2016) which was the Occupational Health and Safety Vulnerability Measure. The research instrument has three (3) sub-indicators namely; participation in occupational health and safety; workplace policies and procedures, and occupational health and safety awareness. The instrument has eighteen (18) questions scaled in a 5-point Likert-type. The occupational health and safety questionnaire proved a reliability score of Cronbach's alpha = .98 indicating a good internal consistency.

Lastly, in measuring the turnover intention of rural health nurses, the researcher adopted Roodt's (2004) Turnover Intention Scale (TIS). This instrument consists of 15-item questions scaled in a 5-point Likert-type scale. This instrument was tested for internal consistency and reliability with a score of 0.91 Cronbach alpha, signifying a strong and acceptable reliability rating.

The study employed Mean and Standard Deviation in determining the central tendency concerning the result of the rural health nurses' responses to the desired indicators. This would also determine if the data points are further from the mean. Moreover, to gauge the noteworthy association between, occupational health and safety, and job satisfaction towards their turnover intentions, a non-parametric test called Spearman Rho was used. Lastly, to discover the influence of job satisfaction, occupational health, and safety on rural nurses' intentions to leave in Davao Oriental the study used Kernel Regression. This technique is nonparametric and was used based on the criteria this statistical tool required.

Results and Discussions

Table 1. The Level of Job Satisfaction Among Rural Health Nurses

Job Satisfaction	M	SD	Interpretation
Pay	3.68	0.68	Slightly High
Promotion	3.85	0.65	Slightly High
Supervision	3.64	0.64	Slightly High
Fringe Benefits	3.75	0.72	Slightly High

Contingent Rewards	3.33	0.77	Slightly Low
Operating Conditions	3.46	0.98	Slightly Low
Coworker	3.85	0.66	Slightly High
Nature of Work	4.16	0.73	Slightly High
Communication	3.17	0.78	Slightly Low
Over-all	**3.65**	**0.73**	**Slightly High**

The nature of work under job satisfaction among rural health nurses of Davao Occidental garnered the maximum mean score of 4.16 (SD = 0.73), while the indicator that garnered the lowest mean score was communications having 3.17 (SD = 0.78).

The overall mean for job satisfaction was 3.65(SD = 0.73). The descriptive equivalent for the overall mean score for job satisfaction is "Slightly High", which means that the rural health nurse of Davao Occidental is slightly satisfied with his/her current job.

Job satisfaction was found to be highly dependent on characteristics related to the work environment. These findings align with Persefoni's review's conclusions cited in the study of Yasin et al. (2024), which summarized data showing a strong correlation between nurses' job happiness and the standard of their working environments. It's interesting to note that nurses in community settings reported feeling more satisfied with their jobs than those in hospital settings; this could be because of the former's more independent practice and lower patient acuity.

Table 2. The Occupational Health and Safety Level of Rural Health Nurses

Occupational Health and Safety	M	SD	Interpretation
Workplace Policies and Procedures	4.11	0.64	High
Occupational Health and Safety Awareness	4.34	0.61	Very High
Participation in Occupational Health and Safety	3.89	0.60	High
Over-all	**4.11**	**0.62**	**High**

The occupational health and safety among rural health nurses of Davao Occidental presented that the indicator with the highest mean was occupational health and safety awareness with 4.34 (SD = 0.61), while the indicator with the lowest mean was participation in occupational health and safety with 3.89 (SD = .60).

The overall occupational health and safety mean score of rural health nurses of Davao Occidental was 4.11 (SD = 0.62). The descriptive definition of the total mean score "High" means that the rural health nurses' occupational health and safety are oftentimes practiced.

"The promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations, by preventing departures and protecting workers against risks due to unfavorable health conditions at work, placing and sustaining workers to work environments suitable to their physiological and psychological abilities, in summary assigning of work to people, and people to their jobs and

adaptation to work" is defined by Dodoo (2021) on Occupational health and safety

In Emergent nations, the elements that contribute to the small and ineffectual occupational health systems were revealed. The primary cause of occupational health's inefficiency is its reliance on an underdeveloped and problematic public health system. Furthermore, they contended that to increase the efficacy of the Occupational Health systems, employees ought to be included in formulating policies and suggestions (Abdelrahim, et al., 2023).

Table 3. The Turnover Intention of the Rural Health Nurses

Variable	M	SD	Interpretation
Turnover Intention	3.00	0.56	Moderate

The results show that the total mean of the turnover intention of rural health nurses of Davao Occidental is 3.00 (SD = 0.56). The turnover intention of rural health nurses of Davao Occidental is described as "moderate", which means that turnover intention is sometimes manifested or observed.

The healthcare business is extremely concerned about nurse turnover, which is the phenomenon of nurses quitting their positions or the profession (Winter et al., 2020). An observable impact on the overall healthcare system is expected with the decrease in attrition rates and a shortage of competent nurses (Tang & Hudson, 2019). Several nations are experiencing a scarcity of competent nurses as a result of elevated nurse attrition (International Council of Nursing, 2019). To fill the void left by resigning nurses, healthcare institutions utilize their resources to recruit, hire, train, and market for new nurses. The turnover of nurses leads to reduced productivity and intellectual capital.

Table 4. Health Nurses' Job Satisfaction and Turnover Intentions Test of Relationship

Job Satisfaction	Turnover Intentions			
	r_s	**p-value**	**Remarks**	**Decision**
Pay	-0.077	0.492	Not Significant	Accept Ho_1
Promotion	0.062	0.580	Not Significant	Accept Ho_1
Supervision	0.131	0.242	Not Significant	Accept Ho_1
Fringe Benefits	-0.124	0.268	Not Significant	Accept Ho_1
Contingent Rewards	0.176	0.113	Not Significant	Accept Ho_1
Operating Conditions	0.310	0.005	Significant	Reject Ho_1
Coworker	0.084	0.451	Not Significant	Accept Ho_1
Nature of Work	-0.054	0.629	Not Significant	Accept Ho_1
Communication	0.441	0.000	Significant	Reject Ho_1
Over-all	**0.214**	**0.053**	**Not Significant**	**Accept Ho_1**

The table shows the relationship between job satisfaction towards turnover intention. Findings indicated that one of the job satisfaction indicators that revealed a significant positive relationship was operating conditions with a rs-value of 0.310($p<0.0005$). In their assessment of the literature, McDermid et al. (2020) discovered several characteristics that influence emergency nurses' turnover rates. These factors include work environment, significant occurrences, hostility, and violence.

Communications also positively correlate with turnover intention with a rs-value of 0.441 ($p<0.000$). The rest of the indicators exhibited no significance in terms of relationship with the intention of the rural health nurses of Davao Occidental to leave their current jobs. One of the primary causes of nursing job satisfaction is social support (Lei et al., 2019). The social support that nurses receive from friends, family, and coworkers at work affects how satisfied they are with their jobs. The degree of satisfaction among nurses is correlated with the challenges related to nursing recruitment and retention.

Moreover, the overall job satisfaction mean relationship showed a significant relationship towards the outcome variable turnover intention. The positive association has an rs-value of 0.214 ($p<0.053$). Specifically, the relationship strength is weak and directly proportional. This infers that an increase in the level of job satisfaction is correlated to a rise in the level of turnover intention. Consequently, the result would like to reject the null hypothesis. The researcher concluded that no significant relationship between job satisfaction, and turnover intention of the rural health nurses of Davao Occidental. The positive association means that rural health nurses with high job satisfaction do not mean a decrease in turnover intention.

Table 5. Rural Health Nurses Occupational Health and Safety and Turnover Intentions Test of Relationship

Occupational Health and Safety	Turnover Intentions			
	r_s	**p-value**	**Remarks**	**Decision**
Workplace Policies and Procedures	-0.348	0.001	Significant	Reject Ho_2
Occupational Health and Safety Awareness	-0.177	0.113	Not Significant	Accept Ho_2
Participation in Occupational Health and Safety	-0.088	0.433	Not Significant	Accept Ho_2
Over-all	-0.226	0.041	Significant	Reject Ho_2

The table presented the association between occupational health and safety and turnover intention among rural health nurses of Davao Occidental. Among the three (3) indicators, there was one (1) that showed a significant relationship towards the dependent variable. The workplace policies and procedures have a significant negative relationship with the turnover intention with a rs-value of -0.348 ($p< 0.001$).

According to research by Yasin et al, (2024), workers' motivation, work health, job satisfaction, and patient care are affected by the psychological and physical environments of their workplace. Relatively speaking, the intention to turnover lowers as these factors improve. Planning and implementing a program to advance occupational health and safety is so essential. A significant impact on staff satisfaction can be achieved by implementing occupational safety and health programs. Additionally, research results established a positive substantial relationship between job satisfaction and occupational health management towards staff members.

Furthermore, the overall mean for occupational health and safety showed an inverse association towards their turnover intention with a rs-value of -0.226 ($p<0.041$). Specifically, the relationship strength is weak and inversely proportional. The negative relationship implies that a rise in the level of occupational health and safety is correlated with a decrease in turnover intention.

Table 6. Influence of Job Satisfaction on the Turnover Intentions of Rural Health Nurses

Turnover Intention	Observed Estimate	Bootstrap SE	z	p-value	Remarks	Decision
Mean Turnover Intentions	2.875	0.088	32.820			
Effect						
Pay	-0.193	0.880	-0.220	0.827	NS	Accept Ho_3
Promotion	0.099	0.792	0.120	0.901	NS	Accept Ho_3
Supervision	0.030	0.438	0.070	0.945	NS	Accept Ho_3
Fringe Benefits	-0.185	0.849	-0.220	0.828	NS	Accept Ho_3
Contingent Rewards	0.074	0.639	0.120	0.907	NS	Accept Ho_3
Operating Conditions	0.117	0.490	0.240	0.810	NS	Accept Ho_3
Coworker	-0.158	0.866	-0.180	0.855	NS	Accept Ho_3

Nature of Work	-0.138	0.578	-0.240	0.811	NS	Accept Ho_3
Communication	0.241	0.665	0.360	0.717	NS	Accept Ho_3

The findings show the result of job satisfaction as a determinant for rural health nurses' turnover intention. All indicators of job satisfaction do not significantly influence the turnover intentions of the rural health nurses in Davao Occidental ($p>0.05$, R-squared = 0.9810). This result would like to accept the null hypothesis, proving that job satisfaction and its indicators, do not significantly influence the turnover intention of the rural health nurses of Davao Occidental. The result of this study would like to accept the null hypothesis of this study suggesting job satisfaction and its indicators assumed as not determining factors towards the turnover intention of rural health nurses of Davao Occidental.

The outcome is the opposite of Aloisio et al. (2019) study, employee turnover and personal health will have an impact on an individual's job satisfaction. High staff retention and lower absenteeism are correlated with nurses' high job satisfaction. Job satisfaction influences nursing care quality and safety, as well as the incentive to remain at work and the institution.

Table 7. Influence of Occupational Health and Safety on the Turnover Intentions of Rural Health Nurses

Turnover Intention	Observed Estimate	Bootstrap SE	z	p-value	Remarks	Decision
Mean Turnover Intentions	2.987	0.064	47.030			
Effect						
Workplace Policies and Procedures	-0.442	0.214	-2.070	0.039	Significant	Reject Ho_4
Occupational Health and Safety Awareness	-0.105	0.270	-0.390	0.696	NS	Accept Ho_4
Participation in Occupational Health and Safety	0.309	0.162	1.900	0.057	NS	Accept Ho_4

Alternatively, the workplace policies and procedures reversely influenced the turnover intentions of the rural nurses in Davao Occidental ($p<0.05$, R-squared= 0.4539). The findings indicate that if the institutions' or workplaces' policies and procedures increase, the turnover intention of these nurses decreases. The study would like to reject the null hypothesis that workplace policies and procedures negatively influence their intent to leave their job. Based on the r-squared value of 0.4539, the workplace policies and procedures explain 45% of the variance of the outcome variable turnover intention. The remaining percentage is subject to another research.

Palanci (2020), found an inversely moderate association between the intention to leave, and a healthy and safe workplace. This research indicates that healthy and safe workplaces deteriorate, increasing the probability of interpersonal conflict and attrition. In addition, his study has shown that there are unfavorable and minor links between stress at work, intention of leaving the workforce, educational level, and number of hours worked as well as weakness and favorable correlation with occupational health and safety and interpersonal conflict.

Managers who possess helpfulness, problem-solving, and conciliation skills will be able to stop health workers from intending to quit their jobs. Policies and procedures within the organization should support staff members to prevent the spread of quit intentions inside healthcare facilities. Comparably, Dost et al.'s study from 2021 found that nurses' dissatisfaction with their working conditions was caused by the pandemic's increased patient load, the low staffing level brought on by the large number of nurses absent from duty due to illness, long workdays, and little downtime.

Lastly, Santos et al. (2021) recommend that immediate changes be made to nurses' working environments. Due to unsafe and unreliable staffing levels, subpar equipment, shifting shifts in schedules and workloads, unclear job descriptions, and other factors, nurses are not sufficiently protected in the workplace, which lowers the standard of care and creates ethical dilemmas (Gebreheat & Teame, 2021; Turale et al., 2020

Conclusion and Recommendations

Uncovering a possible association of job satisfaction, occupational health, and safety concerning turnover intention among Davao Oriental's rural health nurses was investigated using a descriptive-predictive research approach. 82 respondents in all were selected by the stratified sample approach to take part in this investigation. The employment satisfaction of rural health nurses is slightly high when it comes to compensation, opportunities for advancement, benefits, contingent rewards, and working conditions. Rural health nurses are happy with their current working circumstances as a result. Medical institutions in Davao Occidental were assessed with a high level of standard operating procures and policies in promoting safety and health protection to their workforce. Finally, the intention of Davao Occidental's rural health nurses to quit their current positions is moderate level. This may not be the case in the future, thus continuous monitoring is advised.

The findings revealed that nurses who are highly satisfied at work do not necessarily have low intentions of leaving. However, medical institutions with poor standard operating procures and policies in promoting safety and health

protection to their workforce are associated with the rural health nurses' intent to leave. Medical institutions should continuously promote the protection of their personnel in the workplace which is suitable for human honor in every way. Health institutions should maintain upholding updated health safety procedures and policies to diminish the nurses feeling of being unsafe and unprotected in their workplace which may facilitate them to leave their post. The result presented that the safety of nurses is a consideration for them to stay in the institution. Although the turnover intention of the nurses showed moderate, there should be a regular assessment of their intention to leave to provide intervention plans to address their intention and impede the possible effect of high turnover of nurses in the health care industry especially in rural areas like Davao Occidental. Future researchers are recommended to conduct an explanatory–sequential mixed method to explore other variables that influence the turnover intention of the rural health nurses to manage future concerns about lack of nursing manpower which will greatly affect the health care industry in the community.

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Mediating Effect of Resilience on the Relationship Between Adversity Response and Quality of Nursing Care among Nurses in Southern Davao

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Sittie Hara D. Lucero, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

This predictive-correlational study focused on determining the mediating effect of resilience on the relationship between adversity response and the quality of nursing care among nurses in Southern Davao. This study used the quota sampling technique in selecting the 200 nurse respondents of the study from both public and private hospitals. The findings of the study revealed that nurses' adversity response turned out to be low. In terms of the quality of nursing care of nurses and resilience of nurses, it was found to be very high. Also, the resilience of nurses showed to be very high. Moreover, the results also revealed the relationships between the adversity response and resilience, resilience, and quality of nursing care, and adversity response and quality of nursing have no significant relationship. Consequently, the critical thinking abilities did not statistically mediate the relationship between clinical knowledge and nursing skills among nursing students since both indirect and direct effects had no statistical significance. The results would imply that the resiliency among nurses and do not share support within groups has not been related to adversity response and quality of nursing care. This study recommends strengthening the need of nurses in the field to maintain their quality nursing care, and adversity response and strengthen their resiliency in work through conducting conferences and seminars to know the needs and desires of nurses to keep their momentum on high in the field of nursing.

Keywords: *Resilience, Nursing, Predictive-Correlational, Southern Davao*

Introduction

In the post-pandemic time, medical institutions still suffer profound effects and impacts on the day-to-day problems and complications particularly on the response and nursing care of nurses which fuel their resiliency in their workplaces (McAllister & Brien, 2019). Everywhere in the world, the value of nursing care and their immediate response to the needs of the patients is crucial and hard-hitting (Pragholapati, 2020). Also, Chikobvu and Harunayamwe (2022) held that adversity response had a statistically significant effect on resilience. Truly, there is a pressing need to provide a spot on the problems concerning adversity response and quality of nursing care nurses to provide satisfactory and adequate services among the patients which would strengthen their resiliency in performing their duties and responsibilities.

In the international arena, a study in Istanbul revealed that nurses wanted to show better interest in the information-giving procedure in hospitals which is related to their adversity response and nursing care abilities (Karaca & Durna, 2019). This is especially true in times of health emergencies when nurses have to carry lots of accountability and responsibility

(Macabiog, 2014 as cited by Smith, 2019). Moreover, in North America, a study steered by Chaboyer et al. (2021) elucidated that there are cases of missed nursing care among hospitals with factors such as interaction and data sharing, self-management, discharge scheduling, and decision and fundamental physical care which would affect their adversity responses in times of emergencies.

In the Philippines, Martinez et al. (2021) emphasized the prominence of nurses in monitoring patients and elucidated that the adversity response of nurses has a significant influence on the feature of nursing care that remains given to their clientele. In fact, in the province of Southern Davao, a report from the Provincial Health Office in 2022 elucidated that there is a necessity to adopt strategies and enhancement programs to progress thoughtful performances among nurses to decrease the rate of mistakes and opposing events and intensify nurses' resiliency at work.

It is in the light of the above-mentioned situation that the researcher was motivated to explore the adversity response, quality of nursing care, and resiliency of the nurses. There is a demanding need to bridge the gap wherein there are plentiful reports about adversity responses that associate to quality of nursing care with resiliency as a mediator but still, there are no established explanations for why these problems are still happening (Lin et al., 2021). Hence, this may be helpful to understand whatever strengths and weaknesses these nurses have to aid them in responding to their immediate needs. The outcomes whitethorn befit a substance that might be utilized by nurse managers and medical executives in shaping significant and pragmatic improvement plans to fortify the expertise and welfare of nurses to be committed to their institutes.

Methods

This research employed the predictive-correlational method to determine the level of adversity response, quality of nursing care, and resilience of nurses. The study was performed in public and private hospitals in the provinces of Southern Davao. There were 78 nurses in the whole province of Davao Occidental both in public and in private. Hence, the sample size with the 5% margin of error is 38 nurses. Hence, its medical specialties include cardiovascular medicine, orthopedics, obstetrics-gynecology, digestive and liver diseases, radiology, and radiation oncology.

Moreover, the nurses in both public and private hospitals in the province of Davao del Sur consisted of 506 by number as per the Provincial Health Office. Hence, with a 5% margin of error, there were 162 respondents in the province. The hospitals in the province offer an extensive scope of medical and surgical services in different medicines such as physical medicine, family medicine, neurosciences, orthopedics, internal medicine, pediatrics, obstetrics and gynecology, ophthalmology, general surgery, and rehabilitation

This study applied the quota sampling technique in the selection of 200 nurses with 38 nurses from Davao Occidental and 162 nurses from Davao del Sur with a 5% margin of error were selected to partake in this study through the quota sampling technique. The names of nurses were obtained from the Provincial Health Agency's records. In particular, all the nurses in Southern Davao were included as a basis for the population size used in solving for the sample size of this study. Sample size computation was done following Slovin's formula. Further, the researcher had a criterion as to the respondents wherein: a). they should be nurses working in Southern Davao, b) they should be laboring from 2018-2023, and c) have a drive to partake in the study.

The research utilized an adopted tool for adversity response and quality of nursing care. The

Adversity Response Profile (ARP) was a scale-based questionnaire created by Dr. Paul Stoltz that is used to gather a response pattern to a wide range of adverse situations. It was widely used to measure the Adversity Quotient of people and can also be used by nurses. It was a 20-item questionnaire and questions were responded to through a 5-point Likert scale. Likewise, Cronbach alpha was utilized to gauge internal constancy, that was, associated with items, and was deliberated to quantify scale reliability.

Also, the Quality Nursing Care Scale (QNCS) was an instrument authored by Liu et al. (2021) to assess the quality of nurses in providing nursing care to their clients. Moreover, this scale includes five factors namely: staff characteristics, task-oriented activities, physical environment, patient outcomes, and preconditions. The items in the questionnaires have undertaken modifications with the present study and made the measures similar in all segments of the questionnaire. The tools were exposed to authenticity by distinctive experts in the field of nursing. Hence, the questionnaires have undergone a dependability test.

Moreover, resilience as the mediating variable will adapt to the Connor- Davidson Resilience Scale (CD-RISC) which is then shaped to measure the supposed capability to recuperate from stress. The 25-item questionnaire was established to evaluate a unitary concept of resilience, including positively and negatively phrased items.

The undermentioned tools were used in analyzing the data for this study. Mean and Standard Deviation. The mean was applied to determine the level of adversity response, quality of nursing care, and resilience among the nurses. The standard deviation was used to tell how dimensions for a group are spread out from the average mean or expected value of adversity response, quality of nursing care, and resilience among the nurses. Partial Least Squares – Structural Equation Modeling (PLS-SEM). It was used to probe the strength of the mediation that occurs in the mediation model of adversity response, quality of nursing care, and resilience among the nurses. Hence, it was used to analyze complex inter-relationships between observed and latent variables.

Results and Discussion

Table 1. Level of Adversity Response in terms of Control, Ownership, Reach and Endurance

Indicators	Mean	SD	Interpretation
Control	3.26	0.57	Moderate
Ownership	2.79	0.66	Moderate
Reach	1.20	0.34	Very Low
Endurance	2.32	0.44	Low
Overall	2.39	0.50	Low

Note: 4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low

Table 1 shows the level of adversity response of the nurses. It illustrates that the general mean of this variable is 2.39, which is labeled as low. Furthermore, the result implies that the adversity response of nurses is low. This finding opposes the study of Liu et. al (2020) which stated that nurses who intensively labored for patients showed that they were physically and emotionally exhausted. Hence, they were drained with heavy workloads supplemented with the anxiety of infecting others and being infected. However, they were able to show professional dedication and resiliency through comprehensive support and training programs that promoted preparedness and efficiency for adversity response (Lim et al., 2021).

One of the indicators of adversity response is "control" which got the highest mean of 3.26. This is labeled as moderate, which means that the adversity response of nurses is moderate in terms of this indicator. Furthermore, the item means of this indicator ranges from 1.60 to 4.17. It shows that the item, *I do not like problems at work because my performance is affected*, got the lowest mean rating for this indicator, with a mean of 1.60, described as never. While the item, *I am exercising regularly when I know I should be*, got the highest mean rating for this indicator, with a mean score of 4.17, described as often. The result negates McCann et al. (2020) which stated that extra workload, time pressure, and personal problems are only some of the factors that impact the health professionals' welfare. However, nurses' well-being is not the only thing that is affected, but also their ability to accomplish their work.

More so, the indicator that got the lowest category mean of 1.20 is reach which was described as never and implies that the adversity response of nurses is very low in terms of this indicator. Furthermore, the item means of this indicator ranges from 1.00 to 1.31. It shows that the item, *I hit every red light on my way to an important appointment*, got the lowest mean rating for this indicator, with a mean of 1.00, described as never. While the items, *I am criticized for a big achievement that I just completed* and *the high-priority project I am working on gets canceled*, got the highest mean rating for this indicator, with a mean score of 1.31, which is also described as never. This finding supports the study of Tarapurwala (2020) which said that hopefulness, support, mechanism, professional identity, and clinical administration subsidize the positive adversity response of nurses which varies depending on the individual and the context.

Table 2. The level of quality of nursing care of the respondents in terms of Physical environment, Staff characteristics, Precondition, Task-oriented activities, and Patient outcomes.

Indicators	Mean	SD	Interpretation
Physical Environment	4.62	0.47	Very High
Staff Characteristics	4.60	0.50	Very High
Precondition	4.56	0.49	Very High
Task-oriented Activities	4.72	0.45	Very High
Patient Outcomes	4.44	0.56	Very High
Overall	4.59	0.49	Very High

Note: 4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low

Table 2 shows the level of quality of nursing care among sample nurses. It illustrates that the general mean of this variable is 4.59, which is labeled as very high. It gathers a standard deviation of 0.49, indicating that nurses have a level of nursing care response between 4.49 - 4.69. Furthermore, the result means that the quality of nursing care is extreme. This finding supports Kieft et al. (2022) which stated that the way nurse knob and care for patients meaningfully affects the healing process of a patient. They also stated that there is a broad range of factors that affect patient experiences which include: knowledgeable nurses, patient-centered

refinement, collective interpersonal relationships, and satisfactory staffing. However, with the thoughtful lack of nursing staff which is a predicament in numerous countries, nurses' quality of work life tends to be in the middle range (Wang, 2020).

The indicator that got the highest mean is task-oriented activities which has a category mean of 4.72 and was described as very high. It implies that the quality of nursing care was elevated in terms of this indicator. Furthermore, the level rating per item of this indicator ranges from 4.54 to 4.84. It shows that the item, *I perform good basic nursing care to the patient*, got the lowest mean rating for this indicator, with a mean of 4.54, described as always.

The item, *I provide effective health education for patients,* got the highest mean rating for this indicator, with a mean score of 4.84, which is also described as always. This finding supports Mrayyan (2019) who said that task-oriented nurses are proficient and skillful professionals whose know-how is indispensable to patients (Mrayyan, 2019). Also, part of being a task-oriented worker is having a precarious thinking skill which aids nurses to bring out conversion within the medical industry (Srulovici & Drach-Zahayy, 2021).

In the same vein, nurses who are task-oriented are focused on tasks that need to be accomplished in hospitals and permit care to patients with utmost efficiency (Lumillo-Gutierrez et al., 2019). Also, nurses are task-oriented although they often work in teams and are always there to support each other (Farsi & Afaghi, 2020). Hence, numerous models of nursing care have been in rage from team nursing to patient distribution to main nursing to implement certain tasks and be task-oriented in all ways (Van Den Oetelaar et al., 2020).

Further, the indicator that got the lowest mean of 4.44 was the patient outcome. This was described as always, which means that the quality of nursing care is very high in terms of this indicator. Furthermore, the level rating per item of this indicator ranges from 3.07 to 4.78. It shows that the item, *I have never gotten complaints from the patients and their relatives*, got the lowest mean rating for this indicator, with a mean of 3.07, described as sometimes. The item, *I can avoid patient chemical damage,* got the highest mean rating for this indicator, with a mean score of 4.78, which is also described as always. This finding supports Porter, Larsson & Lee (2019) who stated that patient outcomes knowingly influence the quality of nursing care and the amount of operative care.

Table 3. Level of the resilience of the respondents in terms of Positive acceptance of change, Trust in one's instinct Personal Competence and Tenacity, Control, and Spiritual Influence

Indicators	Mean	SD	Interpretation
Positive Acceptance of Change	4.62	0.52	Very High
Trust in One's Instinct	4.23	0.54	Very High
Personal Competence and Tenacity	4.60	0.49	Very High
Control	4.55	0.56	Very High
Spiritual Influence	4.83	0.35	Very High
Overall	4.57	0.49	Very High

Note: 4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low

Table 3 shows the level of resilience among nurses. It illustrates that the overall mean of this variable is 4.57, which is described as always. It gathers a standard deviation of 0.49, indicating that approximately 6 nurses have a level of nurses' resiliency response between 4.44 - 4.68. Furthermore, the result implies that the resiliency of nurses is very high. This finding supports Pragholapati et al. (2020) which stated that resilience was renowned as an essential yet regular progressive trait with a synergistic nature and the term was attributed to an active nurse.

The indicator which got the highest mean of 4.83 was the spiritual influence. This is described as always, which means that the resiliency of the nurses is very high in terms of this indicator. Furthermore, it has two items, with means of 4.73 and 4.93. It shows that the item, *Sometimes Fate of God Can Help Me*, got the lowest mean rating for this

indicator, with a mean of 4.73, described as always. While the item, *I believe that things happen for a reason,* got the highest mean rating for this indicator, with a mean score of 4.93, which is also described as always.

Moreover, the indicator trust in one's instinct got the lowest category mean of 4.23. This was described as always, which means that the quality of resiliency of nurses is very high in terms of this indicator. Moreover, the level rating of the items of this indicator ranges from 2.85 to 4.79. It shows that the item, *I have an act on a hunch*, got the lowest mean rating for this indicator, with a mean of 2.85, described as sometimes. The item, *Coping with stress strengthens me*, got the highest mean rating for this indicator, with a mean score of 4.79, which is described as always.

Table 4. Relationship Between Adversity Response and Resilience

Adversity Response	Resilience				
	r_s	p-value	Decision	Remarks	
Control	.004		.957	Accept H_{01}	Not Significant
Ownership	-.051		.476	Accept H_{01}	Not Significant
Reach	.076		.283	Accept H_{01}	Not Significant
Endurance	-.024		.732	Accept H_{01}	Not Significant

Note p<0.05 (Significant) r_s= rh; IV- Adversity Response; M – Resilience.

Table 4 shows the relationships between adversity response and resilience of the nurses. The results exposed that there is no significant relationship between the nurses' adversity response in terms of control (r_s =.004, p= .957), ownership (r_s =-.051, p= .476), reach (r_s =.076, p= .283), endurance (r_s =-.024, p= .732) and resilience. These led to the acceptance of the null hypothesis (H_{01}) since their p-values are more than 0.05 alpha level of significance. This finding supports Abu-Hussain (2022) who sees adversity response as important in the nurses' resilience since this comprises the caring affiliation between the nurse and the patient and the concept that nurses can be resilient and tough in times of need.

As stated by Aguirre et al. (2019), managing stress is utilizing views and doings to pact with demanding circumstances and to drop stress. Hence, nurses remain positive and persevere even under thrilling adverse circumstances in the hospital. Aguirre et al. (2019) also found a relationship between adversity response towards the resilience of nurses since it aids them in coping with the stress and strains in the hospital leading to patient satisfaction.

Table 5. The Test of Relationship Between Resilience and Quality of Nursing Care

Resilience	Quality of Nursing Care				
	r_s	p-value	Decision	Remarks	
Positive Acceptance of Change	-.037		.603	Accept H_{02}	Not Significant
Trust in One's Instinct	.102		.152	Accept H_{02}	Not Significant
Personal Competence and Tenacity	.073		.303	Accept H_{02}	Not Significant
Control	.066		.352	Accept H_{02}	Not Significant

Spiritual Influence	.089	.208	Accept H_{02}	Not Significant

Note p<0.05 (Significant) $r_{s=}$ rho; DV-Quality of Nursing Care; M - Resilience.

As shown in Table 5, it divulged that there is no significant relationship between the nurses' level of resilience in terms of positive acceptance of change (r_s =-.037, p= .603), trust in one's instinct (r_s =.102, p= .152), personal competence and tenacity (r_s =.073, p= .303), control (r_s =-.066, p= .352), spiritual influence (r_s =.089, p=.208) and resilience. These led to the acceptance of the null hypothesis (H_{02}) since their p-values are more than 0.05 alpha level of significance.

This finding supports Syptak et.al (2019) who revealed that nurses with high levels of resilience and quality of nursing care are satisfied and remain as nurses. Nurses who have high resiliency tend to be more prolific, imaginative, and devoted to quality of care. Also, Siedleckin & Hixson (2021) clarified that both resilience and quality of nursing care vary on the quality of the practice environment where care is offered such as the experience and educational achievement of the nurses.

Table 6. The Test of Relationship Between Resilience and Quality of Nursing Care

Adversity Response	Quality Nursing care			
	r_s	p-value	Decision	Remarks
Control	-.033	.643	Accept H_{03}	Not Significant
Ownership	-.029	.679	Accept H_{03}	Not Significant
Reach	.009	.896	Accept H_{03}	Not Significant
Endurance	.061	.398	Accept H_{03}	Not Significant

Note p<0.05 (Significant) $r_{s=}$ rho; IV- Adversity Response; DV-Quality of Nursing Care.

Table 6 displays the relationships between adversity response and the quality of nursing care of the nurses. The test of relationship disclosed that there is no significant relationship between the nurse's level of adversity response in terms of control (r_s =-.033, p= .643), ownership (r_s =-.029, p= .679), reach (r_s =.009, p= .896), endurance (r_s =.061, p= .398) and quality of nursing care. These led to the acceptance of the null hypothesis (H_{03}) since their p-values are more than 0.05 alpha level of significance.

This finding supports Verma et al. (2019) who said that adversity response plays a main role in a person's ability to achieve stress and retort effectively to adverse situations. Hence, if a nurse's well-being is disturbed, so is the performance.

According to Stoltz (2019), there is a relationship between nurses' adversity response in the progress of an effective hospital climate and nurses' service quality. A nurse who holds a sufficient adversity quotient will more likely retort definitely to patient care adversity and lessen the negative influence it may have on the nurse's quality of care, patient satisfaction, and overall development of the hospital.

Table 7. The Mediation Analysis of Resilience on the Relationship between Adversity Response and Quality of Nursing Care

Path	β	SE	t	P	Decision	Remarks
A. Direct Effects						
$Ho_{4.1}$: AR→QNC (Path C')	0.124	0.215	0.576	0.564	Accept $Ho_{4.1}$	Not Significant
$Ho_{4.2}$: AR→RES (Path a)	0.222	0.241	0.924	0.356	Accept $Ho_{4.2}$	Not Significant
$Ho_{4.3}$: RES→QNC (Path b)	0.201	0.189	1.064	0.287	Accept $Ho_{4.3}$	Not Significant
$Ho_{4.4}$: AR→RES→QNC	0.045	0.065	0.685	0.493	Accept $Ho_{4.4}$	Not Significant
C. Total Effect						
$Ho_{4.5}$: AR→QNC	0.169	0.247	0.685	0.493	Accept $Ho_{4.5}$	Not Significant

Note: p-value <.05 (Significant); IV-AR; DV-QNC; Mediator-RES; f^2 (Path C') = 0.016; f^2 (Path a) = 0.052; f^2 (Path b) = 0.041

In this study, table 7 showed the mediation analysis to assess the mediating role of nurses' resilience (RES) on the relationship between Adversity Response (AR) and Quality of Nursing Care (QNC). As the significance of the mediating effect was analyzed, the results revealed that the indirect effect of adversity response on the quality of nursing care through resilience (β= 0.045, p=.493) was not statistically significant. Moreover, the total effect of adversity response (β= 0.169, p=.493), and with the inclusion of the mediator (RES), the effect of adversity response on the quality of nursing care (β= 0.124, p=.564) were both statistically insignificant. In general, critical thinking abilities did not statistically mediate the relationship between clinical knowledge and nursing skills among nursing students since both indirect and direct effects had no statistical significance.

The result is similar to Awano et al. (2020) which supposed that resiliency among nurses and shared support within groups has been related to adversity response and quality of nursing care. Therefore, resilience is renowned as a mental health directory calculating one's managing capability (Babanataj et al., 2019). Also, a defensive influence against evolving trauma, resilience was a centerfold for health elevation and welfare of nurses for years (Chang et al., 2021).

The outcome was also reinforced by Dahka et al. (2022) who detailed that this fundamental restlessness and anxiety can come crossways as conflict to change. Hence, nurse managers often have to instrument variations that are not unstated. As per Park and Jung (2021), endowing nurses to clinch the affirmative facets of applying deviations, and the chances can convey, may benefit the association to

propagate. On the other hand, Rayani et al. (2022) said that change can frequently uproar diverse responses from staff such as unconstructiveness, unconcern, and opposition. They also stated that nurses should assume, and be equipped, to pact with those that repel the change. Hence, they also said that some nurses may not orally prompt their defiance so be watchful for undesirable characteristics.

Conclusion and Recommendations

The finding of the study revealed that nurses' adversity response turned out to be described as done seldom. It implies that the adversity response of nurses is low. In terms of the quality of nursing care of nurses, it was described as always manifested. Furthermore, the result means that the quality of nursing care is very high. The result on the resilience of nurses showed to be always felt. The result implies that the resiliency of nurses is very high. Subsequently, the relationships between the adversity response and resilience revealed that there is no significant relationship between the nurses' adversity response in terms of control, ownership, reach, endurance, and resilience. The relationship between resilience and quality of nursing care revealed that there is no significant relationship between the nurses' level of resilience in terms of positive acceptance of change, trust in one's instinct, personal competence and tenacity, control, spiritual influence, and resilience. Consequently, the relationship between adversity response and the quality of nursing care of nurses revealed that there is no significant relationship between the nurses' level of adversity response in terms of control, ownership, reach, endurance, and quality of nursing care. Finally, critical thinking abilities did not statistically mediate the relationship between clinical knowledge and nursing skills among nursing students since both indirect and direct effects had no statistical significance.

There is a need to craft interventions that will aid the nurses in keeping their conviction in giving quality healthcare and boosting their resilience at work. Also, the nurse managers and supervisors must make programs that would make the nurses appreciate the joys of nursing by giving extra incentives and conducting team-building activities.

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Gwen Geozette E. Macapeges, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The role of primary caregivers for critically ill patients who have undergone open-heart surgery stands as a challenging and often overlooked domain. This study aimed to explore and describe the experiences of primary caregivers of critically ill patients who underwent open-heart surgery. A purposive sample of seven participants was interviewed. Utilizing Collaizzi's (1978) phenomenological method, rigor was established through the application of verification, validation, and validity. From the 156 significant statements, 11 themes emerged. Primary caregivers' experiences included perseverance to challenges, emotional and psychological strain, physical adversities, and diminished social life. Their means of coping involved embracing realities, strong faith and love in Allah, love and support of family and friends, and caring for oneself. The insights that primary caregivers wanted to share with fellow caregivers and the community, in general, were a call to love and support, giving love and patience, and adhering to medical requirements. Considering the challenges faced by caregivers of critically ill patients post-open-heart surgery, it is recommended to prioritize support systems that emphasize compassion, community involvement, and adherence to medical requirements to enhance the caregiving experience

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Keywords: *Primary Caregiver of Critically-ill Patients, Social Science, Phenomenology, Cotabato City*

Corrensponding email: gwengeozetteestabilo@gmail.com

Introduction

In the complex landscape of healthcare, the role of primary caregivers for critically ill patients who have undergone open-heart surgery stands as a challenging and often overlooked domain. The emotional, psychological, and physical toll experienced by these caregivers is profound, yet the intricacies of their lived experiences remain insufficiently explored. The demanding nature of caring for a loved one recovering from such a major surgical intervention presents a problematic situation that goes beyond the medical intricacies of open-heart surgery. This research explores the multifaceted challenges faced by primary caregivers, shedding light on the nuanced dimensions of their journey, and ultimately contributing to a more comprehensive understanding of the holistic impact of open-heart surgery on both patients and their caregivers, and offering valuable insights into the emotional and practical challenges faced by primary caregivers within the Moro community.

In a global context encompassing 20 countries in which research focused on societal attitudes toward caregivers, the findings underscore that nurturing positive perceptions of caregivers is most impactful when caregiving is universally acknowledged as a virtuous act. This recognition plays a pivotal role in addressing the care deficit across diverse cultural landscapes, emphasizing the importance of a global perspective in shaping societal attitudes toward caregiving (Ng & Indran, 2021; Pharr et al., 2019). Similarly, Seephom et al. (2021) research found that caregiving significantly influences Muslim family caregivers, necessitating holistic care that aligns with Islamic beliefs and the doctrine of Allah. These findings offer valuable

insights into the experiences of Muslim caregivers, providing a foundation for tailoring nursing interventions to their unique needs.

Additionally, Philips (2018) emphasizes that the lived experiences of primary caregivers can have profound emotional, physical, and financial implications, often leading to anger, depression, anxiety, and other stress-related health issues. While caregiving can undoubtedly be a rewarding experience, it comes with numerous stressors that can generate long-term effects, such as a growing sense of burden over time. However, a study revealed that Muslim caregivers' cultural and religious values were profoundly ingrained, suggesting that the caregiving process has the potential to shift from a negative to a positive and meaningful experience by altering the caregiver's attitudes towards their role and circumstances (Akoob, 2015).

Moreover, Filipinos, recognized for their good-natured, industry, passion, and compassion, are highly favored by companies and employers, especially in the hospitality and service industries (Nepumoceno, 2017). The Filipino caregiving approach is also distinguished by cultural values, with spirituality and religion serving as sources of meaning and wellness promotion in their professional roles (Yalung, 2010).

Despite the growing body of literature examining the experiences of primary caregivers for critically ill patients undergoing open-heart surgery, a notable research gap exists in the specific context of the experiences of MORO caregivers. The unique sociocultural factors, familial dynamics, and healthcare systems in this region contribute to a distinct set of challenges and coping mechanisms that have been inadequately explored in the existing literature.

Recognizing the significance of cultural nuances in shaping caregiving experiences, this research aims to address the void by focusing on the lived experiences of MORO caregivers, ultimately contributing to a more culturally sensitive and globally inclusive understanding of the challenges faced by primary caregivers in the aftermath of open-heart surgery. Thus, the purpose of this qualitative study is to explore and describe the experiences of Moro primary caregivers living with critically ill patients in Cotabato City. In this research, critically ill who underwent open-heart surgery patients referred to individuals facing severe medical conditions that necessitated surgical intervention in their hearts.

Methods

The data was gathered at the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). It covers 5 provinces, namely, Basilan, Lanao del Sur, Maguindanao, Sulu, and Tawi-Tawi, with 7 more caregivers. This study used the descriptive-phenomenological design. Also, These seven (7) chosen primary caregivers underwent a one-on-one interview. The objective is to reach a point where the information gathered is comprehensive and no longer yields novel insights into the phenomenon under investigation. Thus, by embracing Colaizzi's method and maintaining reflexivity throughout the research process, the researcher aims to ensure the depth and richness of the data collected.

Moreover, formulated guide questions for the one-on-one interview were sent to research experts for validation. Interview questions were developed as part of this work and were used to gather information about the experiences of the selected primary caregivers. The participants were contacted by the researcher through SMS, and they were individually invited to participate in the study. The researcher communicated with each participant through various available means. The interview process was conducted once the subjects had agreed. All the gathered data were organized, and a thematic analysis of the study was carried out.

Furthermore, The information for this study was primarily collected through in-depth interviews with the participants. The primary caregivers who agreed to participate in the research were considered the primary sources of data. Secondary data sources for this study included observations, articles, journals, and related literature, which were used to supplement

the information collected from the primary data sources.

Also, Collaizzi's method of data analysis was utilized, and the voice-recorded interviews of the participants were fully transcribed by the researcher. The full transcripts, field notes, and observations during the interviews comprised the set of data for analysis. The results were analyzed and categorized according to principal ideas. In categorization, the major themes that have emerged from the research participants have been identified.

Additionally, discrepancies among or between the various clusters were noted, avoiding the temptation of ignoring the data or themes that do not fit. Lastly, validation of the findings was sought from the participants to compare the researcher's descriptive meanings with the challenges of the participants. The researcher returned the research findings to the participants and discussed the results with them, assuring the trustworthiness of the data gathered.

Results and Discussion

Table 1. Profile of the Participants

Code Name	Age	Sex	Relationship to Patient	Duration of Caregiving
Participant 1	33	F	Mother	1 year
Participant 2	38	F	Mother	1 year
Participant 3	35	M	Father	1 year
Participant 4	33	F	Mother	1 year
Participant 5	35	F	Mother	1 year
Participant 6	34	F	Mother	1 year
Participant 7	32	M	Father	1 year

The participants of this research included a total of 7 Moro primary caregivers living with critically ill patients who underwent open-heart surgery. All participants were adults, with ages ranging from 32 to 38 years old. Among the participants, there were five females and two males. Most of the participants were parents of patients, with a minimum of one year of caregiving experience. Table 1 shows the profile of the participants in this study. For the participants' privacy, code names were used to protect their identity (Table 1).

The conduct of the one-on-one interview with the participants resulted in transcribed texts and analysis of the data. It started with becoming familiar with the transcribed data from the audiotape. Using Collaizi's analysis method, from a total of 196 transcripts 156 significant statements were carefully identified. These statements were subsequently organized to create 31 formulated meanings, forming the foundation for 8 clustered and 3 emergent themes. The emergent themes identified were Perseverance to Challenges, Embracing Realities, and Call to Love and Support. The eight (8) cluster themes namely: Emotional and Psychological Strain, Physical Adversities, Diminished Social Engagement, Strong Faith and Love in Allah, Love and Support of Family and Friends, Caring for Oneself, Give Love and Patience, and Adhering to Medical Requirements. Significantly, data saturation was achieved in this study, signifying that the dataset reached a point of comprehensiveness and exhaustiveness.

Figure 2 shows the thematic map of the study. It shows the researcher's emergent themes; each having its cluster themes. The first emergent theme focuses on the firsthand challenges that the participants experience living with critically ill patients who underwent open-heart surgery and has three cluster themes, the second emergent theme that's focusing on how the participants cope with the hardships while caring has three cluster themes, and the third emergent theme focusing on the suggestions of the participants to their co-more primary caregiver providing care to their critically-ill patients has two cluster theme.

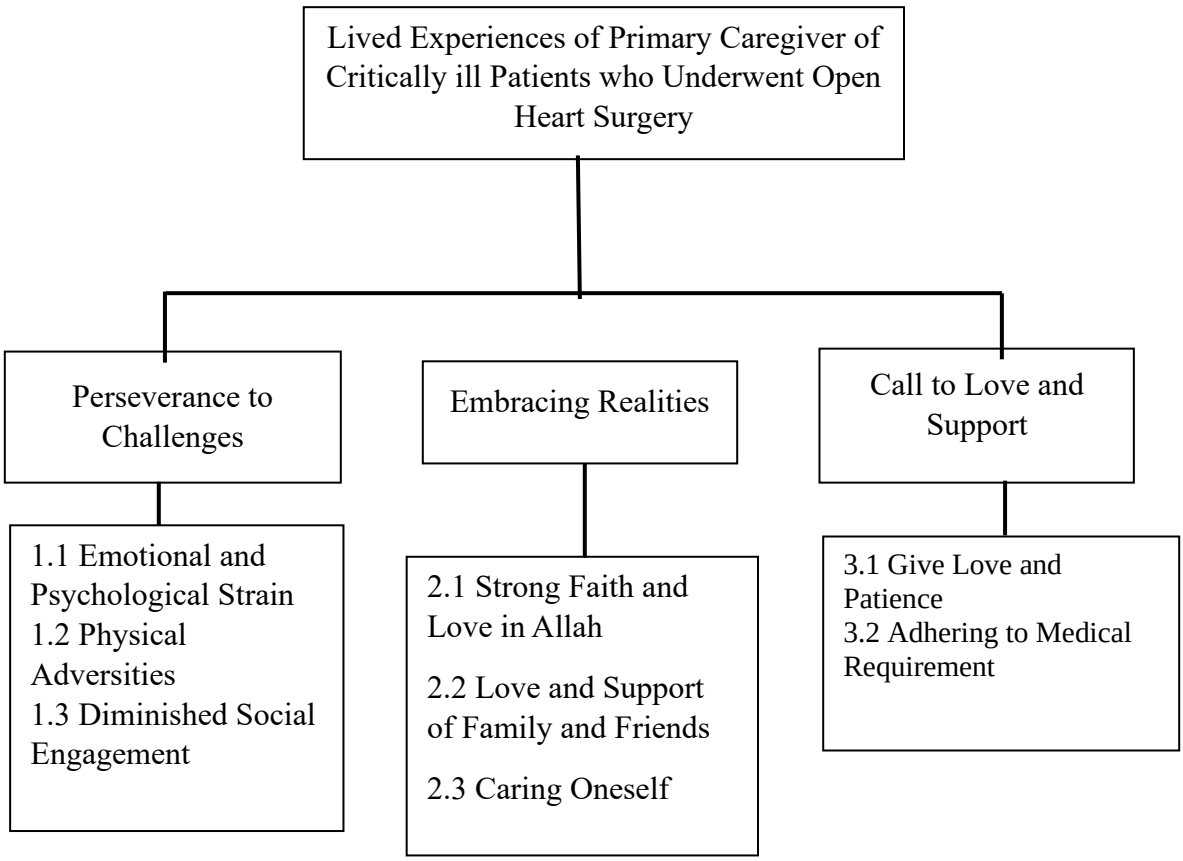

Figure 2. Thematic Map

Emergent Theme 1: Perseverance to Challenges

The first emergent theme that came after analyzing the participants' significant statements, formulated meanings, and cluster themes was Perseverance to challenges. It refers to the endurance and dramatic adjustment that caregivers care for a loved one who is critically ill. This theme underscores the caregivers' steadfast commitment to their children's well-being, encompassing emotional, physical, psychological, and social aspects. They grapple with intense emotional and psychological strains, confronting anxiety, fear, and emotional distress as they witness their child's pain and confront an uncertain future. The caregivers' strong commitment to caregiving also noticeably reduces their involvement in social activities.

Simultaneously, they endure physical exhaustion and sleep deprivation, tending to their child's needs around the clock. This supports the study of Gomez-Zuniga et al. (2021) which found that parents caring for children with rare diseases undergo a transformative process where they transition from their traditional parental roles to ones that are primarily centered on the unique demands of their child's condition. This shift in role identity is a result of the parents' unwavering dedication and their ability to navigate between

love and fear, ultimately influencing the extent of the perceived caregiving burden.

Cluster Theme 1.1: Emotional and Psychological Strain

The cluster theme *"Emotional and Psychological Strain"* encapsulates the profound emotional and psychological challenges experienced by caregivers as they provide care for their children. Caregivers expressed the heavy weight of their responsibilities, detailing the emotional and psychological strain they endured. This burden was intensified by a range of emotions, such as anxiety and fear, arising from the sensitive nature of their child's condition and the risks associated with post-operative care. The emotional distress was evident, especially when witnessing their child in pain and grappling with an uncertain future. These caregivers not only dealt with the immediate physical health issues of their children but also navigated the emotional turbulence of the ongoing medical journey, showcasing their deep dedication and love for their young children. Below are the statements relevant to this theme:

"My bad experience is when my child got heart disease and no mother wants to have their child a disease like that. It made me worried so bad. It was very difficult for me seeing her like that." (P1, SS2, L3)
"It's scary because there might be complications that I don't know about and then he might not wake up." (P2, SS 81, L94)
"It is painful for me to see my child struggling. I wish I could bear the suffering for her." (P3, SS82, L95-96)
"When my child cries, I think something bad is happening to him. I easily get nervous and have anxiety that some bad might happen." (P4, SS 83, L97-99)

The well-being of parents, particularly their emotional and psychological health, is revealed as a crucial determinant of the overall well-being of their critically ill children. The findings of Koch and Jones (2018) emphasize the vulnerability of parents to a spectrum of negative financial, physical, and psychosocial challenges due to the demands of caregiving and the unique stressors linked to their child's illness.

Cluster Theme 1.2: Physical Adversities

The cluster theme *"Physical Adversities,"* which revolves around the physical challenges and hardships experienced by caregivers, prominently features the element of sleep deprivation. Caregivers are often faced with an unceasing routine that entails sleepless nights and a relentless need for vigilance over their children. The physical hardships encompass a profound lack of sleep due to the necessity of round-the-clock care. Despite this substantial and ongoing physical strain, what stands out is the caregivers' unwavering determination and resilience.

In the face of this significant sleep deprivation and other physically demanding challenges, they remain resolute in their commitment, driven by their deep love and dedication to their children's well-being. This subtheme underscores the caregivers' remarkable endurance and ability to persist through physically demanding hardships, including the sacrifice of precious sleep, as they fulfill their caregiving responsibilities. The following statements pertain to this theme:

"It was hard and tiring but I can endure the pain because he's my child. I treasure and love him so much." (P4, SS 8-9, L10-11)
"It is very difficult to babysit. The child's care is not that easy knowing her condition, but I must do my best for her." (P7, SS 13-14, L15-167)
"You wake up early, you sleep later. I wake up occasionally when I am asleep. I feel tired but I believe my efforts aren't wasted because I am helping my child to live." (P6, SS 22-23, L28-30)
"I feel that I have less time to take care of myself. I don't even have time anymore to go out often because I must watch out for my child from time to time. I prioritized my patients over myself." (P3, SS 36-37, L45-47)

When a child faces a serious illness or injury, parents and caregivers undergo a sudden, unfamiliar, and challenging transition that requires rapid adaptation and resilience in the face of uncertainty. The diagnosis or injury of a child catalyzes a profound shift in their roles and responsibilities, necessitating a reevaluation of priorities, an instant immersion in the world of healthcare, and a continuous process of learning and adjustment (Shuddy et al., 2006; Abela et al., 2020). Thus, the need for greater recognition of the prevalence of caregiver strain and its potential impact on caregivers' ability to prioritize self-care must also be taken into consideration (King et al., 2021).

Cluster Theme 1.3: Diminished Social Life

The cluster theme *"Diminished Social Life,"* accentuates how parents are scaling back on their social activities. They attribute this adjustment to their unwavering dedication to being present for their children, demonstrating a distinct preference for prioritizing the well-being of their kids over socializing. Parents are choosing to spend less time socializing due to their commitment to taking care of their children. They join friends less often, and going out has become infrequent because they prioritize being with their children. This shift is accepted, reflecting a conscious decision to prioritize caregiving responsibilities over social activities. The parents acknowledge and embrace this change, recognizing the necessity and justification for focusing on their children's well-being. The following are the excerpts related to this theme:

"Socially I did not go out that often because I took care of my child." (P1, SS45, L56)
"I join my friends less than usual because I must be with my child." (P2, SS50, L61)
"I can't socialize that often now because I must be with my child most of the time." (P4, SS 60, L71)
"Socially, I had less time to go out, even don't have time to spend with my friends. I must focus on my child." (P6, SS 65, L76)

Parents are reducing social engagement to prioritize their children, opting for fewer social activities as a conscious decision to prioritize caregiving responsibilities over socializing, reflecting a recognized necessity for focusing on their children's well-being. This result supports the findings of Teicher et al. (2022) revealing that time constraints emerged as a key factor in the theme of reduced social engagement, with participants noting that caregiving responsibilities, particularly adhering to their child's medication and nutrition schedule, significantly limited or even prevented their involvement in social activities with family, friends, or their religious community.

Emergent Theme 2: Embracing Realities

The second emergent theme, "*Embracing Realities*," encapsulates the caregivers' multifaceted approach to confronting the challenges of caring for their loved ones. Their unwavering commitment and resilience shine through as they draw strength from their faith, embracing prayer and belief in divine destiny to find acceptance and inner peace. Essentially, caregivers express profound gratitude for their support networks, including family and friends, who offer emotional, moral, and financial assistance, lightening their emotional and practical burdens. Additionally, caregivers acknowledge the vital importance of self-care, implementing strategies like rest, exercise, and proper nutrition to maintain their well-being. This theme reflects the caregivers' enduring dedication and resilience in the face of adversity, fueled by love, faith, and a robust support system.

Additionally, a notable perspective emerged regarding the value of adapting care plans to ensure the active participation of the entire family, not just the primary caregiver. This approach aligns with recent research by Teicher

et al. (2022) and may contribute to more holistic and supportive care practices that recognize and address the needs of the entire family, ultimately enhancing the overall caregiving experience. Further, self-awareness and compassion for their physical and emotional caregiving limitations, are encouraged by self-reflection, belief in God, or a supportive medical team.

Cluster Theme 2.1: Strong Faith and Love in Allah

The cluster theme *"Strong Faith and Love in Allah"* within the context of MORO caregivers underscores the profound inner strength these individuals derive from their unwavering faith, spirituality, and belief in Allah when faced with challenging circumstances. They also draw solace and resilience from their deep-seated spiritual beliefs, utilizing practices such as prayer, meditation, and connections with their faith communities to bolster their emotional and mental fortitude.

They find acceptance in the belief that adversity is part of a larger divine plan, enabling them to face challenges with grace and unwavering patience. This subtheme underscores the extraordinary courage and determination inspired by faith among MORO caregivers, allowing them to navigate life's most arduous moments with remarkable resolve and resilience. The ensuing statements are directly related to this theme:

"I just pray. It's a big help to me. It also gives me peace of mind and comfort." (P7, SS 87, L105-107)

"I pray. I am reading the Quran. This helps me with my problem. I feel some relief." (P2, SS 88, L108-110)

"In our Moro community, we believe in Qadr. This helps me accept things even how difficult it is." (P4, SS 90, L112-113)

"In my view, praying to Allah SWT and believing in Qadr is a big help in coping with what we experience in our daily lives." (P5, SS 91, L114)

"I will accept all trials in life because all trials are Qadr from Allah SWT." (P7, SS 93, L116)

Spirituality provides caregivers with a source of inner strength and solace, aiding them in coping with the emotional and psychological challenges that arise when caring for a family member with a debilitating condition. It serves as a foundation for resilience, helping caregivers navigate the complex and emotionally charged aspects of their caregiving journey. Cultivating resilience through spirituality enables caregivers to face the adversities of their roles with greater fortitude and endurance (Gibbs et al., 2020). The recognition of Islamic beliefs, the doctrine of Allah, and religious practices are clear spiritual anchors for caregiving (Seephom et al., 2023).

Furthermore, Muslims are advised to exhibit trust in God and maintain a balanced outlook towards life's fluctuations. This guidance aligns with the broader religious wisdom found in the saying: "Wondrous are the believer's affairs, where there is good in all circumstances. For the believer, gratitude accompanies blessings, and endurance (sabr) in the face of adversity is also deemed beneficial" (Achour et.al, 2015)

In addition, Moro caregivers also embrace unfaltering resolve as an essential facet of their caregiving journey. They hold upon their deep-rooted faith in Allah (SWT) to navigate the complexities of caregiving. Hence, they embrace these values as they embark on their caregiving journeys, fortified by the faith and strength that come from their MORO identity. These statements address the aspects of this theme:

"Nothing is impossible if you have steadfast faith in Allah. Always pray, not just when you're sick. Learn to value life. Be ready always for unexpected things." (P1, SS137-138, L174-175)

"Always be ready for what might happen. Avoid stress. Prayer is a big help in overcoming difficulties." (P5, SS143-1144, L180-181)

"Patients with heart disease are very meticulous. In the difficult times, we have to hold

on to our faith because anything could be possible." (P6, SS145, L182-183)

"Do not be afraid. There is always a solution to every problem, especially if you have faith in Allah." (P3, SS149, L188-189)

This observation offers valuable insight into the empowering role of spirituality, hope, and resilience in sustaining caregivers' unwavering determination and resolve as they navigate the demanding caregiving journey. Indeed, it becomes evident, within the context of Steadfast Resolve in Caregiving, that caregivers' spirituality not only fosters hope but also fortifies their resilience. In addition, the Muslim faith serves as a central support system for individual caregivers and their families (Kevern et al., 2023). Significantly, caregivers who experience heightened positive affect also exhibit a lower risk of depression, as demonstrated in the study by Simpson et al. (2020).

Cluster Theme 2.2: "Love and Support of Family and Friends"

The cluster theme *"Love and Support of Family and Friends"* highlights the indispensable role that caregivers' support systems, including family and friends, play in their caregiving journey. Caregivers express deep appreciation for the multifaceted support they receive from these trusted individuals. This support encompasses emotional and moral sustenance, providing encouragement and empathy, as well as practical assistance that eases the demands of post-operative care. Moreover, these support networks prove invaluable in addressing the financial aspects of caregiving, offering caregivers the resilience and fortitude required to navigate the intricate and emotionally charged realm of caring for their post-operative children. The following statements pertain to this theme:

"They helped me with the expenses and visited us at home after my child's operation. It gives me reassurance that whenever I need something, my family and friends are there" (P7, SS 87, L105-107).

"I feel good and happy about that." (P1, SS 94, L 120-121)

"The moral, emotional, and financial support coming from my family is a very big help. It eases some burden we have especially with the challenging situation we have." (P3, SS 96, L122-123)

"My family always encourages me to be strong and helps me financially. I am happy that they are there to also comfort me." (P5, SS 98, L126-127)

"It gives me joy that my family is there for me whenever I need them. Some of my close friends also visit me and provide moral support." (P7, SS100, L130-131)

Beyond their immediate circle, caregivers acknowledged the generosity of others, including community organizations like the hospital and government assistance. This external support, both financially and through prayers, significantly contributed to the caregivers' ability to manage the financial aspects of post-operative care and provided hope and relief. Here are statements that fall within the scope of this theme:

"Aside from the CRMC, Doctors, and Nurses, the generosity of others has also been a great help with our hospital bill." (P3, SS 103, Line 136)

"The surgical mission of the CRMC and the government assistance have been a great help to us in our difficult time." (P4, SS 104, Line 137)

"I think the prayers of other people who are not our relatives and friends are a big help." (P5, SS 105, Line 138)

"I am very grateful for the CRMC because of the surgical mission my child was operated on. And, for the generosity of others, because of them our hospital bill was reduced." (P6, SS 106, Lines 139-140)

Effective communication and robust social support systems play a vital role in enhancing resilient coping strategies. When individuals face challenging circumstances, such as caring for a child with a serious illness, and

engaging in open and empathetic communication with their support networks, it fosters understanding and empathy. It allows them to express their feelings, concerns, and needs. Furthermore, social support from family, friends, or healthcare professionals provides individuals with essential resources and encouragement (Palacio et al., 2020).

Cluster Theme 2.3: "Caring Oneself"

The cluster theme *"Caring Oneself"* accentuates caregivers' awareness of the essential nature of self-care in their caregiving journey for post-operative children. Caregivers emphasize the need to prioritize their well-being, recognizing that maintaining their health is crucial for effectively tending to the needs of others. They implement various self-care strategies, including ensuring they get adequate rest as possible, incorporating regular exercise, taking vitamins, and adhering to appropriate mealtimes. These practices are indispensable for sustaining both their physical and mental health, equipping them with the energy and resilience necessary to meet the demanding requirements of caring proficiently for their child. The subsequent statements are associated with this theme:

"I take vitamins and exercise to gain some energy." (P1, SS 115, Line 149)

"I take short naps to gain some energy. I also take vitamins and do some exercise." (P2, SS 116, Line 150)

"I give time to myself, take vitamins and exercise even for short time." (P3, SS 117, Line 151)

"I eat at the right times and sleep along with my child at times to get an opportunity to rest and relax." (P5, SS 119, Line 153)

"I exercise and eat regularly to avoid being sick. It is hard because it will also affect the care, I will be able to provide if that happens." (P7, SS 121, Lines 156-157)

This indicates a pressing need to develop interventions and support systems tailored to enhance caregivers' self-care practices and psychological well-being, ultimately improving their mental health and quality of life. On the other hand, the findings of Dionne-Odom et al. (2017) revealed that many caregivers exhibit a notable combination of low participation in self-care activities, elevated levels of depression and anxiety, and diminished mental health scores related to health-related quality of life.

Emergent Theme 3: Call to Love and Support

The third emergent theme, *"Call to Love and Support,"* combines insights from "giving love and patience" and "adhering to medical requirements." Caregivers emphasize qualities like dedication with love and patience for emotional resilience, while also offering practical advice on meticulous care and medical vigilance. This collective wisdom forms a comprehensive guide for Moro caregivers, creating a supportive community for those navigating the challenges of caring for children with heart disease.

Cluster Theme 3.1: Give Love and Patience

The cluster theme *"Give Love and Patience",* captures the participants' reflections and insights into the profound qualities of commitment with affection and resilience needed in their caregiving journey. It highlights their perspectives on the importance of determination, patience, and wholehearted love as integral aspects of providing care to their children. The subsequent statements revolve around this cluster theme:

"Have dedication and patience in taking care of your child." (P3, SS 32, Line 69)

"You must be more patient because being in this situation is not easy. It requires a lot of determination." (P4, SS 133, Line 170)

"You should have determination and patience in taking care of your child and pray with all your heart" (P5, SS 134, Line 171)

"If you love someone, you will do everything. You must give it your best." (P6, SS 135, Line 172)

"Give your whole love and patience to your child." (P2, SS 139, Line 176)

This underscores the crucial connection between resilience and the well-being of caregivers, highlighting its direct and indirect influence on their quality of life and the challenges they face. The current results are consistent with Üzar-Özçetin & Dursunemphasize (2020) findings that the significant predictive impact of resilience on both the quality of life (QoL) and caregiver burden. Family caregivers, reporting low levels of resilience, experienced higher caregiver burden and lower QoL.

Cluster Theme 3.2: Adhering to Medical Requirements

In the cluster theme "Adhering to Medical Requirements", caregivers guide the practical aspects of caregiving, especially for children with heart disease. They emphasize the importance of closely monitoring the patient, adhering to prescribed medications, and promptly seeking medical attention if any unusual symptoms occur. Caregivers also stress the significance of following the doctor's orders and complying with follow-up check-ups. The insights offered revolve around the meticulous care required for children with heart disease, underlining the role of medical vigilance and adherence to healthcare advice. Moro caregivers are encouraged to be proactive in ensuring their child's well-being while also maintaining their faith in Allah's guidance. The following statements are focused on this theme:

"Always take care of your child. Do your best and do what is necessary to keep the child in good condition. Keep in touch with the doctor." (P1, SS129, L165-166)

"Closely monitor the patient. Do not forget to give your child their maintenance medications on time. (P1, SS 147, L186)

"You have to follow the doctor's order and make sure to comply with follow-up check-up." (P4, SS150, Line 190)

"Be compliant with the doctors and always consult with them." (P6, SS154, L194)

"Do not forget the patient's follow-up checkup." (P7, SS156, L196)

In their role, caregivers can provide valuable support and reinforcement for the patient's adherence to therapy, thus contributing to improved treatment outcomes. This is due to their frequent interactions with the patient, family caregivers are well-positioned to encourage therapy adherence (Shockney & Mas, 2013).

Conclusion and Recommendation

In nursing practice, the multifaceted role of caregivers' faith, determination, and reliance on their support networks in caring for post-operative children is a testament to the importance of holistic care. Nurses can learn to recognize and respect the spiritual and emotional dimensions of caregiving, understanding that faith and resilience play a pivotal role in coping with the emotional toll of caregiving. Furthermore, the emphasis on medical vigilance and practical care serves as a reminder for nurses to provide thorough patient and family education, ensuring that caregivers are equipped to manage the practical aspects of care effectively. Nurses should encourage open communication with families, acknowledging their insights and offering guidance that aligns with the Moro community's values and beliefs.

In research, these themes and subthemes underscore the need for culturally sensitive and inclusive research in healthcare. Understanding the unique perspective of caregivers in the MORO community can inform the development of tailored interventions and support systems. Researchers can explore the impact of faith and spirituality on health outcomes and well-being, contributing to the body of knowledge on holistic healthcare. Additionally, further studies may focus on the experiences of caregivers and the effectiveness of caregiver education programs in promoting better caregiving outcomes.

Ultimately, these insights from the MORO community caregivers have the potential to enhance the quality of nursing care, promote culturally competent practices, and facilitate research that addresses the unique needs and perspectives of caregivers in diverse cultural contexts.

In light of the conclusion, the following actions are highly recommended:

1. Future research in the realm of caregiving within the MORO community should explore several key areas to further enrich our understanding and enhance the support systems for caregivers and patients. First and foremost, research should delve deeper into the intersection of faith, spirituality, and caregiving in the MORO context. Investigating the specific religious and spiritual practices, rituals, and beliefs that influence caregiving can shed light on the ways faith serves as a coping mechanism and a source of strength for caregivers. Additionally, research should explore the impact of this faith-based resilience on patient outcomes and the overall caregiving experience. Hospital administrators must continuously monitor the performance of the hospital's psychosocial support system to sustain its services. This can help provide a support system to personnel and improve their work performance.

2. Examine the effectiveness of caregiver education programs tailored to the cultural and religious values of the MORO community. Research can assess the outcomes of such programs, including improvements in practical caregiving skills, increased emotional well-being, and enhanced patient care. These programs should be designed in collaboration with the MORO community to ensure cultural relevance and acceptance. The nurses should seek counseling in times of depression or stress when patients die and suffer. This can unburden their emotional stress and help them return to work enthusiastically.

3. Investigate the role of healthcare organizations and policies in supporting MORO caregivers. Understanding the barriers and facilitators that caregivers face within the healthcare system can inform policy recommendations aimed at improving the quality and accessibility of care. This includes examining the financial burdens caregivers encounter and identifying strategies to alleviate these challenges through public and private healthcare initiatives.

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The Influence of Research Capability on Nurses' Attitude to Conducting Research in Private Hospitals in Kidapawan City

Helen P. Maglunsod, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

Reinforcing nurses' research skills through education and training is essential for implementing evidence-based practice. This study aimed to determine the relationship between nurses' research capabilities and their attitudes toward conducting research in private hospitals in Kidapawan City. It used a predictive-correlational design conducted among nurses selected using a convenient sampling method. One hundred twenty nurses were included in the study using convenience sampling. The study used questionnaires from Perez et al. (2022) and Bostrom et al. (1989). The findings revealed that most respondents were female nurses, middle-aged, with less than two years of hospital experience, and were assigned to ward areas. The respondents demonstrated very satisfactory research capabilities and attitudes toward conducting research. A significant relationship was found between research capability and nurses' attitudes towards conducting research. On the other hand, no significant association was found between demographic profile and attitudes. Further, research capability significantly influences nurses' attitudes toward conducting research. These findings indicate that nurses have the necessary capabilities and positive attitudes toward conducting research. The study highlights the strong correlation between nurses' research capabilities and their positive attitude toward conducting research, emphasizing the importance of reinforcing these skills through education and training. Improving research skills among nurses promotes a more evidence-based practice environment.

Keywords: *Research Capability and Attitude, Nursing, Predictive-Correlation, Kidapawan City*

Corresponding email: helen.maglunsod1985@gmail.com

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Introduction

Research is vital to assure beneficial and not harmful patient care. It is emphasized in nursing that the use of evidence-based practice and research enhances patient care (Ea et al., 2021). However, nursing needs research-based interventions, often relying on traditional practices and experiences (Powers, 2020). The negative attitude of the nurses in their research capability indicated a lack of fundamental knowledge and basic skills in research (Wu et al., 2019; Johnson & Rulo, 2019). Moreover, the negative attitudes, the feelings of overburden, or incapability may stem from a lack of formal education and training in research procedures (Wang et al., 2022).

Nurses in Australia often feel unprepared for research due to limited educational programs, leading to negative attitudes towards research engagement (Hines et al., 2022). Similarly, in Saudi Arabia, negative attitudes affect the nurses' confidence and willingness to participate in research activities (Alandajani et al., 2022). The same barrier in clinical research was also noted among nurses in Southeastern Europe, resulting in dissatisfaction. Furthermore, China's nurses have shown a need for research training, indicating the need to enhance their research capacity to meet their individual needs (Barria, 2022). However, the majority expressed willingness to participate in clinical research and acknowledged the need for education in this area (Svjetlana et al., 2023). Further, a recent review of studies conducted in multiple countries emphasized the importance of nurses understanding research methodologies and evidence-based practice to improve healthcare outcomes (Portela Dos Santos et al., 2022).

Despite the shift in attitudes toward research among nurses in the Philippines, challenges such as limited resources and time constraints persist (Pasco & Lubos, 2019; Abun et al., 2019). Nurses also need help fully appreciating nursing research's significance in clinical practice (Oducado, 2021). Recent research revealed that nurses in the Philippines possess moderate abilities required for evidence-based practice but need more confidence in identifying clinical concerns and transforming them into research questions (Catu, 2021).

A study by Svjetlana et al. (2023) examined nurses' knowledge, attitudes, and opinions toward research, similar to research by Qureshi et al. (2019) on nurses' knowledge and attitudes toward clinical research. These studies reveal a need for more literature explicitly addressing the influence of research capability on nurses' attitudes in conducting research. This research gap within the nursing profession has consequences for healthcare delivery, patient outcomes, and the advancement of nursing. It hinders evidence-based practice and limits nurses' capacity for innovation, advocacy, and shaping healthcare policies and practices. Consequently, this gap has motivated the researcher to investigate the influence of research capability and nurses' attitudes in conducting research. This study explores the interplay between nurses' research capabilities and their attitudes toward conducting research in private hospitals in Kidapawan City.

Methods

This study utilized a predictive-correlational design to examine the relationship between nurses' demographic profiles, research capability, and attitudes toward conducting research. It aimed to establish correlations between variables and predict the influence of demographic and research capability factors on nurses' attitudes. The research setting was in Kidapawan City, Philippines, across three private hospitals.

The study's respondents were registered nurses currently employed in private hospitals in Kidapawan City. They were chosen based on their employment at level 1 primary and secondary hospitals. One hundred twenty nurses participated in the study, and the sample population was obtained through convenience sampling. In this approach, respondents were selected based on accessibility or convenience. The inclusion criteria comprised being a nurse with a permanent contract and actively working at the time of survey completion. No exclusion criteria were considered for this study.

The study adopted survey utilized Mean and Standard Deviation to

Demographic Profile	Frequency	Percentage (%)
Age		
20-24	32	26.7
25-29	9	7.5
30-34	31	25.8
35-39	38	31.7
40-44	7	5.8
45-49	1	0.8
50-54	2	1.7
Total	**120**	**100**
Sex		
Male	33	27.5
Female	87	72.5
Total	**120**	**100**
Years of Experience Working in the Hospital		
2 years and below	43	35.8
3-5 years	18	15
6-8 years	16	3.3
9-11 years	23	19.2
12 years and above	20	16.7
Total	**120**	**100**
Area of Assignment		
Delivery Room	8	6.7
Emergency Room	18	15
Intensive Care Unit	20	16.7
Neonatal Care Unit	6	5
Nurse Administrator	5	4.2
Operating Room	6	5
Outpatient Unit	4	3.3
Renal Dialysis Unit	13	10.8
Ward	40	33.3
Total	**120**	**100**

questionnaires, which comprised three parts to gather data from the respondents. The first part was the demographic profile, which included the age, sex, years of working in the hospital, and area of assignment. The second part is an adopted questionnaire from Bostrom et al. (1989) designed to determine nurses' attitudes related to research. The third part was adopted from Perez et al. (2022) and designed to determine the level of research capability.

The study utilized Frequency and Percentage to determine the total number of respondents and the distribution based on categories like age, sex, years of working in the hospital, and area of assignment. The study evaluate the degree of relevance between the different variables. Moreover, Spear-man's rho was used to measure the strength of the association between nurses' attitudes toward conducting research and their research capability. On the other hand, the ETA correlation determined the association between two continuous variables: research capability and nurses' attitudes toward conducting research. Finally, Kernel Regression was utilized to identify the significant influence of research capability on nurses' attitudes toward conducting research.

Results and Discussion

Table 1. Respondents' Demographic Profile

Presented in Table 1 are the respondents' demographic profiles, such as age, sex, years of working in the hospital, and area of assignment. There are one hundred twenty (120) respondents in this study, of which 31.7% (N=38) belong to the age 35-39 years old and 0.8% (N=1) belong to the age 45-49 years old. Majority of the respondents which is 72.5% (N = 87) are female and only 27.5% (N=33) are male. Most respondents had two years and below (35.8%) experience working in the hospital. Also, 40 respondents (33.3%) were assigned to the ward, and only 3.3% (N=4) from the outpatient unit.

Table 2. The Research Capability of Nurses

Level of Research Capability of Nurses	**Mean**	**SD**	**Interpretation**
Overall	2.81	0.58	High Capability

Legend:1.00-1.75 Very Low Capability; 1.76-2.50 Low capability; 2.51-3.25 High Capability; 3.26-4.00 Very High Capability

Table 2 indicates nurses' research capability, with an overall mean of 2.81, suggesting high capability and engagement in nursing research. The highest mean score (3.18) was for knowing how to conduct an interview, and the lowest (2.40) was for presenting papers at international conferences.

The study supports findings by King et al. (2022) and Oducado (2021) that systemic and structured training enhances nurses' research capabilities. Baccalaureate nursing programs in the Philippines also contribute to this enhancement (Ubas-Sumagasyay & Oducado, 2020).

opportunities, with capability declining with age and years of service (Li et al., 2019).

According to Chen et al. (2019), research capacity is crucial for developing the nursing discipline and enhancing patient care. Nurses with research education and training score higher in research capability (Da Silva Souza et al., 2023), empowering them to apply research findings in clinical practice (Alomari et al., 2020). Emphasis should be on tailored nursing research programs and enhancing

Indicators	**Mean**	**SD**	**Interpretation**
My place of employment has ample secretarial assistance for anyone wishing to conduct research.	3.35	0.84	Moderate Attitude
Time spent giving patient care is more important than time spent conducting research.	3.88	0.90	High Attitude
Overall	**3.58**	**0.60**	High Attitude

However, the study contradicts recent research, indicating that most nurses need more research capability and further training (Hu et al., 2019; Ferreira et al., 2022; Wu et al., 2019). Factors affecting research capability include allocated research time, teamwork, leadership support, and retraining

implementation research capacities to prevent hindering the progress and utilization of research evidence (Rojaye & Netangaheni, 2023; Ndubuisi et al., 2021).

Table 3.1 Attitude towards Research in Terms of Interest and Environmental Support

Legend: 1.00-1.80 Very Low Attitude, 1.81-2.60 Low Attitude ; 2.61-3.40 Moderate Attitude; 3.41-4.20 High Attitude; 4.21 - 5.00 Very High Attitude

Table 3.1 shows nurses' attitudes toward conducting research, focusing on interest and environmental support. The data shows that nurses have a positive attitude toward research, with an overall mean of 3.58. The highest mean score (3.88) was for the statement prioritizing patient care over research, while the lowest (3.35) was for the availability of secretarial assistance for research.

The study aligns with previous research, highlighting that inspirational leadership and a strong research culture in hospitals enhance nurses' engagement and satisfaction in research. However, it contrasts with Rojaye and Netangaheni (2023), who found that nurses often need to view research as part of their duties and instead prioritize patient care.

Management and organizational support influence interest and participation in research. Positive attitudes toward research do not eliminate challenges, but nurses engaged in research education and activities show higher levels of engagement. Despite positive attitudes, actual participation in research remains low, with nurses often prioritizing patient care over research activities.

Table 3.2 Attitude towards Research in Terms of Payoff and Benefits

Indicators	Mean	SD	Interpretation
Members of the treatment team other than nurses should conduct research relative to patient care.	4.02	0.85	High Attitude
Nurses are criticized too much by their peers when they conduct research.	2.93	1.12	Moderate Attitude
Overall	**3.70**	**0.59**	High Attitude

Legend: 1.00-1.80 Very Low Attitudes, 1.81-2.60 Low Attitudes; 2.61-3.40 Moderate Attitudes; 3.41-4.20 High Attitudes; 4.21 - 5.00 Very High Attitude

Table 3.2 illustrates nurses' attitudes towards research concerning payoff and benefits, with an overall mean of 3.70, indicating a positive attitude. Nurses are more inclined to research with adequate resources and financial support. Effective research requires human resources, materials, and financial backing, highlighting the need to demonstrate the impact of clinical nursing on health outcomes (Neema & Chandrashekar, 2021; Järvinen et al., 2023). The study aligns with Pasco and Lubos (2019), indicating that additional resources and financial support enhance nurses' positive attitudes toward research.

However, financial constraints, lack of knowledge, support, environmental issues, and workload contribute to stress and unfavorable attitudes toward research (Akingbade et al., 2023; Dagne & Ayalew, 2020). Despite positive attitudes, nurses are more likely to engage in research if given more free time and resources (Shu et al., 2019). Financial compensation is preferred over promotions or wage increases, emphasizing the need for institutional support for research activities.

The statement that treatment team members other than nurses should conduct research related to patient care had the highest mean score of 4.02, indicating a belief in involving other healthcare team members in research, aligning with Rojaye and Netangaheni (2023). Conversely, the statement "Nurses are criticized too much by their peers when they conduct research" had the lowest mean of 2.93, suggesting minimal peer criticism, consistent with Lubos and Pasco (2019). However, this contradicts a study by Sodeify and Habibpour (2021), which found that nurses had positive perceptions of colleague support, including training and guidance.

Table 3.3. Attitude towards Research in Terms of Barriers to Conducting Research

Indicators	Mean	SD	Interpretation
Nurses should initiate nursing research in education.	3.78	0.92	High Attitude
Nursing research should be conducted by nurses with a doctorate	3.23	1.11	Moderate Attitude
Total	**3.52**	**0.62**	High Attitude

Legend: 1.00-1.80 Very Low Attitude, 1.81-2.60 Low Attitude; 2.61-3.40 Moderate Attitude; 3.41-4.20 High Attitude; 4.21 - 5.00 Very High Attitude

Table 3.3 presents nurses' attitudes toward research barriers, with an overall mean of 3.52, indicating positive attitudes despite these barriers. This finding contradicts Hernon et al. (2020), who claimed nurses had negative attitudes due to isolation and colleague misunderstanding, hindering study recruitment. Regular, constructive communication between research teams and nurses is crucial for enhancing study promotion, staff engagement, and recruitment efforts.

Despite enthusiasm for using nursing research, various barriers prevent its incorporation into practice. The primary barrier is that the research is written in English, with over two-thirds of nurses citing this issue. Akingbade et al. (2023) also noted positive attitudes but highlighted concerns about the lack of management support and encouragement.

The highest mean (3.78) was for the statement that nurses should initiate nursing research in education, indicating a belief that educational nurses should lead research efforts. The lowest mean (3.23) was for the statement that research should be conducted by nurses with doctorates, suggesting nurses do not see research as exclusive to doctorate holders. Ayoubian et al. (2023) found that those with doctoral degrees felt a greater need to be knowledgeable and professional, necessitating research initiation. Postgraduate courses, which include more specialized research methodology training, likely contribute to nurses with more research experience perceiving fewer barriers to research use (Pitsillidou et al., 2021).

Table 4. Test of the Relationship between Research Capability and Attitude in Conducting Research

Independent Variable	Attitude in Conducting Research			
	r_s	p-value	Decision	Remarks
Research Capability	0.339	< 0.001	Reject H_{01}	Significant

Note: Significant if p< 0.001; DV = Attitude in Conducting Research

Presented in Table 4 is the test of the relationship between Research Capability and Attitude in Conducting Research. A Spearman's rank order correlation was run to determine the relationship between the two variables. There was a strong, positive correlation between research capability and attitudes in conducting research, which was statistically significant (rs = 0.339, p = 0.000); thus, the null hypothesis is rejected. The Spearman's rho coefficient indicated a positive relationship between research capability and attitudes toward research among nurses. This finding suggests that nurses with higher research capability tend to have more positive attitudes toward conducting research. Successful research conduct necessitates the fusion of requisite levels of practice, knowledge, and a positive attitude (Albumijdad et al., 2022).

Similarly, time, effort, and resources in learning about research findings were essential in creating positive attitudes toward research (Basilio & Bueno, 2019). Moreover, it is imperative to have nurses who possess the necessary knowledge, skills, preparedness, and positive attitudes to ensure the success of nursing research endeavors (Oducado, 2021; Qureshi et al., 2019).

Table 5.1 Test of Association between Age, Years of Experience Working in the Hospital, and Attitude in Conducting Research

Demographic Profile	Attitude			
	Spearman's rho	p-value	Decision	Remarks
Age	0.081	0.378	Accept H_{02}	Not Significant
Years of Experience working in the Hospital	0.023	0.800	Accept H_{02}	Not Significant

Legend: p<0.05 (Significant)

Table 5.1 presents the association between age, years of hospital experience, and attitudes toward conducting research using Spearman's rank-order correlation analysis. No statistically significant correlation was found between age (rs=0.081, p=0.378) or years of experience (rs=0.023, p=0.800) and attitudes toward research, suggesting that these factors do not considerably influence nurses' attitudes.

This finding challenges Ross and Burrell (2019), who suggested that age impacts attitudes towards research. However, it aligns with Wu et al. (2019), which found that older nurses (55+) participated more in research than younger nurses (34 and below). Hernon et al. (2019) also emphasized the importance of experience in applying evidence-based practice. However, Bashar et al. (2019) noted that positive views on research sometimes translated to clinical practice.

Table 5.2. Test of Association between Sex, Area of Assignment, and Attitude in Conducting Research

Demographic Variable	Attitude			
	Eta (η)	p-value	Decision	Remarks
Sex	0.010	0.101	Accept H_{02}	Not Significant
Area of Assignment	0.037	0.193	Accept H_{02}	Not Significant

Legend: p<0.05 (Significant)

Table 5.2 presents the association between sex, area of assignment, and nurses' attitudes toward research. The eta correlation shows no significant association between sex and attitudes (p=0.101), with a small effect size (η=0.010), indicating attitudes are consistent regardless of sex. This contrasts with Svjetlana et al. (2023), who found female nurses had more favorable attitudes towards research, and Al-Rossais et al. (2021), who found a positive correlation between research knowledge and gender, particularly among male nurses. Similarly, no significant association was found between the area of assignment and attitudes (p=0.193), with a small effect size (η=0.037), suggesting consistent attitudes regardless of hospital assignment.

Table 6. Test of Influence between Research Capability and Attitude in Conducting Research

Research Capability	Observed Estimate	Bootstrap SE	Z	p-value	Decision	Remarks
Mean						
Research Capability	3.603	0.554	65.00	0.000**	Reject H_{03}	Significant
Effect						
Interest and Environmental Support	0.334	0.001	330.73	0.000**	Reject H_{03}	Significant
Payoffs and Benefits	0.333	0.001	391.76	0.000**	Reject H_{03}	Significant
Barriers	0.334	0.001	318.63	0.000**	Reject H_{03}	Significant

Note: Significant if p < 0.005; IV = Research Capability, DV = Attitude in Conducting Research

Table 6 presents the impact of research capability on nurses' attitudes toward research. The analysis utilized non-parametric regression (specifically, Kernel regression - Epanechnikov) to establish the connection between the predictor variable (research capability) and the criterion variable (nurses' attitude with regards to a. interest and environmental support, b. payoff and benefits, and c. barriers to conducting research). The mean value of research capability is estimated to be approximately 3.603. The bootstrap standard error is small (0.554), and the z-value is remarkably high (65), indicating a highly significant estimate with a p-value of 0.000. The confidence interval (3.497 to 3.721) further validates the estimate's accuracy.

The positive and significant effect of interest and environmental support on research capability is evident, with an average derivative of 0.334. Similarly, the positive and significant effect of payoff and benefits (0.333) and barriers to conducting research (0.334) indicates that increasing these predictors leads to increased research capability. The p-values for all the effect estimates are 0.000, confirming the highly significant effects of the three sub-scales on nurses' attitudes toward research. This provides strong evidence of a meaningful impact. The analysis highlights that the research capability of nurses can influence their attitudes toward a. interests and environmental support, b. payoff and benefits, and c. barriers to performing research.

This finding aligns with La Torre et al.'s (2023) study, indicating that doctoral nurses with strong research knowledge are likelier to have positive attitudes and engage in research. However, only a minority of them exist, and among those who work in clinical settings, many lack the recognition of the competencies needed to translate research potential into practice. Similarly, Wu et al. (2019) stated that different nurses' research abilities and training needs may encourage them to conduct a research project. Furthermore, according to Hines et al. (2022), positive attitudes with evidence-based practice, combined with involvement in research education and activities, have been found with higher levels of engagement. Moreover, according to Mundy & Pow (2021), strong leadership, a supportive organizational infrastructure, and the development of research skills among nurses are needed to aid early career researchers.

Conclusion and Recommendation

The study concluded that enhancing nurses' research capabilities can positively shape their attitudes toward research, ultimately benefiting clinical practice and patient care. The study findings also concluded that nurses' demographic profiles do not

significantly affect their attitude toward research. Further, nurses' research capability significantly influences their attitude toward conducting research.

Further studies should involve nurses and clients through objective and subjective research methods. By doing so, researchers can extract detailed experiences and perceptions of evidence-based practice's research capabilities, attitudes, and effectiveness.

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The Moderating Effect of Resilience on the Relationship Between Workplace Violence and Level of Anxiety Among Emergency Department Healthcare

Worker in Selected Hospitals in Cotabato City

Jim Marvin A. Maguate, RN

Davao Doctors College
Davao City, Philippines

Abstract

This study employed a predictive-correlational design to explore the moderating impact of resilience on the association between workplace violence and anxiety levels among emergency healthcare workers. The research involved 140 participants, primarily aged between 25 and 55, predominantly female and single, with 1-5 years of E.R. experience. Further, participants expressed reluctance to report incidents due to fear of repercussions on their career advancement, highlighting a moderate impact on reporting behavior. Moreover, respondents exhibited irritability towards challenging behaviors and restlessness from high patient volumes, indicating a moderate level of anxiety among emergency healthcare workers. Thus, despite these challenges, participants demonstrated a high sense of personal competence, finding meaning in their work and maintaining a positive outlook. The study revealed a positive correlation between workplace violence and anxiety levels, suggesting that increased violence corresponded to heightened anxiety. Findings indicated that workplace violence negatively affected participants' personal well-being, family life, and self-care practices, contributing to moderate levels of encountered violence. It's crucial to remember that workplace violence and its effects on emergency healthcare workers' mental health require specific interventions, as resilience did not significantly moderate this relationship.

Keywords: *Workplace Resilience, Social Science, Predictive Design, Cotabato City.*

Introduction

Workplace violence (WPV) is a prevalent occurrence and is most prominent in the Emergency Department setting. Emergency department patients typically become violent because of pain, stress, lack of privacy, and long wait times. With concern, worry, alcohol and substance abuse, or mental disorders also present, the emergency department becomes a turbulent and unpredictable setting (Li *et al*., 2021). Exposure to WPV may cause emotions such as frustration, fear, shock, anxiety, stress, despair, and mental tiredness, leading to sleep disruptions and negatively impacting performance (Stafford *et al*., 2022). Healthcare personnel have a greater probability of encountering violence compared to employees in other industries (Sani *et al*., 2021).

Also, the U.S. Bureau of Labor Statistics (2022), from 2011 to 2018, claims that with more aggressive patients, workplace violence (WPV) has grown and still presents a serious risk to the healthcare workforce in the United States. Emergency nurses have reported that WPV has affected their personal and professional lives. The information also shows that healthcare staff is five times more likely to be eviscerated by workplace violence than other private-sector businesses. On the other hand, among healthcare professionals, resilience serves as a safeguard against mental health problems. It is beneficial in reducing burnout and the perceived workload in emergency professionals (Watson *et al*., 2019).

In the Philippines, healthcare workers experiencing eviction, ridicule, and harassment, even in their work and boarding homes, became news and a trending topic in social media (Corpuz, 2021). In the province of Quezon in Luzon, an ambulance driver was shot for parking his vehicle in a community area after transporting medical personnel. Moreover, a nurse who contracted COVID-19 fears returning to his town when his neighbors petitioned against his return after duty (Rubrico, 2020). Also, it has been shown that individuals with low resilience are more anxious when faced with adversity, and they experience marked distress by trying to resolve adverse situations before they happen (Sanchez-Zaballos *et al*., 2020).

Several studies have associated workplace violence with anxiety, depression, and lower resilience in emergency departments. However, more research is needed to focus on the specific role of resilience as a potential moderator in this relationship (Foster *et al*., 2019). Thus, this study uses a predictive-correlational design to examine how resilience moderates workplace violence and the level of anxiety in emergency department healthcare workers. Studying whether resilience can lessen the effects of workplace violence on anxiety outcomes could help create interventions and support programs for high-stress healthcare workers.

Thus, this study determined the workplace violence encountered and the level of anxiety, and consequently, based on the findings gathered, an intervention program was proposed. Specifically, it provided answers to the following queries: (1) What is the age, gender, marital status, and length of time that the respondents have worked in the emergency room department? (2) 2. What is the level of workplace violence encountered by emergency healthcare workers in terms of the impact of incidences of violence reporting of incidence? (3) What is the level of anxiety of emergency healthcare workers? (4) What is the level of resilience among emergency healthcare workers in terms of personal competence and acceptance of self and care? (5) Is there a significant relationship between the level of workplace violence and anxiety among emergency department healthcare workers? (6) Does the level of workplace violence significantly influence the level of anxiety among emergency department healthcare workers? (7) Does resilience significantly moderate the relationship between workplace violence and anxiety among emergency department healthcare workers?

Furthermore, this study is significant for various stakeholders within the healthcare department. The findings may help nurses seek to identify the workplace violence encountered and the level of anxiety experienced by emergency healthcare workers. In turn, this study will provide necessary interventions to prevent the possible distress that they will experience. This information, in turn, will be instrumental in crafting an intervention program that may be used to protect and welfare emergency healthcare workers. Also, the executive department of the government responsible for ensuring quality healthcare for all Filipinos will gain insight into the protection of emergency healthcare workers and help the department achieve its goals. Based on the findings of this study, the department can provide appropriate techniques for handling workplace violence.

Moreover, it aids the institution in creating policies that address workplace violence. The findings will also serve as a source of information about the status of healthcare workers. The future researcher used the information gathered as a reference for further research on this subject. More specifically, the findings of this study will serve as a great resource of information about the workplace violence encountered and the level of anxiety experienced by emergency healthcare workers in Cotabato City.

Methods

The respondents were emergency healthcare workers currently assigned to the emergency departments in the selected hospitals in Cotabato City. This study utilized a quantitative method and a predictive-correlational design. Also, predictive-correlational research design is used to examine the relationship-moderating impacts of resilience between anxiety and workplace violence. Proportionate stratified sampling was used to guarantee the sample's representativeness. Considering each group's different sizes, this method ensures that the sample is representative of the total hospital population. Using the intended confidence level of 95%, the research sample size was determined using the G*Power statistical program.

The researcher utilized an adopted survey questionnaire to investigate the relationship between workplace violence and the level. There are four (4) parts to the questionnaire. The first section asked respondents' age, sex, civil status, and length of time working in the emergency room, among other sociodemographic details. The second part has 12 items comprising two sections: impact of violence and reporting of incidence. This part was adopted in the study by Kumari et al. (2021) to develop and validate a comprehensive, easy-to-administer tool that could assess all relevant domains of WPV in a healthcare setting. The third part screened and evaluated the severity of anxiety among healthcare professionals working in the Emergency Department, validated by the panelists through a content validity index form.

The fourth part contained 25-item self-report assessment tools that measured the degree of individual resilience, focusing on positive psychological characteristics instead of deficits. Also, A 5-point Likert scale was used to gauge participants'

agreement or disagreement with the statements and degree of identification with them; higher scores indicated higher levels of resilience. This part was adopted in the study conducted by Cajada et al. (2023) to evaluate the Resilience Scale of emergency healthcare workers critically.

During the survey, the researcher followed the considerations and protocols, such as providing a brief orientation on the purpose of the study before asking for their consent. The researcher went per department to present the permission letter to the head supervisors of each department. The respondents were assured of their right to withdraw at any stage during the actual study. The respondents were also given time and opportunities to ask questions or clarifications. Furthermore, the researcher adhered to the health protocols of wearing masks and maintaining social distancing during the survey.

Moreover, various statistical techniques specific to our variables and research questions were employed to glean meaningful insights from the data gathered. The age, gender, marital status, and length of experience working in the Emergency Room department were all described using frequency distributions and percentages. Spearman-Rho was utilized to examine the strength and direction of the linear relationship between workplace violence, anxiety, and resilience. It helps in understanding how two continuous variables are related to each other. The structural Equation Model (Partial Least Square) was used to assess the resilience of the relationship between anxiety and workplace violence for moderation. In this analysis, workplace violence and anxiety can be the independent variables, while resilience is the moderating variable. This analysis also helps in understanding how resilience influences the relationship between workplace violence and level of anxiety. By employing the mentioned statistical methods, the study gave the researcher a thorough grasp of how workplace violence, anxiety, and resilience interact among healthcare professionals in emergency rooms. Consequently, this aids in creating efficient support networks and interventions for this demographic.

Furthermore, in alignment with the Data Privacy Act of 2012, the respondents were given the freedom to stay anonymous in terms of privacy and confidentiality. Even if the respondents indicated their names and other identifying information, it was associated with any part of the written report of the research. The data gathered in this study were kept with the utmost confidentiality. If this research study is published in the literature, any information indicated in the material will not reveal the respondent's identity in any way.

Moreover, the researcher declined to ask anybody not connected with the study who would ask for any information about the data gathered. Only the researchers will have access to the collected data, and all will be treated with the utmost confidentiality. After the study, the participants may receive a copy of the results if they ask for it. Lastly, all the raw data were disposed of accordingly after the survey.

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Results and Discussion

Table 1. Demographic Profile of the Respondents

Demographic Profile	Frequency (n=140)	Percentage
Age:		
25-30 y.o	49	35.0%
31-35 y.o	44	31.4%
36-40 y.o	35	25.0%
41-45 y.o	8	5.7%
46-50 y.o	2	1.4%
51-55 y.o	2	1.4%
Total	**140**	**100%**
Sex:		
Male	48	34.3%
Female	92	65.7%
Total	**140**	**100%**
Marital Status:		
Single	76	54.3%
Married	60	42.9%
Widowed	4	2.9%
Total	**140**	**100%**
Length of experience working in the E.R.:		
< 1yr.	39	27.9%
1-5 yrs.	65	46.4%
6-10 yrs.	29	20.7%
>11 yrs.	7	5.0%
Total	**140**	**100%**

As shown in Table 1, one hundred and forty participants completed the questionnaire. 49 or 35% of the participants were aged between 25 and 30 years, covering the highest range of age among the respondents. 2 or 1.4% of the participants were aged between 46 and 50, and 51 and 55 years, making them the lowest range of age. 92, or 65.7% of the participants were female. 76 or 54.3% of the participants were single. 65 or 46.4% of the participants have a year to five years of experience working in E.R.

Table 2. The Level of Workplace Violence among Emergency Healthcare Workers.

Indicators	Mean	SD	Interpretation
Impact of Violence	3.24	1.15	Moderate
Reporting of Incidence	3.12	1.03	Moderate

Overall	**3.18**	**1.09**	**Moderate**

Note: *4.21-5.00---Very High; 3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low; M-Mean; S.D.- Standard Deviation.*

Table 2 shows the level of workplace violence encountered by the respondents in terms of the impact of violence and reporting of incidence. Respondent revealed that their families had been affected due to the episodes of violence at their work, with the highest mean of 3.49. Respondents also indicated that their personal well-being and self-care had been affected due to the episodes of violence in their workplace, with the lowest mean of 2.99. This gives a total mean of 3.24 and moderately impacts the level of workplace violence encountered by the respondents.

Kumari et al. (2021) revealed in their study that WPV in the healthcare sector has been a global concern, leading to verbal and physical forms of violence causing a significant impact on healthcare workers' social and mental well-being, estimating 80% global prevalence. In a similar study conducted by Magnavita et al. (2019), exposure to WPV adversely affects workers and is harmful to the mental health of the victim, leading to anxiety.

In terms of reporting incidence, respondents revealed that they felt ashamed to report the violence they encountered, with the highest mean of 3.44. Also, respondents indicated that they fear that their appraisal or promotion will be affected due to the violence encountered, with the lowest mean of 2.93. This gives a mean of 3.12 and moderately affects the reasons for reporting incidence encountered.

In the study conducted by Kumari A., Singh et al. (2021), lack of support made victims of workplace violence uncomfortable reporting incidents to authorities, and no action would be taken. In a similar study conducted by Pich et al. (2019), WPV is still underreported in many healthcare settings, consistent with other studies' findings. The reasons for underreporting include nursing, management, and organizational factors. Nurses may not report due to fear of consequences, perceptions of the reporting process, and lack of knowledge about reporting. Management factors include a lack of visible changes after reporting, a non-supportive culture, and a lack of penalties for perpetrators. Organizational factors include a lack of policies, procedures, training, and an efficient reporting system (Spencer et al., 2023).

The study by Garg et al. (2019) found that in India, WPV is underreported by nurses and other healthcare workers, with 40% of reports lacking identification of the affected healthcare worker and 70.8% having at least one missing information on age, sex, or job title. Similarly, a study in Palestine found that physicians and R.N.s did not report 72.5% of WPV incidents. In Slovenia, a survey of R.N.s found that 66.3% of WPV incidents were not reported. A GP and R.N.s survey found that 75.8% of WPV incidents were not reported in China. In the U.S., a mixed-method study of HCWs and R.N.s found that WPV is underreported due to a lack of consequences for the perpetrator, and both error/incident reporting and WPV underreporting may stem from the nurse's perception that they will be blamed for the incident.

Table 3: The Level of Anxiety among Emergency Healthcare Workers.

Level of Anxiety	Mean	SD	Interpretation
1. I feel nervous, anxious, or on edge when patients and family members shout at me.	2.73	0.99	Moderate
2. I am not being able to stop or control worrying after attending to a patient with a severe condition.	2.69	0.94	Moderate
3. I worry too much about different things due to a highly demanding job.	2.69	0.97	Moderate
4. I have trouble relaxing when patients in the Emergency Room wait long.	2.61	0.93	Moderate
5. I am so restless that sitting still is challenging due to the high volume of patients.	2.39	1.05	Low
6. I am becoming easily annoyed or irritable by patients with uncontrolled or manipulative behavior.	2.75	1.01	Moderate
7. I fear something awful might happen to a patient/s I am attending.	2.61	0.94	Moderate
Overall	**2.64**	**0.97**	**Moderate**

Note: *4.21-5.00---Very High;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low.*

As shown in Table 3, respondents revealed that they are annoyed or irritable by patients with uncontrolled or manipulative behavior, with the highest mean being 2.75. Respondents also indicated that they become restless due to the high volume of patients, with the lowest mean of 2.39. This gives a total mean of 2.64, implying a moderate result of the level of anxiety among E.D. Healthcare Workers. Emergency room nurses are susceptible to violence in high-stress situations where tensions and conflicts are heightened. They are exposed to dangerous situations because patients or caregivers confront them (Sachdeva et al., 2019).

Evidence showed in the study of Alharthy et al. (2019) that the prevalence of psychological distress close to 30% is in high-demand areas with low control, like the emergency department. In a similar study conducted by Aljohani et al. (2021), E.D. workers, including physicians, nurses, advanced practice providers, and support staff, are at an increased risk due to the unique work environment, which includes treating patients who may be violent, intoxicated, or have mental health problems.

Indicators	Mean	SD	Interpretation
Personal competence	4.15	0.74	High
Acceptance of self and life	4.12	0.78	High
Overall	**4.14**	**0.76**	**High**

Note: *4.21-5.00---Very High;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low; M-Mean; S.D.- Standard Deviation.*

Table 4. The Level of Resilience among Emergency Healthcare Workers

Table 4 shows the level of Resilience among Emergency Healthcare Workers in terms of personal competence and acceptance of self and life. Regarding personal competence, respondents revealed they feel proud of accomplishing things at work, with the highest mean of 4.38. Respondents also indicated that they managed one way or another at work, with the lowest mean of 3.91. These findings suggest that EHWs have a high level of personal competence and can cope with the demands of their job. Regarding acceptance of self and life, respondents revealed that they see meaning in their lives, with the highest mean being 4.39. Also, respondents indicated that they seldom wonder what the point of being an Emergency Healthcare Worker is, with the lowest mean being 3.83. These findings suggest that EHWs have a positive outlook on life and find meaning in their work.

In a study conducted by Cajada et al. (2023), despite stressors, resilient individuals succeed. In a similar study conducted by Han et al. (2021), resilience has been identified as one of the most critical factors in successfully adapting to and recovering from exposure to adversity. Certain people possess the ability to proactively devise and implement tactics to enhance their resilience and adjust to demanding circumstances, investigating how emergency healthcare workers developed resilience in the aftermath of WPV. The growing emphasis on involving patients and their families in healthcare evaluation highlights the importance of healthcare workers' skills in supporting patients and their family care providers. Emergency healthcare workers have a high degree of personal competence, which may help them better manage the stress that comes with their jobs and enhance their general well-being and job satisfaction (OECD, 2019).

Table 5. The Test of Relationship Between Workplace Violence and Level of Anxiety among Emergency Department Healthcare Workers.

Workplace Violence	**Anxiety**			
	r_s	**p-value**	**Decision**	**Remarks**
Impact of Violence	.477	<.001	Reject H_{01}	Significant
Reporting of Incidence	.354	<.001	Reject H_{01}	Significant

Note p<0.05 (Significant) r_s= rho; DV-Anxiety.

Table 5 shows the relationship between workplace violence and level of anxiety. Based on the results indicate that there is a significant, positive relationship between the respondent's workplace violence and level of anxiety(rs =.457, p= <.001). This further suggests that an increase in emergency department healthcare workers' workplace violence is correlated with an increase in their level of anxiety. Thus, the null hypothesis (H01) was not accepted since its p-value is less than 0.05 alpha significance level.

The systematic review by Taylor and Rew (2019) highlights the high incidence of WPV in emergency departments, with most research focusing on incidence rates and effects on staff. However, there is a significant lack of intervention studies to guide evidence-based practice. The review by Ferri et al. (2019) suggests a relationship between WPV and high levels of anxiety and stress endured by both patients and HCWs. The study by Ferri et al. found that in an Italian E.D., 63% of violent events occurred in the waiting room, hypothesizing a relationship between WPV and high levels of anxiety and stress. The study by Al-Motlaq et al. (2023) compared to other healthcare settings, where emergency department workers are more vulnerable to workplace harassment and bullying (WPV), with men experiencing more physical and verbal abuse than women. Also, the patient's relatives were the primary perpetrators of both physical and verbal abuse. The survey by Kowalczuk et al. (2020) conducted a literature review on patient aggression towards different professional groups of healthcare workers in the emergency department, highlighting the need for further research on effective interventions to prevent WPV in this setting.

Table 6. The Test of Influence of Level of Workplace Violence on Anxiety among Emergency Department Healthcare Workers.

WPV	Observed Estimate	Bootstrap S.E.	Z	P-value	Decision	Remarks
Mean						
WPV	3.185	0.056	57.27	0.000		
Effect						
LOA	0.521	0.093	5.59	0.000	Reject H_{02}	Significant

Note: p-value <.05(Significant); R^2= 0.2990; IV- WPV; DV- LOA.

As shown in Table 6, the level of workplace violence (p=.000) significantly influenced the level of anxiety. With the marginal effects noted in the level of anxiety (0.521), it implies that an increase in workplace violence would result in a higher level of anxiety. Furthermore, the findings were apparent in the results of nonparametric regression analysis, in which 29.90% of the variance of anxiety level can be explained by workplace violence, as indicated by an r-square of 0.2990. This would suggest that variables other than the independent variable account for 70.1% of the variation.

In contrast to workers in other industries, healthcare workers are more

vulnerable to workplace violence, which is a severe problem in these settings (OSHA, 2019). This is particularly true for emergency healthcare workers, who experience very high levels of workplace violence, with paramedics having nearly tripled the odds of experiencing physical and verbal violence compared to other healthcare workers (Spelten et al., 2022). Also, in this study, The World Health Organization categorizes workplace violence into physical and psychological violence, which includes verbal violence. Also, found that the incidence of patient and visitor aggressive events toward patient care staff in five inpatient units was 2.54 aggressive events per 20 patient days.

Table 7. The Moderation Analysis of Resilience on the Relationship between Workplace Violence and Level of Anxiety among Emergency Department Healthcare Workers.

Path	B	SE	T	p-value	Decision	Remarks
RES→LOA	0.050	0.075	0.669	0.504	Accept H_{03}	Not Significant
WPV→LOA	0.512	0.076	6.717	0.000	Reject H_{02}	Significant
RES x WPV→LOA	0.042	0.110	0.379	0.705	Accept H_{03}	Not Significant

In this study, Table 7 revealed the moderating effect of Resilience (RES) on the relationship between workplace violence (WPV) and the level of anxiety (LOA). Without including the moderating effect, the r-squared value for LOA was 0.284, which shows that a 28.4% change in the level of anxiety (LOA) is accounted for by workplace violence (WPV). Including the interaction term (RES x WPVàLOA) increased the r-squared value to 28.6%. This also shows a slight increase of 0.2% in variance explained in the dependent variable (LOA).

Moreover, as the significance of the moderating effect was analyzed, the results revealed that resilience did not significantly moderate the relationship between workplace violence and level of anxiety (β=0.042, p=0.705). Such a result led to the acceptance of the null hypothesis (H03) as its p-value is more than 0.05 alpha level of significance. Meanwhile, the level of workplace violence (WPV) had a significant favorable influence on the level of anxiety (β = .512, p =.000), while Resilience (RES) did not affect it (β = 0.050, p=.504).

This study shows that workplace violence is a serious problem that negatively impacts healthcare workers' mental health and well-being, especially nurses who work in emergency departments. A study by Li et al. (2021) found that emergency room nurses who experienced violence had lower job satisfaction and higher turnover intentions. Similarly, a study by Kim et al. (2022) found that resilience was negatively associated with turnover intention among emergency room nurses. However, a study by Ju et al. (2019) found that the higher the education level and clinical experience, the greater the frequency of exposure to violence experience among emergency room nurses.

In terms of the relationship between Resilience and workplace violence, a study by Kang and Park (2020) found that resilience was negatively associated with workplace violence among nurses working in particular departments. Additionally, a study by Park and Lee (2019) found that resilience was negatively associated with workplace violence among nurses in general departments. However, Kim et al. (2022) stated that resilience did not considerably mitigate the association between emergency room nurses' intention to leave and workplace violence. This suggests that healthcare organizations should implement measures to prevent workplace violence and promote a positive work environment. A study by Baek and Kang (2019) found that a supportive work environment was associated with lower turnover intention among emergency room nurses.

In conclusion, workplace violence is a severe problem that has an impact on emergency healthcare workers' mental health and general well-being. While resilience is negatively associated with turnover intention and positively associated with job satisfaction among emergency room nurses, it does not significantly moderate the relationship between workplace violence and turnover intention. Healthcare organizations should implement measures to prevent workplace violence and promote a positive work environment to support emergency healthcare workers.

Conclusions and Recommendations

This study focuses on the moderating effect of resilience on the relationship between workplace violence and the level of anxiety among emergency department healthcare workers in selected hospitals in Cotabato City. In this study, the predictive-correlational design is used to ascertain the connection between workplace aggression and the level of anxiety among emergency healthcare workers, with resilience as a moderating variable. The 150 respondents were selected through proportionate stratified sampling, which was used to guarantee the sample's representativeness. Adopted research questionnaires were used to gather data from the respondents. Ethical considerations were strictly followed.

One hundred and forty participants completed the questionnaire. Most participants were between 25 and 30 years old and between 46 and 50, and 51 and 55 had the lowest age range. Most number of the participants were female and single. Participants have a year to five years of experience working in E.R. Also, most of the respondents revealed that their families had been affected due to the episodes of violence at their work. Respondents also indicated that their personal well-being and self-care had been affected due to the episodes of violence in their workplace. This implies that it moderately impacts the level of workplace violence encountered by the respondents.

Moreover, the study revealed that they felt ashamed to report the violence they encountered. Also, respondents indicated that they fear their appraisal or promotion will be affected due to the violence experienced. Also, respondents indicated that they become restless due to the high volume of patients, implying a moderate result of the level of anxiety among E.D. Healthcare Workers.

Furthermore, respondents revealed they feel proud of accomplishing things at work. Respondents also indicated that they managed one way or another at work, suggesting that EHWs have a high level of personal competence and can cope with the demands of their jobs. Respondents revealed that they see meaning in their lives. Also, respondents indicated that they seldom wonder what the point of being an Emergency Healthcare Worker indicating that EHWs have a positive outlook on life and find meaning in their work.

In addition, there is a significant difference and a positive relationship between the respondents' workplace violence and level of anxiety, implying that an increase in emergency department healthcare workers' workplace violence correlated with an increase in their level of anxiety. Also, results revealed that the level of workplace violence significantly influenced the level of anxiety, which implies that an increase in workplace violence would result in a higher level of level of anxiety. Furthermore, results revealed that resilience was not significantly different in moderating the relationship between workplace violence and the level of anxiety.

Based on the findings, it is suggested that additional investigations be carried out to examine the effects of workplace violence on the psychological state and general well-being of Emergency Healthcare Workers (EHWs). The study identifies several crucial problems that need to be addressed: (1) The

significant positive relationship between workplace violence and level of anxiety suggests that EHWs are more likely to experience anxiety as a result of workplace violence. This underscores the need for effective strategies to mitigate the impact of workplace violence on mental health. (2) The fact that most respondents felt ashamed to report violence and feared repercussions on their appraisal or promotion indicates that there are significant barriers to reporting incidents. This highlights the need for a culture shift that encourages open reporting and supports EHWs who experience violence. (3) The findings on personal competence and meaning in work suggest that EHWs are resilient and find fulfillment in their roles. This resilience can be leveraged to develop coping strategies and interventions that support EHWs in managing workplace violence. (4) The lack of significant moderation by resilience regarding the connection between anxiety and workplace violence implies that other factors may be more influential in determining the impact of workplace violence on mental health. Further research should investigate these factors to develop targeted interventions.

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Carers in Crisis: Understanding the Lived Experiences of COVID Nurses in Sultan Kudarat

Richard S. Manabilang, RN

Davao Doctors College

Abstract

This qualitative descriptive phenomenological study explored the experiences of sixteen staff nurses at a public COVID facility in Sultan Kudarat Province. Qualitative data were gained through in-depth interviews and focus group discussions.

Utilizing Creswell's script method of qualitative data analysis, the inquiry into the participants' experiences, coping strategies, and insights as COVID frontline nurses yielded three emergent themes: 1) physical and emotional stress; 2) professionalism during the pandemic; and 3) significant support. Thirteen (13) cluster themes emerged. On "physical and emotional stress": 1) fear of becoming infected; 2) sudden changes in protocols and work overload; 3) patients and carers' lack of awareness of COVID-19; 4) patient deaths; 5) limited family time; and 6) social stigma. Further, on "professionalism during the pandemic": 1) providing high-quality care; 2) positive attitude; 3) upholding standard of care; 4) collaboration and communication; and 5) confidence. On "significant support": 1) government support; and 2) family support.

The study provides a closer look at the issues and challenges that nurses face during the COVID-19 pandemic in the local setting and contributes to the nursing literature of the COVID pandemic. Practically, results can aid hospital administrators and nurse leaders in crafting programs and policies towards nurse and hospital resilience in times of crisis. Insights provided in this study can also facilitate discourse of nursing theories in the context of the COVID-19 pandemic.

Keywords: COVID Nurses, COVID-19, Nursing, Lived Experiences, Descriptive Phenomenology, Sultan Kudarat

Corresponding Email: richardmanabilang88@gmail.com

Introduction

According to the World Health Organization (WHO), nurses represent the largest group of healthcare workers (HCWs) involved in the front line of healthcare systems. That is why, the nursing workforce was among the sectors that greatly suffered the devastating impact of the COVID-19 pandemic. WHO reports that 115,000 healthcare workers died from COVID-19 between January 2020 and May 2021. In addition to the risk of contracting the virus, nurses are prone to experiencing negative emotions and psychological trauma due to physical and mental exhaustion, lack of knowledge, and in many cases, a lack of skills to care for patients, Sun et.al., (2020). During the pandemic, reports of occupational fatigue, stress, and burnout are everywhere, leading to widespread dissatisfaction, and resulting in significant numbers of nurses leaving the profession.

In an integrated literature review, Berlin et.al. (2021) surveyed some 400 frontline nurses across settings to understand their experiences working during the Covid-19 pandemic. Over half of the nurses reported insufficient staffing levels, the intensity of the workload, and emotional toll of the job as important factors to leave their current positions.

In the Philippines, Sadang (2021) identified three emerging themes of frontline nurses' lived experiences: work as self-sacrifice; work as self-fulfillment; and work as psychological struggle. This is consistent with UNICEF's 2020 report that Filipino nurses experienced eviction, ridicule, and harassment despite public adulation for their heroic sacrifices.

Despite the negative impact on their physical and emotional well-being and insufficiency of resources, the results of the above-mentioned studies reveal that Filipino nurses displayed resilience and utmost professionalism in crisis. Participants expressed how rewarding and fulfilling it was to provide care during this pandemic.

An estimated 23,000 shortfall of nurses nationwide has caused a shortage and has affected nurses' ability to cope and quickly adapt to their working environment which can lead to inefficiencies as health workers (Sadang et al., 2021). This is why it is vital to further the efforts to understand nurses' lived experiences in various settings and contexts. Such efforts could aid health leaders and hospital administrations to put policies that promote nurse well-being.

To contribute to the body of knowledge on COVID-19 nurses' experience, this study aims to provide a local, in-depth exploration of the lived experiences of frontline nurses–the issues and challenges they face, their coping mechanisms, and their insights on the nursing practice–as they provide care in a government COVID center in Sultan Kudarat, Philippines.

Methods

This study utilized a qualitative phenomenological research design to bring light and reflect upon the participants' lived experience in caring for COVID-19 patients. This method allowed the researcher to explore how participants make sense of COVID-19 as a medical crisis and how it affects their everyday practices.

The researcher used the qualitative method to gain a deep understanding of a specific organization or event, rather than the surface description of a large sample of a population. It aimed to understand how the participants derive meaning from their surroundings and how their meaning influences their behavior.

Phenomenology is the study of lived or existential meaning which attempts to describe and interpret these meanings to a certain degree or depth and richness; using this method, the emphasis is placed on the meaning of lived experiences. The central structure of an experience is its intentionality, its being directed toward something, as it is the experience of or about some object. An experience is directed toward an object by its content or meaning, which represents the object, together with appropriate enabling conditions. This study used in-depth interviews and focus group discussion as a means of data gathering, which aligned with the qualitative inquiry methods.

The phenomenological approach used in this study allowed a thorough description of the lived experiences and challenges of nurses handling COVID-19 patients in Sultan Kudarat Provincial Hospital COVID Center during the pandemic.

Generally, the main objective of this method is to explain the meaning, structure, and essence of the lived experiences of an individual or a group of people in a specific phenomenon (Pathak, 2017). Specifically, this method aims to develop a deeper understanding of the lived experiences of an individual (Mojapelo, 1997). Therefore, for this study, a qualitative approach and phenomenological research design are employed to understand the meaning of a phenomenon, within the context of the respondent's experiences in caring for COVID-19 patients. The core of these experiences and challenges and how it was overcome were verified and unfolded at the end of the study.

To choose the participants, a purposive sampling method was employed by the researcher. In qualitative research, purposive sampling is used to deliberately select participants based on specific criteria. This method helped the researcher to exclude the participants who did not fit a particular profile when creating a sample and select the participants in a non-random manner (Lavrakas, 2008).

The purposive sampling method allowed the researcher to select sixteen (16) participants: eight (8) for the in-depth interviews and the other eight (8) for the FGD. All interviews were conducted via the Facebook Messenger platform. Upon approval, a total of sixteen nurses were chosen to be study participants.

Recruitment of the participants was done through professional connections. They were contacted to inquire about their willingness and consent to participate in the study. A written consent form was signed by each participant. This study explored the lived experiences of 16 nurses in a government COVID facility in the province of Sultan Kudarat. First, the researcher sought the approval of the hospital administration to conduct the study through a letter. The written communication expressed the objectives of the study and the data collection methods—in-depth interviews and focus group discussions.

After the determination of participants and confirming their willingness to participate in the study, the researcher scheduled the interviews and focus group discussions. The schedules were set according to the participants' preferred time and date. In accordance with the maximum health protocols set by the Inter-Agency Task Force during the pandemic, the researcher decided to conduct virtual In-depth Interviews (IDIs) and focus group discussions (FGDs) through the Video Call feature of the Facebook Messenger application, and recorded using mobile phone voice recording application.

The researcher used guide questions in the conduct of the in-depth interviews and focus group discussions. The guide questions were first assessed and approved by the thesis adviser and authorized validators. The final guide questionnaire was then reviewed by the thesis adviser before interviewing the participants.

Of the sixteen participants, eight of them have undergone in-depth interviews (IDI) while the other eight were grouped into two for focus group discussions (FGD). Each group had four (4) participants. This way, they are provided with sufficient time to thoroughly express their answers. Each interview lasted from thirty (30) minutes to two (2) hours.

Before starting each interview and group discussion, the researcher provided the background of the study and obtained informed consent from all participants. According to Creswell (2017), stating the purpose of the study may improve the participants' understanding and participation.

The lived experiences of the nurses in their care of COVID-19 patients have been explored with the first main question, while the coping mechanisms and insights were explored during the succeeding questions.

Results and Discussions

Using Creswell's method of data gathering, all data collected were organized and transcribed, significant statements were described, coded, and categorized into different cluster themes and arranged into emergent themes.

The researcher's inquiry into the participants' lived experiences as nurses who cared for COVID-19 patients in a government COVID-19 facility in Sultan Kudarat Province yielded the following emergent themes: 1) Physical and Emotional Stress; 2) Professionalism during the Pandemic; and 3) Significant Support.

Several cluster themes constitute each emergent theme. On "physical and emotional stress": 1) fear of becoming infected; 2) sudden change of protocols and work overload; 3) patients and carers' lack of awareness of COVID-19; 4) patient deaths; 5) limited family time; and 6) social stigma. Further, on "professionalism during the pandemic": 1) providing high-quality care; 2) positive attitude; 3) upholding standard of care; 4) collaboration and communication; and 5) confidence. On "significant support": 1) government support; and 2) family support.

A total of 145 significant statements were derived from all interview transcripts. Immediately following the extraction of significant statements from all participants' data sources, the researcher applied meaning to participant statements. Each formulated meaning was coded using the initials of cluster themes about its significant statement, resulting in multiple formulated meanings. There were more formulated meanings than significant statements due to some meanings falling into multiple thematic categories.

Physical and Emotional Stress

The novelty and severity of the COVID-19 disease caused panic and chaos globally. Government leaders and healthcare workers grappled to understand the new disease—its symptoms and management—while finding the cure and trying to stop its spread. Frontline workers like doctors and nurses were put in

unfamiliar working environments and were left to deal with the unaware public. The COVID-19 pandemic resulted in an abrupt paradigm shift in nursing care, especially in the way nurses provide care to patients.

The participants of this study are nurses in a government COVID-19 facility in Sultan Kudarat Province. Being a public institution, the facility accommodated a high volume of COVID-19-infected patients during the first two years of the pandemic. Based on their statements, none of the participants had experienced this degree of difficulty in their jobs before the COVID-19 pandemic.

The increase in difficulty has resulted in the participants' job as a nurse physically and emotionally tiring. Physical and emotional exhaustion were brought about by their fear of becoming infected; sudden change of protocols and heavy workload; patient deaths; patients' and carers' lack of awareness of COVID-19; less time with family due to quarantine after shifts; and social stigma.

The more widespread the pandemic, the more serious its implications, and in turn—the more intensified the required clinical care. As a result, nurses must accommodate new protocols, work long shifts, and deal not only with patients but also with their remote family members. Additionally, the lack of medical resources and protective equipment for medical personnel, combined with a shortage of nurses during pandemics, because of quarantine, also make nursing care a challenging task.

Fear of becoming infected

Frontline healthcare workers cannot help but worry about their safety and the danger of handling COVID-19 patients can cause them and their families. They worry that they might carry the virus home and infect their loved ones, especially the children and elderly. This fear and anxiety will always be present, especially in this time of pandemic where everything is still on study, be it the protocols, and the case management or the COVID-19 disease itself. The pattern replay is likely to continue repeatedly, triggering emotional distress and anxiety. However, they set aside their concerns to provide quality care for patients. They cite patience as the key to building a positive patient-care provider relationship. In addition, they cite this fear as one that can put healthcare workers' psychological well-being and occupational efficiency at risk. Participants cite age and comorbidity as factors why they fear becoming infected.

Occupational safety is the key to nurses' work during the COVID-19 pandemic. In this respect, hospitals must have appropriate infection control procedures and personal protective equipment in ample amounts for personnel who care for suspected or verified COVID-19 patients. Staff members should also be guided on how to conduct regular self-assessments and directed on how to follow quarantine or isolation measures, when indicated, to protect themselves, their families, and their community, as well as to safeguard their mental health and well-being.

In addition to wearing protective equipment and following protocols, participants realized that being observant is also necessary while they continue with their jobs. This is deemed important especially since COVID-19 was then very new, and they still did not understand the nature of the disease. The uncertainty and confusion surrounding the new virus intensified their fear.

According to the World Health Organization, the total number of global deaths attributable to the COVID-19 pandemic in 2020 is at least 3 million. WHO also estimates that 80,000 and 18,000 health and care workers could have died from COVID-19 between January 2020 to May 2021. Undoubtedly, frontline

workers like nurses have a substantial risk of contracting the disease. The participants experienced emotional stress because of the constant worry over their health and safety while caring for patients.

The sudden change of protocols and work overload

The imposition of new hospital protocols tailored fitted for COVID-19 management caused physical and emotional stress to the nurse participants. Participants expressed that their lack of essential knowledge about the COVID-19 disease and the new protocols elicited fear and anxiety. Given the surge of patients and the highly infectious nature of the virus, the change of protocols was deemed urgent and critical. Hospitals needed to rapidly and immediately change care processes to prevent the spread of the virus among the staff and other patients. Participants described the difference between caring for regular patients and COVID patients given the new set of protocols.

Further, since the changes were made abruptly, there was not enough time for "proper" training for the frontline workers. With no proper training and faced with a high volume of patients, the nurses felt scared and anxious. Participants were floated to stations where they were not well trained and very unfamiliar where they needed to quickly adapt to survive. This makes nurses' workload heavier. A COVID nurse needed to be an all-rounder and quickly learn necessary skills in different departments as hospitals needed to limit the number of healthcare staff exposed to infected patients.

The pandemic happened when most if not all the participants were unprepared. Due to the demands of their work, especially in instances when participants need to multitask, it is when this break in COVID protocol usually happens. Rule-breaking is not a new phenomenon, but behavioral scientists say it is being exacerbated in the coronavirus pandemic by cultural, demographic, and psychological factors.

As mentioned, the changes in protocols required nurses to do most of the tasks on their own. Hence, when the number of patients increases, nurses get overwhelmed with their workload. This caused further stress on the participants. The COVID Center where participants work caters mostly to mild to moderate COVID-positive patients, however, there have been instances when the facility had to accommodate severe cases as well. When this happens, the nurses' bedside time is divided into an even shorter length of patient care to accommodate every patient's need.

A patient presenting severe case symptoms potentially increases the risk of a longer stay, unfavorable patient satisfaction, and even death. Despite the work overload and the stress of having to adapt to sudden protocol changes, participants have still shown positivity in managing their cases by accepting the reality of the situation.

Patients and carers' lack of awareness on COVID-19

Participants shared that they had patients and carers who were defiant and/or indifferent to the preventive measures enforced in the facility. This lack of awareness among patients and carers added to the burden of fulfilling their roles. Patients or watchers did not understand the importance of protocols enforced by nurses in the facility. Some patients did not even believe that they had been infected by the COVID-19 virus hence, they were careless, and struggled to follow protocols. These add up to nurses' tasks apart from the routine

ones because everyone must be involved in patient care and understands every case status and when and how negligence can extremely affect the outcome of the case management.

Although it becomes tiresome for the participants, they understand that they have the responsibility to educate patients and carers about the disease. Nurse practitioners can combat misinformation one-on-one in the practice setting (Russel, 2021).

Indeed, a nurse in the COVID-19 pandemic has to meet the basic needs of patients and provide education so that patients can take preventive measures in the event of a similar case. As for infection control and prevention, it is everyone's responsibility to get appropriate and timely knowledge- including patients and healthcare providers.

Patient deaths

The COVID-19 facility where nurse participants worked accommodated COVID-19 patients in critical condition. While severe cases are expected to be referred to a bigger referral facility, some mild to moderate in-patient cases may progress to severe cases, and some lead to death. During these instances, the medical team is left with no choice but to deal with the case until it is managed or transferred to a higher-level facility.

Patient mortality had a significant impact on the participants' emotional states during their shifts. It gives them the feeling of guilt of not being able to do more for their patients to survive. As detailed, when patients pass away, nurses feel emotionally worn out and drained, however, they still need to continue working.

In some instances, patients were unwilling to fight and decided not to continue with the care. This part of a patient's right leaves the nurses no choice but to give due respect, despite their sadness and frustration. Their understanding that the human body has a limit helped the nurses accept that patients' cases can be very unpredictable and out of their control.

Nurses experience an elevated level of stress and strong emotions triggered by the observation of dying patients (Kostka et al, 2021). This part of the patient's right leaves the participants no choice but to respect the decision. Witnessing death is always a stressful experience, even when it comes to a stranger. However, it should be remembered that nurses often become emotionally attached to their patients, and their departure always remains deep in their memories. The nurse in the team is the person who accompanies the physically, mentally, and spiritually suffering person and their relatives on a daily basis (Cybulska et al., 2021).

Limited Family Time

The limitation to participants' family time was directly affected by the modification of the duty schedule from the usual pre-COVID-19 scheme during the COVID-19 pandemic. Frontline healthcare workers are required to be in quarantine after their shifts. With this, COVID-19 nurses undergo mandatory quarantine after their shifts in the facility. The virus has an incubation period; hence symptoms are expected to appear within the quarantine period if a health practitioner is infected. This is part of the infection control and prevention protocols of hospitals. Due to the elevated risk of nurses and healthcare workers contracting

the virus while at work, it is critical to ensure that they do not carry it to their families and loved ones at home.

While nurses and other COVID-19 frontliners endure physical and emotional stress on the job, it is important to remember that their families may also experience stress. Those who care for health workers' children might experience stress due to additional responsibilities. Constant worrying about their loved ones who work in high-risk COVID-19 settings also causes emotional stress for spouses, children, and parents. Being apart for longer periods due to quarantine and long shifts may also take an emotional toll, especially for parents and children. This creates a gap in social support that can be addressed through compassionate management policies.

While nurses play a key role in the healthcare system, their families, being one of the main social support resources, should also be supported and provided for their needs. Through this, nurses' urge to go home after their shift could be lessened, thus, there would be less chance of family cross-contamination. Furthermore, knowing that their families are well taken care of could potentially decrease nurses' concerns and make them more focused at work.

Social Stigma

Participants experienced emotional stress by being treated differently in many instances in their practice of their professions as COVID-19 nurses. Stigma happens when a person discredits and devalues the attributes that he or she possesses. In general, stigma can lead to negative outcomes in day-to-day experiences. Moreover, stigma can also affect the families or relatives of individual who are discriminated against, especially those professionals who work in COVID-19 healthcare facilities or in healthcare settings.

Participants have reported being discriminated against both at work and outside work. They felt the stress and limitation even within their work zone, and from people they expect to support them. Some participants needed to sacrifice their source of living while others had difficult encounters with their colleagues because of the pressure at work.

An individual who has experienced stigma may undergo isolation, marginalization, discrimination, and rejection. Stigma can also affect the families or relatives of an individual who was discriminated against, especially those professionals who work in COVID-19 healthcare facilities or healthcare settings. When stigma eventually results in to physical fight, this can result in further damage and would require a different occupational administrative approach. It has been proven that stigma is strongly influenced by contexts and cultures (Subu et al., 2021). Much research demonstrated that the significant impact of public stigma includes discrimination in workplaces and public agencies. Moreover, (Subu et al., 2021) emphasized that professional stigma may affect the proper care management and treatment of their patients. Despite the stigma, the participants still uphold the values of remaining grateful and fulfilling the responsibilities professionally in taking care and handling COVID-19 patients. Therefore, it is also important for a healthcare institution to provide psychological support to nurses (Monik et al., 2021). It should be the institution the first to protect all their staff, especially COVID nurses who are considered one of the most vulnerable groups during the pandemic.

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While the participants laid bare the challenges they experienced as COVID-19 nurses, they also shared professional attributes that helped them manage every situation in participating in every COVID-19 case management. Professionalism in nursing means being respectful, empathetic, and dependable and going the extra mile to ensure patients receive the best care possible. As defined by the American Nurses Association, nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations (Nursco, 2018).

Nursing professionalism is about demonstrating an unwavering commitment to the vocation and the willingness to continuously deliver the highest-quality care to patients. Understanding the oath of nursing, participants chose to perform their roles with professionalism and ethics. They were committed, despite the physical and emotional stress, to providing high-quality care; maintaining a positive mindset, upholding the quality of care with their eagerness to learn more about COVID-19, engage in healthy communication and collaboration with colleagues, and develop confidence in fulfilling their responsibilities.

Providing High-Quality Care

Tender loving care (TLC) is a comprehensive approach that nurses imprint on their minds and this approach was used for the patients toward better treatment. Without these, treatment is impossible. Nurses with great professional commitment and proper care management can achieve higher levels of satisfaction from the patient and even themselves. Patient safety in providing high-quality care is one essential critical reason quality improvement is necessary in healthcare. The provision of quality care helps reduce the risk of adverse events, including medical errors, injuries, and infections. By implementing quality improvement initiatives, healthcare organizations can create a secure environment for patients and ensure that they receive the highest quality of care.

Meanwhile, this satisfaction patients experience may further lead to healthcare provider appreciation. Nurses play a vital role in fighting the spread of COVID-19 disease. Despite the pressure and stress, participants put patients first and committed to providing high-quality care. Therefore, their patients' recovery becomes a source of encouragement and joy.

Without a doubt, nurses cannot help but worry about their safety. Despite the physical and emotional challenges of the job, they expressed their commitment to providing quality care for patients. They cite patience as the key to building a positive patient-carer relationship.

Providing quality care did not only mean performing medical procedures and tasks but also going the extra mile to uplift the spirits of patients. One participant shared how a gesture–wearing red boots–cheered up their patients. Further, a participant likened a nurse to a "Superwoman" who could fly immediately anytime

When their efforts to provide quality care pay off with patient improvement and recovery, nurse participants feel satisfaction in their jobs. Also, patients' appreciation and recognition of their efforts add to such satisfaction. Satisfaction not only helps to keep patients satisfied and honest about their feelings and complaints, but it can also have a positive effect on patient compliance and outcomes. When patients are

more satisfied with their care, they are more likely to adhere to treatment plans and follow the instructions provided by their healthcare provider. This can lead to better patient outcomes and fewer complications or hospital readmissions.

Nurses who show great professional commitment and proper management can lead to faster physical and mental recovery of the patients (Parizad et al., 2020). In the face of adverse challenges, this group of healthcare professionals showed resilience. Although the provision of care was a challenge for them, most of the participants stated that, in the end, they were satisfied and overwhelmed with joy as they knew they were instrumental in the patient's journey to healing.

Positive Attitude

Participants tried to look at challenging situations with a positive aspect. This made their work feel a little lighter. Despite having to manage a large volume of patients in a challenging environment, especially with strict infection control measures, participants still managed to maintain a positive attitude. They internalized their purpose as nurses and viewed challenges as lessons and opportunities to improve.

As a caregiver, a nurse's attitude can influence patients' emotional well-being. It will help them feel they are being cared for with compassion. A possibility is that hope, and positivity help people make better health and life decisions and focus more on long-term goals such as recovering from COVID-19 and the long-term effects of its symptoms.

Furthermore, a positive outlook is the best way to help nurses get through their tough times. Having a positive attitude in the workplace can be one of the keys to getting your work done effectively and improving your overall work experience. Meanwhile, embracing a positive outlook at work helps to create a collaborative and supportive culture that fosters productivity and personal growth. For participants' experiences, positivity benefits not only them but also their co-workers and patients. For participants, laughter is the best medicine, indeed.

Meanwhile, participants shared how their spiritual values help them get through the stressful times and continue providing quality care. When we have faith, we trust that there is a higher power at work in the world, no matter what our circumstances may be. This can give us a sense of peace and calm amid critical instances such as the COVID-19 pandemic. According to de Diego-Cordero et.al. (2022), spirituality can be considered a good coping strategy used by healthcare professionals to promote mental health and well-being during the COVID-19 pandemic; this results in greater patient satisfaction with the care given.

A positive attitude is an important factor in producing a quick and appropriate response when it comes to critical situations. A positive attitude can be infectious as well when nurses can influence their colleagues with a certain degree of positivity especially towards work. From dealing with stressors of the job, crafting creative solutions to address problems, and managing interpersonal relationships with co-workers, having a positive demeanor is advantageous on many levels. We tend to be more productive and inclined to do our best when we have a positive attitude—even towards undesirable assignments.

Upholding Standard of Care

Participants describe how they apply the fundamentals of nursing while trying to improve the quality of care. This is through guided learning in actual patient cases and continuous education. With their experience caring for patients in the COVID facility, participants expressed the importance of continuous learning to uphold the standard of care. The standard of care in nursing is concerned with professional accountability.

In everyday patient encounters, the severity of COVID symptoms varies from patient to patient. Participants believe that there is always something new about COVID. Therefore, studying, improving their clinical eye, and learning from actual experiences were considered essential for the delivery of safe and effective patient care, especially during emergency situations. More so, participants also highlighted the importance of fostering a positive relationship with patients through respect and patience.

Meanwhile, since the COVID Center is separated from the main hospital building, participants find it necessary to be "well-rounded" or to know how to fulfill nursing roles in every department specially structured for COVID-19 cases such as the Emergency Room, Intensive Care Unit, and more. They also mentioned the need to be prepared in cases when doctors are not readily available.

Meanwhile, in 2021, the Department of Health declared that the country lacks 92,000 doctors and 44,000 nurses. For years, a shortage of doctors and nurses had beset the Philippines. The COVID-19 pandemic only worsened this as more healthcare workers experienced burnout and had to quit. Worse, several doctors and healthcare workers got sick and passed away due to COVID.

However, in a study, Gahledar et.al. (2020) analyzed nurses' perception of taking care of patients with COVID-19 and found that respondents were able to promote self-learning as well as growth when it comes to palliative care during this pandemic. These endeavors allow healthcare staff to improve care and be more prepared in response to the demands of the job. Every COVID case managed is a learning opportunity.

Collaboration and Communication

To cope with emotional and physical stress, participants shared that having constant communication with their colleagues is essential. Their peers also became a source of support and learning. Team collaboration and communication enhance their adaptability amid crises. Participants believed that during quarantine and while on the job, communication with their co-staff helped ease their stress from work.

Collaboration is important in the workplace because it often leads to more communication between colleagues, and their patients and increased productivity. When people work together toward a common aim, they can each use their experiences and skills to contribute to its success. This can promote the development of efficient processes, which may benefit the team and the organization. Trying different approaches to determine what best suits each circumstance has helped the participants experience more success during their shifts. Through listening and learning from team members, they helped each other achieve goals. It takes challenging work and a bit of time, but collaboration is worth it for the benefits your team will gain (Ribeiro, 2020

Confidence

Handling COVID-19 cases has turned the participants into more adaptive, receptive, and resilient health care providers. Most of the respondents described their insights about personal growth and self-confidence accompanied by their developed resilience. Participants consider confidence and readiness as integral factors for nurses to carry out their jobs. Not being informed of the patient's case or the patient's status is equivalent to not learning. To be confident, participants were not selective of their patients, but rather receptive. This helped them adapt to any area they were assigned to.

Being COVID nurses for two years, the participants consider themselves strong and fearless. This strength was developed through their experiences of working alone in challenging situations, reading, and the guidance of their colleagues. Confidence means believing in your ability to accomplish a goal or complete a task (Post University Vlog, 2022). In this sense, nurses need to be competent and able to perform independently. A lack of confidence can easily compromise that ability. Moreover, nursing standards of conduct require confidence in nursing skills and practice. A nurse's self-awareness and desire for personal and professional improvement can help build, maintain, and boost confidence.

In their early care of COVID-19 patients, participants were hesitant about the new protocols and procedures. Yet, through time, they became more confident and efficient, and following and facilitating protocols became easier. With the confidence gained from taking care of COVID-19 patients, participants could be more confident in dealing with non-COVID patients should they be back to the regular hospital wards.

Significant support

Participants shared how the presence of their families and government support helped them achieve successful patient case management. Such support helped them get through the toughest times on the job. Nurses are being exposed to various risk factors; therefore, nurses need to gather social support from their family, friends, the institution, and the government to increase their psychological resilience. Support is needed to help nurses manage their mental wellness and encourage positive, healthy choices when life becomes overwhelming (Daily Nurse, 2022).

Government support

The provisions from the local government have positively contributed to the welfare and performance of the nurse participants. Long-term negative stress can lead to illness and diseases. In the healthcare workplace, several factors can worsen nurses' health and exacerbate negative stress, especially limited resources, lack of support from employers, and multiple responsibilities. In this setting, however, the provision of support from the government, in the form of financial assistance, quarantine accommodation, and grant of rest days–has resulted in appreciation and higher job satisfaction among the participants. Moreover, it has motivated the participants to push through as they endure the risk of handling COVID-19 patients.

Despite being exposed to the disease, participants were still appreciative knowing that they are also appreciated and well-taken care of. Should they encounter problems in their shift, they are confident that the management has their back. Furthermore, the hospital management facilitated discussions between the government and the nurses about programs that could improve working conditions. When the COVID-19

pandemic struck in the Philippines, the World Bank supported the Philippines' efforts to scale up vaccination, strengthen its health system, and counter the impact of the pandemic, especially on the poor and the most vulnerable.

Family support

The participants shared the positive effect of support from their families on their job performance and outlook in handling COVID-19 cases. Family support comes in the form of provision of food and vitamins, building a quarantine room in their homes, emotional support, and not being discriminated against at home. Some participants leave their children at home with trusted family members, hence reducing their worries and stress. Knowing they have good family support helps ease participants' anxiety over the demands of their job. They have focused more on providing the care their patients need which also contributed to increased job satisfaction.

The Education Development Center, a non-profit organization in the United States, encourages family and friends of COVID-19 frontliners to acknowledge their unique needs ensuring that their personal physical and emotional needs are met. Thai et.al. (2021) defines family support as the attitude and behavior of acceptance from the family, including informational evaluation, and instrumental and emotional support. They conclude that family support is essential in the psychological dimension by positively affecting nurses' work motivation.

Conclusion and Recommendations

This study explored the lived experiences of nurses who took care COVID-19 patients in a government facility in the province of Sultan Kudarat. Based from the participants' narrative, the researcher identified themes on the challenges and coping strategies of COVID-19 nurses in the local setting.

Narratives of participants in this study have helped identify initial themes that can be further explored by future researchers. Qualitative inquiries on lived experiences of COVID-19 nurses in the health care setting could employ case study methods that will explore in-depth nurses' resilient practice skills or the lack of it.

Future researchers may also explore these initial themes and use them to investigate a wider population of health care workers in the community using qualitative surveys. Existing education programs for healthcare workers may also be subjected to evaluation in the context of their impact on nurse job satisfaction and overall hospital resilience.

With the understanding of the experiences of the nurses assigned in COVID-19 facilities, hospital administrations could make informed decisions on implementing programs addressing the overall health to lessen the anxiety, fear, fatigue, and feelings of uncertainty among the staff nurses, reducing the possibility of quitting their jobs

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Patient-Centered Telenursing Care among PNP Personnel During COVID-19 Pandemic: A Proposed Enhancement Program

Princess Joyce Aizal U. Mangacop, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

This study investigated the level of patient-centered telenursing in the Philippine National Police (PNP) context. The primary objective was to unravel these experiences, emphasizing the imperative for customized telenursing interventions. Through the exploration of socio-demographic profiles and perceptions of healthcare delivery, a quantitative-descriptive research design was employed, involving 221 participants. A modified adapted survey questionnaire, derived from the well-established Consumer Assessment of Health Plans–Patient-Centered Medical Home (CAHPS PCMH) survey, was utilized (CAHPS Patient-Centered Medical Home (PCMH) Item Set, 2021). Understanding socio-demographic profiles and perceptions of healthcare delivery, the research involved 221 participants and adopted a quantitative-descriptive research design. Utilizing a structured questionnaire, the study conducts a comprehensive survey to gather insights into various dimensions of patient-centered telenursing care focused on CSQMMH patients, predominantly consisting of PNP Personnel. The sampling measures involved a purposive random sampling method. The results of the reliability test confirm the dependability of the questionnaire for measuring participant responses. The results and findings of the actual survey indicated a notable presence of Millennials in telehealth utilization but identified gaps among those aged 59 and above. These findings, underscore the need for targeted strategies, emphasizing the effectiveness and competence of telehealth services, with recommendations for enhancing engagement among older demographics and continuous optimization of patient-centered telenursing care.

Keywords: *Telenursing Care, Social Science, Descriptive, Davao City, Philippines*

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Corresponding email: ynchess19@gmail.com

Introduction

In examining patient-centered telenursing, this context discussed the challenges and limitations inherent in its implementation. Despite the broad support for telenursing, issues arise, and a primary concern is the absence of physical contact between the nurse and the patient (Tort-Nasarre, 2023). While technology-based nursing services offer convenience and accessibility, the lack of face-to-face interaction was identified as a potential hindrance to cultivating a robust therapeutic relationship between the nurse and the patient (Bernocchi et al., 2021). This, consequently, may have impacted the quality of care delivered and the overall patient experience with the service (Karaca & Durna, 2019).

Furthermore, in Africa, concerns arose regarding the security and confidentiality of patient data, as well as the potential for technical glitches or interruptions during virtual consultations (Gagnon et al., 2020). Questions were raised about the quality of care provided through telenursing, especially in terms of patient safety and privacy for the Canadian Rheumatology Association's (CRA) Telehealth Working Group (Elera et al., 2021). Thus, while telenursing held promise in providing patient-centered care, there was a need for further research to address these potential challenges and ensure the delivery of safe, effective, and high-quality nursing care services in the specified country (Schlachta-Fairchild et al., 2019).

In the Philippine context, particularly in Camp Sgt. Quintin M. Merecido Hospital (CSQMMH), patient satisfaction surveys revealed various issues experienced by patients seeking telemedicine services (Noceda et al., 2023). Some reported instances of telenurses being rude, impatient, and providing impolite text replies (Townsley et al., 2023). There were also complaints about a lack of phone etiquette when answering calls, including instances of raised voices. Poor access to internet connections for both the telenurse and the patient, resulting in glitchy and choppy video calls, further contributed to the challenges faced (Ftouni et al., 2022). Additionally, patients expressed difficulty understanding or comprehending the telenurse, leading to a desire for face-to-face consultations due to a lack of trust and confidence in the provider (Haleem et al., 2021).

Patient-centered services underwent significant changes due to globalization and technological advancements (Maag et al., 2021). The authors noted that telenursing became increasingly popular as a healthcare option as mobile devices became more accessible and common. Similarly, it was observed that telenursing could effectively address healthcare access and equity issues, especially in remote and rural areas (Anshari et al., 2020).

Moreover, it was identified that remote patient monitoring, a key component of telenursing, had the potential to reduce healthcare costs and improve patient outcomes (DeSalvo et al., 2019). However, the authors also pointed out that telenursing was not always suitable in all situations, and its implementation should be done with caution. It emphasized the importance of identifying factors that influenced patient experiences of telenursing care, such as communication, trust, and privacy (Schütz et al., 2021).

In other words, patient-centered care is a crucial element of telenursing, and efforts should be made to ensure that patient needs and preferences are adequately addressed

(Almathami et al, 2020). The study aimed to investigate the telenursing experience of PNP Personnel in Region XI during the COVID-19 pandemic. To establish comprehensive research, we explored the existing literature on telemedicine and patient-centered telenursing care.

This study incorporated the eight patient-centered care factors based on Picker's Institute research and the concept of telenursing, namely Access to Care, Continuity and Transition, Emotional Support and Physical Comfort, Information, Self-Care and Health Promotion, and Involvement of Family and Friends.

Patient-centered care was defined by six core elements: respect for patient's values, preferences, and expressed needs; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and continuity and transition (Brett et al., 2021). These factors worked together to create an environment in which the patient felt supported, informed, and empowered to make decisions about their treatment (Epstein et al., 2020). Several authors have argued that a patient-centered approach could improve patient outcomes, increase patient satisfaction, and lower healthcare expenditures. They emphasized the need to include patients in decision-making, providing clear and straightforward information, and attending to patients' emotional and psychological needs (Kotronoulas et al., 2019). According to recent literature, patient-centered care is a multidimensional concept that encompasses several elements. These included communication, respect for patient autonomy, shared decision-making, care coordination, and continuity of care (Mann et al., 2019). Furthermore, patient-centered care has been associated with improved patient engagement and empowerment, as well as reduced healthcare costs (Thoma et al., 2020). Several studies have also highlighted the importance of a patient-centered approach in addressing health disparities, particularly among marginalized populations (Berwick et al., 2019).

Several models and frameworks have been developed to promote patient-centered care. One of the most widely used frameworks was the Institute of Medicine's (IOM) six dimensions of quality care, which included patient-centeredness as one of the dimensions (Moses et al., 2020). Other frameworks that have been proposed included the Patient-Centered Medical Home (PCMH) model, which emphasizes the importance of primary care providers in promoting patient-centered care, and the Chronic Care Model (CCM), which focuses on improving care for patients with chronic conditions (Ghorob et al., 2019; Glasgow et al., 2019).

Despite the benefits of patient-centered care, several barriers to its implementation have been identified. These included a lack of time and resources, insufficient training of healthcare providers, and a culture that prioritized biomedical outcomes over patient-centered outcomes (Van den Bulck et al., 2019). To overcome these barriers, it was important to involve patients in the design and implementation of patient-centered care initiatives, as well as to provide healthcare providers with the necessary training and support to promote patient-centered care (Beach et al., 2021).

According to a study conducted in the Philippines, participants placed a higher value on relationships when assessing how culture influenced patient preferences for patient-centered care with their doctors (Jones et al., 2022). Furthermore, the benefits, challenges, requirements, competencies, activities, and outcomes of telenursing concluded that, despite the limitations posed by this pandemic, telenursing provided a viable, cost-effective, and patient-centered approach to health services delivery in the Philippines (Tabudlo et al., 2021).

Access to Care, Continuity, and Transition. Access to care was defined by the Picker Institute as the time spent waiting for

admission or placement in an inpatient setting, as well as the time spent waiting for appointments or visits in an outpatient setting. O'Neill (2022) stated that these areas were of utmost importance to patients. Ensuring access to care could improve health outcomes and increase patient satisfaction (Okoronkwo et al., 2019; Sonnega et al., 2020). In addition, timely access to care could also prevent unnecessary hospital admissions, emergency department visits, and overall healthcare costs (Rothkopf et al., 2019).

Continuity and Transition in healthcare refer to the provision of information that helps patients care for themselves away from a clinical setting, as well as coordination, planning, and support to ease transitions. The COVID-19 pandemic has disrupted people's daily activities and occupations, leading to significant changes in community access, resource availability, and individual health and well-being. In response to these challenges, occupational therapists had to adopt the "new normal" in therapy service delivery, including telehealth (Delos Reyes et al., 2021). Telehealth has enabled continuity and accessibility of care, increased parent involvement, and pushed professional development. Furthermore, despite the ongoing pandemic, clients in the Philippines have been able to access and receive treatment through the use of telehealth (Talwar et al., 2020; Corroon et al., 2021). There was a need to strengthen the infrastructure for telehealth services, including access to reliable internet connectivity, appropriate equipment, and supportive regulatory policies (Bashshur et al., 2019; Keesara et al., 2020).

Effective communication between healthcare providers and patients was critical for ensuring access to care, continuity, and transition in healthcare. One effective way to promote effective communication was through the use of health literacy. Health literacy involves the ability of individuals to access, understand, and use health information to make informed decisions about their health. Several studies have shown that low health literacy was associated with poorer health outcomes, including higher rates of hospitalization, increased healthcare costs, and decreased adherence to medication regimens (Berkman et al., 2019). Improving health literacy could lead to improved patient outcomes, better use of healthcare resources, and increased patient satisfaction (DeWalt et al., 2019; Nutbeam et al., 2019). However, health literacy is still a significant challenge in many parts of the world, and efforts are needed to improve health literacy through education and healthcare policy (Leung et al., 2019; Gazmararian et al., 2019).

Emotional Support and Physical Comfort. Patients dealing with serious illnesses often require emotional support to alleviate fear and anxiety. O'Neill (2022) suggested that physical care that comforts patients is one of the most elemental services that caregivers can provide, especially when patients are acutely ill. Research found that emotional support could improve health outcomes in patients with chronic conditions such as cancer (Mosher et al., 2019) and cardiovascular disease (Ammann et al., 2019). Emotional support could also reduce anxiety and depression in patients with chronic illnesses (Duan et al., 2021). Thus, it was crucial to provide emotional support to patients to help them manage the emotional toll of illness.

In recent years, telehealth emerged as a practical and appropriate solution for supporting patients, family members, and healthcare providers during the pandemic. Smith et al. (2020) argued that telemental health services were particularly beneficial during the COVID-19 outbreak. In China, various telemental health services were provided by government and academic institutions, including counseling, supervision, training, and psychoeducation via online platforms (Zhou et al., 2020). Research found that telehealth could be an effective tool for providing mental health services to patients. For example, a study by Aggarwal et al. (2019) found that telepsychiatry services were associated with improvements in patient

outcomes and reduced healthcare costs. Another study by Kocsis et al. (2020) found that telepsychiatry was effective in treating depression in older adults. Research also found that telehealth could be effective in providing physical care to patients. For example, a study by de la Torre-Díez et al. (2020) found that telemedicine was effective in providing physical therapy to patients with chronic conditions such as Parkinson's disease. Another study by Steventon et al. (2021) found that telehealth was associated with improvements in patient outcomes and reduced healthcare costs.

Information, Self-Care, and Health Promotion. Effective communication was a key aspect of healthcare delivery and patient outcomes. Punzalan et al. (2021) found that voice calls were effective in providing telehealth consultations, education, and data collection for monitoring and evaluation among high-risk elderly participants. Telehealth could also be beneficial in low-resource settings, where access to healthcare services might be limited. The CHEMPS program has been identified as a practical and appropriate platform for providing healthcare to high-risk individuals during the COVID-19 pandemic (Chinawa et al., 2021).

In addition to promoting self-care, telehealth could also enhance patient engagement and satisfaction with healthcare services. A systematic review by Kowalski et al. (2020) found that telehealth interventions were associated with improved patient satisfaction and engagement in healthcare. Furthermore, telehealth could improve health outcomes and reduce healthcare costs. For instance, a study by Lee et al. (2019) found that telehealth interventions improved glycemic control among patients with diabetes and reduced healthcare costs. Telehealth could also be used to provide mental health services to patients, particularly during the COVID-19 pandemic. A study by Gagnon et al. (2020) found that telehealth was effective in providing mental health services to patients during the pandemic.

Involvement of Family and Friends. The integration of telehealth also improved the coordination, organization, and delivery of healthcare services. Despite the challenges of healthcare delivery during the COVID-19 pandemic, telenursing emerged as a viable option for responsive and socially relevant nursing care delivery (Tabudlo et al., 2021). Online resilience support groups had the potential to address the lack of mental health professionals, internet connectivity, and resources in low-income countries during the pandemic (Hechanova et al., 2021). Telenursing programs were encouraged to involve participation from the family, community, and local healthcare systems, and strong collaboration and coordination among health professionals were necessary for their implementation (Tabudlo et al., 2021).

In conclusion, telehealth has the potential to improve access to healthcare services and coordination of care, especially during the COVID-19 pandemic. However, it was important to consider the role of family and friends in the patient experience and involve them in decision-making, provide accommodations, and support them as caregivers. Online resilience support groups have shown the potential to improve mental health outcomes, especially in low-income countries with limited resources. Strong collaboration and coordination among health professionals were necessary for the implementation of long-term, effective telenursing programs.

Patient Experience. Compassion, courtesy, and competence were essential components of providing high-quality healthcare services and ensuring positive patient experiences (Fatima, 2019). According to Fortuna et al. (2019), patients who perceived compassion from their healthcare providers were more likely to report positive experiences and adhere to their medication regimen. Similarly, Thompson (2021) argued that healthcare organizations should prioritize compassion as a critical element of patient-centered care. Providing compassionate care

involves being attentive to patients' emotional and psychological needs, showing empathy and understanding, and treating patients with dignity and respect.

In addition to compassion, courtesy was another critical component of patient-centered care that could significantly impact patients' experiences. Simple gestures such as greeting patients with a smile and using their names could go a long way in creating a positive experience. Moreover, courtesy also involves effective communication, including listening actively to patients' concerns and providing clear and concise information.

Competence was another critical aspect of providing high-quality healthcare services. According to Thompson (2021), patients who perceived their healthcare providers as competent were more likely to report positive experiences and trust their providers. Competence involved providing evidence-based care, demonstrating clinical expertise, and being able to answer patients' questions accurately. Moreover, healthcare providers should also prioritize continuous learning and improvement to ensure they provide the most effective care to their patients (Gajarawala, 2021).

In conclusion, providing compassionate, courteous, and competent care was essential for ensuring positive patient experiences and improving healthcare outcomes. The literature provided evidence that these components were critical to patient-centered care and could significantly impact patient outcomes. As such, healthcare organizations should prioritize these elements in their care delivery to enhance patient experiences and outcomes.

Telenursing Care. The Philippine National Police Health Service (PNPHS) has a historical foundation rooted in the Medical Corps, Dental Service, and Nurse Corps of the Philippine Constabulary/Integrated National Police (PC/INP). Established in response to the evolving needs of the PNP personnel and their dependents, the PNPHS, initially formed in 1993 through NAPOLCOM Resolution 92-036, has undergone substantial changes, culminating in its current structure in 1996. Notably, the PNP-PRO 11 Ambulatory Surgical Clinic achieved accreditation from the Department of Health (DOH) in 2021, marking a milestone in its development (Tupas, 2021).

Studies assessing the PNPHS's healthcare quality underscored the imperative for more efficient and resource-enhanced service delivery. Reyes et al. (2019) emphasized the necessity for improved healthcare services, while Dela Peña et al. (2019) identified resource and facility deficiencies affecting care quality. The impact of the COVID-19 pandemic on the PNPHS, particularly the overwhelming patient load at the Philippine National Police General Hospital in Camp Crame, prompted a focused investigation. Bautista et al. (2021) explored the challenges encountered during the early pandemic stages, revealing the PNPHS's adaptive response and critical support to PNP personnel and their families.

Methods

The research adopted a quantitative descriptive design to assess the levels of patient-centered telenursing care, patient demographics, and patient experiences. The descriptive approach was chosen for its commonality and practicality in systematically gathering information about respondents' attitudes within these domains. This method allowed for an accurate portrayal of the situation and the relationships between variables, facilitating the formulation of statements applicable to specific groups or populations.

The study was conducted at Camp Sgt. Quintin M. Merecido Hospital, with two hundred (200) participants, including PNP PRO XI personnel, their dependents, relatives, and authorized civilians, availed

telehealth services, were selected using the Raosoft formula.

The study employed a quantitative methodology, using survey forms as the primary tool for data collection. A modified adapted survey questionnaire, derived from the well-established Consumer Assessment of Health Plans–Patient-Centered Medical Home (CAHPS PCMH) survey, was utilized (CAHPS Patient-Centered Medical Home (PCMH) Item Set, 2021). CAHPS PCMH had acceptable internal consistency reliability estimates for access (Cronbach α, 0.74), comprehensiveness (0.68), self-management support (0.62), patient-centered care and communication (0.91), and shared decision-making (0.61). To ensure the questionnaire's validity, it will be evaluated by three research experts who specialize in content validation.

The 29-item survey, distributed via Google Forms, encompassed five (5) sections with a Likert-type scale. Upon validation, a pilot study was conducted involving twenty-one (21) respondents. This step aimed to assess the reliability of the questionnaire. The data collected during the pilot study underwent statistical analyses, specifically the Raosoft Test and McDonald's Omega reliability test, ensuring the quality of the collected data.

Collected data underwent frequency and percentage analysis for demographic profiling, while mean and standard deviation measured perceptions of patient-centered telenursing and overall telemedicine experience. Demographic information was collected, ensuring a purposive sample. Factor analysis confirmed construct validity, and McDonald's omega ensured reliability. Statistical tools, including frequency, percentage, mean, and standard deviation, were employed for interpretation.

The following statistical tools were utilized in the interpretation of data:

Frequency and Percentage. This statistical tool was essential for capturing the demographic profile of the respondents. It enabled the researcher to gather insightful data on various factors such as age, sex, and type of patient (PNP personnel, dependents of PNP personnel, others). By employing this statistical tool, one could obtain a comprehensive understanding of the participants' characteristics and better analyze the findings.

Mean and Standard Deviation. These were employed to determine the level of the respondent's perception of Patient-Centered Telenursing in terms of Access to Care, Emotional Support, Information, Involvement, and their overall telemedicine experience in terms of compassion, courtesy, and competence.

This research exclusively focused on evaluating the experiences of patients who utilized telehealthcare services at CSQMMH. Encompassing screenings, check-ups, counseling, preventive measures, and various tests, the study's scope was confined to the services provided by CSQMMH in 2022.

In conducting this study, rigorous ethical standards were prioritized to ensure the welfare and rights of all participants. The study and its associated procedures underwent a thorough evaluation by the Technical Panel and the Research Committee of Davao Doctors College, Inc. to ensure compliance with ethical guidelines.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Demographic Profile	Frequency (n=221)	Percentage
Age:		
18-26	38	17.2%
27-42	103	46.6%

43-58	80	36.2%
59-up	0	0%
Total	**221**	**100%**
Sex:		
Male	110	49.8%
Female	111	50.2%
Total	**221**	**100%**
Respondent Category:		
PNP Personnel	185	83.7%
Dependent	30	13.6%
Others	6	2.7%
Total	**221**	**100%**

Table 1 provides an analysis of the socio-demographic profile, particularly the distribution across age groups, sex, and respondent category. A significant majority (46.6%) seeking telehealth nursing care fell within the age range of 27-42, aligning with the definition of Millennials or aligning with broader telehealth adoption trends in this group, who are characterized as being between 27 and 42 years old (Anderson et al., 2022). This suggests that Millennials, often associated with embracing digital technologies, are actively utilizing telehealth services (Alkire et al., 2020; Tabora, 2020). However, the absence of respondents aged 59 and above, which would typically fall within the Baby Boomer or Silent Generation categories, indicates potential gaps in engagement among older generations (Papp-Zipernovszky et al., 2020). Understanding these generational patterns becomes crucial in tailoring telehealth initiatives, ensuring they resonate with the preferences and needs of distinct age groups (Papp-Zipernovszky et al., 2020).

Gender distribution showed nearly equal representation, with males at 49.8% and females at 50.2%, allowing a comprehensive exploration of patient-centered telenursing care experiences across genders. This balance indicated a diverse range of perspectives, reflecting the broader population served by the examined nursing care (Gagliardi et al., 2020).

In terms of respondent category, PNP Personnel dominated at 83.7%, underscoring the study's focused exploration within the Philippine National Police personnel. This emphasis aligned with prior research emphasizing the importance of understanding the healthcare experiences of specific occupational groups, such as law enforcement personnel (Anderson et al., 2022). The substantial inclusion of PNP personnel indicated a critical interest and potential impact of patient-centered telenursing care within this demographic. Dependent (13.6%) and Others (2.7%) categories contributed to a diversified sample, enriching the study by encompassing perspectives beyond the immediate purview of the PNP. This broader inclusion implied an exploration of telenursing care dynamics extending to family members and individuals not directly affiliated with the PNP (Yliluoma & Palonen, 2019).

Table 2. The Respondents' Level of Perception profile on Patient-Centered Telenursing

Indicators	Mean	SD	Description
Access to Care, Continuity, and Transition	3.92	0.87	Satisfactory
Emotional Support and Physical Comfort	3.90	0.87	Satisfactory
Information, Self-Care, and Health Promotion	3.91	0.86	Satisfactory
Involvement of Family and Friends	3.88	0.85	Satisfactory
Overall Patient Telemedicine Experience:			
Compassion	3.92	0.84	Satisfactory
Courtesy	3.94	0.88	Satisfactory
Competence	3.94	0.87	Satisfactory
Total	**3.92**	**0.86**	Satisfactory

Note: 4.21-5.00—Highly Satisfactory; 3.41-4.20---Satisfactory; 2.6-3.40---Neutral; 1.81-2.60---Slightly Satisfactory; 1.00-1.80---Not Satisfactory; M-Mean; SD- Standard Deviation.

Table 2 revealed a consistent pattern of positive perceptions. The highest mean score was attributed to Courtesy, with a commendable 3.94 and a standard deviation of 0.88, showcasing a high level of agreement on the polite and respectful behavior of telenursing practitioners (Alikiri et al., 2022). Following closely, Competence secured a substantial mean of 3.94 and a standard deviation of 0.87, signaling satisfaction and confidence in the proficiency of provided telenursing care. Compassion also ranked high, obtaining a mean score of 3.92 and a standard deviation of 0.84, highlighting the perceived high level of compassion in the delivery of telenursing services and emphasizing the crucial role of empathy and understanding (Gutiérrez-Puertas et al., 2023).

Moving to specific dimensions, participants expressed a collective positive disposition towards Access to Care and Continuity and Transition, both scoring a mean of 3.92 with a standard deviation of 0.87, indicating a moderate level of consensus. This reflected a consistent acknowledgment of the effectiveness of telenursing in maintaining accessibility and continuity, aligning with previous studies emphasizing patient-centered approaches in telehealth (Belachew et al., 2023).

In the realm of Emotional Support and Physical Comfort, a generally favorable attitude prevailed, as reflected by the mean score of 3.90 and a standard deviation of 0.87. This aligned with prior research highlighting the positive impact of emotional care in telehealth settings on patient satisfaction and health outcomes (Hawrysz et al., 2021).

Addressing Information, Self-Care, and Health Promotion, participants exhibited a cohesive consensus with a mean score of 3.91 and a standard deviation of 0.86. This suggested a positive perception of Patient-Centered Telenursing in providing relevant information, supporting self-care practices, and promoting overall health (Okpuzor, 2019).

Lastly, the Involvement of Family and Friends dimension secured a mean score of 3.88 and a standard deviation of 0.85, indicating a consensus affirming the significance of incorporating support networks in patient-centered telenursing. This resonated with scholarly perspectives emphasizing the integral role of family and friends in patient-centered care (Park et al., 2019; Brooks et al., 2020). Overall, these findings underscored the positive impact of patient-centered telenursing care on various dimensions, reflecting the effectiveness of telehealth in delivering compassionate, courteous, and competent healthcare services.

Conclusion and Recommendations

This study investigates the landscape of patient-centered telenursing care with a focus on the socio-demographic profile and perceptions of healthcare delivery. The purpose is to understand the utilization and effectiveness of telehealth services, particularly within the context of Camp Sgt. Quintin M. Merecido Hospital.

The findings from Table 1 revealed that 46.6% of the participants fall within the age range of 27-42, indicative of a prominent presence of Millennials actively utilizing

telehealth services, aligning with broader trends in digital health adoption within this age group. However, the absence of respondents aged 59 and above signals potential gaps in engagement among older generations, emphasizing the need for targeted strategies to accommodate diverse age-related preferences. Gender distribution reflects an equitable balance between males (49.8%) and females (50.2%), fostering a comprehensive exploration of patient-centered telenursing care experiences across genders. The dominance of PNP Personnel (83.7%) in the respondent category underscores the focused exploration within the Philippine National Police personnel, aligning with the research emphasis on understanding the healthcare experiences of specific occupational groups.

Access to Care and Continuity and Transition both garnered a positive disposition among participants, with a mean score of 3.92. This collective sentiment indicates a moderate consensus on the efficacy of telenursing in maintaining accessibility and continuity of care, revealing a positive trend in these crucial dimensions. Emotional Support and Physical Comfort received a generally favorable attitude, as indicated by the mean score of 3.90. This alignment with previous research emphasizes the positive impact of emotional care in telehealth settings, showcasing the importance attributed to emotional well-being and physical comfort in patient-centered telenursing. Information, Self-Care, and Health Promotion exhibited a cohesive consensus with a mean score of 3.91. This suggests a positive overall perception of Patient-Centered Telenursing in providing relevant information, supporting self-care practices, and promoting holistic health, showcasing the comprehensive nature of the care provided. The dimension of Involvement of Family and Friends secured a mean score of 3.88, indicating a consensus affirming the importance of incorporating support networks in patient-centered telenursing. This result highlighted the recognized significance of involving family and friends in the healthcare process through telehealth channels.

In terms of overall patient experience, Courtesy, with the highest mean score of 3.94, pointed to a substantial satisfaction and agreement regarding the polite and respectful conduct of telenursing practitioners. This outcome underscored a prevalent acknowledgment of the high standard of courteous behavior observed in the delivery of telenursing services. Competence closely followed, securing a substantial mean of 3.94. This suggests a strong sense of satisfaction and confidence among participants in the proficiency exhibited by telenursing care providers. The high mean emphasizes the perceived effectiveness and competence in delivering quality care through telehealth channels. Compassion achieved a mean score of 3.92, highlighting a perceived high level of compassion in the delivery of telenursing services. This underscores the significance of empathy and understanding embedded in the patient-centered approach adopted in telehealth care.

Drawing from the summary of the findings, the socio-demographic analysis highlights robust Millennial engagement (46.6%) in telehealth, signaling the need for targeted strategies for older age groups, while a balanced gender distribution and the dominant representation of PNP Personnel (83.7%) underscore critical interest, enriched further by insights from Dependents and Others, emphasizing broader societal dimensions in telenursing care.

Participants generally expressed positive perceptions of patient-centered telenursing care, with a moderate consensus on the effectiveness of telehealth across various dimensions, including accessibility, emotional support, and competence.

Based on the summary of findings and the conclusion drawn from the study, several recommendations can be made to enhance patient-centered telenursing care services:

Develop Tailored Telenursing Protocols for Patients and Law Enforcement Personnel. Recognizing the unique needs of law enforcement personnel, the development of tailored telenursing protocols is essential. These protocols should consider the specific health challenges and occupational stressors faced by this group. Tailoring the protocols ensures that the care provided is not only

medically sound but also aligned with the particular contexts and demands of law enforcement environments.

Develop Specialized Modules for Patient-Centered Telenursing within Law Enforcement Environments. Creating specialized training modules is vital for enhancing the competency of telenursing practitioners in law enforcement settings. These modules should explore the intricacies of patient-centered care within the unique dynamics of law enforcement environments. Topics may include understanding the mental health challenges faced by law enforcement personnel, navigating confidentiality concerns, and fostering effective communication in high-stress situations.

Ensure Mental Health Support and Resilience Building Among Telehealth Nurses. Given the nature of healthcare provision, especially in law enforcement contexts, prioritizing the mental health of telehealth nurses is crucial. Establishing support systems, such as counseling services or regular debriefing sessions, can contribute to resilience building. This not only ensures the well-being of the healthcare providers but also enhances their capacity to deliver empathetic and effective care to patients.

Establishment of Equipped Telehealth Booths in All PNP-PRO 11 Police Stations. To facilitate widespread access to telenursing services, the establishment of equipped telehealth booths in all PNP-PRO 11 police stations is recommended. These booths can serve as dedicated spaces for virtual healthcare consultations, equipped with the necessary technology and resources. This initiative brings healthcare services closer to the community, especially for those in remote or underserved areas.

Camp Sgt. Quintin M Merecido Hospital Medical (CSQMMH) Practitioners and Staff. CSQMMH should implement the proposed enhancement programs cited in this study which serve as a holistic and comprehensive approach in pursuing technologically-aligned reforms for the benefit of the medical practitioners, nursing staff, and overall healthcare services, as well as for the CSQMMH patients. Aside from catering to the law enforcement unit, the study recommended conducting a review of the status quo of the medical services provided by the CSQMMH to cater and extend services to the dependents of the uniformed personnel. Align the needs and the results of this study to provide technologically competitive public services.

CSQMMH Patients. The CSQMMH patients, particularly the PNP Personnel should actively engage in the benefits provided by the organization as this is part of the mission of the PNP, which is to ensure the wellness of its personnel. Dissemination is better made through word of mouth or recommendation to their fellow personnel and their dependents. Further, the patients should have utilized the available technological resources for accessing healthcare services at CSQMMH. This may include utilizing telehealth services, staying informed about available medical programs by following CSQMMH social media platforms, and providing feedback to ensure that their needs and concerns are effectively addressed.

Future Researchers. Future researchers were recommended to consider and find links between patient-centered telenursing care and patient experience in police-established hospitals by conducting further research related to this domain. This study served as a resource for locating tools for telehealth care services and increasing patient satisfaction within PNP medical facilities. There is also a need for further studies and research to identify other predictors discovered in the PNP medical community that may influence the overall patient experience.

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Coping Strategy and Quality of Life of Patients Diagnosed with End-Stage Renal Disease

Tunggal Mama Manial, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The study aimed to investigate the coping strategy and quality of life of patients with End Stage Renal Disease (ESRD). The researcher used a quantitative research approach specifically the descriptive-correlational design. This study participated by 100 participants who were purposely selected based on the inclusion criteria of the study. Furthermore, the researcher used an adopted questionnaire that contained three parts: informed consent, a confidentiality statement, and a demographic profile in the first part; coping strategies such as confronting, evasive, optimistic, fatalistic, emotive, palliative, supportive, and self-reliant approaches from the Jalowiec Coping Scale (Jalowiec, 1995) in the second part; and quality of life focusing

on four distinct subscales: health and functioning, social and economic aspects, psychological/spiritual well-being, and family dynamics (Bronson, 1999). This study found confronting, evasive, optimistic, palliative, and self-reliant coping techniques to be quite beneficial. Supportive techniques performed well, but fatalistic and emotive strategies performed moderately. The quality of life was also very good to superb, especially psychologically and spiritually. The investigation also found substantial coping strategies for life connections. Thus, confronting, evasive, optimistic, palliative, and self-reliant coping techniques improved quality of life. Coping methods were associated with numerous dimensions of quality of life, therefore more coping strategies indicated more well-being. The complex nature of ESRD determinants was highlighted by the lack of substantial connections between confrontative and self-reliant approaches.

Keywords**:** *Coping Strategies and Quality of Life of ESRD Patients, Health, Predictive, Sultan Kudarat*

Corresponding email: tunggalmanial3@gmail.com

Introduction

In the expanding landscape of global healthcare concerns, the escalating prevalence of end-stage renal disease (ESRD) stood as a threatening testament to the connection between demographic transitions and escalating chronic illnesses such as hypertension and diabetes. As illustrated by Li, Xie, Yang, and Pang (2018), this surge was not only reflective of medical complexity but also symptomatic of larger issues related to the coping mechanisms that ESRD patients utilized and their quality of life. Simultaneously, the thought-provoking observations made by Moore, Garcia, Rohloff, and Flood (2018) emphasized the crucial aspects of insufficient basic healthcare, specifically in the rural areas of low- and middle-income countries (LMICs) where a substantial population of individuals suffering from end-stage renal disease (ESRD) dwelled. This study, motivated by the urgency of these disclosures, attempted to unravel the coping techniques of ESRD patients globally and how they maintained and balanced their quality of life.

The global landscape of end-stage renal disease (ESRD) was characterized by a concerning surge in prevalence, evident in over 500,000 cases in the United States alone, emphasizing the worldwide significance of ESRD as a substantial health challenge. Suriyong's (2022) comprehensive examination revealed a 13.4% global occurrence rate of chronic kidney disease (CKD), with a notable 7% increase in ESRD instances. Particularly impactful in low- and middle-income countries (LMICs), CKD affected 11.2% of individuals in stages 3-5, with South Asia and Western Asia experiencing heightened rates. Against this backdrop, Nguyen's (2020) study delved into the intricate coping styles of hemodialysis patients, uncovering adaptive mechanisms crucial for managing the profound challenges of ESRD. The study's emphasis on the global significance of coping underscored the unique struggles faced by those dependent on dialysis for maintenance, necessitating tailored interventions to address psychological dimensions. Nguyen's exploration of Vietnamese hemodialysis patients served as a microcosm, suggesting that targeted educational programs could impact mental health and quality of life universally, reinforcing the need for a comprehensive assessment of stressors and coping styles. Essentially, the current global situation highlights the need for comprehensive approaches to managing end-stage renal disease (ESRD). This emphasizes the universal need for effective interventions to address gaps in coping strategies and improve the quality of life for patients worldwide.

In the Philippines, the prevalence of end-stage renal disease (ESRD) at 35.94%

emphasized the pressing health challenges facing the nation. This not only amplified the physical, psychological, and economic burdens associated with essential ESRD treatments but also complicated matters with a concurrent 35.94% chronic kidney disease (CKD) prevalence. The study's revelation that 94% of Filipino ESRD patients preferred center-based hemodialysis provided critical insights into the healthcare landscape, emphasizing the hurdles impeding kidney transplantation, primarily financial and logistical. In the realm of mental health, Aruta (2023) shed light on the long-standing neglect of hemodialysis patients in the Philippines. To address this oversight, sociopolitical and structural changes were imperative, necessitating the establishment of a more resilient healthcare system. Prioritizing increased capacity in hospitals and dialysis centers became crucial to ensuring quality care availability. Acknowledging the mental health vulnerabilities of this group, Aruta advocated for legislative provisions building upon the Mental Health Act of 2018 (Republic Act 10036). Furthermore, the provision of free and accessible virtual mental health services was highlighted as an essential step to address the psychological needs of hemodialysis patients, promoting their mental well-being, and optimizing their overall quality of life.

Consequently, the urgency of this study stemmed from the critical need to address significant gaps in the existing literature concerning coping strategies and quality of life in individuals diagnosed with end-stage renal disease (ESRD). By extending the focus beyond physical health, this research responded to the call highlighted by Brown (2021) to delve deeper into the multifaceted aspects of patients' well-being. Moreover, the study recognized the importance of tailoring research to the unique coping processes of ESRD patients, particularly within the Asian context, as emphasized by Han et al. (2019). The geographical specificity of the study, conducted in Sultan Kudarat, further emphasized the urgency, acknowledging the need for region-specific insights and interventions. The study not only aimed to contribute to the academic discourse but also responded to a practical imperative by advocating for a framework that could enhance the quality of life for ESRD dialysis patients, aligning with the recommendations put forth by Mbeje (2022). Ultimately, the study's primary outcome was to establish and recognize different strategies to help ESRD patients adjust to their current situations. In light of these considerations, this research emerged as a timely and crucial endeavor with the potential to significantly impact the well-being of ESRD patients on a local scale.

Methods

The researcher adopted a quantitative research approach, specifically employing the descriptive and predictive correlational research design. This research type was geared towards providing a detailed account of variables and the inherent relationships among them, utilizing surveys and observations to systematically characterize a phenomenon, situation, or population through comprehensive description. According to Bhandari (2020), quantitative research involves the collection and analysis of data organized to facilitate statistical analysis, enabling the acquisition of measurable data by establishing connections between variables.

The data gathering for this study was carried out at St. Louis Hospital in Tacurong, Province of Sultan Kudarat, where the researcher had established previous connections. Moreover, the researcher employed purposive sampling (McCombes, 2019) to select patient participants diagnosed with End-Stage Renal Disease (ESRD) for this study. This sampling technique was a non-probability sampling and a deliberate and selective approach where the researcher actively chose and made judgments to identify participants based on predefined criteria who possessed the essential information relevant to the study's objectives. The study included a total sample of 100 patient-participants who met the inclusion criteria: individuals with a confirmed diagnosis of ESRD, currently residing in the province of Sultan Kudarat, legal age (18 to 60 and above), any gender, and undergoing chronic kidney disease (CKD) hemodialysis.

On the other hand, the variables involved in this research include the coping

mechanisms or strategies implemented by ESRD patients and their quality of life. This research aimed to measure the extent of how the respondents' condition affected the quality of life of the patients. The researcher utilized survey questionnaires adopted from various studies (Jalowiec, 1995; as mentioned by Nguyen, 2020; Ferrans & Powers, 1992; Bronson, 1999). Moreover, the survey questionnaire is composed of four parts.

The first part encompassed key elements, such as informed consent, a confidentiality statement, and a demographic profile capturing details like name, gender, sex, marital status, and dialysis type. Primarily, this aimed to discern and document the distribution of participants, thereby creating a comprehensive profile. This profiling served as a foundational step towards understanding the diverse characteristics of the study participants, offering valuable insights into the composition and representation within the research context.

The second part comprised statements addressing the coping strategies employed by individuals with End-Stage Renal Disease (ESRD), encompassing confrontative, evasive, optimistic, fatalistic, emotive, palliative, supportive, and self-reliant approaches. The Jalowiec Coping Scale (Jalowiec, 1995) was designed to assess the various coping strategies utilized by hemodialysis patients and their perceived effectiveness (refer to Appendix E for permission to use). This 60-item scale was developed based on Lazarus and Folkman's (1984) theory, representing eight coping styles: confronting, evasive, optimistic, fatalistic, emotive, palliative, supportive, and self-reliant. Respondents indicated the frequency of using each coping strategy and, if utilized, its perceived helpfulness. Previous studies have reported internal consistency Cronbach's alpha values of .88 for the total use scale and .95 for the effectiveness scale (Jalowiec, 1995). This part was measured based on the scaling parameters, 3-Often; 2-Sometimes; 1-Seldom; 0-Never. While, the third part comprised statements concerning the quality of life experienced by individuals with End-Stage Renal Disease (ESRD), focusing on four distinct subscales: health and functioning, social and economic aspects, psychological/spiritual well-being, and family dynamics. To assess reliability and validity, the researcher employed Cronbach's alpha, with results falling within the range of .86 to .98. The internal consistency of these subscales was substantiated by Cronbach's alphas published in six studies, demonstrating reliability. The third part addressed quality of life across four subscales: health and functioning (α=.70 and .92), social and economic aspects (α=.77 and .89), psychological/spiritual well-being (α=.83 and .93), and family dynamics (α=.66 and .83). This section utilized specific scaling parameters for its analysis and interpretation: 6-Very Satisfied, 5- Moderately Satisfied, 4- Slightly Satisfied, 3- Slightly Dissatisfied, 2-Moderately Dissatisfied, 1- Very Dissatisfied.

Essentially, the application of statistical treatments and methods held significance in summarizing and quantifying the statistical outcomes of the variables of coping strategies and quality of life. Frequency and percentage were particularly utilized in the demographic profiling section, where the distribution of participants was systematically presented based on variables such as gender, age, marital status, and dialysis type. Mean and Standard Deviation were used to determine the level of coping strategies' effectiveness in terms of confrontative, evasive, optimistic, fatalistic, emotive, palliative, supportive, and self-reliant. Also, the level of quality of life in terms of health and functioning, social and economic, psychological/spiritual, and family. Furthermore, the standard deviation was used to determine the homogeneity and heterogeneity of the participants' responses. On the other hand, Spearman Rho was utilized to assess the non-linear relationships between coping strategies and quality of life variables among the participants. Non-Parametric Regression Analysis was employed to examine potential non-linear relationships between coping strategies and quality of life.

Results and Discussion

Table 1. The Demographic Profile of the Respondents

Demographic Profile	Frequency (n=100)	Percentage
Age:		
Young adults (Below 40)	33	33.0%
Mid-adults (41-60)	36	36.0%
Late adults (61 and above)	31	31.0%
Sex:		
Male	56	56.0%
Female	44	44.0%
Marital Status		
Single	27	27.0%
Married	66	66.0%
Separated	1	1.0%
Widow	6	6.0%
Type of Dialysis		
Hemodialysis	100	100%

Table 1 shows the demographic profile of the study population, which comprised 100 participants, and reveals the characteristics of individuals who underwent dialysis. Based on the findings, the highest proportion was observed in the mid-adult age group (41-60 years), constituting 36% of the sample. Following closely, the young adult group (below 40 years) and the late adult group (61 and above) each made up 33% and 31%, respectively. This distribution suggested a relatively even representation across different age categories, ensuring a comprehensive understanding of coping strategies and quality of life among individuals with End-Stage Renal Disease (ESRD).

Regarding gender, the study exhibited a slight male predominance, with 56% of participants being male and 44% female. While the difference was not substantial, it highlighted the importance of considering potential gender-related variations in coping mechanisms and quality of life among ESRD patients.

Marital status diversity was evident in the study, with the majority being married individuals, comprising 66% of the sample. Single participants constituted 27%, while widowed and separated individuals contributed 6% and 1%, respectively. This marital status distribution allowed for insights into the experiences of individuals with varied relationship statuses, which offered an understanding perspective on the impact of ESRD on different types of familial and social support structures.

Significantly, all participants in the study had undergone hemodialysis. This emphasized that participants exclusively undergoing hemodialysis enhanced internal validity by attributing observed relationships to this specific treatment. However, this homogeneity raised concerns about generalizability, limiting the broader application of findings to the entire End-Stage Renal Disease (ESRD) population, especially those undergoing different forms of renal replacement therapy like peritoneal dialysis. While it offered valuable insights into the experiences of hemodialysis patients, caution was needed in extrapolating these findings to the broader ESRD population.

Table 2. The Respondents' Level of Coping Strategy

Indicators	Mean	SD	Interpretation
Confronting	**2.58**	**0.56**	Extremely Effective
Evasive	**2.19**	**0.93**	Extremely Effective
Optimistic	**2.49**	**0.84**	Extremely Effective

Fatalistic	**1.85**	**1.12**	Moderately Effective
Emotive	**1.84**	**1.08**	Moderately Effective
Palliative	**2.13**	**0.84**	Extremely Effective
Supportive	**2.45**	**0.72**	Extremely Effective
Self-reliant	**2.36**	**0.75**	Extremely Effective
Overall	**2.24**	**0.86**	Extremely Effective

Note: 2.02-3.00—Extremely Effective; 1.35-2.01---Moderately Effective; 0.68-1.34---Somewhat Effective; 0.00-0.67---Ineffective; M-Mean; SD- Standard Deviation.

Table 2 unveils insightful findings on coping strategies employed by End-Stage Renal Disease (ESRD) patients, shedding light on how individuals navigate the challenges inherent in their condition. Notably, the confronting strategy emerged with the highest mean score of 2.58 (SD = 0.56), signaling that ESRD patients perceived this approach as exceptionally effective. This outcome suggests a prevalent use of proactive and assertive methods, involving the confrontation and management of stressors. The prominence of the confronting strategy may indicate a sense of empowerment and control among these patients, showcasing resilience in the face of ESRD-related stressors.

Conversely, the fatalistic and emotive strategies presented the lowest mean scores, with fatalistic at 1.85 (SD = 1.12) and emotive at 1.84 (SD = 1.08), both rated as moderately effective. These lower scores suggest that fatalistic beliefs (perception of a lack of control over fate) and emotive coping (relying on emotional expression without direct problem-solving) were considered less effective by ESRD patients. Understanding these perspectives is crucial for tailoring therapies to align with the preferences and needs of the patient population. Moreover, the lower ratings for fatalistic and emotive strategies underscore the potential for interventions aimed at enhancing coping skills in these specific areas.

Furthermore, the overall mean score of 2.24 (SD = 0.86) for all coping strategies indicates that ESRD patients generally perceived their coping mechanisms as highly effective. This optimistic outlook on the overall effectiveness of coping strategies underscores the adaptive capacity and resilience of ESRD patients in managing the complexities associated with their health condition. Despite facing chronic and demanding medical circumstances, participants felt well-equipped to handle the challenges of ESRD. This suggests that ESRD patients possess a well-rounded range of coping skills, contributing to the perception of effectiveness in managing the stresses associated with their health condition.

The findings of the current study on coping strategies among End-Stage Renal Disease (ESRD) patients aligned with and were supported by the study conducted by Nguyen (2020). This finding resonated with Nguyen's study, where individuals with Hemodialysis (HD) predominantly employed the coping style of "Trying to look at the problem objectively and see all sides," reflecting a confronting approach. The high utilization of confronting coping styles accentuated a preference among individuals with chronic kidney diseases to actively address and manage stressors through confrontation. Moreover, this consistency in coping styles emphasized the importance of proactive and problem-focused approaches among ESRD patients.

On the other hand, the study by Nguyen (2020) also reported that fatalistic coping styles, such as "Accepting the situation because very little could be done," were the most common among individuals with Hemodialysis (HD), but they were still rated as moderately effective. This emphasized that fatalistic beliefs, characterized by an acceptance of the situation due to perceived limited control, were prevalent but not perceived as highly effective in managing stressors related to chronic kidney diseases. It was emphasized that fatalistic strategies might be frequently utilized but were not deemed highly effective by individuals confronting comparable health challenges. While emotive coping styles, like "Took out your tensions on someone else," were the most common but rated as moderately effective. This meant that relying solely on emotional expression without direct problem-

solving was a prevalent coping strategy but perceived as less effective by individuals dealing with chronic kidney diseases (Nguyen, 2020).

Table 3. The Respondents' Level of Quality of Life

Indicators	Mean	SD	Interpretation
Health and Functioning	**4.93**	**1.13**	Very Good
Social and Economic	**4.94**	**1.10**	Very Good
Psychological/Spiritual	**5.17**	**0.93**	Excellent
Family	**4.79**	**1.36**	Very Good
Total	**4.96**	**1.13**	Very Good

Note: 5.16-6.00—Excellent; 4.33-5.15---Very Good; 3.50-4.32---Good; 2.67-3.49---Average; 1.84-2.66---Fair; 1.00-1.83---Poor; M-Mean; SD- Standard Deviation.

The results of the quality-of-life assessment among End-Stage Renal Disease (ESRD) patients indicated a generally positive outlook, with important implications for understanding and enhancing the well-being of the participants, as indicated in Table 3. In the Psychological/Spiritual category, ESRD patients reported an excellent level of well-being, as reflected in the highest mean score of 5.17 (SD=0.93). This signified that, on average, individuals dealing with ESRD had experienced a commendable level of psychological and spiritual well-being. The implication here was that interventions or support systems addressing these aspects could potentially contribute significantly to improving the overall quality of life for ESRD patients.

Conversely, in the Family domain, although still rated as very good, ESRD patients perceived a slightly lower level of quality of life, as indicated by the mean score of 4.79 (SD=1.36). This pointed towards potential challenges or areas requiring additional support within the family context for ESRD patients. Addressing specific issues or implementing targeted support systems within the family dynamics might have enhanced the perceived quality of life in this domain.

The overall mean across all domains was 4.96 (SD=1.13), falling within the very good range. This comprehensive assessment signified that, collectively, ESRD patients had reported a positive quality of life, encompassing various factors such as health, social and economic aspects, psychological and spiritual well-being, and family dynamics. The relatively high overall mean suggested a holistic sense of well-being among the study population despite the inherent challenges associated with End-Stage Renal Disease. This positive outlook accentuated the resilience and adaptability of ESRD patients, providing valuable insights for healthcare practitioners to tailor interventions that addressed specific dimensions of well-being.

The findings from the current study on the quality of life among End-Stage Renal Disease (ESRD) patients corroborated with several studies and literature (Garcia-Llana et al., 2022; Mushtaque et al., 2022; Benjamin and Lappin, 2021; Rini et al., 2021; and Dembowska et al., 2022). The highest mean score observed in the Psychological/Spiritual category, indicating an excellent level of psychological and spiritual well-being among ESRD patients, resonated with the study of Garcia-Llana et al. (2022). The study emphasized the importance of psychological and emotional support for patients with chronic health conditions, suggesting that strategies such as therapeutic communication and a multidisciplinary team can help improve overall well-being. Conversely, the lower mean in the Family domain, though still rated as very good, was consistent with Mushtaque et al. (2022), who reported poor quality of life and acceptance of illness among ESRD patients. This suggested that familial aspects might have been a specific area where ESRD patients perceived slightly lower quality of life, aligning with the need to explore challenges or support systems within the family context. Additionally, Dembowska et al. (2022) contributed to the discussion, demonstrating a decline in the perception of

quality of life across various domains among hemodialysis patients, specifically in the family domain. This indicated that familial aspects were a common concern for ESRD patients across different studies. Furthermore, the overall mean across all domains being in the very good range was supported by various studies highlighting the challenges and impact of ESRD on quality of life. Benjamin and Lappin (2021) noted that ESRD contributed to untimely death and a decline in overall well-being, emphasizing the importance of addressing psychological and social aspects for improved quality of life. Additionally, Rini et al. (2021) stressed the impact of chronic kidney disease on mental health and the need for emotional support.

Table 4. Test of Relationship Between the Coping Strategies and Quality-of-Life of the Respondents

Coping Strategies	Quality of Life			
	r_s	p-value	Decision	Remarks
Confrontive	.114	.153	Accept H_{01}	NS
Evasive	.272	.006	Reject H_{01}	S
Optimistic	.373	.000	Reject H_{01}	S
Fatalistic	.385	.000	Reject H_{01}	S
Emotive	.300	.002	Reject H_{01}	S
Palliative	.294	.003	Reject H_{01}	S
Supportive	.461	.001	Reject H_{01}	S
Self-reliant	.182	.070	Accept H_{01}	NS

Note: $p<0.05$; S-Significant; NS- Not Significant; r_s= rho; IV- Coping Strategies; DV-Quality of Life

Table 4 shows the relationship between the level of patients' coping strategies and quality of life. The results revealed that there is a significant, positive relationship between patients' coping strategies in terms of evasive (r_s =.272. p=.006), optimistic (r_s =.373. p= .000), fatalistic (r_s =.385. p= .000), emotive (r_s =.300. p= .002), palliative (r_s =.294. p= .003), and supportive coping (r_s =.461. p= .001) and quality of life. This further suggests that an increase in patient's coping strategies in terms of evasive, optimistic, fatalistic, emotive, palliative, and supportive coping is correlated with an increase in their quality of life. Conversely, confronting (r_s =.114. p= .153) and self-reliant coping (r_s =.182. p= .070) were the only indicators of coping strategies found to be not correlated with the quality of life among patients.

The study concurred with Samoudi et al.'s (2021) findings, confirming the association between advanced age and diminished quality of life in ESRD patients due to illness progression, leading to social withdrawal and reduced physical activity. Additionally, the findings supported Sulistyanto et al.'s (2022) identification of a correlation between coping mechanisms, specifically problem-focused coping and emotion-focused coping, and quality of life. Their regression model emphasized the significance of these coping strategies, predicting 16.2% of the variability in quality of life. Furthermore, resonating with Han et al.'s (2019) research, the study discovered the crucial role of perceived family support in reducing depression among ESRD patients, while cautioning against the potential negative impact of self-blame. The positive correlation between religion/spirituality and mental health aligned with other studies (Loureiro et al., 2018), and the recognition of negative religious coping supported Santos et al.'s (2017) findings. Lastly, the discussion on coping strategies was complemented by Niihata et al.'s (2017) insights into the adverse outcomes associated with emotion-

focused coping and avoidant coping. The nuanced role of avoidant coping, with behavioral avoidance as a key mediator, was highlighted, and cognitive avoidance was suggested as potentially beneficial for emotional status and quality of life, in line with Han et al.'s (2019) nuanced perspective. Collectively, these studies contributed to a comprehensive understanding of the intricate interplay between coping strategies, familial support, spirituality, and their impact on the quality of life in ESRD patients.

Table 5. The Prediction of Coping Strategy on the Level of Quality of Life among the Respondents

QOL	Observed Estimate	Bootstrap SE	Z	P-value	Decision	Remarks
Mean QOL	4.977	0.053	93.971	0.000		
Effect CS	0.951	0.216	4.411	0.000	Reject H_{02}	Significant

Note: Significant if p-value <.05; R^2= 0.2641; IV- CS (COPING STRATEGY); DV-QOL (QUALITY OF LIFE)

Table 5 shows that the coping strategy (p=.000) significantly predicts the level of quality of life among the respondents. The marginal effects noted in the coping strategy (0.951) imply that an increase in the coping strategy would result in a higher level in the level of quality of life of the respondents. Moreover, the findings were apparent in the results of nonparametric regression analysis in which 26.41% of the variance of quality of life can be explained by coping strategy as indicated by an r-square of 0.2641. This would mean that 25.41% of the variation can be attributed to other factors aside from the independent variable.

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Conclusion and Recommendations

This study has yielded several significant findings. The demographic profile of respondents, primarily individuals undergoing hemodialysis, indicated that the majority were below 60 years old, with a notable 33.0% falling below the age of 40. Gender distribution was relatively balanced, with 56.0% males and 44.0% females. Marital status revealed a higher percentage of married individuals (66.0%), followed by singles (27.0%).

Additionally, the study uncovered insights into coping strategies employed by respondents. Notably, confronting, evasive, optimistic, palliative, and self-reliant coping strategies were highly effective, while fatalistic and emotive coping strategies showed moderate effectiveness. Supportive coping strategies also received high effectiveness ratings.

Regarding the quality of life, respondents reported an overall very good to excellent quality across various domains. Health and functioning, social and economic, and family aspects were rated as very good, with the psychological or spiritual aspect particularly noted as excellent.

Furthermore, the study explored the relationship between coping strategies and quality of life, revealing significant associations. Evasive, optimistic, fatalistic, emotive, palliative, and supportive coping strategies demonstrated substantial correlations with different facets of respondents' quality of life. However, confrontative and self-reliant coping strategies did not show statistically significant relationships. Notably, a significant correlation between the overall coping strategy and the quality of life among participants was

established, highlighting the influence of coping strategies on the well-being of individuals with ESRD.

As a result, this study emphasizes healthcare providers, especially those involved in the care of ESRD patients, play a crucial role. The study underscores the importance of understanding and implementing effective coping mechanisms. Healthcare practitioners are encouraged to adopt a comprehensive and informed approach, potentially leading to advancements in overall healthcare quality for ESRD patients.

Likewise, the patients diagnosed with ESRD can significantly benefit from the study's insights into coping techniques and mechanisms. Acquiring knowledge about different coping strategies empowers patients to be more involved in their care, fostering a patient-centered approach and potentially leading to improved strategies for dealing with the challenges of ESRD.

Moreover, the study highlights the importance of raising public awareness to create a supportive community environment for ESRD patients. Beyond providing information about coping strategies, the study encourages community-wide awareness, promoting empathy, understanding, and support. Increased awareness may lead to collaborative efforts in addressing the challenges faced by ESRD patients, ultimately improving the overall quality of life within the community.

Lastly, this study serves as a significant source and reference for further research into coping mechanisms and quality of life for patients with ESRD. Addressing knowledge gaps and providing perspectives on diverse coping strategies, the research establishes a foundation for forthcoming studies. Researchers can utilize the discoveries and approaches presented in this study to enhance their investigations, ensuring a thorough comprehension of the topic. The study also suggests the potential development of an intervention framework in future studies, providing a pragmatic methodology for improving coping mechanisms and interventions aimed at enhancing the quality of life for patients with end-stage renal disease (ESRD).

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COVID-19 Nurse's Quality of Life and Work-Life Balance in Davao Region

Lester S. Manzanares, PTRP, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

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The challenges that arose during the COVID-19 pandemic impacted the lives of nurses. This descriptive-correlational study was conducted to determine the relationship between the quality of life and the work-life balance of COVID-19 nurses in Davao Region. Utilizing the power analysis with a margin error of 5%, a total of 138 respondents were selected through the snowball sampling method implementing the following inclusion criteria: 21 years old and above, a registered nurse, and currently working as a COVID-19 nurse in Davao Region. The results showed that the degree of quality of life was high, with an overall mean score of 3.17. Likewise, the degree of work-life balance was high, with an overall mean score of 3.02. Overall, there is a significant positive relationship between quality of life and work-life balance ($p = 0.000$; $r = 0.861$). Thus, positive effects on COVID-19 nurses can be attributed to an equitable quality of life and work-life balance.

Keywords: *Social Sciences, Quality of Life, Work-Life Balance, Descriptive-Correlational, Davao Region*

Corresponding email: ptnurse33@gmail.com

Introduction

Over the last fourteen months, health-related research has placed a strong emphasis on patients' quality of life as a patient outcome metric due to the COVID-19 pandemic that the world is facing right now. Patient outcomes, on the other hand, are influenced not only by clinical therapies and procedures but also by the medical workers' quality of life and balance between work-life aspects. Various factors including sex, work schedules, age, workplace factors, satisfaction towards work, quality of life as well as work-life balance have a huge impact on the lives of nurses, especially in this quarantine era (Al Thobaity et. Alshammari, 2020).

As reported by a Nursing Standard survey conducted in November 2020 with 1,650 nurse participants, eight out of ten nurses said the pandemic had harmed their quality of life and work-life balance. Quality of life encompasses various factors such as wealth, employment, environment, health, education, leisure, social integration, religion, safety, security, and freedom. Family and work are the two most significant parts of an individual's life, and they must be balanced to merge the needs of the family and professional obligations. Work-life balance pertains to the allocation of time given to an individual to effectively manage both work and family obligations. These parameters should achieve equilibrium between two distinct responsibilities (Korkzman, 2023). An incongruity between these obligations gives rise to numerous personal and professional complications. Achieving a work-life balance enhances overall satisfaction, happiness, and achievement, while also reducing productivity, performance, stress levels, and burnout.

Achieving a good equilibrium between work and personal life enhances job satisfaction

, productivity, involvement, and stress reduction, while simultaneously reducing expenses for the firm. On a global scale, nurses have a significant lack of work-life balance. According to Karunagaran et al. (2020), a mere 2% of nurses can allocate sufficient time to their families, whilst 22% said that they worked additional hours and were unable to dedicate time to their loved ones. A study examining the quality of work-life and work-life balance of Asian nurses during the COVID-19 outbreak revealed that 36% expressed dissatisfaction as a result of increased workloads and heightened stress levels. As a result, there is a greater demand for better

working conditions and staffing management (Hwang, 2022). The Philippine workforce among others is also facing enormous workplace challenges, which consequently affects the quality of life among healthcare professionals, especially nurses (Adolfo, 2020). Over 80,000 doctors and a million nurses from 80 associations issued a notice to the Philippine government in August 2020, stating that the country was failing to tackle the pandemic effectively (Morales, 2020). This study aims to provide a baseline on the quality of life and work-life balance of COVID-19 nurses in the Davao Region. The findings could be used to develop a program to improve the mental well-being among nurses specifically in areas under investigation and assist the facilities in finding new ways to best represent all of its stakeholders.

Methods

The researcher employed a descriptive-correlational study design. The design method involves the observation, description, and documentation of different aspects of an occurrence. This term was employed in the research to delineate and provide a concise overview of the standard of living and the equilibrium between work and personal life. Conversely, Creswell (2003) defined the correlational research approach as the process of describing the statistical relationship connecting two or more variables. Thus, this design was employed to investigate the correlation between the quality of life and work-life balance. The data gathering was conducted from June 2023 to October of the same year through an online adopted questionnaire that was given via email to COVID-19 nurses currently in Davao Region. The facilities for suspected and suspicious cases, as well as the temporary care and monitoring facilities for COVID-19-positive cases. Hotels, public schools, gyms, and other buildings that have been converted to isolation areas make up the facilities. The study utilized adopted standardized questionnaires with the use of questionnaires for Quality Of Work Life and Work-Life Balance Among Nurses. The questionnaire had three (3) parts. The first part contained sections asking for the socio-demographic profile of the respondents in terms of age, gender, marital status, years of experience, attainment, and monthly income. The second part contained 28 test questions that assessed the quality of life. The questions are answerable in terms of level of agreement. This part of the questionnaire used the following 4-point Likert scale: 4 - strongly agree, 3 - agree, 2 - disagree, and 1 - strongly disagree. With the interpretation of 3.26 - 4.00 - very satisfactory, 2.51 - 3.25 - satisfactory, 1.76 - 2.50 - unsatisfactory, and 1.00 - 1.75 - very unsatisfactory.

The third part contained 11 test questions that assessed the work-life balance. The questions are answerable in terms of level of agreement. This part of the questionnaire used the following 4-point Likert scale. Also, This part of the questionnaire used the following 4-point Likert scale: 4 - strongly agree, 3 - agree, 2 - disagree, and 1 - strongly disagree. With the interpretation of 3.26 - 4.00 - very satisfactory, 2.51 - 3.25 - satisfactory, 1.76 - 2.50 - unsatisfactory, and 1.00 - 1.75 - very unsatisfactory. These parts have undergone the Cronbach alpha reliability test to ensure that the items were valid and possessed consistency of items. The following statistical tools were employed for the study: frequency and percentage to ascertain the socio-demographic characteristics of the respondents in terms of age, gender, marital status, educational attainment, and monthly income. Mean and standard deviation were used to reflect the level of quality of life and work-life balances of the participants and to determine the homogeneity and heterogeneity of the participants' responses, and Spearman Rank-Order Correlation was used to measure the relationship between the quality of life and the work-life balance of the participants.

Participants

A total number of 138, calculated from the population size of 200 using bivariate normal model Power Analysis with a margin of error of

5%, will be selected for this study. The Snowball sampling technique will applied in choosing the respondents to find more respondents for making a sample group. The respondents will be selected based on the following criteria: 21 years old and above, a registered nurse, and currently working as a COVID-19 nurse in the past six months in Davao Region.

Data Sources

The study utilized adopted standardized questionnaires with the use of questionnaires for Quality Of Work Life and Work-Life Balance Among Nurses. The questionnaire had three (3) parts. The first part contained sections asking for the socio-demographic profile of the respondents in terms of age, gender, marital status, years of experience, attainment, and monthly income. The second part contained 28 test questions that assessed the quality of life. The third part contained 11 test questions that assessed the work-life balance. The questions are answerable in terms of level of agreement.

Ethical Consideration

The study examined COVID-19 nurses' quality of life and work-life balance in Davao. This study intends to collect data on the variables presented in the case of Davao nurses during the pandemic. The data could be used to establish a program to improve nurses' overall quality of life and their well-being. In terms of the risks and benefits, The questionnaire may ask about the personal experiences of the participants, which entail personal reflections. Rest assured that the study will be used for research purposes only. The benefits of this study can help the researchers in initiating intervention activities that can address the experiences the researchers have incurred. Adhering to the ethical principle of informed consent, the research provides participants with comprehensive information about the purpose and procedures, aiming to strike a balance between potential risks and overall benefits.

Interventions will address and enhance their duties and responsibilities, ultimately promoting a more positive and productive work environment for everybody concerned.

The involvement of the responder in the present investigation was optional. The participants own the prerogative to decline participation if they experience any form of discomfort. In addition, even if the participants initially chose to take part, they retain the freedom of withdrawing from the study at any moment without facing any consequences. If respondents opt to withdraw from the study, whatever information they have submitted will be excluded from the gathered data. Researchers followed openness, legality, and proportionality when collecting, storing, and processing personal data (Data Privacy Act of 2012).

Participants might remain anonymous for privacy and confidentiality. If respondents provided names as well as other personal data, it will not be used in the research report. The data from this investigation will be kept private. If this research study is released, the respondent's identity will not be revealed. The researcher refuses to share data with non-study participants. All data will be secret and only available to researchers. Participants may request findings after the research. The investigation will end with the disposal of all raw data.

Data Analysis

Frequency and percentage statistical tools were employed to ascertain the socio-demographic characteristics of the respondents in

terms of age, gender, marital status, educational attainment, and monthly income. Moreover, mean and standard deviation were used to reflect the level of quality of life and work-life balance of the participants and to determine the homogeneity and heterogeneity of the participants' responses. Lastly, Spearman rank-order correlation was used to measure the relationship between the quality of life and the work-life balance of the participants.

Results and Discussion

Table 1. Socio-Demographic Profile

Indicator		Frequency	Percent
Age	23-27 years old	6	4.3
	28-32 years old	23	16.7
	33-37 years old	27	19.6
	38-42 years old	**54**	**39.1**
	43-47 years old	21	15.2
	48-52 years old	5	3.6
	53-57 years old	**2**	**1.4**
	Total	**138**	**100.0**
Sex	Male	76	55.1
	Female	62	44.9
	Total	**138**	**100.0**
Marital Status	Single	77	55.8
	Married	61	44.2
	Total	**138**	**100.0**
Years of Experience	6 months - 1 year	**5**	**3.6**
	>1 year - 3 years	20	14.5
	>3 years - 5 years	21	15.2
	more than 5 years	**92**	**66.7**
	Total	**138**	**100.0**
Educational Attainment	Postgraduate	23	16.7
	College Graduate	115	83.3
	Total	**138**	**100.0**
Monthly Income	10,000 - 20,000	**13**	**9.4**
	20,000 - 30,000	31	22.5
	30,000 - 40,000	**75**	**54.3**
	>50,000	19	13.8
	Total	**138**	**100.0**

Table 1 presents the socio-demographic profile of the respondents in terms of age, sex, marital status, years of experience, educational attainment, and monthly income. As shown, most of the respondents were aged 38 to 42 with a percentage of 39.1, while only 1.4% belonged to the older age group of 53 to 57. This indicates that the millennial generation now dominates the nursing workforce. Wise and Church (2022) explain that millennials include individuals born between 1981 and 1996. The current cohort of nurses is experiencing tremendous expansion and taking over the positions previously held by the retiring baby boomers and Generation X nurses (Wise & Church, 2022). It is even predicted that up to 75% of the workforce will be comprised of millennials by the year 2025.

In terms of sex, 55.1% of the respondents were male, while only 44.9% were female, which implies that the nursing workforce in COVID-19 facilities abounds with men. This finding negates published statistics demonstrating that nursing is a

female-dominated profession and that male nurses only make up roughly 12% of the total number of nurses (Munday, 2023). However, it substantiates how male nurses were deemed indispensable in response to the pandemic owing to them having higher resilience and positive coping strategies compared to their female counterparts (Yu et al., 2021). It has been documented that male nurses have stronger adaptability, physical quality, and decisive character which are essential in dealing with such a serious public health emergency (Zhou et al., 2021).

As for marital status, 55.8% of the respondents were single, while 44.2% were married. This indicates that fewer Filipino nurses are choosing to tie the knot. In an article by De Vera (2022), it was emphasized how statistics showed that the recent number of registered marriages in the Philippines was the lowest it has ever been in the last 50 years. The same could be said for other countries all over the world as millennials are now opting not to marry or to marry at a later age (Chua, 2021). Although this increasing trend of non-marriage could be attributed to the economic uncertainties brought about by the COVID-19 pandemic, it has also been noted that non-marriage is more common among low and highly-educated men and highly-educated women, while other sources attribute this to deficits in the supply of potential male spouses (Abalos, 2021). Among nurses, a Philippine-based study found that 69% of their respondents were unwed.

Moreover, 66.7% reported having more than 5 years of work experience as a registered nurse, while 3.6% have worked for less than a year. This finding implies that more experienced nurses are caring for patients in COVID-19 facilities. This correlates with the findings of a study conducted by Minuye et al. (2021) stating that tenured nurses with work experience of 8 years and above were 2.33 times more likely to have a positive intention of caring for COVID−19 patients than those with fewer years of experience. Likewise, it has been found that caring for these patients requires more knowledge and expertise – qualities possessed by experienced nurses (Sun et al., 2021).

With regards to educational attainment, 83.3% of the respondents were college graduates whereas only 16.7% pursued postgraduate degrees. This implies that fewer nurses are seeking higher education which is consistent with the findings of the nurse survey by AMN Healthcare and The Center for the Advancement of Healthcare Professionals. The motivation to pursue higher education among registered nurses during the pandemic was identified as the cost of pursuing advanced nursing education is the most dissuading factor, while approximately 28% of the respondents stated that the COVID-19 pandemic harms their willingness to continue advanced studies. Nonetheless, organizational issues could also be of concern, as most nurses who pursue advanced studies are unable to utilize those degrees for outright designation in their respective organizations (Monday, 2018).

Further, 54.3% of the respondents reported having a monthly income ranging from 30,000 PHP to 40,000 PHP whereas 9.4% reported having a monthly income of less than 20,000 PHP. This finding shows that nurses receive low wages. Padin (2022) explained that based on DBM National Budget Circular No. 579, entry-level nurses in public hospitals in the Philippines are entitled to a salary of 32,053 PHP to 34,801 PHP. Nevertheless, the cost of living can be quite substantial, with one of the country's major cities (Manila) ranking third among the most expensive cities to reside in Southeast Asia (Alibudbud, 2023). With an estimated monthly expense of 50,800 PHP per person, this amount can easily increase with recent inflation rates of 5.4% to 8.7% (Dumlao-Abadilla, 2021).

Table 2. Degree of Quality of Life

Indicator	Mean	Standard Deviation
Adequate and Fair Remuneration	3.12	0.82
Safe and Healthy Working Conditions	3.20	0.78
Security and Growth Opportunities	3.22	0.78
Opportunity for Growth and Development	3.21	0.72

Motivation	3.07	0.78
Nature of Supervision	3.24	0.73
Application of Natural Justice and Equity	3.15	0.79
Respect at Work	**3.26**	**0.75**
Occupational Stress	**3.04**	**0.87**
Recognition	3.18	0.79
Autonomy and Participation	3.15	0.77
Adequacy of Resources	3.18	0.74
Grievances Procedure	3.17	0.77
Overall	**3.17**	**0.78**

Legend: 1.00-1.75 – Very Low; 1.76-2.50 – Low; 2.51-3.25 – High; 3.26-4.00 – Very High

Presented in the table above is the degree of quality of life of the respondents in terms of adequate and fair remuneration, safe and healthy working conditions, security and growth opportunities, opportunity for growth and development, motivation, nature of supervision, application of natural justice and equity, respect at work, occupational stress, autonomy and participation, adequacy of resources, and grievances procedure. As shown, the overall mean was 3.17 with a standard deviation of 0.78 and a high descriptive level. This implies a generally positive perception of quality of life among COVID-19 nurses which could be attributed to the professional and social support they receive. Nonetheless, these findings indicate that there are still opportunities for enhancement.

A systematic review of the impact of the COVID-19 pandemic on the quality of life of healthcare workers revealed that those working with COVID-19 patients perceived significantly lower quality of life compared to those without direct contact (Cruz-Ausejo et al., 2023). Specifically, Jungmar and Orvelius (2023) found that nurses were more negatively affected by their quality of life than physicians. Further, predictive factors were identified as COVID-19-related stressors including stress due to frozen leave credits, loss of daily routine, and frequent exposure to infected patients, whereas social support from friends and significant others were identified as predictors of higher quality of life (Woon et al., 2021).

Moreover, the indicator that received the highest mean of 3.26 with a standard deviation of 0.75 and a descriptive level of high, was respect at work. This implies that the nurses perceived that they were held in high regard in the workplace. Caliskan et al. (2022) expressed the importance of feeling respected, as it makes nurses feel valued by the community they serve. In this study, the nurses' perception of the level of respect they receive at work is consistent with several studies explaining that amidst the COVID-19 pandemic, the prestige of nursing has been positively affected (Caliskan et al., 2022). After all, declaring the year 2020 to be the Year of the Nurse and Midwife gave light to the critical role that these healthcare workers play in the health of communities and nations (Mason, 2020).

Conversely, the indicator that received the lowest mean of 3.04 with a standard deviation of 0.87 and a high descriptive level was occupational stress, which implies that the nurses perceived a high level of work-related stress in COVID-19 facilities. Documented in media reports from these facilities were nurses experiencing extreme exhaustion, physical discomfort from long working hours with face masks and other PPE, fear of contagion, and emotional distress (Arnetz et al., 2020). This was supported by studies stating that the pandemic added an extra load to the already stressful jobs of nurses, as nearly all work-related stressors increased among frontliners, placing their well-being at risk (Said, 2020). These stressors included workload, dealing with death and dying, personal demands and fears, employing strict biosecurity measures, stigma, exposure to infection, relationships with coworkers, and perceived workplace administrative failings (Said, 2020). Additionally, it has been found that increases in the perceived work stress levels of nurses decrease their motivations and performances. It is therefore crucial to provide a

supportive environment to help them manage these stressors (Hosseini et al., 2022).

Table 3. Degree of Work-Life Balance

Indicator	Mean	Standard Deviation
Healthy Work Environment	3.09	0.77
Opportunity for Growth	2.91	0.87
Overall	**3.02**	**0.81**

Legend: 1.00-1.75 – Very Low; 1.76-2.50 – Low; 2.51-3.25 – High; 3.26-4.00 – Very High

Table 3 shows the degree of work-life balance of the respondents in terms of a healthy work environment and opportunity for growth. The overall mean was 3.02 with a standard deviation of 0.81 which was described as high level. This implies that the nurses perceived that they were able to adequately meet the demands of both their work and personal lives. In a cross-sectional study by Rony et al. (2023) into the association between work-life imbalance, employees' unhappiness, work's impact on family, and family impacts on work among nurses, it was elaborated how maintaining nurses' work-life balance is critical in improving healthcare organizations' productivity, delivery of quality patient care and ensuring positive clinical outcomes.

In this study, the described level of work-life balance negates several existing literature noting that nurses' work-life balance was disrupted during the pandemic as they seem to have focused and spent more time at work than with their families (Yayla, 2021). However, there seems to be a disparity in work-life balance between those living with their families and those who are unable to do so. In a recent study, Kocatepe et al. (2023) found that nurses who did not have to be away from their families during the pandemic scored higher on the work-life balance scale than those who did. Further, strategies to encourage work-life balance included providing paid sick leaves, open communication with the management, flexible working schedules, and the ability to trade shifts with coworkers (Phillips, 2020).

Between the two indicators, a healthy work environment received a higher mean score of 3.09 with a standard deviation of 0.77 and a high descriptive level, which implies that the nurses perceived their workplace to be conducive to their well-being. This is consistent with the study of Maben and Bridges (2020) stating that the pandemic has caused an increased focus on the well-being of healthcare workers. Moreover, the importance of providing nurses with a healthy work environment to strengthen their efforts in managing the COVID-19 outbreak. Thus, upon recognizing the responsibilities of nurses in the pandemic, the World Health Organization and other health authorities have recommended the introduction and implementation of safety protocols for these healthcare workers (Valizadeh et al., 2023). Globally, they are not only publicly applauded and shown gratitude through donations of food and other gifts, but there are also reports of teams pulling together in cooperative effort and great camaraderie.

On the other hand, opportunity for growth received a lower mean score of 2.91 with a standard deviation of 0.87 and a descriptive level of high. This implies that the nurses perceived that they have had ample chances to advance in their careers. This was supported in the study of Sun et al. (2020), wherein it was found that despite the hardships brought about by the pandemic, there was growth under pressure among nurses which led to increased affection and gratefulness, development of professional responsibility, and self-reflection. Improving their professional position and understanding the essence of nursing by nurses were among the noteworthy opportunities for nurses during this pandemic (Galehdar et al., 2020). Moving forward, nurses must be encouraged to engage in solutions and decision-making, evidence-based practices, and courageous conversations (Grinspun, 2020).

Table 4. Test of Relationship Between Quality of Life and Work-Life Balance

Quality of Life	Work-Life Balance			
	rs	p	Decision	Remarks
Adequate and Fair Remuneration	0.788	0.000	Reject Ho	Significant
Safe and Healthy Working Condition	0.756	0.000	Reject Ho	Significant
Security and Growth Opportunities	0.588	0.000	Reject Ho	Significant
Opportunity for Growth and Development	0.059	0.491	Accept Ho	Not Significant
Motivation	0.059	0.491	Accept Ho	Not Significant
Nature of Supervision	0.749	0.000	Reject Ho	Significant
Application of Natural Justice and Equity	0.739	0.000	Reject Ho	Significant
Respect at Work	0.730	0.000	Reject Ho	Significant
Occupational Stress	0.809	0.000	Reject Ho	Significant
Recognition	0.766	0.000	Reject Ho	Significant
Autonomy and Participation	0.773	0.000	Reject Ho	Significant
Adequacy of Resources	0.770	0.000	Reject Ho	Significant
Grievances Procedure	0.759	0.000	Reject Ho	Significant
Overall	**0.861**	**0.000**	**Reject Ho**	**Significant**

Note: Significant if p <= 0.05; rs = Spearman-rho; IV = Quality of Life; DV = Work-Life Balance

The table above presents the correlation between quality of life and work-life balance. Both with p-values of 0.491, only opportunity for growth and development and motivation do not possess a significant relationship with work-life balance. However, an overall significant positive relationship is shown with a p-value of 0.000 and an r-coefficient of 0.861. Explicitly, there is a very strong and positive relationship between the two variables, which implies that any improvement in quality of life is correlated and would likely result in an improved work-life balance. One possible reason for this is the role played by work on the balance between home and work life. This is in congruence with the study of Bhende et al. (2020) explaining that a good quality of professional life among employees leads to a beneficial impact on their work-life balance, while poor quality of professional life raises stress levels, which in turn detracts from their quality of life at home. Moreover, an imbalance between work and life has also been identified as a factor that influences the general quality of life among nurses (Almaki et al., 2012, as cited in Raeissi et al., 2019).

Likewise, with a p-value of 0.000, a significant positive relationship exists between adequate and fair remuneration and work-life balance, whereas the strength of the relationship is strong and directly proportional with an r-coefficient of 0.788. These results suggest that any manifestations of an increase in remuneration will likely result in an improved work-life balance, which could be attributed to the capacity to enjoy a home life with an abundance of financial resources. In studies conducted among nurses, income level is often cited as a factor that influences work-life balance (Rony et al., 2023). Particularly, the rising cost of living without a corresponding rise in income can lead to an imbalance (Wolf, 2023) as employees may need to sacrifice their home life to work longer hours and preserve their socioeconomic standing (Filippi et al., 2023).

A significant positive relationship is also shown between safe and healthy working conditions and work-life balance with a p-value of 0.000 and an r-coefficient of 0.756, while there is a strong and positive correlation implying that positive working conditions are correlated with work-life balance. A possible reason for this result is the natural effect of the working environment on the overall well-being of employees. Beaumont-Oates (2023) explained that a healthy working environment promotes healthy behaviors as well as joy and relaxation as crucial components of work, thus promoting work-life balance. Further, it has also been found that an imbalance can diminish focus and decision-making skills, which in turn can lead to workplace errors and accidents (Martin, 2023).

Similarly, security and growth opportunities also have a significant positive and directly proportional relationship with work-life balance as shown with a p-value of 0.000 and an r-coefficient of 0.588. The relationship, however, is found to be at a moderate level. This finding suggests that an increase in security and growth opportunities is linked to an increase in work-life balance as well, which could be due to related behavioral changes associated with job security. Such changes include increased employee engagement, which has been determined to have a positive impact on work-life balance. On the other

hand, job insecurity can lead to longer working hours as employees attempt to show their efforts to safeguard their employment, which in turn negatively affects their work-life balance.

Further, the nature of supervision has a significant positive relationship with work-life balance with a p-value of 0.000 and an r-coefficient of 0.749, while the nature of the relationship is strong and directly proportional. This indicates that refining the nature of supervision will also improve work-life balance, which could be attributed to the crucial effect that supervisor support has in determining employee outcomes. This is consistent with the findings of Pires (2021) that employee outcomes such as absenteeism, exhaustion, cynicism, and perceived self-efficacy are improved with supervisor support. Specifically, supervisors play a pivotal role in promoting work-life balance. Supervisor work-life support allows employees to integrate work and vital non-work activities such as caring for family members. This has been documented in a study that concluded that these supervisor behaviors had a positive effect on decreasing work-to-family conflict among nurses (Sahin et al., 2021); therefore, the balance between the work and home domains is maintained through the practice of work-life support.

The table also shows a significant positive relationship between the application of natural justice and equity and work-life balance with a p-value of 0.000 and an r-coefficient of 0.739, indicating a strong and directly proportional relationship. This suggests that fairness in the workplace enhances work-life balance among employees, presumably because it correlates with job satisfaction. Organizational justice, as studied by Perez-Rodriguez et al. (2019), was defined as employees' perceptions of the equitable distribution of resources within an organization. Within its dimensions, interactional justice was found to have the strongest relationship with job satisfaction (Shimamura et al., 2021), which in turn is mediated by work-to-family conflict. In addition, negative perceptions of organizational justice among employees can strengthen the impact of job insecurity on work-family conflict, which disrupts the ability to maintain work-life balance (Rini et al., 2020).

Meanwhile, respect at work is significantly associated with work-life balance with a p-value of 0.000 and an r-coefficient of 0.730, signifying a strong and directly proportional relationship. This means that an increase in respect is correlated with an increase in work-life balance, which could be attributed to its association with turnover intentions. The importance of respect in the workplace as employees who receive respectful treatment are more likely to build strong bonds with their co-workers which enhances coordination, cooperation, and communication, and consequently improves productivity, staff retention, and engagement. Among nurses, it has been found that interpersonal relationships are valued, especially those based on trust and respect, as they provide a sense of pride and give the impression that the organization values them (Rehmat et al., 2020). However, interpersonal relationships that cause stress can significantly affect their turnover intention, whereas the greater the turnover intention, the greater the work-life imbalance.

As for occupational stress, it is significantly associated with work-life balance with a p-value of 0.000 and an r-coefficient of 0.809 indicating a very strong and directly proportional relationship. These results suggest that an increase in occupational stress is correlated with an increase in work-life balance. Such results negate extant literature demonstrating a negative association between occupational stress and work-life balance (Uzdil et al., 2023). Specifically, nurses often experience stress from a variety of sources, which therefore worsens work-life balance. Occupational stress has also been found to contribute to burnout, which subsequently leads to work-life imbalance.

Recognition, on the other hand, has been found to have a significant positive relationship with work-life balance with a p-value of 0.000 and an r-coefficient of 0.766. These results demonstrate a strong and directly proportional relationship between the variables, such that an increase in recognition is associated with an increase in work-life balance, which could be due to its effect on motivation and satisfaction. Nurses identified recognition as one of the most important motivational factors or satisfiers. Concurrently, it has been found that work-life balance issues can be reduced by using organizational tactics such as rewards, whereas recognition is considered a critical factor of reward systems within organizations (Rodriguez-Sanchez et al., 2020). In addition, it is well acknowledged that this type of non-financial reward

can increase self-esteem among employees (Panda & Sahoo, 2021), as well as happiness and loyalty, which also act as motivating drivers to work harder and maintain a healthy work-life balance because they are content and proud of their work.

As for autonomy and participation, the results showed a significant positive correlation between variables with a p-value of 0.000 and an r-coefficient of 0.773, which is interpreted as a strong and positive relationship. This suggests that an increase in job autonomy and participation enhances work-life balance, possibly because of associated self-efficacy. Greater work-to-family enrichment and fewer instances of work-to-family conflict are associated with higher job autonomy, as moderated by self-efficacy. In particular, extant literature delineates the influence of job autonomy in determining how well employees take on their responsibilities in life, such that it provides greater outcomes such as their motivation, leading to an improved personal and professional level. Among nurses, job autonomy significantly predicted the work-life balance of those working in tertiary hospitals, while higher job autonomy seems to make nurses more productive, content, and dedicated employees.

Furthermore, adequacy of resources and work-life balance is significantly and positively associated, with a p-value of 0.000 and an r-coefficient of 0.770 indicating a strong and directly proportional relationship. This denotes that the availability of resources at work improves work-life balance, presumably because it can affect the level of work-related stress. The importance of resource adequacy in maintaining work-life balance is having adequate resources to respond effectively to the demands of work and family roles, simultaneously. In the healthcare setting, previous research on work-life balance revealed that it is influenced by nurses' perceptions of staffing and resource adequacy, whereby working with limited resources causes stress and negatively affects work-life balance (Navajas-Romero et al., 2020). However, leadership may play a mediating role between adequacy of resources and work-life balance, as unit leaders who adeptly navigate between the needs of patients and available resources, all the while demonstrating concern for the well-being of both staff and patients, reduce stress and enhance the work-life balance of their team members.

Finally, the table above shows that a significant positive relationship exists between grievances procedure and work-life balance with a p-value of 0.000 and an r-coefficient of 0.759, denoting a strong and directly proportional relationship. This means that satisfaction with grievance management can boost work-life balance, which can be attributed to its positive effects on employee outcomes. The healthcare workers had several grievances including excessive workloads, a lack of responsiveness to the effects of COVID-19, burnout, long working hours, a lack of work-life balance, and inadequate pay and compensation. These grievances, if not addressed promptly, can become conflict and result in unfavorable effects like decreased productivity, absenteeism, defiance of commands, indiscipline, and subpar work). On the other hand, when grievance management is implemented, employee outcomes such as commitment, morale, and even organizational citizenship behavior all rise. Concomitantly, previous studies on commitment, organizational citizenship behavior, and work-life balance found significant associations among the variables (Soelton, 2023); thus, organizations must ensure that those in charge of managing employee grievances are highly skilled at handling both grievances and conflicts and recognize the effects it has on the employees.

Summary and Recommendations

In conclusion, Most of the respondents were aged between 38 to 42 years old, male, single, had more than 5 years of work experience, were college graduates, and were earning 30,000 PHP to 40,000 PHP in a month. The respondents generally have a positive perception of their quality of life. Specifically, they scored best on respect at work and scored worst on occupational stress. Similarly, the respondents generally have a positive insight into their work-life balance. In particular, they had a more positive insight

into a healthy work environment than an opportunity for growth.

The quality of life was significantly correlated with work-life balance. Except for opportunity for growth development and motivation, the same can be said for all specific indicators of quality of life. The majority of the respondents were aged between 38 to 42 years old (54 out of 138 respondents; 39.1%), male (76 out of 138; 55.1%), single (77 out of 138; 55.8%), had more than 5 years of work experience (92 out of 138; 66.7%), were college graduates (115 out of 138; 83.3%), and were earning 30,000 PHP to 40,000 PHP in a month (75 out of 138; 54.3%). In terms of the degree of quality of life, the respondents had an overall mean of 3.17 (High). Among its indicators, respect at work received the highest mean of 3.26 (Very High), while occupational stress received the lowest mean of 3.04 (High). As for the degree of work-life balance, the overall mean was 3.02 (High). Between the two indicators, a healthy work environment received a lower mean of 3.09 (High), while opportunity for growth received a lower mean of 2.91 (High).

Overall, the study revealed a significant positive correlation exists between quality of life and work-life balance, with a p-value of 0.000 and an r-coefficient of 0.861. Specifically, work-life balance was significantly correlated with many quality of life indicators including adequate and fair remuneration ($p = 0.000$; $r = 0.788$), safe and healthy working condition ($p = 0.000$; $r = 0.756$), security and growth opportunities ($p = 0.000$; $r = 0.588$), nature of supervision ($p = 0.000$; $r = 0.749$), application of natural justice and equity ($p = 0.000$; $r = 0.739$), respect at work ($p = 0.000$; $r = 0.730$), occupational stress ($p = 0.000$; $r = 0.809$), recognition ($p = 0.000$; $r = 0.766$), autonomy and participation ($p = 0.000$; $r = 0.773$), adequacy of resources ($p = 0.000$; $r = 0.770$), and grievance procedures ($p = 0.000$; $r = 0.759$), whereas two indicators, opportunity for growth and development ($p = 0.491$; $r = 0.059$) and motivation ($p = 0.491$; $r = 0.059$), did not show a significant relationship with work-life balance.

Workplace wellness programs are reliable tools for managing stress and promoting well-being among employees. For this instance, the program will be focused on enhancing the mental health and coping strategies of nurses through education, counseling, meditation, and leisure activities. Through this program, staff nurses will be provided with resource information such as the signs and symptoms of common mental disorders, risk factors, coping strategies, and the ethical obligations of employers. Resource speakers will be invited to share their personal experiences and insights to encourage conversations and effective communication, and eliminate stigma within the workplace.

Moreover, staff nurses will be encouraged to participate on a bi-annual and as-needed basis, and the success of the program will be evaluated through conducting surveys or focus group discussions intended to determine any changes in the mental health and coping strategies of nurses in addressing the ongoing problem of occupational stress. The need for ongoing education and specialization training among nurses was highlighted during the pandemic. Particularly, there is a growing need to improve preparedness and future response to health crises.

To address this, nurses must be encouraged to pursue knowledge and skills training workshops must be implemented. Thus, through this program, the hospital administrators can identify candidates who will receive education and training sponsored by the organization. This will not only be limited to online webinars but university education and on-site training across the country as well.

This program will allow nurses to receive knowledge and skills training in advancements in nursing practice, such as the implementation of cutting-edge technologies for patient monitoring. Acquiring new skills will then enable them to effectively and safely manage emergencies in the workplace. Further, this program will be implemented monthly, wherein different topics and training will be covered, while the success of the program will be evaluated by investigating any changes in patient outcomes.

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The Urgent Call: Lived Experiences of Pandemic-era Nurses in One of the Private Hospitals in Davao City

Dan Louis
Pacoy, RN

Davao Doctors
College Inc.
Davao City,
Philippines

Abstract

This study explored the experiences of pandemic-era nurses in Davao City as they transitioned from online learning to bedside care. The abrupt shift in nursing education methods due to the COVID-19 pandemic prompted a significant adaptation process among new nurses, who were the primary focus of this research. The research employed the qualitative-descriptive phenomenological method. It involved ten participants, where five nurses were subjected to the IDI and one group with five members for FGD, who were purposively selected. Results revealed three emerging themes: adjusting to personal and work-related concerns, inter and intrapersonal growth and development, and striving for safe and quality health service delivery. It was gathered that the participants had trouble performing clinical tasks, self-doubt, anxiety about personal competence, and interprofessional communication barriers. The findings also revealed that the participants coped with the challenges they experienced by seeking guidance and mentoring, embracing lifelong learning, and holistic preparedness. Finally, the insights and learning experiences shared by the participants are time management and professional care. These insights underscore the need for targeted support and training programs to better prepare pandemic-era nurses for the complexities of clinical practice, thereby enhancing patient care outcomes.

Keywords: *Pandemic-era Nurses, Nursing, Descriptive Phenomenology, Davao City*

Corresponding email: dlpedrosa45@gmail.com

Introduction

The urgent paradigm shift from face-to-face learning to a virtual platform is a breakthrough in nursing education. This abrupt shift to virtual clinical experiences has led to a new generation of nurses called "pandemic-era nurses." These nurses began their nursing journey through online platforms and are now transitioning to hands-on, bedside care (Webera et al., 2021). The study by Matlhaba and Khunou (2022) revealed that graduate nurses faced challenges that negatively impacted their transition from student to practice. The nurses expressed fear, weariness, exhaustion, isolation, and distress, D' Emilia et al. (2020). During the pandemic, many student nurses

considered leaving the program due to academic concerns, feeling overwhelmed, and doubting their clinical skills, Henshall et al. (2023). It was also observed that nurses during the COVID-19 pandemic are less skilled than their predecessors, Sanders (2022).

The transition from traditional bedside care to online learning during the pandemic has posed significant challenges for nurses, Fogg et al. (2020). Webera et al. (2021) highlighted that the traditions of in-person courses and clinical experiences are under severe strain, and the abrupt change to almost entirely online coursework has acted as a spur for innovative nursing education methods. Nurses must be capable of making quick and relevant decisions about patient care. This includes understanding patient status and diagnosis, using evidence-based rationale when providing care, and understanding the rationale behind the course of treatment. According to Szydlowski & Rosengarten (2023), new graduate nurses following the COVID-19 pandemic experienced less in-person experience and more online experience.

In the Philippines, newly licensed nurses face challenges in the delivery of care, the concept of nurses as work agents of innovation and work as fulfillment to serve during a pandemic (Salinda et al.,2022). Additional stressors recently emerged for newly graduated nurses, such as the education knowledge deficit (the disparity between the acquired knowledge in nursing school and the knowledge needed in practice to care for the patient and their families) and the lack of clinical experience for hands-on learning (mainly due to the pandemic).

Despite extensive studies on the impact of online learning on nursing education, there appears to be a vacuum in the literature on the concerns faced by pandemic-era nurses, particularly in transitioning from online study to bedside care (Djukic et al., 2023). This necessitates an investigation to document, identify, and describe the narratives and how the nurses deal with the challenges impacting their clinical care performance. Furthermore, searching for similar studies explicitly conducted in Davao City yielded very few results, indicating a regional gap in the research (Fernandez-Basanta et al., 2022). This underscores the need for research in this area to capture the unique challenges faced by pandemic-era nurses in Davao City. Understanding the specific obstacles that nurses face as they transition from online learning to bedside care can assist educators in developing focused interventions in the event of similar disruptions.

The study aims to explore the unique experiences and challenges of pandemic-era nurses in the Davao region as they transitioned from online learning to bedside care. It seeks to understand their coping strategies, identify gaps in their training and support, and develop measures to aid this transition. The goal is to improve nursing education and practice, particularly during and after a pandemic, thereby enhancing patient care outcomes.

In approaching this research, the researcher assumes a constructivist worldview. Constructivism assumes that there is no objective truth but multiple subjective realities that depend on the research participants' context and perspective. Furthermore, a constructivist

worldview values the meanings, insights, and understandings that people create in their social and cultural contexts.

The literature on pandemic-era nurses is divided into two categories: experiences and challenges faced by

these nurses and their coping strategies.

Experiences and Challenges Faced by Pandemic-Era Nurses

Recent graduates in nursing face unique challenges due to the COVID-19 crisis. Nursing education was disrupted, affecting learning experiences and perceived competencies at graduation (McMillan et al., 2023). Many newly graduated nurses started working in COVID-19 units without sufficient clinical experience or transition programs, questioning the role of education in preparing nurses during crises (Palese et al., 2022). Despite these challenges, new-generation nurses displayed competencies like pre-COVID graduates.

Studies have shown that newly licensed nurses experience self-doubt during their transition from student to professional roles, exacerbated by the pandemic (Salida et al., 2022). New-generation nurses' judgment and decision-making skills were particularly affected, highlighting the need for further investigation into the long-term effects of virtual learning (Szydlowski & Rosengarten, 2023).

Health system officials, hospital managers, and senior nurses are crucial in ensuring that newly graduated nurses can navigate these demanding circumstances (Kovancı et al., 2021). However, many newly graduated nurses reported feeling unprepared and faced multiple workplace challenges, leading to early resignations (McMillan et al., 2023). Factors such as inadequate orientation, mental health concerns, and unmet well-being needs were significant contributors to these resignations (Druse, 2022; Sanders, 2022).

Emotion stress, weariness, and isolation were daily among nurses within two years post-graduation, leading to retention concerns (D'Emilia et al., 2020). The pandemic's impact on clinical postings increased fear and anxiety among nurses (Rana et al., 2022). The resilience of students and faculty was highlighted as crucial during this period (Orazietti et al., 2021).

Despite difficulties, postgraduate nursing students showed exceptional leadership and professional responsibility during the pandemic (Ramelet et al., 2022). New nurses had to balance academic advancement with patient care responsibilities, highlighting the need for practical training and preparedness to bridge the gap between education and practice (AlMekkawi & El Khalil, 2020).

Coping Mechanisms of Nurses in Clinical Care Effective coping strategies are crucial for improved physical and mental health outcomes (Budimir et al., 2021). Problem-focused coping, strong teamwork, and mentoring were significant strategies for managing stress and maintaining high-quality patient care (Catania et al., 2021).

Guidance and mentoring are vital during the transition from student to professional nurse. Newly trained nurses require practical experience, care, and assistance during their first year of practice (Muruvan et al., 2021). Mentoring enhances the quality of care through knowledge transfer, personalized guidance, and professional socialization (Murray, 2024).

Lifelong learning is essential for healthcare professionals to keep their skills and knowledge current. Continuous

professional development (CPD) is crucial for adapting to the changing healthcare landscape and improving patient outcomes (Khan, 2024).

Holistic preparedness, including emotional support strategies and emergency preparedness training, helps new nurses manage complex clinical scenarios (Maurizio et al., 2023). Confidence in clinical and communication abilities significantly impacts patient outcomes, emphasizing the importance of practical education and training (Hecimovich & Volet, 2019).

Insights and Learning Experiences of Nurses in Clinical Care

Nurses with high professional commitment levels during college will likely maintain this commitment as registered nurses (Duran et al., 2021). Effective time management, mindfulness, and professional care are crucial for maintaining overall health and well-being and ensuring optimal patient care (American Nurses Association, 2023).

Newly graduated nurses must navigate complex and rapidly changing care environments, addressing evolving patient needs and safety concerns (Halloran et al., 2023). Transforming healthcare education and delivery systems to focus on quality, safety, and competency development is essential for eliminating preventable harm (Sherwood, 2021). This review highlights the significant challenges and coping mechanisms of pandemic-era nurses, emphasizing the need for targeted support and training programs to enhance their readiness for clinical practice.

Methods

This study utilized a descriptive–phenomenological research design. Descriptive phenomenology aims to uncover any studied phenomenon's fundamental nature or essential framework. This methodology aims to comprehend and articulate the universal essence of a phenomenon, investigating the everyday encounters with individuals while disregarding the researchers' previous notions about the phenomena. The researcher examined the participants' emotions, perspectives, and convictions to understand the topic's fundamental nature better. Phenomenological research design necessitates the researcher to suspend any preconceived assumptions they may have regarding the experience or phenomena.

The researcher utilized Colaizzi's method to uncover the experience of the phenomenon under investigation. According to Turunen (1994), Colaizzi's method consists of seven steps, from informant description to validation of informants' responses if they mean the same as their original experiences. Formulated meanings are organized into themes, and themes are integrated into an exhaustive description. This strategy is commonly employed to examine lived experience, get a more profound comprehension of human cognition, and broaden one's perspective researcher's knowledge about a phenomenon.

The study involved ten nurses assigned to the operating room and ward, all of whom had undergone online education due to the COVID-19 pandemic. Five participants were subjected to in-depth interviews (IDI),

and five participated in focus group discussions (FGD). The focus was on new graduates working in hospitals in Davao City, who were invited to participate via phone or email, with informed consent obtained. A purposive sampling strategy was used, selecting participants based on their familiarity with the study environment. Criteria included having undergone online learning, being newly licensed, and having at least three months of professional experience.

A systematic procedure was followed in this study. Permission was obtained from the Program Head of the Master of Arts in Nursing, and a validated questionnaire was developed for data collection through online or face-to-face interviews. Participants were given preliminary instructions to create a relaxed atmosphere. In-depth interviews were conducted, considering the nurse participants as experts, to gain comprehensive insights into the research issue. The interview guide was semi-structured with open-ended questions, allowing flexibility for follow-up and clarifications. Interviews, lasting 45 to 60 minutes, were recorded with prior consent and later transcribed and reviewed by the researcher.

Thematic analysis was employed to precisely ascertain the connections between concepts and compare them with the replicated data. Through theme analysis, students' diverse opinions and thoughts can be systematically connected and compared with data collected at different times and under varying circumstances throughout the project. All interpretation possibilities are possible. The researcher followed the seven (7) steps espoused by Colaizzi (1978).

The initial step in data analysis involved the researcher familiarizing himself with the data by reading through all the participant accounts several times. He then identified significant statements, all in the reports directly relevant to the investigated topic. These statements formed the basis for the next step, where the researcher discerned the meanings pertinent to the phenomena. This was done by meticulously examining the significant utterances and establishing their enduring significance.

To closely adhere to the phenomenon as it is experienced, the researcher consciously set aside his pre-existing assumptions, a process known as 'bracketing.' It is crucial to note that Colaizzi (1978) recognizes total bracketing as an unattainable goal, underscoring the importance of this process in maintaining objectivity.

Subsequently, the researcher clustered the identified meanings into common themes across all accounts. Here again, bracketing presuppositions was crucial to avoid any potential influence from existing theory. In the next step, the researcher carefully created a thorough and inclusive representation of the occurrences, using all the themes generated in the previous step. Then, in creating the basic framework, he summarized the comprehensive description into a concise and compact statement that included only the critical components of the phenomenon's structure.

Validation of the underlying framework is a critical part of the research process. To ensure the credibility and reliability of the findings, the researcher administered the fundamental structure statement to all participants (or a subset in more extensive studies). Their feedback was then used to revisit and revise the previous stages of the analysis process, enhancing the robustness of the

research.

Results and Discussion

The Lived Experiences of Pandemic-era Nurses

Kovancı et al. (2021) observed that newly graduated nurses experienced challenges transitioning to the job and dealing with the pandemic's impact on society and health institutions. New-generation nurses' judgment, decision-making skills, and self-efficacy are affected during the COVID-19 pandemic, Marisa Szydlowski and Chase Rosengarten (2023). Further research is essential to comprehensively grasp the influence of online learning and simulation on the readiness of new graduate nursing students for their careers. Marisa Szydlowski and Chase Rosengarten's (2023) study delves into the enduring effects on nurses who underwent virtual instruction during the pandemic, shedding light on this aspect.

In addition, Copel, Lengetti, McKeever, Pariseault, and Smeltzer (2022) stated that clinical nurses have faced persistent physical and psychological problems while demonstrating fortitude and endurance in uncertain times. Five themes emerged: navigating uncertainty, dealing with death and loss, addressing emotional responses, learning opportunities, and confronting community undercurrents. The inconsistent availability of personal protective equipment and lack of clinical practice guidelines during COVID-19 patient care led to emotional distress for nurses and indicated areas for future learning.

Adjusting to personal and work-related concerns

Adjusting to personal and work-related concerns is the experience and challenge of pandemic-era nurses assigned to clinical care units as they transitioned from student nurses and online learning products to actual clinical settings. Besides, given the need to adapt to online learning, nurses had to use dummies instead of actual patients. Due to a lack of practical experience, nurses were left feeling unprepared and not fully ready for their clinical roles, resulting in a shortage.

The common impression among the participants for this theme is that while they were equipped with knowledge from online learning and applying that knowledge to the real world, clinical procedures, and contexts were challenging during the transition. Also, the transition from online to face-to-face was described as causing mental blocks and challenges, as the reality of clinical practice differed from the online conceptual learning. Salinda et al. (2022) also stressed that newly licensed nurses are somehow experiencing some doubt because transitioning from student to registered nurses is challenging.

Encountering difficulty in performing clinical tasks. One of the other aspects of defects or newly graduated nurses' deficiencies was related to the transition from online learning to bedside care. Encountering difficulty in the performance of pandemic-era nurses refers to the lack of more hands-on experience, uncertainties during the transition, and the ongoing learning curve. The transition from online learning to bedside care during the pandemic affects nurses in terms of professional practice and personal well-being; the nurses had to consider those adaptations to online

learning and apply them professionally for personal well-being and the need to cope during the pandemic.

New graduate nurses represent a group with specific needs and challenges as they transition into their roles as registered nurses. However, their experiences during the COVID-19 pandemics have yet to be thoroughly investigated (McMillan et al., 2023). Nursing education has been disrupted during the COVID-19 pandemic, potentially impacting the learning experiences and perceived competencies at graduation. Palese et al. (2022) revealed that the majority of the first COVID-19 graduate generation had been employed in units without clinical experience and transition programs, implying a debate on the role of education in graduating nurses during challenging times and on medical directors and nurse managers in ensuring safe transition for new graduates. Despite these challenges, new-generation nurses displayed competencies like the pre-COVID generation.

Furthermore, as confirmed by Salinda et al. (2022), newly licensed nurses are experiencing some doubt because transitioning from student to registered nurse is challenging. A nurse-specific orientation program must be revitalized to foster transition, facilitate frontline preparation, promote nurse competency, and ensure patient safety.

Health system policymakers, hospital managers, nurse managers, and senior nurses must ensure that newly graduated nurses can withstand the challenging pandemic and continue their profession (Kovancı et al., 2021).

Self-doubt and anxiety on personal competence. The participants expressed self-doubt about their competence, leading to stress, anxiety, fear, and emotional struggles. Furthermore, alongside the excitement, participants also faced challenges and exhaustion. The transition into the role was described as demanding, with extended hours and numerous responsibilities, leading to physical and mental fatigue.

This is supported by D'Emilia et al. (2020), in a qualitative descriptive design study where a diverse group of nurses who were within two years post-graduation from nursing school discussed that the participants expressed fear, weariness, exhaustion, isolation, and distress. The study also revealed that retention of new nurses in acute care settings was a concern. Marisa Szydlowski and Chase Rosengarten (2023) stressed that face-to-face learning is needed for healthcare professionals, especially in nursing, to carry out clinical care effectively. Results revealed that online learning due to the COVID-19 pandemic has affected nursing students' judgment and decision-making and decreased academic self-efficacy due to increased stress and lack of motivation and engagement with material. The study produced mixed results regarding the effects of online learning on nurses' critical thinking and psychomotor skills.

The participants revealed that they experienced performance anxiety. The nurses expressed worry about making mistakes, given the high-stakes nature of their profession, where mistakes could potentially jeopardize patients' lives. There was an understanding that there was little room for errors in their careers. Furthermore, the participants emphasized that they worried about meeting the expectations of their colleagues and the work environment,

as well as fitting in with the team they would be working with, given their online learning background.

These findings were confirmed by Druse (2022), who identified four challenges nurses face when completing nursing school and obtaining jobs. These include a) expectation vs. reality, b) coping with emotions and tasks as frontline nurses, c) lack of knowledge and skillset about death and dying, and d) the challenge of moving back to a typical healthcare environment in a post-COVID-19 era. The study of Giovanna Casella, Maurizio Beretta, Francesca Costa, Daniela Opizzi, Pierangela Pompini, Sara Posla, Rosaria Sanfratello, Massimo Guasconi, and Cinzia Merlini (2023) shows how stress, anxiety, and feelings of inadequacy characterize new nurses' entry into the workplace. Emotional support strategies, such as counseling and emergency preparedness training, can help early career professionals develop greater resilience when coping with complex and emotionally charged clinical care situations.

How Pandemic Nurses Handle Challenges in Clinical Care

Inter and Intrapersonal Growth and Development

Inter and intrapersonal development refers to the diverse strategies employed by participants with backgrounds in online learning to adapt to the clinical setting and engage effectively with patients. These strategies include leveraging communication skills, building rapport, understanding patient needs, effective medication management, adapting communication styles, preparing, and continual learning. By employing these strategies, nurses aim to provide holistic, patient-centered care in the clinical environment.

Furthermore, seeking support and mentorship from experienced colleagues is crucial during the transition to bedside nursing. Mentors provide practical guidance, share expertise, create a supportive learning environment, and offer emotional support, contributing to new nurses' professional development and success in their roles. This study highlighted the importance of perseverance, patience, and gradual exposure to challenging situations in building confidence and competence in bedside nursing. Seeking support from colleagues and gradually taking on responsibilities helped them navigate their roles more effectively.

Guidance and Mentoring. Participants highlighted the crucial role of head nurses and senior colleagues in transitioning to bedside nursing. Mentors provided practical advice, demonstrated tasks, and shared valuable tips, building new nurses' skills and confidence. A supportive, toxic-free environment allowed for open communication and questions without fear of judgment. Emotional support and guidance from mentors were also essential in fostering resilience. This support was invaluable for new nurses, aiding their professional growth and development into competent and confident practitioners.

The findings find coherence in the study of Stamps, D. (2023) that mentorship is crucial in healthcare. It can help people achieve their goals and deal with the stress of their jobs. Moreover, according to the

U.S. Agency for Healthcare Research and Quality, mutual support occurs when team members help one another, provide and receive feedback, and act assertively and as advocates when patient safety is in danger. Nonetheless, prior research suggests a lack of mutual support is linked to high medical staff turnover and patient safety (Hai-Ping et al., 2020). Since mutual support is a talent that may raise the standard of patient care, it is essential in the healthcare industry. Due to the heavy workload and urgent, time-sensitive circumstances that frequently characterize the health care setting, task support, and backup behavior are essential to providing patients with quality treatment. Muruvan et al. (2021) also confirm that the shift from student to professional nurse is critical and requires assistance. Practical experience is crucial to the transition process for recently qualified professional nurses. These experiences have demonstrated that newly trained professional nurses require care and assistance during the first year of practice.

Embracing Lifelong Learning. Continual learning and adaptation were emphasized as ongoing strategies in navigating the clinical setting. Participants recognized the need to continuously refine their skills, seek feedback, and adapt their approaches based on patient feedback and evolving clinical scenarios. Also, participants emphasized the importance of maintaining a presence of mind and continuous learning in their initial months of employment. They highlighted the need to adapt quickly to new situations, remain alert, and consistently seek opportunities for learning and growth, particularly in a fast-paced clinical environment with diverse patient cases. Participants expressed a commitment to professional growth and the inherent responsibility of their roles in healthcare. They emphasized the significance of continuous learning, practicing diligently, and upholding professional standards to ensure the highest level of care and accountability.

The findings corroborate Khan's study (2024), which enumerated several reasons why healthcare workers engage in continuing professional growth, namely keeping up to date with trends and research, staying motivated, discovering new opportunities, enhancing patient care, enhancing support, giving patients confidence, and developing new skills.

Holistic Preparedness. Participants emphasized the need for holistic preparation, including mental, physical, and spiritual readiness, to handle the demands of clinical settings. They stressed the importance of psychological preparedness for unpredictable workloads and the development of coping mechanisms, such as efficient task management and time for rest.

Several researchers conform to the findings of this study. Early in their careers, newly certified professional nurses face several challenges. The shift from student to professional nurse is essential and requires assistance. Practical experience is crucial to the transition process for recently qualified professional nurses. These experiences have demonstrated that during the first year of practice, newly trained professional nurses require care and assistance (Muruvan et al., 2021). Also, the results of the review by Said and Chiang (2019) concluded that enhancing the psychological preparedness of nurses and their knowledge and skill

competencies is essential to providing the best care possible to affected individuals and themselves. AlMekkawi and El Khalil (2020) said that practical education and training are critical for the successful transition of new nurses, who often feel unprepared despite their knowledge.

Participants also highlighted the importance of self-confidence, resilience, and readiness to handle unexpected situations. They recognized the role of reflection and perseverance in overcoming challenges and improving skills. High confidence levels in clinical and communication abilities are crucial for positive patient outcomes, as noted by Hecimovich and Volet (2019)**,** who discussed the impact of confidence on healthcare professionals and their patients.

Conversely, nurses with poor self-esteem may believe they are ignorant, worthless, or unworthy. They may believe that they cannot provide the necessary degree of care as a result. Patients may view a nurse as overworked or insecure in their ability to provide care, which might lead to mistrust and suspicions. As a result, a lack of trust between a nurse and a patient may compromise therapy and the healing process. The strength of a nurse's confidence must be acknowledged, but so must their readiness to accept their ignorance, inexperience, and mistakes (Why Self-Esteem Is Important in the Role of a Nurse, n.d.).

Learning experiences and insights of nurses in the early months of employment

Strive for Safe and Quality health service delivery

Striving for Safe and Quality health service delivery refers to the diverse insights employed by participants with backgrounds in online learning to adapt to the clinical setting and engage effectively with patients to provide high-quality services and accomplish their tasks properly. Participants emphasized the slow progress and incremental growth they experienced in overcoming challenges. They highlighted the importance of perseverance, patience, and gradual exposure to challenging situations in building confidence and competence in bedside nursing. Seeking support from colleagues and taking on responsibilities gradually helped them navigate their roles more effectively. They expressed a sense of accomplishment in performing various tasks for the first time, such as coding, discharging patients, and handling responsibilities independently. This excitement stemmed from the novelty of experiencing everything for the first time, contributing to a roller coaster ride of emotions.

Furthermore, positive attributes are identified as essential aspects of the learning process in bedside nursing. Participants acknowledged their challenges but recognized their ability to overcome them through self-reflection, resilience, and dedication to improving their skills and knowledge. Despite the difficulties encountered, there is a strong sense of dedication and resilience among the participants as they navigate through the complexities of their roles.

Delivering safety and quality health services to patients was identified as a fundamental responsibility.

Participants emphasized the need to prioritize patient safety, adhere to best practices, and deliver care that meets or exceeds established standards to promote positive patient outcomes and experiences. Thus, the nurses acknowledged the importance of integrating their theoretical knowledge with practical skills to be effective in the clinical setting, as theory and clinical settings differ significantly.

Consequently, participants expressed a sense of responsibility toward their careers and the well-being of their patients. They understood the importance of continually striving to improve and deliver the best possible care. This sense of professionalism drove their dedication to learning and adapting to the job's demands.

Nurses are a linchpin of patient safety within the healthcare system. Their responsibilities encompass a broad spectrum of care tasks that can impact safety, including administering medications correctly, monitoring vital signs for deterioration, and identifying and reporting errors and near misses (Stanley, 2023). With the experience of the COVID-19 pandemic, primary recommendations for transforming healthcare education and delivery systems include implementing new educational strategies to focus on quality and safety competencies, fostering systems thinking, imagining leadership development, and creating learning organizations. Transforming healthcare to eliminate preventable harm begins with a competent workforce (Sherwood, 2021).

Time Management. Time management emerged as a critical insight for effectively managing workload and ensuring the delivery of quality care within the constraints of a 12-hour shift. Participants stressed the importance of prioritizing tasks, organizing responsibilities, and optimizing efficiency to provide patients with safe, high-quality healthcare services. Furthermore, time management emerged as a personal strength facilitating task performance and workload management. Participants emphasized the significance of efficient time utilization in completing responsibilities and delivering quality care. Additionally, their coping mechanisms, such as maintaining a positive outlook and problem-solving attitude, contributed to their resilience in challenging situations. The fast-paced nature of bedside nursing required them to adapt their time management skills to ensure efficient and effective care delivery within the allotted shift.

Nurses must be conscious that time is critical when caring for emergency patient situations. Strong time management skills in nursing are also essential to overall health and well-being, including combating stress. A solid strategy allows nurses to stay on top of their regular responsibilities while factoring in unexpected circumstances. A well-structured schedule also creates a better work-life balance, so you do not spend your free time playing catch-up (American Nurses Association, 2023).

Time management in nursing involves implementing and managing functions such as organization and control of time by planning daily tasks and completing them within a specific timeframe. Time management is a skill that is learned and honed with continual practice. Practical time management skills will benefit everyone, including patients, nurses, and other

healthcare team members. Further, effective time management typically requires nurses to adopt behaviors that help them work smarter, not necessarily harder. With proper habits, nurses can increase efficiency and productivity (Faubion, 2023).

Professional Care. Participants expressed a commitment to professional care and the inherent responsibility of their roles in healthcare. They emphasized the significance of continuous learning, practicing diligently, and upholding professional standards to ensure the highest level of care and accountability. Moreover, to bridge the gap between online learning and clinical practice, the nurses engaged in preparation and review activities, such as reviewing standard procedures, consulting experienced peers, and watching instructional videos, especially for procedures where their skills still needed to be fully developed.

The participants acknowledged the importance of their accumulated knowledge and values in nursing practice. Drawing from their educational background and personal beliefs, they found strength in applying learned principles to their tasks. This foundation guided them in decision-making and communication, particularly in diverse nursing contexts.

The study substantiates this result that newly graduated nurses also work in increasingly complex and rapidly changing care environments characterized by increasing patient acuity, high patient turnover, technological advancements, and demanding workloads (Halloran et al., 2023). This is further validated by Waltz et al. (2020), who underscore that newly graduated nurses must recognize and manage these challenges while meeting their patients' evolving needs and complexities to ensure optimal patient care. Research has shown that the challenges newly graduated nurses face regarding their workplace environments and transition experiences can adversely impact their commitment to the nursing profession and their current workplaces.

The study's findings are also confirmed by Duran S. et al. (2021), who stated that nursing students who possess higher professional commitment levels during their college years are believed to have improved professional commitment levels when they become registered nurses after graduation. The future of nursing will be determined by nurses and nursing students who are committed to the profession. Nursing is a profession that requires a high level of professional commitment, as well as a commitment to lifelong learning. The future of nursing will be determined by nurses who are committed to the profession. Nurses must demonstrate a solid professional commitment to defend patients' rights and perform their job best.

Participants emphasized the importance of maintaining presence of mind and continuous learning in their initial months of employment. They highlighted the need to adapt quickly to new situations, remain alert, and consistently seek opportunities for learning and growth, particularly in a fast-paced clinical environment with diverse patient cases. Thus, critical incidents, such as medication errors, significantly influenced participants' understanding of nursing practice and patient safety. These incidents underscored the importance of vigilance,

thoroughness, and adherence to protocols in medication administration. Participants recognized the potential consequences of errors and prioritized patient safety in their approach to care. The participants acknowledged the fact that a psychologically prepared person assumes that specific challenges are enormous, they have an idea of the potential psychological impact of such challenges, they are aware of their reactions to such challenges, and admit that they should be familiar with their inner resources and where and how to seek support when needed.

Nursing students face heightened vulnerability to elevated stress levels throughout their education. Daily stressors such as heavy clinical workloads, worries about academic performance, financial constraints, insufficient support during clinical placements, and exposure to patient suffering and loss can significantly impact them psychologically. This stress often culminates in burnout and a propensity to exit the profession (Kinchen & Loerzel, 2019). With that in mind, mindfulness emerges as a strategy that can effectively manage stress levels, reframe potentially overwhelming situations, and enhance overall well-being. Mindfulness propensity facilitates well-being and adaptation for healthcare professionals, together with high adaptive defense mechanisms (Catalano et al., 2019).

In summary, this analysis yielded three emergent themes, each addressing one of the research questions posed in this study. These emergent themes are *Adjusting to personal and work-related concerns, Inter and Intrapersonal Growth and Development, and Striving for safe and quality health service delivery.*

Recommendations

The findings of this descriptive phenomenological study on the lived experiences of the pandemic-era nurses assigned to clinical care units have provided ample information that has implications for the nursing profession. The information from the participants' utterances helped me understand the challenges and trials faced by pandemic-era nurses. Furthermore, these valuable details collected from the exploration of experiences of the participants who shared their time to become part of this research study contributed to the understanding of the importance of time and expertise in enhancing the proficiency of nurses. Also, it helped the researcher formulate implications for improving nursing practice, continuing education, and research.

The narratives of the pandemic-era nurses in this study show they were still adjusting to personal and work-related concerns. They revealed that their challenges as pandemic-era nurses included difficulty performing clinical tasks, self-doubt and anxiety about personal competence, and interprofessional communication barriers. The participants experienced mental challenges that led to physical and mental fatigue and performance anxiety, wherein most of them worried about making mistakes. They also had some concerns about barriers to interprofessional communication.

Despite the challenges, there was a recognition of the pandemic-era nurses' need to adapt and develop coping mechanisms. The participants revealed that they embrace inter- and intrapersonal

development, including seeking guidance and mentoring, lifelong learning, self-confidence, and holistic preparedness. This calls for attention for nursing managers to continue monitoring and checking the pandemic-era nurses to cope with the challenges they encounter. Thus, the participants may be drawn to show dedication in their work and become open to new learning.

We recommend areas for thought and action that may enhance working conditions in clinical care units. These include adapting coping mechanisms to master the sources of difficulties they encounter. Providing a positive working environment, such as constant guidance from senior nurses, can improve their performance as bedside care nurses.

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KNOWLEDGE, ATTITUDE, AND PRACTICES OF MOTHERS ON CHILD IMMUNIZATION IN SELECTED BARANGAY OF MUNICIPALITY OF KABACAN, COTABATO

Rohayne B. Paniales, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

This study, conducted with utmost respect and admiration for the mothers, aimed to understand their crucial role in child immunization. Utilizing a comparative-correlational research design, we assessed their understanding, perspective, and behaviors regarding child immunization in chosen Barangays of the Municipality of Kabacan, Cotabato. The 200 mothers, selected with care and consideration, reside in the selected five Barangay in the Municipality of Kabacan. The study utilized a modified questionnaire and was subjected to validity and reliability testing with Cronbach's alpha. The results revealed that these mothers, aged 24 to 28 years old, Ilocano in terms of tribe, high school graduates in terms of education, and from Barangay Kayaga in terms of Barangay, were highly knowledgeable about child immunization, had very high attitudes concerning child immunization, and had high practices on child immunization. Furthermore, the knowledge and practices of mothers on child immunization could have been more substantial, positive, and non-significant. It also shows that attitudes toward practices for child immunization had a positive, moderately significant relationship. The indicators of demographic profile that have a significant difference are as follows: in terms of Barangay attitude and practices; in terms of Educational Attainment, knowledge and practice; and Tribe and Attitude. The proposed intervention program, the Community Health Education Program' Batang Bakunado, Batang Protktado', holds immense potential in enabling, informing, motivating, and empowering specific groups to access a health service and encourages mothers to immunize their children and follow a specific immunization schedule.

Keywords: *Knowledge, Attitude and Practices on Child Immunization, Health, Descriptive-Correlational, Kabacan*

Corresponding email: rpaniales@gmail.com

Introduction

Providing a sufficient supply of safe and effective vaccines is a global priority (Lindstrand et al., 2021). The involvement of communities and civil society is critical to ensuring that vaccinations and their implementation are acceptable, appropriate, and sustainable (Mantel & Cherian, 2020). According to the study of Almutairi et al. (2021) in Saudi Arabia, many mothers believed that vaccination was essential to

their children. Moreover, according to the study of GebreEyesus et al. (2021), improving parents' Knowledge, Attitude, and Practice about immunization was recommended through health education and promotion activities.

The Philippines was among the eight countries with more than fifty percent (50 %) of the children who remain unvaccinated for Diptheria Tetanus Pertussis (UNICEF, 2023). A study conducted by Galingana et al., 2023 in Isabela shows that demographic profiles influence people's views and knowledge about vaccinations. A study by Arceo et al. (2021) conducted in Pampanga found that mothers had a high level of awareness, a positive attitude, and appropriate behaviors for child immunization. Furthermore, the study of Quintos et al. (2022) in Apayao revealed that mothers were knowledgeable about immunization with a positive attitude and good practice.

According to the Department of Health- Center for Development XII, in 2022, children in the Philippines are now facing a heightened risk of vaccine-preventable diseases, including measles and polio, due to a dramatic decline in childhood immunization rates. This alarming situation is further exacerbated by the fact that the province's immunization status for measles, rubella, and polio has been below the 'herd immunity' level since 2020 (Philippine Information Agency, 2023). Meanwhile, the MOH-BARMM declared a measles outbreak in the region and was set to launch a massive vaccination drive across the region (Fernandez, 2024).

The Fully Immunized Children (FIC) coverage in Kabacan gradually decreases according to the five-year trend reports, which is of great concern for the possible re-emerging of all VPDs that may cause death to the children. The study conducted in the Municipality of Kabacan focuses on immunization, as previous studies have yet to be conducted. Lack of knowledge, unfavorable attitudes about vaccinations, and false beliefs or rumors about the safety of vaccinations are significant barriers to achieving high vaccination rates in children (Almutairi, 2021). It is crucial to educate parents on the significance of immunization through educational programs and social media (Hussain & Mohammed, 2021). Thus, this study is relevant to determine the knowledge attitude and practice regarding child immunization among mothers of selected Barangay in the Municipality of Kabacan.

Methods

The study's respondents were the mothers residing in Barangay Bannawag, Bangilan, Dagupan, Lower Paatan, and Kayaga, Kabacan. Based on the data collected from the Kabacan Rural Health Unit FHSIS report in 2022, 583 mothers with children ages 0 to 24 resided in the five selected barangays. The study's respondents were a complete enumeration of 200 mothers residing in the selected barangay.

The researcher utilized a survey questionnaire with four parts. The first part collected socio-demographic data: age, Tribe, Educational attainment, and barangay. The second part had 10-item True or False questions, including the level of knowledge regarding child immunization. The knowledge questionnaires included information about vaccine benefits and immunization compliance to schedule.

Part three was about Attitudes toward child immunization. For the 10-item

questions, a 5-point Likert scale was used: 5 = Very High, 4 = High, 3 = Moderate, 2 = Low, and 1 = Very Low.

Part four was for mother's practice on child immunization; a 10-item statement using the 5-point Likert scale was used, namely 5 = Very High, 4 High, 3 = Moderate, 2 = Low, and 1 = Very low. Below is the basis of analysis and interpretation for the level of practices toward child immunization among residents

The questionnaire underwent validity and reliability testing with Cronbach's alpha coefficient value of 0.928, which was interpreted as reliable. The study incorporated Frequency and Percentage to describe the mother's demographic profile regarding age, tribe, educational attainment, and barangay. Moreover, the mean was used to determine the level of knowledge, attitude, and practices regarding child immunization. On the other hand, the ANOVA was utilized to compare the means of the level of knowledge, attitude, and practices of mothers on child immunization. In contrast, Pearson moment product correlation was used to determine the significant relationship between knowledge, attitudes, and practices on child immunization.

The study underwent an ethical review and followed ethical considerations during the research's advancement. The community was informed and most benefited from its advancement. The research's communications were conducted with integrity, openness, and respect for confidentiality.

Results and Discussion

Table 1. The Demographic Profile of the Respondents

The demographic profile of respondents is shown in Table 1 above-provided information that most respondents were under 24 to 28 years of age, with a percentage of 27.00 or 53. In terms of tribe, the study shows that most respondents belonged to the Ilocano tribe, accounting for 36.00 percent or 72 of the total sample. In terms of educational attainment, the data shows that a significant portion of the respondents, totaling 64 percent or 129 mothers, were high school graduates. Moreover, in terms of Barangay, the Barangay Kayaga had the highest participation rate at 28.00 percent or 56 mothers.

Table 2. Respondents' Level of Knowledge on Child Immunization.

Indicator	Mean	Descriptive levels	
Demographic profile		**Frequency**	**Percentage (%)**
Mother's Age	**Knowledge** 4.485	Very High	
18-23		39	20
24-28		**53**	**27**
29-33		50	25
34-39		33	16
40 and above		**25**	**12**
	Total	**200**	**100**
Tribe			
Bisaya		20	10
Ilocano		**71**	**35**
Ilongo		41	20
Magiundanaon		61	31
Maranao		**7**	**4**
	Total	**200**	**100**
Educational Status			
College Graduate		24	12
High School Graduate		**129**	**64**
Elementary Graduate		44	22
No formal Education		**3**	**2**
Total		**200**	**100**
Barangay			
Bangilan		37	19
Bannawag		31	16
Dagupan		**23**	**11**
Lower Paatan		53	26
Kayaga		**56**	**28**
	Total	**200**	**100**

Legend: *5 = Very High, 4 = High, 3 = Moderate, 2 = Low, and 1 = Very Low.*

Table 2 shows the mother's overall level of knowledge on child immunization. Based on the results, the overall mean of knowledge was 4.485, which means that the knowledge level on mothers' child immunization was very high. This implies that most mothers in the selected Barangay in Kabacan were highly knowledgeable about child immunization. The study shows that respondents were highly knowledgeable about the ability of the vaccines to protect their children from different VPDs. The respondents believe that vaccines prevent the spread of diseases, are safe, comply with the immunization schedule, and are essential to ensure the protection of their children. They were also highly knowledgeable on the different kinds of vaccines that their children need to receive.

Table 3. Respondents' Level of Attitude on Child Immunization

Indicator	Mean	Description levels
Attitude	4.715	Very High

Legend: *5 = Very High, 4 = High, 3 = Moderate, 2 = Low, and 1 = Very Low.*

Table 3 shows the mother's overall attitude toward child immunization. Based on the results, the overall mean of attitude was 4.715, implying that the attitude on child immunization was very high. This implies that the attitude toward child immunization is very positive. The study revealed that the respondents agreed that child immunization is necessary and that vaccination side effects were not dangerous. It also shows that the respondents believe all children must be vaccinated, listen to the healthcare workers' instructions, and recommend child immunization to other parents.

Table 4. Respondents Level of Practice on Child Immunization

Indicator	Mean	Descriptive level
Practices	4.840	Very High

Legend: *5 = Very High, 4 = High, 3 = Moderate, 2 = Low, and 1 = Very Low.*

The table shows residents' overall level of practice on child immunization. Based on the results, the overall mean of practice was 4.840, implying that the level of practice on child immunization is very high. It implies that the respondents always practice child immunization. The

study shows that the mothers practice compliance with child immunization by bringing their children to the health center and vaccination site. During the visit, they also bring their immunization card and ask for the following immunization schedule. They make sure that their children must be declared as fully immunized children.

Table 5. Relationship between Knowledge and Attitude toward Practices on Child Immunization

Variables	Practices			
	r	p.value	Decision	Remarks
Knowledge	0.077	0.281	Accept H_o	Not Significant

Note* p.<0.05 (Significant), *±1.0 to .80=Very strong, ±0.79-.60 = strong, ±0.59 to 0.40 = moderate, ± 0.39 to 0.20 = weak, ±0.19 to 0.00 = very weak*

Table 5 shows the test of the relationship between knowledge and practices in child immunization. The results show a fragile positive non-significant relationship between Knowledge towards Practices on child immunization (r=0.077, p= 0.281), implying that the null hypothesis is Accepted. This indicates that the mother's immunization knowledge does not affect their practices, and there is no significant difference between knowledge and practices.

Table 6. Relationship between Attitude and Practices of respondents on child immunization

Variables	Practices			
	r	p.value	Decision	Remarks
Attitude	0.439	<0.001	Reject H_o	Significant

Note* p.<0.05 (Significant), *±1.0 to .80=Very strong, ±0.79-.60 = strong, ±0.59 to 0.40 = moderate, ± 0.39 to 0.20 = weak, ±0.19 to 0.00 = very weak*

Table 6 tests the relationship between Attitudes toward Practices on child immunization. The result showed that Attitude towards Practices on child immunization had a positively moderate significant relationship (r=0.439, p= <.001), implying that the null hypothesis is rejected. The result emphasizes the significance of positive attitudes towards child immunization practices. It indicates that the mother's attitude toward child immunization affects their compliance.

Table 7. Significant differences on the level of Knowledge, Attitude, and Practices when respondents are grouped according to their socio-demographic profile.

Demographic Profile	Knowledge (Mean)	Attitude (Mean)	Practices (Mean)
Barangay			
Bangilan	4.486[a]	4.627[a]	4.673[a]
Bannawag	4.548[a]	4.971[b]	4.882[b]
Dagupan	4.739[a]	4.917[bc]	4.879[b]
Lower Paatan	4.357[a]	4.827[c]	4.788[c]
Kayaga	4.472[a]	4.892[c]	4.499[ab]
Educational Status			
College Graduate	4.368[a]	4.889 [a]	4.626[a]
High School Graduate	4.359[a]	4.831 [a]	4.741[a]
Elementary Graduate	4.507[a]	4.83 [a]	4.736[a]
No formal Education	3.85[b]	4.938 [a]	4.444[b]
Tribe			
Bisaya	4.645 [a]	4.87[ab]	4.65 [a]
Ilocano	4.435 [a]	4.78[a]	4.69 [a]
Ilongo	4.427 [a]	4.92[b]	4.786 [a]
Maguindanaon	4.336 [a]	4.836[a]	4.703 [a]
Maranao	4.857 [a]	4.929[ab]	4.841 [a]

**Note: This means that sharing the same letters is similar. α = 0.05 significant difference.*

Table 7 shows the difference in the knowledge, attitude, and practice levels when the respondents were grouped according to their demographic profile. As shown in the table, the indicators of demographic profile that have a significant difference are as follows: in terms of Barangay, there were significant differences in attitude and practices, implying that respondents had different opinions and dispositions on immunization and practice in complying with child immunization.; in terms of Educational Attainment there was a significant difference in their knowledge and practice, implying that educational attainment of respondents influences their knowledge and practices on child immunization; and in terms of the tribe there were significant relationship in their attitude, implying that the respondent's tribe influenced their attitude towards immunization.

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Conclusion and Recommendations

The mothers from selected Barangay in Kabacan showed excellent knowledge, optimistic attitude, and good practice regarding child immunization. The study shows no significant relationship between the mothers' knowledge and their practices regarding child immunization. Meanwhile, the study shows a significant relationship between the mother's attitude and practices on child immunization. Moreover, when the mother's Knowledge, Attitude, and Practice were assessed according to their demographic profile, in terms of Barangay, there were considerable differences in attitude and practices; in terms of Educational Attainment, there were significant differences in their knowledge and practice; and in terms of tribe, there was a significant relationship in their attitude.

However, based on the study's findings, a proposed Community Health Education program to enhance the mother's Knowledge, Attitude, and Practices will be recommended. For future research, consider adding new parameters related to respondents' Knowledge, Attitude, and Practices, and use the Content Validity Index, Confirmatory Factor Analysis, and Exploratory Factor Analysis. Future researchers may employ mixed and qualitative methods to study the respondent's further experiences and understanding of child immunization.

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Lived Experiences of Novice Nurses in Rendering End-of-life Care

Christine Jean B. Porras, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

Novice nurses often hesitate to engage with terminally ill patients, driven by a combination of inexperience and fear of errors. Throughout various stages of end-of-life (EOL) care, they grapple with numerous conflicts, both professionally and personally demanding. Navigating these challenges while tending to patients and their families becomes a crucial aspect of their role. This study used a qualitative, descriptive-phenomenological research design to determine the participant's lived experiences. There were seven participants purposively selected in this study which includes novice nurses who have experience in providing end-of-life care in a tertiary hospital in Cotabato City. Employing Creswell's qualitative method of data analysis, three themes emerged: Encountering Hurdles in the Realm of Caring (Subthemes: Facing Challenges and Difficulties, Bearing Knowledge and

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Competency in Caring, and Realization in Providing the Best Care), B. Fostering Resilience and Competence with Collaborative Support (Subthemes: Seeking Support from Fellow Nurses, Having Knowledge of the Disease, Practicing Time-Management and Goal-Setting), and Promoting Good Attitudes and Positive Traits (Being Prepared and Ready, Promoting Therapeutic Communication, and Valuing Teamwork). The identified themes and subthemes explored novice nurses' experiences and coping mechanisms when caring for end-of-life patients in palliative care, while also offering insights shared by participants to their peers and the nursing profession, addressing the study's research questions comprehensively. Novice nurses encounter significant challenges in providing end-of-life care, emphasizing the need for ongoing support and education to enhance their confidence and competence in this critical aspect of nursing practice.

Keywords: *Job Commitment, Social Studies, Phenomenology, Philippines*

Corresponding email: christinefiel@davaodoctors.edu.ph

Introduction

In the solemn corridors of healthcare, where life's journey meets its inevitable conclusion, the profound significance of end-of-life care comes into stark focus. Death, an undeniable and intrinsic part of the human experience, serves as the ultimate test for the compassionate guardians of health – nurses (Ibrahim et al., 2021). These seasoned professionals navigate the delicate balance between life and death, providing solace and support during humanity's most vulnerable moments (Ho et al., 2022). Their expertise and empathetic approach enable them to navigate the emotional complexities of patients and their families during this critical phase (Tehranineshat et al., 2018).

Studies have shown that nurses' attitudes and knowledge significantly influence their perspectives on promoting advance directives and engaging in end-of-life care (Ho et al., 2022). Literature indicates that organizations that recognize compassionate acts by caregivers create an environment for them to be more sensitive to patients' needs, leading to greater satisfaction in their work (Sweeney, 2021).

However, providing end-of-life care can be emotionally and psychologically distressing for nurses, leading to burnout and compassion fatigue (Sturzu et al., 2019). Nurses providing care to end-of-life patients and their families are likely to experience emotional and psychological distress, highlighting the need for support and coping strategies (Ozga et al., 2020). It has been reported that up to 85% of healthcare workers display compassion fatigue, with direct consequences for patient care (Upton, 2018).

Moreover, amidst the profound arena of end-of-life care, novice nurses are faced with the complexities, emotional depth, and ethical considerations inherent in providing comfort to those approaching life's inevitable conclusion

(Martin et al., 2022). The transition from theory to practice is magnified as they grapple with the challenges of this critical phase (Hoeve et al., 2019). Novice nurses may experience anxiety, frustration, and exhaustion while managing dying patients due to their personal moral, cultural, and emotional responses to death (Manjavong et al., 2019). Moreso, they may encounter ethical dilemmas and tensions related to death, dying, and life-sustaining interventions and may struggle with weak professional confidence (Najafi & Nasiri, 2023). Research indicates that novice nurses, including those in the Philippines, often feel unprepared to provide end-of-life care (Croxon et al., 2018). This is particularly concerning since thousands of new or novice nurses are expected to be working in the clinical setting (Labrague et al., 2018).

In light of the pivotal role novice nurses play in the delicate process of end-of-life care, seek to illuminate the unique narratives, challenges, and coping mechanisms that unfold within this poignant intersection of death and the novice's transformative journey in dealing with palliative patients. This study focused on the experiences of novice nurses in caring for end-of-life patients in palliative care and how they cope with the challenges they experience. This study could contribute valuable insight that can inform educational practices, enhance support systems, and ultimately foster a more compassionate and prepared cadre of novice nurses in the realm of end-of-life care.

Methods

This study used a qualitative, descriptive phenomenological research design to understand and convey the lived experiences of novice nurses providing end-of-life care through techniques of technique developed by philosopher Edmund Husserl approach in the field of phenomenology.

There were seven participants purposively selected in this study which includes novice nurses who have experience in providing end-of-life care in a tertiary hospital in Cotabato City. They are the nurses that have been purposively selected since they have experience caring for terminally ill patients within 1 week or months and have a minimum amount of experience or training in providing this kind of care not more than 6 months were required.

Before commencing data gathering, the researcher developed a questionnaire that has been validated by research experts and consequently secured approval from the institution to ensure the accuracy and acceptability of the questionnaire. A consented and recorded in-depth interview with the participants has been instituted through their convenient time which situated in the hospital setting with privacy and discussed to freely exercise their rights.

For the data analysis of gathered data, the researcher utilized the descriptive phenomenology technique, inspired by Creswell and guided by Polit & Beck (2019), to investigate the communication dynamics between the researcher and participants. This methodological choice was made to analyze qualitative data, to uncover significant insights (Bian et al., 2023). Creswell's data analysis method facilitated the identification of valuable learning outcomes and offered fresh perspectives on historical occurrences. Creswell's procedure involved multiple steps to ensure the accuracy and reliability of data

collection and analysis. Initially, the complete transcript was read twice to gain a foundational understanding. Statements were recorded using an audio recorder and transcribed onto separate pieces of paper to ensure transcription accuracy. Noteworthy transcripts relevant to the research inquiry were selected, and participants were given detailed explanations.

The expressed meanings were categorized into themes and subject clusters, with extraneous details removed. Participants confirmed the results to align their experiences with descriptive interpretations. Data gathering was complete when themes and categories were consistent, leading to a clear identification statement. The validation process concluded with participant queries about the findings and confirmatory measures by the researcher to ensure the thematic analysis resonated with participants' experiences.

Results and Discussion

Participant's Profile

All participants are novice nurses who provide care to patients toward the end of their lives. Two individuals are allocated to the isolation ward, while an additional two are assigned to private wards. The remaining individuals are assigned to the medical ward and OB-Gyne ward. The majority of participants are females with only two male participants. Four individuals are working for 6 months, while the remaining individuals are employed for 5 months or less. One of the individuals received end-of-life care for 10 days, while the remaining individuals received treatment for 8 days or less. Every participant received a one-on-one interview with the researcher for this study.

Emergent Theme 1: Encountering Hurdles in the Realm of Caring

This overarching theme unveils the profound nature of their experiences, emphasizing the importance of adaptation and growth throughout their practice. The emergence of three distinct cluster themes within this overarching theme enriches understanding of the distinct experiences of novice nurses in caring for end-of-life care participants which are represented by three cluster themes which are Facing Challenges and Difficulties, Bearing Knowledge and Competency in Caring, and Realization in Provide Best Care.

Cluster Theme 1: Facing Challenges and Difficulties

This cluster theme expresses the various challenges and difficulties encountered by novice nurses in caring for patients at the end of life. It encompasses a range of adversities, obstacles, and hurdles that novice nurses encounter in various aspects of their lives and work environments as professional healthcare professionals. The theme delves into the complexities of navigating through adversity, overcoming obstacles, and coping with challenging circumstances.

It also explores the novice nurse's resilience, perseverance, and problem-solving skills required to confront and surmount obstacles. It sheds light on the psychological, emotional, and practical strategies they

employed to navigate through adversity and emerge stronger as caring healthcare professionals. This theme further expresses and highlights the novice nurse's capacity to adapt, innovate, and thrive in the face of adversity, showcasing stories of triumph over adversity and resilience in the face of hardship which may revolve around feelings of fear and uncertainties as a novice that lacks experience.

Indeed, one significant challenge novice nurses face is the fear of falling short in fulfilling their roles as caregivers (Kox et al., 2020). According to studies, the weight of responsibility associated with providing end-of-life care can be overwhelming, and novice nurses may grapple with self-doubt and apprehension (Labrague et al., 2018). Acknowledging and addressing these fears are crucial steps in supporting the emotional well-being of novice nurses as they navigate the challenges inherent in their roles (Kox et al., 2020).

Another difficulty novice nurses encounter is the fear of making critical mistakes in patient care. The intricacies of end-of-life care demand precision and accuracy, and novices may worry about the potential impact of errors on patient outcomes (Croxon et al., 2018). This fear underscores the importance of robust training, mentorship, and ongoing support to enhance the confidence and competence of novice nurses in providing safe and effective care (Sarnkhaowkhom et al., 2021). The difficulty and challenges experienced by novice nurses emanated from their statements shown below:

"I experienced that the care of these patients is difficult and traumatizing. Their situation is complicated making it very difficult for me since I lack experience in handling

them." (N2, Code SS 58, Line 67-68)

"I considered caring for end-of-life patient to be difficult since their cases are terminal and often they are waiting for death. The hopelessness of their situation for me is a big challenge since I am hoping to provide them comfort." (N5, Code SS 73, Line 91-92)

Moreover, novice nurses may face challenges in managing their emotional responses to the suffering of patients at the end of life. Witnessing the pain and deterioration of patients can evoke profound emotional reactions, and novice nurses may struggle to maintain a balance between empathy and professional detachment (Ho et al., 2022). This emotional toll becomes a significant difficulty that necessitates strategies for self-care and emotional resilience (Ko et al., 2021).

Cluster Theme 2: Bearing Knowledge and Competency on Caring

This part expressed that having the knowledge and competency in the care of end-of-life patients is expected from nurses even if they are novices. Yet, it is reasonable to believe that clinical experience of all kinds has a favorable impact on attitudes toward end-of-life care. The following is a collection of relevant statements related to this topic:

"I experienced the urgency of gaining the knowledge to care as tantamount to the safety of these patients." (N7, Code SS 96, Line 96-97)

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"I experienced the contribution of attending seminars as a source of knowledge and competency building since it helped improve my caring abilities to the patient. This guides me in doing interventions to the different difficulties of my patients." (N4, Code SS 78, Line 84)

These answers imply that novice nurses are expecting that they must have knowledge and competency in the patients is one important aspect of care for end-of-life patients. According to Bollig et al. (2015), one significant hurdle for novice nurses is the acquisition of specialized knowledge in end-of-life care. The complexities associated with various terminal illnesses demand a comprehensive understanding of disease trajectories, symptom management, and palliative interventions. Navigating this intricate landscape becomes a formidable task for novice nurses striving to build the necessary knowledge foundation for competent caregiving (Battista & Sciacca, 2023)

Furthermore, novice nurses encounter challenges in mastering the intricacies of pain management for patients at the end of life. Palliative care requires a nuanced approach to address the physical and emotional aspects of pain, and novice nurses may struggle to achieve the optimal balance between pain relief and potential side effects of interventions (Lundin & Godskesen, 2021).

To overcome these hurdles, mentorship and ongoing education play crucial roles in the development of novice nurses' knowledge and competency in end-of-life care (NaseriSalahshour & Sajadi, 2019). Engaging in reflective practices and seeking guidance from experienced colleagues contribute to their professional growth, helping them navigate the complexities of caring for patients at the end of life (Serafin et al., 2021).

Cluster Theme 3: Realization in Providing the Best Care

This context shared the transformative process through which novice nurses come to recognize the importance of compassionate, holistic care in the context of end-of-life scenarios. It encompasses their evolving awareness of the unique needs and preferences of terminally ill patients, as well as their families, and the profound impact of their actions on the overall quality of life and dignity of the individual receiving care. This cluster theme is based on pertinent statements of participants listed below:

"I expect myself to render the best nursing care to the patient and treat them as normally as possible." (N6, Code SS 81, Line 9698).

"I have experienced to be doubtful if I can give the expected quality care they're supposed to receive since there is need to provide quality care to this type of patient." (N4, Code SS 75, Line 83).

The profound realization experienced by novice nurses providing end-of-life care is a remarkable experience as they grapple with the emotional toll of witnessing the vulnerability and suffering of terminally ill patients, evoking a range of emotions such as empathy, sadness, and a deep sense of responsibility. A study expresses that this emotional terrain becomes a

hurdle that novice nurses must navigate to deliver compassionate and patient-centered care during this sensitive phase of healthcare (Martin et al., 2022). In addressing these

challenges, it is essential to recognize the pivotal role of support and resources during this challenging period. Adequate support and resources contribute to the well-being and professional growth of novice nurses, enhancing their capacity to provide the best care to patients at the end of life (Kim & Sim, 2020; Martin et al., 2022).

Emergent Theme 2: Fostering Resilience and Competence with Collaborative Support

The theme signifies more than a mere collection of challenges; it represents a profound and transformative passage in the novice nurse's career. These trials, whether emotional, intellectual, or practical, act as catalysts for growth and the development of a better understanding of end-of-life care. The cluster themes that emerged are seeking support from fellow nurses, having knowledge of the disease, and practicing time management and goal setting.

Cluster Theme 1: Seeking Support from Fellow Nurses

Novice nurses are depicted as actively seeking support, guidance, and reassurance from their more experienced colleagues as they navigate the intricate unique experience of providing care to patients at the end of life. Through informal conversations, debriefing sessions, and collaborative problem-solving, novice nurses find solace and validation in the shared experiences and perspectives of their colleagues, fostering a sense of belonging and support within the nursing community. The following statements served as a basis for this theme:

"Fortunately, my fellow nurses have previous experiences in handling terminally ill patients so I was able to overcome my fear of handling new tasks through their support." (N1, Code SS 45, Line 56)

"I think the support given by my colleagues helped in overcoming difficulties. I appreciate my co-workers who guide me in doing things to help patients feel comfortable."

(N3, Code SS 63, Line 79)

These answers imply that novice nurses encounter challenges for they encountered care for end-of-life patients is difficult and stressful due to their frail condition but with the help of support from fellow nurses, they can manage the situation. Witnessing the vulnerability and impending loss of terminally ill patients elicits a range of emotions, including empathy, sorrow, and a profound sense of responsibility. Accordingly, the emotional toll is intensified by the nuanced nature of end-of-life situations, where the emotional well-being of patients and their families intertwines with the caregiver's emotional resilience (Cao et al., 2021). As noted in a study, this intricate landscape of grappling with the dynamic needs of meeting the diverse and evolving needs of terminally ill patients, the camaraderie among colleagues emerges as a vital lifeline (Calleja et al., 2019).

Cluster Theme 2: Having Knowledge of the Disease

The acquisition of disease-specific knowledge is crucial for novice nurses in providing optimal care for terminally ill patients. They embark on a quest to acquire a comprehensive understanding of disease trajectories, symptom management, and palliative interventions. Moreover, having pertinent ideas about the disease process can help novice nurses understand and deliver proper interventions toward terminally ill patients. It adds confidence and removes doubt while rendering quality nursing care, as enlightened by their statements:

"Having enough knowledge of the disease process and what to expect, increases self-preparation." (N3, Code SS 60, Line 77)

"I read health articles to update my current knowledge and research unfamiliar things, for this helped me cope with difficulties." (N6, Code SS 75, Line 90-91)

Nurses consider it difficult to care for patients with end-of-life cases since they fear the challenging outcome. However, they can overcome the said situation by having enough knowledge of the case of the patient through training and reading. In addition to clinical competence, the provision of informed care by novice nurses extends to effective communication with patients, families, and interdisciplinary teams. Accordingly, understanding the disease and its implications enables novice nurses to engage in meaningful conversations about prognosis, treatment options, and end-of-life preferences (Liu et al., 2020; Mallia & Cuschieri, 2023). As supported by Calleja et al. (2019), nurses can overcome their challenges and difficulties if they have enough information and knowledge on how to care for their patients.

Cluster Theme 3: Practicing Time Management and Goal-Setting

The provision of end-of-life care presents a complex and dynamic challenge for novice nurses who often grapple with the unpredictable nature of patient care, necessitating the mastery of time management and goal-setting as essential tools for overcoming trials. In this context, time becomes a precious and elusive resource, necessitating efficient allocation to address emergent patient needs (Penders et al., 2015). According to Kim et al. (2022), novice nurses often encounter rapidly shifting priorities, demanding adaptability and effective time allocation to ensure comprehensive and quality care. This theme unfolds how they cope with the situation through the art of efficient time allocation as novice nurses strive to provide optimal care within the constraints of time. Here are a few examples of the statements.

"It is very important to practice time management and goal-setting since we have only a short time for caring for them which can let them feel comfortable." (N2, Code SS 59, Line 65). "Having good time management enables me to cope with my various tasks, this is helpful to my time spent with every patient." (N3, Code SS 62, Line 78).

These answers imply that nurses are carefully identifying the activities to be conducted during their shift since these make

up the nursing care provided to a patient in pain or suffering. The time management system they are adopting can help in ensuring they have enough time given to their patient. It is indeed, the temporal challenges in end-of-life care extend beyond the clinical aspects to encompass meaningful interactions, emotional support and shared decision-making with patients and their families (Ho et al., 2022). Novice nurses face the delicate task of balancing clinical responsibilities with the provision of compassionate and time-sensitive care, highlighting the necessity for goalsetting in their caregiving approach. Goal-setting becomes a strategic mechanism for novices to prioritize tasks, align care with patient preferences, and ensure that the limited time available is utilized effectively (Kaneda et al., 2022).

Emergent Theme 3: Promoting Good Attitudes and Positive Traits

Novice nurses grapple with the emotional complexities of providing care to terminally ill patients, where empathy and compassion play pivotal roles. The insights based on the interwoven narratives are within the clusters of being prepared, promoting therapeutic communication, and valuing teamwork as themes that offer a comprehensive exploration of the transformative journey undertaken by novice nurses in their pursuit of providing dignified, empathetic, and patient-centered care during life's final chapters.

Cluster Theme 1: Being Prepared and Ready

This theme depicted novice nurses as actively engaging in preparatory activities and acquiring the necessary knowledge, skills, and competencies to deliver effective end-of-life care. Moreso, being prepared and ready highlights the significance of cultivating a supportive learning environment within healthcare organizations to facilitate the professional development and resilience of novice nurses. They shared that:

"Being conscious of what they feel regardless of the situation. Being prepared for the situation is vital in patients care." (N4, Code SS 75, Line 80).

"I think being ready and prepared can be a big edge in providing care. You have enough knowledge and prepare yourself to do difficult tasks give energy and enthusiasm in doing your job." (N7, Code SS 79, Line 94).

Novice nurses recognize the significance of emotional preparedness, acknowledging that caring for terminally ill patients necessitates not only clinical competence but also a resilient and positive mindset (Cao et al., 2021; Tang et al., 2022). This proactive approach is rooted in the understanding that end-of-life scenarios are inherently uncertain and emotionally charged, requiring nurses to be prepared for the diverse and evolving needs of patients and their families. The cultivation of a positive mindset within the subtheme of being prepared becomes a coping mechanism, enabling novice nurses to navigate the complexities of end-of-life care with grace and steadfastness (Tang et

al., 2022). This positive attitude is not merely a theoretical concept but a practical strategy that novice nurses employ to maintain composure in the face of challenging situations, fostering a sense of confidence and competence (Hoeve et al., 2019).

Cluster Theme 2: Promoting Therapeutic Communication

Novice nurses are depicted as recognizing the importance of establishing rapport, demonstrating empathy, and actively listening to patients and families to create a supportive and compassionate care environment. This theme highlights the significance of employing therapeutic communication techniques, such as open-ended questioning, active listening, and reflective responses, to explore patients' and families' concerns, values, and preferences regarding end-of-life care. Novice nurses are portrayed as engaging in empathetic communication practices, acknowledging patients' and families' emotions, validating their experiences, and providing nonjudgmental support as they navigate the challenges associated with terminal illness and loss. The following are the excerpts related to this theme:

"I realized the importance of using therapeutic communication. This gives me time to listen and feel the needed support of the patient. I observed they are happy when I spend time communicating with them." (N1, Code SS 46, Line 57).

"I've realized the significance of utilizing therapeutic communication in my practice. By actively engaging with patients and providing support, I've witnessed an improvement in their well-being." (N2, Code SS 50, Line 62).

"By listening attentively and communicating effectively, I can meet their preferences. This approach deepens our connection and enhances their overall experience." (N4, Code SS 68, Line 83).

It revealed that indeed therapeutic communication is a vital component of quality care. This can make nurses able to listen and express care in non-verbal or verbal mode to make patients feel they are always there for them. Within the context of promoting therapeutic communication, novice nurses cultivate active listening skills as a cornerstone of empathetic engagement with patients (Mohammadi et al., 2020). This skill allows nurses to attune themselves to the emotional needs of patients, creating a supportive environment that fosters open and honest communication. Active listening becomes a tangible manifestation of the positive attitude of novice nurses, showcasing their commitment to patient-centered care (Mpangane et al., 2021).

Moreover, it encompasses the development of effective communication strategies to convey information sensitively and comprehensively. Novice nurses recognize the importance of clarity and transparency in their communication, acknowledging that patients and their families deserve accurate and empathetic information about the end-of-life process (Cao et al., 2021). This commitment to transparent communication aligns with the

positive traits cultivated by novice nurses in their quest to provide compassionate care.

Cluster Theme 3: Valuing Teamwork

This context tackles efforts of working in a team in a healthcare setting as the foundation of collaborative care to patients.

Novice nurses are depicted as recognizing the inherent complexities of end-of-life care and acknowledging the value of working collaboratively with interdisciplinary teams to meet the diverse needs of patients and their families.

Consequently, teamwork provides harmonization of services that can increase satisfaction to the patients. Giving your team a pat on the back can provide relief while they are providing end-of-life care, especially novice nurses. They tend to appreciate more if their colleagues would give a helping hand during tough times. Novice nurses acknowledge the significance of collaborative efforts in the interdisciplinary team, understanding that teamwork enhances the overall quality of care provided at the end of life which is validated as reflected in their statements as follows:

"As a novice nurse, people would not expect you to know everything. Always ask if you don't know certain things and most importantly, teamwork makes the dream work." (N2, Code SS 58, Line 64)

"Teamwork is the lifeline of successful nursing care. The help of each on the team can give comprehensive care." (N7, Code SS 78, Line 93)

"Teamwork is important for you can seek other ideas based on their experience to ensure the needed assistance are given to patients." (N4, Code SS 35, Line 81)

These answers mean that nurses realized the essence of practicing time management with goals or a list of activities to be conducted during their entire duty hours. This can help in focusing their actions towards the needs of their patients. Moreover, novice nurses understand the importance of role clarity and mutual respect within the interdisciplinary team (Logan & Malone, 2018). The subtheme encompasses the recognition that each team member, irrespective of their role, plays a crucial part in the overall care provided to patients at the end of life. Novice nurses actively contribute to a positive work environment by valuing and respecting the contributions of colleagues, fostering a sense of shared responsibility for patient care (Tang et al., 2022).

Moreover, it also highlights the role of novice nurses in actively seeking mentorship and guidance from more experienced team members. Novice nurses, by acknowledging their learning curve and seeking support when needed, contribute to a positive and collaborative team dynamic. This reflects a positive trait of humility and a commitment to continuous learning within the context of end-of-life care (Labrague et al., 2018; Martin et al., 2022).

Recommendations

Novice nurses had difficulties in delivering nursing care as a result of their limited experience. Due to their lack of experience, most of them are prone to become quickly anxious and fearful when it comes to

carrying out tasks. Their personal and professional lives have been adversely affected due to the stress they experience while carrying out their responsibilities. However, it is crucial to comprehend the challenges faced by novice nurses. They have the potential to achieve higher performance and increased efficiency provided their issues are adequately resolved. In addition, with adequate training, they will be capable of delivering a wider range of services confidently, provided they execute their tasks accurately. Furthermore, implementing suitable stress management techniques for novice nurses can have positive effects not only on the nurses themselves but also on the patients. Finally, future novice nurses should undergo rigorous and comprehensive training and possess a strong determination to fulfill their responsibilities.

Furthermore, several recommendations for improving end-of-life care in nursing highlight a need for nursing administrators to incorporate training and seminars on end-of-life care into their programs to enhance nurses' capacity to care for terminally ill patients. The nursing curriculum should also include end-of-life care education for students to prepare them for managing dying patients upon graduation. Strengthening nurses' dedication to learning about end-of-life care through reading and attending seminars can provide them with the confidence and skills needed for patient care, particularly for terminally ill patients. The Philippine Nurses Association is encouraged to lead in organizing training sessions on end-of-life care, offering nurses opportunities for competency development in this crucial area.

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Mediating Effect of Communication Skills on Conflict Management and Work-Related Empowerment among Nurses in Police Hospital in Davao Region

Irisch Jane A. Razo, RN

Davao Doctors College Inc.
Davao City, Philippines

Abstract

The study aimed to determine whether communication skills significantly mediate the relationship between conflict management, and work-related empowerment, among nurses in a police hospital. Employing a descriptive-predictive research design, the study involved 115 staff nurses selected through a stratified random sampling technique. The results revealed that most respondents were relatively young female nurses, holding a Bachelor of Science in nursing degree. Further, nurses exhibited a commendable level of understanding and competence across various facets of work and communication skills. Proficiency in conflict management was also evident. As for work-related empowerment, the reported levels were moderate. The study also unveiled a significant positive correlation between conflict management to both communication skills and work-related empowerment. Similarly, a positive relationship existed between communication skills and work-related empowerment. Further, analysis through path analysis unveiled that nurses actively engaged in conflict management demonstrated adequate communication skills. Furthermore, a positive influence of communication skills on work-related empowerment was observed, indicating that nurses with enhanced communication skills were highly empowered in their work. The study underscored a partial mediation of communication skills and a direct positive relationship between conflict management and work-related empowerment. This implies that communication skills significantly influence conflict management, thereby empowering nurses in their work and fostering organizational commitment.

Keywords: *Conflict Management, Social Science, Descriptive-Predictive, Davao Region*

Corresponding email: irischjanerazo@davaodoctors.edu.ph

Introduction

The fast-paced and high-pressure nature of healthcare environments can result in misunderstandings and conflicts among professionals. Johnson et al. (2019) found that miscommunication is a significant factor in conflicts among nurses in hospitals, impacting patient care and healthcare workforce well-being. Additionally, the hierarchical nature of healthcare organizations, such as police hospitals, can worsen communication difficulties. Nurses may experience reluctance in expressing their

concerns or ideas due to apprehension about potential adverse outcomes within a hierarchical and authoritative setting.

Al-Jumah and Al-Mohaimeed(2018) found that most Saudi Arabian nurses perceive insufficient communication as a significant obstacle to their professional development and job satisfaction. In addition, a Nigerian study revealed a correlation between poor communication skills and ineffective conflict management, affecting nurses' work-related empowerment and fostering a lack of trust among colleagues (Adebayo, 2018). The study conducted in Thailand highlights the need for effective management in training programs to address communication and conflict management issues, thereby enhancing job satisfaction and empowerment among nurses (Jaisue & Sangprasit, 2019).

The Philippines struggle with the nursing profession, which in turn hinders their empowerment and communication skills, particularly in Manila. Nurses in the Philippines struggle with communication barriers, including language barriers, misinterpretation, and a lack of assertiveness among nurses, according to Gonzales and colleagues (2020). The nurses in Manila face numerous challenges, such as insufficient staff, limited resources, and increased patient demands, which could potentially lead to job dissatisfaction and burnout among nurses.(Gonzales et al., 2020). In Davao City, nurses' lack of conflict management skills has severe consequences, leading to subpar work environments and negatively impacting patient outcomes (Cabanilla, 2021).

The current literature recognizes the importance of communication skills in healthcare settings, including conflict resolution and empowerment. However, there is a lack of specific studies on nurses in police hospitals in the Davao Region. It is important to comprehend the role of communication skills in mediating the connection between conflict management and work-related empowerment. Nurses have a role in the challenging and high-pressure setting of police hospitals as frontline healthcare providers. Effective communication has a significant impact on patient care outcomes, job satisfaction, well-being, and overall empowerment in the workplace. The unique cultural and contextual factors of the Davao Region necessitate a focused examination of the interplay between communication skills, conflict management, and work-related empowerment among nurses in police hospitals. Additionally, comprehending the role of communication skills as a mediator can offer good insights for designing customized training programs for nurses in police hospitals in the Davao Region.

Methods

This study was conducted in three Police hospitals located in Davao Region. Respondents in this research consisted of 115 registered nurses out of a total of 160 employed at a police hospital in the Davao Region. This study employed a stratified random sampling technique to select respondents.

The instruments underwent content validation by three (3) experts and pilot testing (n=40) and revealed an overall McDonald's Omega value of 0.80 which indicates high internal consistency.

There were four (4) parts of the survey questionnaire. The first part of the questionnaire pertains to the respondent's

demographic profile. This includes age, sex, civil status, years of experience, and educational status. The second part of the questionnaire contained questions that sought to ascertain the level of conflict management skills among nurses. The third part of the questionnaire contains the level of work-related empowerment among nurses in terms of structural empowerment; and, psychological empowerment. Lastly, the fourth part of the questionnaire was the level of communication skills among nurses in terms of information seeking, information verifying, information giving, and socio-emotional behaviors.

The study incorporated Frequency and Percentage to determine the profile of the respondents. Moreover, Mean and Standard Deviation were used to determine the level of communication skills, work-related empowerment, and conflict management of nurses. On the other hand, the Pearson product-moment correlation coefficient was utilized as a parametric test to establish a significant correlation among the variables., while Multiple Linear Regression was employed to determine the unstandardized beta estimates standard error and statistical significance between variables. Furthermore, Sobel z-Test was used to test the significance of the mediating effect of communication skills on conflict management strategies and work-related empowerment among nurses.

This research study used a descriptive-predictive research design. According to Burns and Groove (2020), predictive design is also known as predictive-correlational design, a specific type of correlational design used to examine the causal relationships between the variables that involve applying regression analysis to test the hypothesis. Specifically, mediation is a form of regression that allows researchers to analyze how a third variable (mediator) affects the relationship between the predictor (independent variable) and outcome (dependent) variable (Statistics for Research Students, 2022). A predictive design, on the other hand, predicts the variance of one or more variables depending on the variation of another variable (Sousa et al., 2007).

A descriptive research design seeks to provide a comprehensive and detailed account of the characteristics, behaviors, or phenomena under investigation. In the context of this study, the descriptive aspect would involve a thorough examination and documentation of the current state of communication skills, conflict management strategies, and work-related empowerment among nurses in police hospitals within the Davao Region.

Concurrently, the study incorporates a predictive research design, aiming to forecast or estimate the relationships between variables and predict future occurrences. In this case, the predictive element revolves around investigating how communication skills mediate the relationship between conflict management and work-related empowerment among nurses. The study anticipates not only describing the existing scenario but also predicting potential outcomes and understanding the role of communication skills as a mediating factor in shaping conflict resolution strategies and empowerment levels among nurses in police hospitals.

Results and Discussion

Table 1. Profile of the Respondents

Demographic Profile	Frequency (n=115)	Percentage
Age		
25-27	90	78%
28-30	0	0%
31-33	6	5%
34-38	19	17%
Total	**115**	**100%**
Sex		
Male	35	30%
Female	80	70%
Total	**115**	**100%**
Years of Experience		
1 to 3 years	22	19 %
4 to 6 years	67	58 %
7 to 9 years	11	10 %
10 years and above	15	13 %
Total	**115**	**100%**
Civil Status		
Married	54	47%
Single	61	53%
Total	**115**	**100%**
Educational Attainment		
College Graduate	100	87%
Master Graduate	15	13%
Total	**115**	**100%**

Age-wise distribution reveals that a significant majority, approximately 78%, of the respondents belong to the age group 25-27. Notably, there are no participants aged 28-30. A smaller portion, about 5%, falls into the age category of 31-33, while 17% of respondents are aged between 34-38. The age variable may significantly shape work. In contrast, older employees may contribute experience and stability to the workplace.

Regarding gender, the sample primarily consists of females, accounting for 70% of the respondents, while males make up the remaining 30%. Gender differences in work performance have been Years of experience within the sample vary, with 4-6 years of experience being the most prevalent category at 58%. The distribution includes 1-3 years (19%), 4-6 years (58%), 7-9 years (10%), and 10 years and above (13%). Years of experience can influence work performance, as those with more experience may have a deeper understanding of the organizational culture, impacting the organizational climate.

The civil status of the respondents is divided between married and single individuals, with 47% identifying as married and 53% as single. Educational attainment reveals that a significant majority, approximately 87% of the respondents, are college graduates, while the remaining 13% have attained a master's degree.

Table 2. Conflict Management Among Nurses

Indicators	Mean	SD	Interpretation
Understanding the Natural Response	4.11	0.40	High
Understanding the Context	4.10	0.36	High
Applying the Approach	4.17	0.45	High
Overall Mean	**4.13**	0.28	High

***Legend**: 1.00-1.79 – Very Low; 1.80-2.59 – Low; 2.60-3.39 – Moderate; 3.40-4.19 – High; 4.20-5.00 – Very High*

In Table 2, conflict management among nurses is assessed based on three key indicators: Understanding the Natural Response, Understanding the Context, and Applying the Approach.

When it comes to the highest mean indicator "Applying the Approach," the mean score is 4.17, and the standard deviation is 0.45. This reflects a high level of proficiency among nurses in applying conflict management approaches. The slightly higher standard deviation compared to the other indicators suggests some variability in the application of conflict management approaches among the nursing staff.

On the other hand, the lowest mean indicator "Understanding the Context" demonstrates a mean score of 4.10 and a standard deviation of 0.36. This implies that nurses exhibit a strong understanding of the contextual factors influencing conflicts. Their ability to grasp the nuances of specific situations contributes to effective conflict management within the nursing environment.

The overall mean, combining the three indicators, is 4.13, with a standard deviation of 0.28. This consolidated score falls within the "High" range according to the legend provided (3.40-4.19). It indicates that, on average, nurses possess a high level of competence in conflict management.

Implications of these results suggest that the nursing staff demonstrates a commendable understanding of both the natural responses and contextual factors associated with conflicts. Moreover, their ability to effectively apply conflict management approaches is generally high. However, the slight variability in applying approaches indicates that there may be areas for improvement or further training to enhance consistency in conflict resolution strategies among the nursing team. Overall, the findings affirm the strength of the nursing team in managing conflicts, laying a foundation for a positive and cooperative work environment.

Effective conflict management strategies are essential for promoting positive interactions, reducing workplace stress, and ultimately enhancing patient outcomes (Popejoy et al., 2019). One key area of conflict management in healthcare is understanding the natural response to conflicts. This involves recognizing one's own emotional and behavioral reactions when faced with disagreements. A study by Shirey et al. (2019) emphasizes the significance of self-awareness in conflict situations, as nurses who understand their natural responses are better equipped to manage conflicts constructively. By comprehending their emotional triggers, nurses can take proactive steps to de-escalate tensions and engage in more productive dialogue with colleagues. Understanding the context of conflicts is another critical aspect of conflict management in healthcare. Siddiqui and Khashan (2021) emphasize the importance of recognizing the underlying factors that contribute to conflicts. Misunderstandings, differences in communication styles, or conflicting goals can all fuel disagreements. Nurses who actively seek to understand the context of conflicts can work towards addressing root causes rather than merely addressing surface-level disagreements.

As healthcare settings become increasingly complex and interprofessional collaboration becomes more common, nurses must develop and apply effective conflict management strategies. The ability to navigate conflicts constructively is essential for providing safe and high-quality patient care (Jennings et al., 2018). Nurses who can understand their natural responses, grasp the context of conflicts, and apply appropriate conflict management techniques play a vital role in fostering a positive work environment and ensuring the delivery of optimal healthcare services.

Table 3. Work-Related Empowerment Among Nurses

Indicators	Mean	SD	Interpretation
Structural empowerment:	**4.08**	**0.53**	High
Access to Opportunity	3.67	0.53	High
Access to information	4.08	0.55	High
Access to support	3.81	0.53	High
Access to resources	4.76	0.35	Very High
Formal power	4.40	0.46	Very High
Informal power	3.66	0.70	High
Global empowerment	4.19	0.58	High
Psychological Empowerment:	**3.91**	**0.49**	High
Verbal	3.77	0.49	High
Behavioral	4.23	0.35	Very High
Outcome	3.72	0.64	High
Overall Mean	4.03	0.30	High

***Legend**: 1.00-1.79 – Very Low; 1.80-2.59 – Low; 2.60-3.39 – Moderate; 3.40-4.19 – High; 4.20-5.00 – Very High*

In Table 3, examining the highest and lowest mean scores offers valuable insights into the levels of work-related empowerment among nurses.

The indicator with the highest mean is "Access to Resources," scoring an impressive 4.76 with a standard deviation of 0.35, placing it in the "Very High" category according to the legend. This signifies that nurses benefit from an exceptional level of access to resources in their work environment. The high mean suggests a well-supported and resourceful work setting, contributing to enhanced efficiency and effectiveness in nursing practices. The positive implication is that nurses have the necessary tools, materials, and equipment to

excel in their roles, fostering a conducive and empowering work environment.

Conversely, the indicator with the lowest mean is "Access to Opportunity," scoring 3.67 with a standard deviation of 0.53, still falling within the "High" range. While the score indicates a significant level of access to opportunities for professional growth, the lower mean suggests that there may be areas for improvement.

Addressing this could involve implementing targeted initiatives or programs to further enhance career development and opportunities within the nursing profession. Despite being the lowest mean, the score still reflects a high level of access to opportunities, underlining a positive aspect of work-related empowerment among nurses.

The overall mean for structural empowerment is 4.08, with a standard deviation of 0.53, categorizing it as "High" according to the legend. This consolidated score suggests that, on average, nurses experience a high level of structural empowerment in their work. The positive implication is that the overall work-related empowerment scenario is robust, providing nurses with the support, information, and resources needed to thrive in their roles.

In terms of psychological empowerment, the indicator with the highest mean is "Behavioral Outcome," scoring an impressive 4.23 with a standard deviation of 0.35, categorizing it as "Very High" according to the legend. This signifies that nurses exhibit a very high level of empowerment in their behavioral outcomes. The high mean suggests that nurses not only experience psychological empowerment in their thoughts and verbal expressions but also demonstrate empowered behaviors in their actions. The positive implication is that nurses, on average, display proactive and empowered approaches in their daily tasks and interactions, contributing to a positive work culture and enhanced patient care.

Conversely, the indicator with the lowest mean is "Outcome," scoring 3.72 with a standard deviation of 0.64, still falling within the "High" range. While the score indicates a high level of verbal empowerment, the lower mean suggests that there may be areas for improvement. The implication is that there could be opportunities to enhance the outcome empowerment experienced by nurses, possibly through communication training or initiatives aimed at fostering more effective and empowered verbal expressions.

The overall mean for psychological empowerment is 3.91, with a standard deviation of 0.49, categorizing it as "High" according to the legend. This consolidated score suggests that, on average, nurses experience a high level of psychological empowerment in their work. The positive implication is that nurses generally have a positive psychological state that contributes to their overall job satisfaction and effectiveness.

Communication skills play a crucial role in healthcare, influencing patient safety, care quality, and overall patient outcomes (Xu et al., 2021). Nurses are crucial in providing healthcare services, and their communication skills are essential for their effectiveness. Communication in healthcare is a complex concept that involves more than just exchanging information. It also involves establishing therapeutic relationships and promoting shared decision-making (Stokes-Parish et al., 2018).

Effective communication is crucial for nurses in the healthcare setting, particularly in multidisciplinary teams (Begley et al., 2018). In this context, effective communication ensures that team members have a shared understanding of patient needs and treatment plans, thereby reducing errors and enhancing the quality of care (Stokes-Parish et al., 2018). Socio-emotional behaviors, including empathy and the establishment of trusting relationships, are crucial aspects of nursing practice (Eliacin et al., 2019). Begley et al. (2018) found that these behaviors are linked to enhanced patient satisfaction and can enhance the overall healthcare experience. Creating a relaxed and comfortable environment is crucial for nurses to establish therapeutic

relationships and build trust with patients (Eliacin et al., 2019).

Insufficient communication skills among healthcare professionals, including nurses, have been associated with adverse events, medication errors, and suboptimal patient care (Stokes-Parish et al., 2018). Miscommunication can result in misunderstandings, care delays, and adverse outcomes. Hence, it is imperative to identify areas of deficiency or in need of improvement in communication skills to enhance patient safety and the quality of care (Xu et al., 2021).

Table 4. Level of Communication Skills among Nurses

Indicators	Mean	SD	Interpretation
Information Seeking	3.83	0.73	High
Information Verifying	4.19	0.43	High
Information Giving	3.84	0.65	High
Socio-Emotional Behaviors	3.84	0.65	High
Overall Mean	3.99	0.34	High

***Legend**: 1.00-1.79 – Very Low; 1.80-2.59 – Low; 2.60-3.39 – Moderate; 3.40-4.19 – High; 4.20-5.00 – Very High*

In Table 4, examining the highest and lowest mean scores provides valuable insights into the level of communication skills among nurses.

The indicator with the highest mean is "Information Verifying," scoring 4.19 with a standard deviation of 0.43, categorizing it as "High" according to the legend. This indicates that nurses demonstrate a high level of proficiency in verifying information. The high mean suggests that nurses are adept at ensuring the accuracy and reliability of the information they receive or convey. The positive implication is that this skill contributes to effective communication, minimizing the risk of misunderstandings and errors in the healthcare setting.

However, the lowest mean is "Information Seeking" which is 3.83, with a standard deviation of 0.73, categorizing it as "High" according to the legend. While the score indicates a high level of information-seeking behavior, the lower mean compared to other indicators suggests there may be opportunities for improvement in this aspect of communication skills. The implication is that nurses might benefit from enhanced training or support in actively seeking information, potentially leading to more comprehensive and well-informed communication practices.

The overall mean for communication skills is 3.99, with a standard deviation of 0.34, categorizing it as "High" according to the legend. This consolidated score suggests that, on average, nurses possess a high level of communication skills. The positive implication is that nurses are generally proficient in various aspects of communication, contributing to effective interactions with colleagues, patients, and other stakeholders in the healthcare environment.

Effective information provision is vital for care coordination, ensuring proper patient care, and maintaining accurate healthcare records (Li et al., 2019). Nurses excel in fostering trusting relationships, which are crucial for effective teamwork and patient care (Kaur et al., 2020). Effective communication skills are paramount in healthcare, impacting patient safety, the quality of care, and overall patient outcomes (Gkorezis et al., 2021). Nurses play a vital role in the delivery of healthcare services, and their communication abilities are central to

their effectiveness. Communication in healthcare is a multifaceted concept that encompasses not only the transfer of information but also the building of therapeutic relationships and the facilitation of shared decision-making (Dasgupta & Basu, 2019). The ability of healthcare professionals, including nurses, to effectively gather and share information is essential to the coordination of care and ensuring that patients receive the most appropriate treatments and interventions (Dahleez et al., 2022).

In the context of nursing, communication is not limited to exchanges; it also includes non-verbal cues, active listening, and empathetic responses (Cerda et a required to communicate with diverse groups, including patients, families, colleagues, and other healthcare professionals, making their communication skills even more critical. Successful nurse-patient communication has been linked to improved patient satisfaction, increased adherence to treatment plans, and better patient outcomes (Boamah & Read, 2018). Furthermore, in the healthcare environment, where multidisciplinary teams work collaboratively, nurses' ability to convey and verify information is essential ix & Neale, 2020). Effective unication in this context ensures that am members are aligned in their understanding of patient needs and treatment plans, reducing the likelihood of errors and impro (Nikravan-Mofra

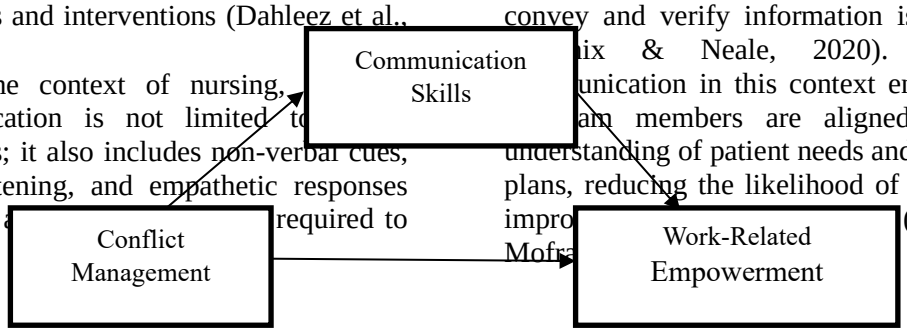

Table 5. Regression results of the variables with the presence of mediating effect

Variables	*b*	SE	*T*	*p*	95% Confidence Interval Lower Bound	Upper Bound
CM * CS	0.477	.023	9.099	.000	.222	.304
CS*WRE	0.301	.043	8.001	.001	.344	.411
CM*CS*WRE	0.233	.057	3.339	.001	.077	.377

Note: *Significant if p<.05; b -unstandardized beta coefficient; SE- Standard Error; IV-CM; Mediator-CS; DV-WRE.*

a = 0.477

S = 0.023

b = 0.301

S = 0.043

c = 0.233

S = 0.057

Total a*b = 0.477*0.301

= 0.14357

Mediation Analysis: Sobel Test 2.989 (p-value = 0.001)

Effect Measures: Total Effect: 0.47; **Direct Effect**:0.23**;** Indirect Effect: 0.14357 (a*b or 0.477*0.301)

The table presents regression coefficients (B), standard errors (SE), t-values (T), and p-values for different relationships. The analysis aims to investigate how communication skills (CS) mediate the relationship between conflict management(CM) and work-related empowerment (WRE). Additionally, a three-way interaction is examined between CM, the mediator CS, and WRE, which is represented as CMCSWRE.

The Sobel test was utilized to examine if communication skills significantly mediated the relationship between conflict management and work empowerment. The results confirmed that communication skills significantly mediate the relationship between conflict management and work empowerment ($Z = 2.989$, $p < .001$). Lastly, only partial mediation is obtained because the regression coefficient based on the analysis is significantly lowered at the final stage (0.23) but remains significant, meaning that part of conflict management is mediated by work-related empowerment however the rest is either direct or mediated by variables that are not included in the model or the study. This shows that both conflict management and communication skills are significant predictors of work empowerment.

As revealed (denoted as c' in Table 5), the total effect of Conflict Management on Work Related Empowerment was found to be reduced after being mediated by Communication skills (to path c': 0.23). To compute the difference, in this case, the Indirect Effect of Work Empowerment, the unstandardized beta of paths a and b is multiplied. Results have shown that the indirect effect is 0.14357 (a*b or 0.477*0.301).

The results of regression show that Communication Skills was a statistically significant mediator of Conflict Management ($b = .0.477$, $SE = .023$, $t = 9.099$ $p < .00$). This suggests that as communication skills and conflict management strategies increase together, there is a positive effect on work-related empowerment. The 95% confidence interval ranging from 0.222 to 0.304 further supports the robustness of this relationship. Next, when the mediator, communication skills, was entered into the regression analysis, Conflict management was still a significant predictor of work-related empowerment ($b = . 0.233$, $SE = . .057$ $t = 3.339$, $p < .001$).

On the other hand, communication skills emerged as a significant mediator of work-related empowerment ($b = .30$, $SE = .04$, $t = 8.01$, $p < .001$). This indicates that as work-related empowerment and communication skills increase simultaneously, there is a positive impact on each other. The 95% confidence interval, spanning from 0.344 to 0.411, reinforces the statistical significance and reliability of this relationship.

Further, this suggests that conflicts experienced by nurses, and their work empowerment also change. This is a direct relationship. This, however, can also be influenced by the degree of communication skills a nurse possesses. This shows that to generate a certain commitment given by the nurses to their organization amidst the conflicts, communication skills should be re-modified to consider their feelings. Thus, to improve the work empowerment of nurses, conflict management should be addressed through various strategies.

Conclusion and Recommendations

The current study concluded that the interaction terms between communication skills, work empowerment, and conflict management had substantial effects. This suggests that effective communication enhances nurses' ability to navigate and manage conflicts, ultimately contributing to their empowerment within the healthcare workplace. This mediation underscores the paramount importance of nurturing and further developing communication skills in fostering a positive and empowered work environment for nursing professionals.

The study concluded that nurses display a high level of proficiency in communication skills, particularly in information verification and socio-emotional behaviors, indicating their ability to effectively communicate and build relationships, which is crucial for their role in healthcare.

Future researchers should conduct in-depth studies to understand communication skills, conflict management, and empowerment among nurses in healthcare settings. By involving a minimum of 200 respondents in mediation studies, they can gain a comprehensive understanding of these factors. Comparative studies across different settings can reveal variations in communication skills, conflict management, and empowerment levels among nurses. Factor analysis can enhance questionnaire validity and reliability. Future research should focus on developing interventions to improve communication skills and conflict management among nurses, leading to greater empowerment and improved patient outcomes. Addressing these areas will continue to advance healthcare environments' understanding and application.

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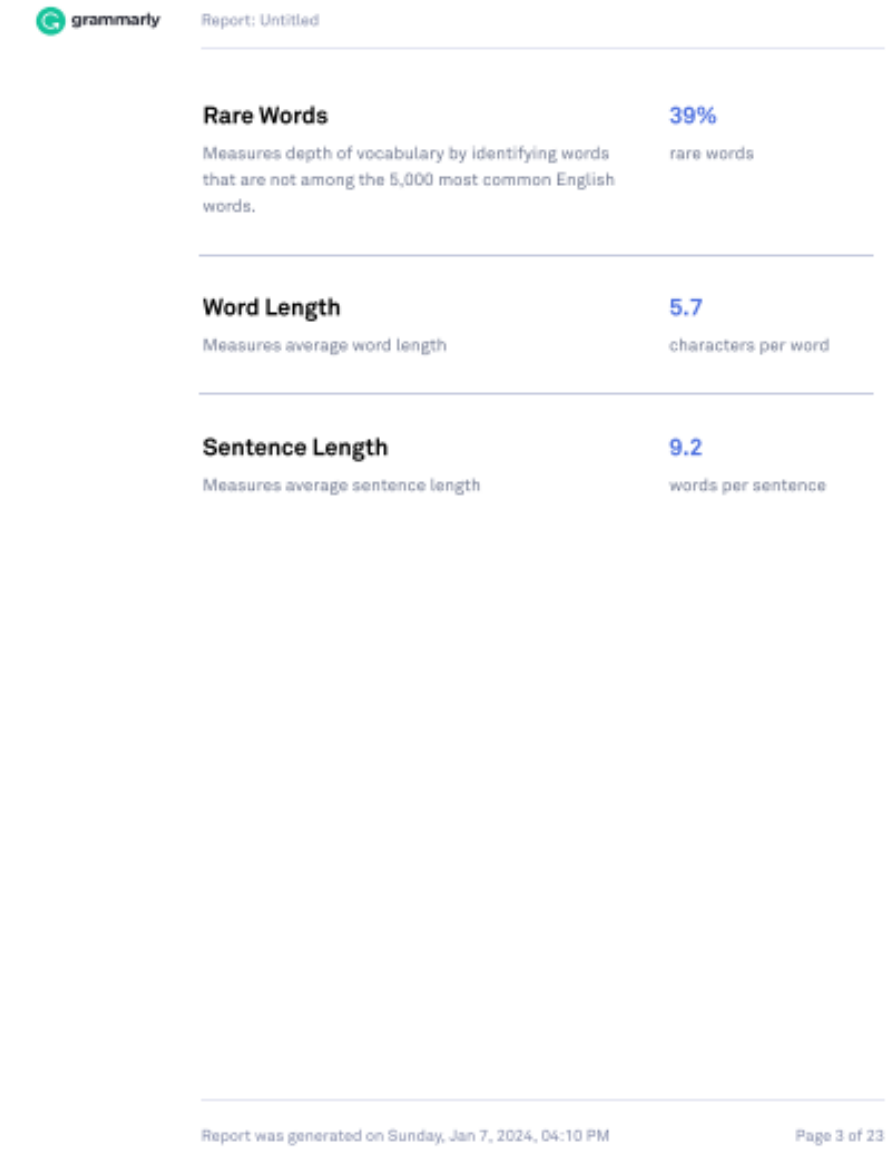

ay Mangayon

Krizal Alexandra D. Rosillo, RN

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Davao Doctors College Inc.
Davao City, Philippines

Abstract

Access to health care services is a fundamental aspect of ensuring the well-being of individuals and communities. Employing qualitative phenomenology, the author's purpose was to explore and understand the experiences of residents of Barangay Mangayon as they access health care. A purposive sample of 14 residents of Barangay Mangayon were interviewed. Using Colaizzi's (1978) phenomenological method, rigor was established through the application of verification, validation, and validity. From 112 significant statements, 12 themes emerged. The experiences of residents of Barangay Mangayon on access to healthcare services in the locality included multifaceted barriers to healthcare access, encompassing geographical location, transportation, finances, and limited availability of healthcare professionals. Their means of coping include asking for support from the government by availing of free services and using alternative ways to overcome health-related problems. The insights that residents of Baranggay Mangayon wanted to share with their peers and with the community, in general, were in urgent need of targeted interventions and policy initiatives. In conclusion, the findings from this study shed light on the intricate landscape of healthcare access within Barangay Mangayon. The identified problems, notably limited proximity to healthcare facilities underscore the challenges faced by residents in seeking adequate health care in their community.

Keywords: *Access to Community Health Care, Health, Phenomenology, Barangay Mangayon*

Corresponding Email: krizalrosillo06@gmail.com

Introduction

Healthcare is not equally accessible across the country, although the challenges in healthcare access in rural residents are considered varied they primarily fall into two buckets, one is the geographic distance from a healthcare provider and provider shortages. Limited availability of health care resources is another factor that may reduce access to health services and increase the risk of poor health outcomes. For healthcare to be accessible it must be affordable and convenient.

On a Global Scale, in a South African Case Study, a situation exacerbated by inequality in access to healthcare services rural populations face differing health challenges. The right of access to health services, regardless of geolocation, is a non-negotiable human right; however, the type of services and the extent of health service delivery are not standardized internationally, strengthening the services provided to marginalized communities (Paxton, et al., 2020).

The report of American Progress is on how states can expand healthcare access in rural communities in the United States (Waldrop, 2022). Another opportunity to improve the rural healthcare provider supply is expanding nontraditional sources of care. For many rural communities, expanding practice through traditional in-office care is not a feasible solution.

Alternative modalities such as telemedicine and mobile clinics present two opportunities to increase medical access in rural healthcare deserts, based on the International Journal of Nursing Studies (2020). In addition, primary health care is particularly important in rural and remote areas where access to health services is limited, and populations are more susceptible to health and social disadvantage. Remote communities are characterized by limited resources and distance from goods and services (Kluwer, 2022).

In the Philippines, according to National eHealth Context (2022), at present, 70% of the population living in some communities like Caraga Region are still struggling with no or limited access to quality healthcare services. Recent health demographics studies showed that the segmented distribution of health facilities and healthcare providers contributes largely to this alarming situation.

Barangay Mangayon in Municipality of Compostela, Davao de Oro is a rural community located in a remote area with limited access to healthcare services and lacks sufficient infrastructure including clinics. Its resident faces a numerous challenge when it comes to access to essential healthcare, resulting in compromised health outcomes, inadequate treatment, and increased vulnerability. The lived experiences of residents regarding healthcare access may be limited, there is a lack of research on community-based solutions to address healthcare access. Understanding the specific challenges, perceptions, insights, and attitudes of residents can provide valuable insights to adequately address the intersectional nature of healthcare access and the experiences of marginalized populations in the barangay.

The purpose of this study is to explore and understand the lived experiences of the residents of Barangay Mangayon, Compostela, Davao de Oro. Thus, it was identified how they cope with the challenges out of their experiences, understand the impact of healthcare challenges on their daily lives, their insights, and how they were able to share with their peers and in the community what they learn from their experiences.

Rural residents face obstacles accessing healthcare, including limited availability and distance to services, hindering timely access despite local availability. Transport challenges compound these barriers according to Rural Health Information Hub (2022). Healthcare access is vital for health equity. Disadvantaged groups face shorter lives and more illness due to limited access. Key issues include distance, safety, transportation, and the availability of suitable services, leading to longer travels for adequate care (Guimarães et al., 2019). The 2013 National Demographic and Health Survey highlighted physical isolation as a major barrier to healthcare in impoverished regions. Remote residents face lengthy travel distances and times to reach healthcare facilities, which hinders access to healthcare (El Omari & Karasneh, 2021).

In Finland, service quality in remote areas relies on accessible services. Municipalities must arrange transport to health and social services. Distance affects accessibility; residents' ability to travel determines access. Poor transport links contribute to health inequalities (Kotavaara & Nivala, 2021). It might be difficult for those who live in slums to get healthcare services. Public health facilities are scarce and frequently of poor quality in these communities. Studies done in slums in developing nations have revealed high costs (Siqueira-Filha, et al., 2021). In the U.S., those who reside in underdeveloped rural or urban areas are more likely to have health issues and have less access to medical care. Residents struggle to pay for and obtain healthcare. There, however, hope, there is no guarantee that city dwellers will have easier access to health care, especially those who reside in rural areas (Lee, 2023).

Geographic Access, to quality healthcare

is crucial for universal coverage. In Sub-Saharan Africa, barriers like bad roads, few providers, and low-quality services limit access. Physical accessibility significantly impacts health outcomes, affecting immunization, childbirth, mortality rates, and maternal care in the region (Gazette, 2022). Through spatial accessibility analyses, health coverage gaps have been identified and used as the basis for planning population health care and targeted resource allocation. Thus, the availability of quality health services within convenient physical proximity of the population remains an important health development goal (Suiyanka, et al., 2022). Transportation issues have a big impact on people's ability to obtain healthcare in the US. People who live in rural places, where there may be limited access to the internet and public transit, may have a long journey. Metropolitan and suburban areas are affected by transportation difficulties. Patients with mobility issues may find it challenging to leave their homes to obtain care and those without vehicles may find it difficult to reach providers who are located in locations with poor public transit (University of Southern California, 2021).

Transportation barriers heavily affect geographically isolated communities, posing a critical healthcare access issue despite advancing technology. In the US, 5.8 million people delay care due to transport issues, with a notable increase between 2018 and 2021 persisting thereafter (Wolfe & McDonald, 2022). Among regions, the poorest region in the Philippines (ARMM) has the longest travel time (61 min), while the richest one (National Capital Region) has the shortest travel time (25 min). As expected, the average travel time is longer Compared to people in metropolitan regions, rural people took 38 minutes longer. (El Omari & Karasneh, 2021). People who live in slums encounter many obstacles while trying to get medical care. Public health facilities are scarce and frequently of poor quality in these communities, according to BMC Primary Care (2022).

In the U.S., urban or rural residents of impoverished areas are more prone to health issues and have less access to medical care. There, however, hope. There is no guarantee that city dwellers will have easier access to health care regardless of the location (Lee, 2023). Access to quality healthcare is vital for universal coverage, especially in Sub-Saharan Africa. Poor infrastructure, roads under construction, and inadequate services hinder healthcare access. Physical reach significantly impacts health outcomes like immunization and maternal care. Analyzing spatial accessibility identifies coverage gaps, aiding targeted resource allocation for improved healthcare in SSA (Suiyanka, et al., 2022). A stated by, Coombs (2022) highlights US rural healthcare challenges: scarcity of providers, poor communication, and access issues for patients. This compounds existing barriers, making service delivery tough. Monitoring all access dimensions is vital for rural Americans' improved healthcare.

According to the article, Healthcare disparities persist due to unequal access globally. Geographical location, transportation barriers, inadequate funding, and shortages in personnel and supplies limit primary healthcare services' reach and impact, leaving many unmet health needs. There is, however, less research addressing whether remote location affects access to health does exist among US countries. (Dickson et al., 2022). Residents living in rural areas face a variety of problems, the most challenging and ubiquitous of which is access to healthcare (Lazar & Davenport, 2018). Ideally, residents should be able to access services such as primary care conveniently and confidently, dental care, behavioral health, emergency care, and public health services (Cunningham, 2019).

In South Africa, the constitution guarantees healthcare access for all. To address these inequities, the South African Government has begun a 15-year rollout that will provide universally funded access to a core set of medical services at non-specialist-level private health

practitioners, as well as public primary healthcare (PHC), centers using a shared pool of funds and personnel, thus expanding access to quality health services for those unable to afford these services while mitigating the financial burden on individuals and their families. The plan is to build a comprehensive healthcare system that provides equal access to high-quality medical care to all people (Govender, et al., 2020).

Furthermore, it is evident that public health in rural areas is very unequal, and the most vulnerable patients typically reap the smallest rewards (Audilbert & **Mathonnat,** 2022).

Availability of free health services and membership in health insurance factors in determining the degree to which sickness and medical treatment deteriorate a household's financial risk (Miot, et al., 2020). In countries like Zambia, where access to basic care is universal and free, residents rarely resort to selling possessions whenever they seek medical needs. With universal health coverage (UHC), everyone has access to medical care. UHC ensures that all individuals have access to services that deal with the major causes of illness and mortality and that the caliber of those services is high enough to enhance the health of those who receive them (Merz & Ohm, 2021). In addition to being a result of development, good health also serves as a basis for it. Additionally, improved health lowers the financial burden of providing healthcare to families, and communities.

Although there has been significant improvement in health outcomes in Africa, there has still been little real advancement. With only five years left, African leaders and their international development partners have a golden opportunity until the MDG target date of 2015, which is a terrific opportunity. There is a strong political will to strengthen health systems, increasing resources flowing to health, and there are some examples of successful reform of how health services are delivered, for example, through community approaches (Harmonization for Health in Africa, 2020).

In terms of Limited healthcare infrastructure, participants describe a lack of hospitals, clinics, and specialized healthcare facilities in rural areas. This leads to difficulties in accessing timely and comprehensive healthcare services. Residents commonly face long distances and poor transportation options when seeking medical care. High healthcare costs, including medical consultations, medications, and diagnostic tests, pose significant challenges for rural residents. Many individuals struggle to afford necessary healthcare services, leading to compromised health outcomes. Rural communities often have unique cultural beliefs and practices that influence healthcare-seeking behavior. Language barriers and limited cultural competency among healthcare providers contribute to communication gaps and hinder effective healthcare access.

Furthermore, participants rely on informal support networks within their communities to navigate healthcare challenges. Neighbors, friends, and community leaders assist by sharing information, offering transportation, or pooling resources for medical expenses. In terms of home remedies and traditional healing practices, in the absence of immediate access to healthcare facilities, residents resort to home remedies and traditional healing practices to manage common ailments. These practices are often deeply rooted in cultural traditions and serve as initial coping mechanisms. Some participants mention the presence of mobile clinics and healthcare outreach programs in rural areas. These initiatives aim to bridge the gap in healthcare access by bringing basic medical services and preventive care closer to the residents.

Participants emphasized the urgent need for improved healthcare infrastructure in rural areas. They highlight the importance of establishing more hospitals, clinics, and

healthcare centers equipped with adequate resources and qualified healthcare professionals. Residents expressed the need for better transportation options, including increased public transportation and improved road networks. Accessible and affordable transportation can facilitate timely access to healthcare facilities. Participants suggest the implementation of financial assistance programs, health insurance schemes, or subsidies for healthcare services to alleviate the burden of high healthcare costs. Such initiatives would ensure that essential healthcare remains affordable and accessible to rural residents. Participants stress the importance of healthcare providers being culturally sensitive and understanding local customs and traditions. They emphasize the need for interpreters or bilingual staff who can effectively communicate with patients from diverse cultural backgrounds.

Methods

The descriptive-phenomenological approach was used in this study, which was done through in-depth interviews and focus group discussions of the residents in Barangay Mangayon. This was utilized to understand the participants' lived experiences, how they cope with the challenges of their experiences, and provide insights into their everyday lives as they seek healthcare needs and healthcare services.

This descriptive-phenomenological qualitative study was conducted at Barangay Mangayon, one of 16 barangays of the Municipality of Compostela province of Davao de Oro. In the 2023 Census, the Barangay Mangayon had a population of 5, 077, which is represented by 6.13% of the total population of Compostela, with a total number of 1, 495 households. The distance of the barangay health center from their location is 6-10 kilometers from the most common household. The source of their electricity is solar, they don't have an exact source of water, they only depend on the deep well, and their transportation is only through a single motor with a very unconstructed road.

The research participants in this study were residents of Barangay Mangayon a specific community located in Compostela, who have been residents of less than a year, ranging in age from 30-50 with an estimation of income per month. The participants were selected through purposive sampling. A total of 7 In-depth interviews and 7 for focus group discussion.

Purposive sampling involves selecting participants based on specific characteristics or criteria relevant to the research objectives. Situations identified with the wonder of interest in the phenomenon being studied allow the selection of participants that are suitable for contributing purposeful information on what is being studied (Nikolopoulou, 2022). In addition, the characteristics of a purposive sample are specified for a reason that is directly related to the research at hand (Andrade, 2020).

The information necessitated for this study was gathered primarily from the verbalization of the 14 participating residents. The participants who will agree to participate in this study will be considered the primary data sources. This will serve as supplemental data intended to support the information that will be gathered from the primary data sources.

The researcher secured the approval to conduct the study from the Program Chair of the Master of Arts in Nursing at Davao Doctors College, Inc. (including the authorizing body of the participating institution). After permission was granted, a semi-structured questionnaire was formulated for three expert evaluations. Secure informed consent from the participants. Explained and oriented the nature of the study, its purpose, and the data collection procedure and duration. For the participants, in identifying those households that resided in the barangay, permission, and approval were sought from the barangay leader or the assigned personnel regarding statistics to have access to their records. Afterward, the questionnaire is intended to determine the factors affecting access to

healthcare. Participants were informed that the interview was audio-recorded. The recordings will then be transcribed word for word after the interview to ensure data accuracy.

In addition, when questionnaires created by researchers are valid and reliable and have been established, the researcher then gave out the questionnaires to participants of barangay Mangayon in Compostela after expressing their consent to participation. Actual data gathering was performed through a face-to-face interview. The interview will end, and the participants will be given appreciation for their participation in the research study. The data will be collated, analyzed through Colaizzi's method, and interpreted afterward. The generated themes were re-evaluated by the participants as a final validation step by the researcher to confirm the accuracy of their intended message for the study.

In maintaining the credibility of a research study adherence to the essential component. The Credibility criteria involve demonstrating that the results of subjective research are sound or compelling from the perspective of the examination participant (Stenfors, et al, 2020). To establish credibility, it is essential to gather reliable and accurate information. This will provide a strong foundation for the findings. To ensure credibility in this study, the researcher guarantees research questions, data collection, analysis, and results are compatible. The formulated meaning and themes from the transcript during an interview are validated by participants. In addition, with the aid of triangulation, 2 survey methods were used. Focused group discussion serves as the primary source, and in-depth interviews serve as the secondary source of data ensuring credibility.

In addition, Transferability, from a subjective perspective, the person conducting the summarizing is mostly responsible for transferability (Stahl & King, 2020). To enhance the transferability of the findings, provide a comprehensive understanding of the context of Barangay Mangayon, including demographics, geography, and healthcare infrastructure of the area. This will help others understand the transferability of the findings to similar contexts. Include specific examples and case studies that highlight the unique aspects of Barangay Mangayon's healthcare access issues. By presenting real-life experiences, readers can better understand the challenges and solutions specific to the community.

Furthermore, Confirmability. This focuses on establishing the objectivity and neutrality of the research process and findings. Researchers can achieve confirmability by thoroughly documenting their research methods, including sampling techniques, data collection tools, and data analysis procedures. This documentation allows for transparency and reproducibility, enabling others to replicate the study and validate the results. Additionally, using triangulation, where multiple sources of data or methods are employed, helps ensure the accuracy and reliability of the findings, seeking feedback from participants in Barangay Mangayon can also contribute to confirming the accuracy and relevance of the research.

Moreover, dependability happens when a different researcher can replicate the researcher's decisions (Stenfors, et al, 2020). In the context of access to healthcare among the live experiences of residents in Barangay Mangayon, dependability refers to the reliability and consistency of the research findings and the extent to which they accurately represent the experiences and realities of the community. Ensure that the research process is well-documented and transparent so that it can be replicated by others. Involve multiple researchers or experts in the data analysis process to enhance the dependability and reduce bias.

Colaizzi's data analysis method was applied to gain insights into the lived experiences of residents in Barangay Mangayon regarding access to healthcare. The method involves a

systematic and rigorous approach to analyzing qualitative data and extracting meaningful themes or patterns.

The researcher immerses themselves in the data collected from interviews, surveys, or other sources to become familiar with the content. This involves reading and re-reading the data to gain a comprehensive understanding of the residents' experiences and perspectives on healthcare access. The researcher identifies statements or phrases that directly relate to healthcare access. These statements could include descriptions of experiences, challenges faced, or suggestions for improvement. Significant statements serve as the building blocks for further analysis. The researcher extracts explicit and implicit meanings from the significant statements. This step involves careful reflection and interpretation of the data to understand the underlying thoughts, feelings, and beliefs expressed by the residents. It aims to capture the essence of their experiences related to accessing healthcare.

Themes emerge as the researcher identifies commonalities and patterns across the data. These themes group together similar meanings and experiences related to healthcare access. For example, themes could include affordability of healthcare services, availability of healthcare facilities, transportation challenges, or cultural barriers. The researcher creates a comprehensive description of each theme, providing rich details and examples from the data to support the findings. This description aims to capture the essence of the residents' experiences and their perspectives on healthcare access. The researcher may seek feedback from participants or other experts to validate the themes and descriptions. This step helps ensure the accuracy and credibility of the findings by incorporating multiple perspectives and reducing biases. Finally, the researcher integrates the descriptions of each theme into an overall picture or narrative that represents the residents' lived experiences of healthcare access in Barangay Mangayon. This synthesis provides a holistic view of the data and highlights the key findings and insights.

Results and Discussions

This chapter delves into the analysis and interpretation of the data from the experiences of the residents in Barangay Mangayon on access to health care, as well as how they handle and overcome their experiences and insights with the ideas provided by the participants to their peers and also to the community.

Lived Experiences of Barangay Mangayon on Access to Health Care

Navigating pathways to healthcare access

Discussions of the lived experiences of the residents are divided into four themes which are Healthcare at a Distance, Dearth of Healing Hands, and Ailing Infrastructure. Relevant information from the interviews of the participants was the challenges experienced by the residents. The first theme *access* highlights the challenges, or obstacles that the residents face when trying to access medical needs in the barangay. This means that the experiences of the residents of Barangay Mangayon towards having a better and more accessible healthcare service. Residents are having difficulty in reaching healthcare facilities due to remote locations and lack of transportation. However, despite the challenges and difficulties, they are still positive and motivated as they obtain health care access in the barangay.

Healthcare At A Distance

This summed up the participants are far from the health center to ask for or obtain health assistance or any medical needs. In the context of accessing healthcare access, this study addresses the challenges posed by geographical barriers or limited physical access to healthcare facilities. Implementing healthcare at a distance can significantly improve access to healthcare for the residents in Barangay Mangayon acing barriers such as geographical location, or lack of

transportation. Access to healthcare can be severely hampered by geographic distance, especially in rural areas with inadequate transit systems where non-motorized transportation is the primary mode of transportation. The necessity of community health workers in minimizing the impact of geographic isolation on healthcare access is widely acknowledged. Due to a lack of fine-scale spatial data and individual patient records, little is known about the precise effects of Community health workers on breaking down geographical barriers in the healthcare system at this level (Evans, et al., 2022)

The Dearth of Healing Hands

Emphasized the lack of health personnel in the health center, and the significant shortage of doctors, nurses, specialists, or other healthcare professionals needed to meet the healthcare needs of the residents. The scarcity of healthcare providers or professionals who are essential for delivering medical care can result in longer wait times for appointments, delayed medical interventions, and challenges in accessing timely care. The lack of workers in the healthcare industry is a global issue. The lack of enough individuals with the necessary skills in the right places at the right times to offer the right services to the right people is known as a workforce shortage. Concerning this, the situation is becoming worse, and the trends are concerning. The results are likewise consistently poor quality and limited access to healthcare services. (M.J, Croat, 2022)

Ailing Infrastructure

Describes the lack of health care facilities in the health center. Aside from a lack of hospitals, and clinics nearby, physical deficiencies might also be a factor for additional underlying issues contributing to difficulties in accessing healthcare services of residents in the barangay.

Coping Mechanisms of Barangay Mangayon on Access to Health Care

Resilience to Challenges

Discussions of coping mechanisms of the residents are divided into four categories which are Securing support, Public health allies in action, Healing without costs, and Unconventional Paths to Wellness. Despite the challenges and complex pathways they experienced at Barangay Mangayon, they still find ways to access healthcare services and heal from their sickness. The residents also remain resilient despite the challenges they are facing. In essence, this study, emphasizes the importance of fostering resilience and implementing sustainable strategies to address the ongoing challenges associated with chronic healthcare needs, ultimately improving access to effective and continuous care for individuals dealing with such conditions.

Securing Support

The residents seek medical assistance from barangay officials. The government provides free medicines to all until there is a supply in the health center. this implies action on access to healthcare which emphasizes the critical role that local leaders play in shaping the healthcare landscape within their communities. Their proactive efforts, engagement with the community, advocacy, and collaborative approaches are instrumental in addressing barriers to healthcare access and improving the overall health and well-being of the population they serve. Thus, giving free medical assistance has been a big help to the residents of Barangay Mangayon.

The focus on universal health coverage has restored interest in community health worker programs to implement universal health care and strengthened national and international commitments to the equitable delivery of primary health care services, particularly in low-resource settings. Access is the perception of accessibility, whereas accessibility refers to the features of the service offered that allow people to access

services. To address acute and chronic health issues and articulate initiatives for health promotion, disease prevention, and treatment, one of the most significant duties of international public health systems is guaranteeing access to high-quality services. (Enferm, B., 2018)

Public Health Allies in Action,

This describes the participants as they seek financial health assistance from government agencies. In this cluster, the participants were interviewed regarding what group or agency they received for help. Public health allies in action represent a collective effort to address the multifaceted challenges impacting public health. Their collaborative work aims to create healthier communities, prevent diseases, promote well-being, and improve overall population health.

Most hospitals have financial assistance programs for low-income patients. We use administrative data from Kaiser Permanente to study the effects of financial assistance on healthcare utilization. According to the Department of Social and Welfare, or DSWD, the Medical Assistance Program provides financial assistance to needy families (DSWD, 2023)

Healing without Costs

The participants avail of free health services from the health center. implies that individuals receive necessary medical treatment, care, or support without having to pay out-of-pocket expenses or face financial barriers.

Many families struggle to afford the costs of essential medical services. For patients with low incomes, most hospitals offer financial assistance programs. The hospital's financial aid programs are designed to ease patients' financial strains and increase their access to healthcare. (Bai et al., 2021)

Unconventional Paths to Wellness

The participants go with alternative medicines times when they cannot avail of medicines. The context of accessing healthcare refers to alternative or non-traditional approaches, methods, or practices that individuals explore or adopt to improve their health or well-being when traditional healthcare services might be limited, inaccessible, or not fully meet their needs.

Location matters and there are often dramatic differences in healthcare delivery and health outcomes between communities that are only a few miles apart, it also includes a lack of access to such resources as healthcare medicines, education, and transportation. Lack of access to essential medicines in developing countries is a significant problem faced by doctors in impoverished areas. (Adebanjo, et al., 2019)

Insights of Barangay Mangayon on Access to Health Care

Improving health care

Discussions of these insights include four themes, thus this emphasizes critical issues on the necessary needs to enhance If the government officials learn to listen to their people’s concerns, a better community will be built.

Additionally, it signifies the complex and interconnected nature of efforts required to enhance healthcare access. It suggests that the integration of various elements and approaches is essential to create a robust and inclusive healthcare system that addresses the diverse needs of individuals and contributes to better health outcomes for communities.

From Rhetoric to Reality

Talks about the participant’s hope that the newly elected officials will fulfill their promises during the campaign period relative to health services. Thus, this describes the participant's hope that the newly elected officials will fulfill their promises during the campaign period relative to health services. Through communication, the transition or implementation of promises, plans, or discussions about

improving healthcare access in the community, alternative medicines, and medical services will be taken into action.

Effective communication between barangay officials and the community plays a pivotal role in improving healthcare access. Barangay officials need to have a positive mindset and focus on resolving differences and reaching negotiated agreements that work for all parties involved. Capacity-building programs for barangay officials should be implemented in collaboration with higher education institutions and organizations on local governance. (Boysilio, S, 2019)

Workforce Expansion

The participants hope that there will be more health personnel to assist in the health center. Efforts aimed at increasing the number of healthcare professionals, diversifying skill sets, and enhancing the capacity of the healthcare workforce to meet the growing demands and diverse needs of the population involve the initiatives to train and recruit more doctors, nurses, physician assistants, pharmacists, therapists, and other healthcare professionals to address shortages in various specialties and regions.

Expanding the healthcare workforce is essential for addressing healthcare access issues like this especially those in isolated areas and areas with shortages of healthcare professionals. By increasing the number and capabilities of healthcare providers, it becomes possible to meet the growing healthcare demands, reduce wait times, improve quality of care, and extend services to populations that may have limited access to healthcare resources.

Workforce expansion significantly impacts access to healthcare by addressing shortages of healthcare professionals, improving service availability, and enhancing the quality of care. Efforts to expand the healthcare workforce play a pivotal role in improving access to quality healthcare services. By addressing workforce shortages, diversifying skill sets, and deploying professionals effectively, healthcare access can be broadened, ensuring more equitable and comprehensive care for communities. (The Network for Public Health Law, 2019)

Elevating healthcare services

The participants wish to improve the health services of the health center. In summary, elevating healthcare services is the improvement, enhancement, and optimization of healthcare delivery to ensure better quality, accessibility, and effectiveness of care. Elevating healthcare services directly impacts access to healthcare by improving various aspects of the healthcare system.

By elevating healthcare services, the goal is to make healthcare more accessible, efficient, and responsive to the needs of diverse populations. This elevation leads to a more inclusive healthcare system that aims to provide high-quality care to all individuals, thereby improving overall access to healthcare services.

Expanding the healthcare workforce significantly impacts access to healthcare by addressing shortages, improving service availability, and enhancing the quality of care. Expanding the healthcare workforce means more healthcare professionals are available to cater to the needs of a larger population. This reduces wait times for appointments, enhances the capacity to handle patients, and increases the likelihood of timely care. (Le Duc, N, 2018)

Collaborative governance in healthcare

The participants suggest that there should be constant communication between the community and health services. This metaphor theme refers to a cooperative approach involving multiple stakeholders—such as government bodies, healthcare providers, community organizations, patients, and other relevant parties—in making collective decisions and

working together to address healthcare issues, improve services, and enhance access to care. Proper communication, involving the communities in decision-making, understanding their needs, and addressing their medical needs will result in a productive community.

Encouraging collaboration in decision-making processes, where stakeholders collectively contribute insights, expertise, and perspectives to develop strategies that enhance access to healthcare services. Engaging stakeholders from various sectors beyond healthcare, such as education, transportation, housing, and social services, recognizing that these factors significantly impact health and access to care (Bail, et al., 2017).

Recommendations

To further discuss, community-centered care, the experiences shared by residents can inform nurses about the specific healthcare needs and challenges within the community. This insight helps in tailoring care plans that are responsive to the community's unique circumstances. Nurses can advocate for improved healthcare resources, facilities, and policies based on the firsthand experiences of the community.

To start with, Nurses can adapt their care delivery methods to suit the needs of residents facing challenges in accessing healthcare. This might involve telehealth options, mobile clinics, or home-based care services to overcome barriers related to transportation or infrastructure. Moreover, to emphasize Empowerment and Advocacy, nurses can empower residents by educating them about available healthcare resources, assisting in navigating healthcare systems and advocating for their rights to access quality care. The experiences of Barangay Mangayon residents provide invaluable insights that can guide nurses in delivering more effective, culturally sensitive, and patient-centered care. These experiences can shape nursing practices to be more responsive to the specific needs and challenges faced by the community, ultimately improving healthcare access and outcomes.

Furthermore, healthcare access influences Nursing Education, the experiences and challenges faced by communities like Barangay Mangayon regarding access to healthcare hold significant implications for nursing education through, community-based learning, offering opportunities for nursing students to engage in community-based learning experiences allows them to witness firsthand the barriers residents face in accessing healthcare. This exposure fosters a deeper understanding of community health needs. These experiences allow students to understand to comprehend the difficulties that underserved populations firsthand and develop skills to address these challenges

Additionally, the Nursing Research on access to healthcare, especially based on the experiences and insights of communities like Barangay Mangayon, holds several significant implications. In developing interventions, nursing research informs the development of evidence-based interventions to improve healthcare access. This might involve designing and testing interventions such as community health programs, telehealth initiatives, or culturally tailored care approaches.

Furthermore, through the Evaluation of Health care Delivery Models, research helps in evaluating the effectiveness of different healthcare delivery models in addressing access challenges. This includes assessing the impact of mobile clinics, telemedicine, or community health workers on improving healthcare access and outcomes.

Lastly, the implications of studying the lived experiences of the community in Barangay Mangayon shed light on the intricate landscape of healthcare access within the community. The identified problems, notably limited proximity to

healthcare facilities underscore the challenges faced by residents in seeking adequate healthcare in their community.

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Even Heroes Can be Wounded: Lived Experiences of New Bataan Emergency Action Team in Rescuing Lives

Limjohn Mark N. Rosillo, RN, LPT

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

First responders play an important role in disaster prevention, response, and recovery. Using qualitative phenomenology, the author's purpose was to explore and understand the experiences of first responders in rescuing clients during disasters. A purposive sample of 14 experienced responders from New Bataan, Davao de Oro, were interviewed. Using Colaizzi's phenomenological method, rigor was established through the application of verification, validation, and validity. From 108 significant statements, 10 themes emerged. The experiences of first responders in rescuing clients during disasters included exhaustion and hectic schedule, scarcity of resources, frightened of uncertainties, and constrained family time. Their means of coping were focused on being resilient, nurturing a healthy working environment, and linkages and support with other people. The insights that they wanted to share with fellow responders and the community, in general, were their passion to serve is driven by support and gratitude from the community, the importance of developing the right values, and the necessary benefits and rescue materials that should be provided to effectively deliver their mandates as a responder. In conclusion, the lives of first responders embody a profound commitment to humanity, resilience in the face of adversity, and an unwavering dedication to saving lives.

***Keywords**: First Responders, Social Science, Phenomenology, Philippines*

Corresponding email: limjohnrn04@gmail.com

Introduction

First responders play an important role in disaster prevention, response, and recovery because they are the people closest to the action when it comes to disasters. However, given the unpredictable and overwhelming nature of disasters, they are in danger of suffering from negative psychological and physical consequences. As a result, the lived experiences of first responders brought by high-risk situations, traumatic experiences, mental and emotional stress, physical demands, and work-related issues can have a significant impact on their well-being and overall job performance. Recognizing and addressing these multifaceted pressures is essential for promoting the resilience and sustained effectiveness of these dedicated professionals.

According to a survey of first responders in the United States conducted by the Journal of Emergency Medical Services (2023), 37.0% of those surveyed considered suicide, compared to 3.7% of non-first-responder individuals, most likely because of this increased occupational stress (Rose, 2018). In addition, David (2022), surveyed the 82,480 people who responded to the bushfire last 2019-2020 in Australia, and over 5,000 indicated a significant need for

mental health support. While, Japan's greatest earthquake in recorded history which struck in 2011, resulted in the first responder depression with a 21.4% prevalence rate (Stanley et al., 2018).

In November 2013, the Philippines were hit by Super Typhoon Yolanda, Chan et al. (2018) examined the psychological effects of the typhoon and its aftermath and discovered that those who had been exposed to the disaster were more upset and had more post-traumatic stress symptoms. On the other hand, in a study conducted by Castillo et al. (2022), 60% of the respondents experienced occupational stress due to risks of injury and death, 30% due to personal safety, and 10% experienced discrimination. Furthermore, the Municipality of New Bataan, the place where the study was conducted, experienced a devastating disaster during Typhon Bopha (Bagyong Pablo) last December 4, 2012, where it took more than 1,000 lives and different health issues arose, like PTSD and other mental illnesses for both the victims and rescuers, according to MDRRMO's data.

When a calamity strikes, the public eventually pays more attention to the victims' post-traumatic stress experiences than to the rescuers (Thomas, 2020), and despite their expanding population, relatively little research has been conducted to explore what is going on in their profession and occupational stress (Castillo, 2022). In addition, no research has been conducted yet in the municipality of New Bataan about first responders. Therefore, the researcher aimed to bridge existing gaps by examining the lived experiences of first responders, drawing support from relevant literature. This exploration delved into the negative health outcomes linked to occupational stress and proposed potential management strategies. Additionally, the study sought to contextualize these concerns with current events, contributing to a more comprehensive understanding of the challenges faced by first responders in the ever-evolving landscape of their demanding profession.

The purpose of this descriptive-phenomenological qualitative study is to understand the lived experiences in rescuing lives during disasters for the New Bataan Emergency Action Team (NEAT) at New Bataan, Davao de Oro. At this stage in the research, the lived experiences were defined as a representation of the experiences of the first responders in rescuing lives, the knowledge, and the emotional effects that they gain from these experiences.

When a 7.8-magnitude earthquake struck Turkey and Syria early on February 6, 2023, it brought a terrible effect on the local populace. Nearly 100,000 people including first responders in Turkey are mobilized within two days of the earthquake to assist with care and the hunt for survivors. (Gabriela, 2023). Buildings were potential for additional collapse as well as other threats like gas leaks, flooding, and toxic materials like asbestos in roofs must be taken into account which put the rescuers at risk for harm and emotional trauma (Tamara, 2023). The greatest earthquake in recorded history struck Japan on a Friday in the spring of 2011, causing a tsunami that destroyed coastal towns and the Fukushima Daiichi nuclear power plant. The worst nuclear disaster since Chernobyl caused the deaths of more than 19,000 people and forced the evacuation of tens of thousands more (Berger & Garthwaite, 2021). As a result, depression was frequently seen in first responders with a 21.4% prevalence rate (Stanley et al., 2018).

Malaysia has a history of being vulnerable to both natural and man-made calamities, including floods, landslides, smog, and drought. These catastrophes disrupt livelihoods, obliterate infrastructure, result in food shortages, and pose health risks (Lateh, 2021). Natural catastrophe survivors are more likely to suffer from mental health issues, such as post-traumatic stress disorder (PTSD). This had to be a dreadful experience with lasting psychological effects (Ahmad, 2021). Post-traumatic stress disorder is a condition that occurs in some people after

they have witnessed a shocking, frightening, or dangerous event. It is natural to experience fear during and after a traumatic event (Lateh, 2021).

Conversely, in late September and early October 2022, a massive tropical cyclone named Hurricane Ian made landfall in western Cuba, Central Florida, North Carolina, and South Carolina, resulting in significant flooding and wind damage. Nearly 160 people lost their lives and considerable property was damaged in the areas the storm passed over due to flash flooding brought on by the storm's strong winds, heavy rain, and coastal storm surges (Rafferty, 2023). The most prevalent mental health condition after the hurricane, according to research, is post-traumatic stress disorder (PTSD), which affects 30% to 40% of responders (Kelley, 2022).

More than 1,800 people along the U.S. Gulf Coast lost their lives due to Hurricane Katrina in 2005. Katrina was one of the costliest natural catastrophes in American history, with damages estimated at $161 billion. The fact that Hurricane Katrina has remained the most expensive hurricane in U.S. history is fascinating (Reid, K., 2019). Due heightened degree of difficulty, a police officer who was a local first responder in New Orleans was recommended for one-on-one crisis therapy after becoming very angry and leaving a formal debriefing session. His boss claimed that in the days following Hurricane Katrina, he had been seen getting angrier and angrier. He noted that the local first responder was acting unusually (Jordan, 2023).

The Philippines is part of the Pacific Ring of Fire, which spans 40.000 kilometers in a horseshoe shape. In the Pacific Ocean basin, earthquakes and volcanic eruptions are prevalent (Vayola et al., 2020). Among 193 nations, the Philippines has the highest chance of a natural disaster, according to a recent international study with an overall catastrophe risk score of 46.82 out of 100 (Mateo, 2022). As an example, last December 4, 2012, Bopha, a Category 5 storm known as "Pablo," made landfall in the Philippines where it took more than 1,000 people in the New Bataan, Davao de Oro and several mental traumas arose to both the victims and responders.

On the other hand, Super Typhoon Karding blasted into the northern Philippines on September 25, 2022, knocking out electricity and killing five rescue workers while rescuing the victims (Noll, 2022). In November 2013, the Philippines was hit by Super Typhoon Yolanda. Chan et al. (2018) examined the psychological effects of the typhoon and its aftermath and discovered that those who had been exposed to the disaster were more upset and had more post-traumatic stress symptoms. On the other hand, in a study conducted by Castillo et al. (2022), 60% of the respondents experienced occupational stress due to risks of injury and death, 30% due to personal safety, and 10% experienced discrimination.

Aside from mental and emotional effects, physical stress can also happen to first responders like burnout. The World Health Organization defines burnout as an occupational phenomenon caused by unmanaged chronic workplace stress. It has three dimensions: feelings of energy depletion and exhaustion, increased mental distance from the job feelings of cynicism or negativity about the job, and decreased professional efficacy (Patterson & Courie, 2023). They reach out to accident and disaster survivors to provide them with life-saving emotional and physical support. These heroic duties, while necessary, place rescuers at an increased risk of burnout over time (Sambursky, 2021). In addition, Patterson & Couri (2023), enumerated the types of burnouts: individual, interpersonal, and organizational. Individual burnout occurs when a person sets high expectations for themselves and then fails to meet those expectations. Interpersonal burnout is the accumulation of stress at work with the

addition of a difficult coworker, fellow volunteer, or boss.

Finally, organizational burnout can be caused by poor organizational culture and high demands.

Concerning burnout, every day, first responders witness highly stressful or traumatic events. Compassion fatigue (CF) can result from constant exposure to these events (Indiana State, 2022). Extreme mental exhaustion and secondary trauma are the hallmarks of compassion fatigue. When someone doesn't have a good work-life balance, it usually happens (UP Health Behavioral, 2023). When someone is experiencing burnout, they could feel helpless, overburdened, and as though nothing they do will help. Feeling as though one's own or one's loved one is experiencing the trauma of those they are trying to help is known as secondary trauma (First Responders Wellness, 2020).

They also may experience uncertainties when they leave their family at home when disaster strikes (Villahermosa, 2023). In addition, responders often worry about the situation they are in because of the nature of their job, they think of uncertainties of what might happen to them during rescue operations. They are afraid of leaving their family while attending others (Horvath, 2023). Furthermore, while first responders are trained to consider the needs of others as soon as they arrive on the scene of an emergency, they frequently overlook the importance of caring for themselves and putting safeguards in place to protect their loved ones in the event of a loss (Horvath, 2023).

First responders frequently deal with high levels of stress and a variety of difficulties in their line of work. While coping processes might differ from person to person, first responders may employ several standard techniques to deal with stress and difficulties (Bevan, 2022). Many of them require psychological assistance, but their efforts are hampered by stigma, the fear of appearing feeble, and a lack of culturally competent clinicians who understand first responders and the culture in which they operate (Kirscman, 2023).

To be a good rescuer, one should have the purpose of saving the lives of those who are in need, of making someone feel better, or at the very least, of not making them feel worse. Their mission is to resolve the problem at hand. If the people trying to help are unappreciative, the people trying to save them may work harder or they may resent the people helping them (Chowdhury, 2018). First responders place their trust in their colleagues above all others, sometimes even their families. It makes sense to have faith in someone who has been in your circumstances (Kirscman, 2023).

Good communication is a key part of disaster response to avoid conflict and elicit trust among colleagues and support groups (Bowen, 2019). The mission is to save lives, not careers. First responders are two to three times more likely to commit suicide than to die in the line of duty. With treatment, they and their families regain control of their lives and achieve a healthier work-life balance. Some are on medical leave, others are retired, and others are debating whether to continue working or pursue a different career (Kirscman, 2023). Recognizing the significance of mental health, numerous organizations now offer counseling services that are specifically designed for first responders. Trauma and stress-related disorder specialists can assist first responders in processing their experiences, managing tension, and developing healthy coping mechanisms (Greenwood & Anas, 2021).

Families of first responders have their own experiences with trauma. Most struggle to comprehend the changes that occupational stress and trauma have brought about in their first responder companions. They are exhausted, emotionally depleted, and terrified after spending months, and often years, attempting in vain to "fix" their psychologically damaged partners. They are

isolated, believing they are alone and that no other family is experiencing what they are. They must regain their self-confidence, recognize what they can and cannot control in their relationships, practice greater self-care, and adopt a healthier, more independent lifestyle (Kirscman, 2023). In addition, peer support programs have been implemented to reduce the likelihood of these negative outcomes. Critical Incident Stress Management (CISM) has been extensively utilized as a response to the stress responses of emergency services. This entails the utilization of "Critical Incident Stress Debriefing" (CISD), a technique in which a facilitator assists the rescuer in discussing their emotions regarding the incident (Feuer, 2021).

To investigate deeper about the respondent's insights that they can share in an emergency, actions, and words for patients are equally as important as the medical care you provide. By using effective communication techniques, they may concentrate on what will help them feel better and heal (Walsh, 2021). Ensuring effective disaster response and recovery during large-scale events requires communications coordination across federal, state, and local agencies, both to prioritize essential actions and ensure rescue efforts aren't duplicated or delayed (Bonderud, 2021)

In addition, trust, respect, and cooperation define effective teams. It is one of the biggest advocates of cooperation. A workplace culture where everyone works toward a common objective and collaborates to get there fosters a culture of teamwork (Collins et al., 2022). In the dynamic fields of critical care, such as emergency medicine, surgery, and trauma and resuscitation, teamwork is especially important. Teams must be coordinated both inside and between these agencies to give the best care possible for patients (Dinh et al., 2021).

Furthermore, first responders are confronted with challenging professions that frequently require an individual to work and perform in the face of enormous tensions and horrific events. These circumstances can make it difficult for an individual to focus on their work. It would appear that everyone would benefit from having such persons be as resilient as is humanly feasible so that they can function well while also maintaining a healthy mental and physical balance in their lives outside of work (Crowe, 2018). Given that first responders work in inherently stressful circumstances, it is crucial to look at how these professionals maintain resilience to better understand how they can cope with a variety of scenarios and perform successfully (Collins et al., 2022).

To sum it up, natural disasters cause harm to millions of people each year. Between 1998 and 2017, over 7,250 disasters occurred, killing over 1.3 million people. (United Nations Office for Disaster Risk Reduction, 2023). As a result, when responding to a perilous rescue effort, the rescuers' lives are at risk and they are susceptible to harmful psychological and physical effects due to the unpredictable and stressful nature of the disaster (Mao et al, 2018). Lived experiences of first responders brought by high-risk situations, traumatic experiences, mental and emotional stress, physical demands, and work-related issues can have a significant impact on their well-being (Lowery & Cassidy, 2021).

Besides, the nature of emergency services employment is inherently risky, putting workers in these fields at risk (Plat & Sluiter, 2018). For instance, the research found that 69 percent of emergency medical services (EMS) employees have never had sufficient time to recover from traumatic situations (Miller, 2019). To add, based on findings from a study conducted by Stanly et al., (2018), 28 percent of the responders believe that life is not worth living, 10.4 percent for serious suicidal ideation, and 3.1 percent for a previous suicide attempt due to occupational health stress.

Additionally, coping mechanisms and well-being were achieved by the first

responders through social and family support according to the study conducted by Lowery & Cassidy (2021). The provision of social support is an organic and planned process. As such, it offers itself as a sustainable kind of psychosocial intervention to buffer the negative effects of disasters on the communities of people who respond to them (Guilaran, 2018).

Finally, first responder's insights that they can share with their peers and in the nursing, profession is being resilient. Given challenging duties that frequently call on them to work and perform while under extreme stress and experiencing terrible occurrences (Collins et al., 2022). It would appear that having these people be as resilient as they can be would be advantageous to everyone since it would enable them to work well while maintaining a balanced mental and physical state in their personal lives. As helpful professionals working to offer these people high-quality care, it is crucial to remember the particulars of these professions (Crowe et al., 2018).

To develop an understanding of the lived experiences of the New Bataan Emergency Action Team in rescuing lives during disasters, the study was anchored on the Response-Based Theory of Stress by Hans Selye.

Hans Selye, a pioneering endocrinologist, introduced stress as a concept in the 20th century, establishing the General Adaptation Syndrome (GAS). This foundational theory, discussed by Schawarzer (2020) and Walinga (2020), shapes our comprehension of stress, emphasizing the role of acute and chronic stressors in influencing physiological and psychological responses. GAS unfolds in three stages: the 1) alarm stage triggers the "fight-or-flight" response, the 2) resistance stage involves prolonged stress adaptation with heightened hormone levels, and the 3) exhaustion stage, resulting from persistent stress, depletes resources, elevating susceptibility to physical and mental health issues like burnout and depression (Huiguera, 2018).

The application of Selye's stress model in this research involves examining their physiological and psychological responses to stressors encountered during health emergencies and disasters. It is further applied in 3 stages of GAS model: 1) Alarm stage. This stage may include the activation of the fight-or-flight response as the body prepares for action during rescue operations. 2) Resistance Stage. This stage may involve the development of mechanisms to manage stress, such as the use of coping strategies, social support, and resilience-building activities. 3) Exhaustion Stage: This stage may involve physical, psychological, and emotional exhaustion, increased risk of burnout, and the development of stress-related disorders

By applying Selye's stress model, researchers aim to better understand the experiences of rescuers, identify potential areas of intervention and support, and develop strategies to enhance the well-being and resilience of these individuals in high-stress environments.

Methods

A descriptive-phenomenological research design was utilized in this study, which was done through in-depth interviews performed separately and focus group discussions with the participating responders who are taking care of emergencies during disasters. In this study, this approach captures rich details, providing insights into the challenges, emotions, coping mechanisms, and personal growth linked to their life-saving role. Emphasizing a holistic perspective, it considers interconnected dimensions, ensuring first responders' experiences as a guide to research for immediate practical implications in refining training, and support systems, fostering empathy, and improving well-being and efficacy (McCombes, 2023).

Employing a descriptive phenomenology design allows researchers to delve into the lived experiences of responders, offering profound insights into subjective aspects, meanings, and underlying structures. This approach facilitates a richer and more nuanced understanding of the complexities within responders' experiences.

This study was conducted at Municipal the Disaster Risk and Management Office (MDRRMO), New Bataan, Davao de Oro. Being a first-class municipality, New Bataan has been a bastion of progress in all aspects, be it in trade and industry, agriculture, or other economic-driven development. These positive results and progress are coupled with an avenue of new challenges for local governance on how to manage a growing populace, social services, and, of course, the need to provide basic and essential services to the public. New Bataan is also a place that is vulnerable to natural disasters and health emergencies as evidenced by Bagyong Pablo, which struck on December 4, 2012, where many lives were taken. A series of earthquakes also happened in March 2023. One of these was the magnitude 5.3 last March 6, 2023, accompanied by a heavy storm and landslide. Their office is located near the Municipal Hall, where there are an appropriate number of participants.

Purposive sampling was utilized in the selection of participants for this study, including 14 participants, 7 for in-depth interviews and 7 for focus group discussion to achieve data saturation. The selection of participants will include responders who are attending during disasters, and stationed at MDRRMO, New Bataan, Davao de Oro.

This method allows for a targeted and strategic selection process, ensuring that the sample aligns with the research goals. In addition, this method is particularly valuable when the researcher seeks in-depth information, diverse perspectives, or specific expertise from the participants. (Nikolopoulou, 2022). Researchers typically use purposive sampling when the depth and specificity of information are prioritized over statistical representativeness (Andrade, 2020).

The data that was used for this study were gathered primarily from the verbalization of the 14 participating responders who are taking care of emergencies, particularly during disasters. The participants who agreed to participate in this study were considered the primary data sources, and the related literature was the secondary data source for this study. It will serve as supplemental data intended to support the information that was gathered from the primary data sources.

The study outlines a systematic data collection process, beginning with obtaining approval from the Master of Arts in Nursing Program Chair at Davao Doctors College. Informed consent was secured from participating first responders, who were oriented about the study's nature, purpose, and data collection procedure. Participants' rights, including self-determination, the right to refuse information and confidentiality, were emphasized. Audio-recorded interviews, guided by a validated questionnaire, were conducted face-to-face. The recorded data underwent transcription, and thematic analysis using Colaizzi's method was employed. The generated themes were validated by participants for accuracy, ensuring the reliability of the study's findings.

When it comes to trustworthiness. It is when the information gathered is reliable and consistent. Data is applicable when the readers can become familiar with the study and assess whether the setting and results will transfer to their particular setting or future research study. Credibility, transferability, dependability, and confirmability are the four strategies to sustain trustworthiness in a qualitative investigation (Benedictine University, 2023).

Credibility in subjective research is ensured by demonstrating soundness from participants' perspectives. Member checking,

validated by participants, and triangulation, using diverse sources or methods, maintain study credibility (Stenfors et al., 2020; Stahl & King, 2020). These approaches capture authentic experiences, contributing to robust and compelling subjective research outcomes. In this study, to maintain its credibility, the researcher ensures that all of the moving parts—theory, research question, data collection, analysis, and results—are in harmony. By using member checking, a transcript from an interview, its formulated meaning, and themes are validated by participants. Also, with the aid of triangulation, 2 survey methods were used. Focused group discussion serves as the primary source, and interviews serve as the secondary source of data ensuring credibility.

In addition, transferability in qualitative studies is influenced by how well findings can be summarized and contextualized. The responsibility for transferability lies with the person conducting the summarization, mainly from a subjective perspective (Stahl & King, 2020). Rich description, detailing the research context and procedures, allows readers to evaluate the findings' applicability. Theoretical sampling, selecting participants based on emerging themes or theoretical relevance, enhances transferability beyond the immediate context (Stenfors et al., 2020) Therefore, to ensure transferability, there should be a rich description of the study to allow readers to assess the applicability of findings, theoretical sampling, to select participants based on theoretical relevance, and contextualization, to clearly articulate the study's context, enabling readers to evaluate the potential transferability of results to similar situations.

Furthermore, dependability happens when a different researcher can replicate the researcher's decisions (Stenfors, et al, 2020). To complete this path, the researcher must: audit trail, to maintain a comprehensive record of the research process, from data collection to analysis and interpretation; peer review, by seeking external feedback from peers or experts to validate the study's design, methodology, and conclusions, and; consistency in data collection by demonstrating consistency in data collection procedures to establish the dependability of measurements. (Stahl & King, 2020). Strategies that were used by the researcher to establish reliability in this study include: using Colaizzi's data analysis to maintain a comprehensive review of analysis and interpretation, including experts in the analysis process, and demonstrating consistency of data collection procedure.

Moreover, once trustworthiness, transferability, and dependability have been established, confirmation is possible. Qualitative researchers need to be self-aware and receptive to their findings if their work is to be considered reflective (Stenfors, et al, 2020). The researcher needs to be able to critically examine his or her assumptions and biases. Researchers utilize confirmability techniques such as collecting notes about personal thoughts, biases, and insights immediately after an interview and following, rather than leading, the path of interviews by asking for clarifications when necessary.

The researchers were discovering the authentic lived experiences and insights of NEAT members in rescuing lives. The researcher will also serve as the interviewer, investigator, analyst, and writer. Investigator, a researcher will investigate the experiences of first responders in saving lives. This was done through an IDI (in-depth interview). As an analyst, the researcher will analyze the data gathered during the interview and the focus-group discussion. The researcher will also analyze the gathered data from the studies, citations, and other researchers that come from different sources. Lastly, the researchers became the writers by putting all the information into written form before proceeding to the encoding session.

The rules and guidelines that researchers have to follow to conduct their

studies ethically and responsibly are referred to as "ethical considerations in research". In addition to preserving the validity and reliability of the study itself, these elements also aim to protect the rights, safety, and general welfare of research participants (Hassan, 2023).

Lastly, in the exploration of the lived experiences of rescuers using Colaizzi's phenomenological method, the systematic steps provide a structured framework: (1) Transcribing all the subjects' descriptions. Read and re-read all participants' verbatim transcripts of the phenomena to acquire a feeling for them. (2) Extracting Significant Statements. Researchers use interviews and observations to extract significant statements, capturing the essence of rescuers' experiences. (3) Formulating Meanings. During this phase, researchers delve into extracted statements, identifying meanings and themes within rescuers' experiences. (4) Clustering Themes. Themes and patterns are clustered to depict rescuers' lived experiences comprehensively, revealing interconnected aspects of roles, emotions, and dynamic emergency responses. (5) Developing Exhaustive Descriptions. Detailed, exhaustive descriptions articulate multifaceted aspects of rescuers' experiences, offering nuanced insights into challenges, dilemmas, and significant moments in their life-saving duties. (6) Creating a Comprehensive Description. The researcher synthesizes clustered themes and exhaustive descriptions into a comprehensive narrative, ensuring the research reflects the depth and complexity of rescuers' roles. (7) Returning to Participants. Researchers validate findings with participants, aligning portrayed experiences with perspectives for credibility and authenticity (Dumlao, 2023).

Results and Discussion

This section presents the experiences of first responders in rescuing lives during disasters in New Bataan, Davao de Oro, the coping as how they managed and dealt with their experiences, and insights they want to share with the community or society in general.

Lived Experiences of New Bataan Emergency Action Team (NEAT) in Rescuing Lives During Disasters

Adversities in Disaster Response

Discussions of the lived experiences of the first responders are divided into four themes which are Exhaustion and Hectic Time Schedule, Scarcity of Resources, Fear of Uncertainties, and Constrained Family Time. Relevant information from the interviews of the participants was the challenges experienced by the first responders. The first theme describes the overall journey of responders. It relates to participants' struggles and hardships while performing their duty and the uncertainties that may come their way in the occurrence of disasters.

According to Selye's stress model, when stress can't be managed, it will result in the exhaustion stage where the person is experiencing physical, psychological, and emotional exhaustion. Despite their difficulties, participants show a willingness to serve and are motivated by a great desire to help the residents. They are passionate about their calling to aid all walks of life until they recover from physical and emotional trauma.

Exhaustion and Hectic Schedule

Responders grapple with profound physical and mental trauma amid their disaster roles, facing relentless stress, exhaustion, starvation, hectic schedules, and profound fears. Engaging in varied disasters like floods, typhoons, landslides, and

earthquakes, they confront a relentless barrage of challenges. Their bodies endure exhaustion and hunger, while their minds navigate a landscape fraught with fear and strain.

First responders bear the challenging responsibility of safeguarding people and property, navigating demanding conditions that require resilience, dedication, and exceptional skills. Their frontline role in emergency response exposes them to unpredictable and perilous situations, often involving extended work hours, highlighting the inherent risks of their profession and testing their physical and mental endurance. (Bromet et al, 2018). In addition, the arduous nature of their work frequently results in occupational fatigue and exhaustion, pervasive challenges that can exact a toll on the well-being and effectiveness of first responders. The prolonged hours spent on duty, coupled with the intense physical and emotional demands of emergencies, contribute to a heightened risk of burnout. (Lowery & Cassidy, 2021).

Scarcity of Resources

The theme indicates a critical issue where responders lack the necessary resources to effectively fulfill their roles. This scarcity significantly hampers their ability to function optimally during disaster responses. The shortage of essential tools directly hinders their capacity to execute their duties efficiently and safely within these high-stress situations. This scarcity not only impedes their immediate response but also influences the overall outcome and effectiveness of their efforts in safeguarding lives during emergencies.

Critical in emergency response, rescue equipment ensures timely, safe, and effective interventions by first responders. Armed with an array of life-saving tools, these professionals navigate hazardous environments, extracting individuals from perilous situations. The equipment not only facilitates swift rescue operations but also enables immediate medical assistance, emphasizing its indispensable role in preserving lives during crises. With a commitment to preparedness, first responders rely on these essential tools to fulfill their mission and mitigate the impact of emergencies on communities. (Sheeba Magazine, 2023).

Fear of Uncertainties

It described how participants react to uncertainties of the situation. It encapsulates the uncertainty, unpredictability, and potential dangers that accompany these situations, leading to fear and unease. In this research, uncertainties may relate to the situations about what might happen to them during rescue operations and their family while they are away from home.

In an article published by Inquirer.Net, for Filipinos, family means everything. Any Filipino would prioritize the well-being of their spouse, child, parent, mother, brother, or sister; a committed and hardworking minority would view serving the greater good as their vocation. When a disaster strikes and responders leave their families behind at home, they could feel uncertain (Villahermosa, 2023). In addition, responders often worry about the situation they are in because of the nature of their job, they think of uncertainties of what might happen to them during rescue operations. They are afraid of leaving their family while attending others (Horvath, 2023).

Constrained Family Time

The cluster described the participants' experience of limited amount of quality time with the family. It also conveys that spending time with one's family is precious, valuable, and not easily found or obtained.

The nature of the work performed by first responders is inherently demanding and

unpredictable. Their job requires them to be on call 24 hours a day, seven days a week, ready to respond to emergencies at a moment's notice. The irregular and extended hours can make it difficult for them to devote time to their families (Kass, 2023). One of the most significant challenges that first responders face is the unpredictability of their schedules. Emergencies can occur at any time, causing planned family activities and gatherings to be disrupted. This constant uncertainty can strain family relationships, making it difficult for first responders to commit to regular routines or events with their loved ones (Villahermosa, 2023).

Coping Mechanisms of New Bataan Emergency Action Team (NEAT) in Rescuing Lives During Disasters

Building Stability Amidst Hurdles

Discussions of coping mechanisms of first responders are divided into three categories which are Positive Outlook, Fostering a Healthy Working Environment, and Linking the Chain of Networks. The second theme, Building Stability Amidst Hurdles implies designing a reliable support system and positive attitude. In the face of challenges and obstacles, the pursuit of stability becomes a paramount endeavor. It is in overcoming these hurdles that true strength is forged, laying the foundation for lasting stability.

Coping is the second stage of the GAS model according to Selye which is the resistance stage. These coping mechanisms are multifaceted tools individuals employ to navigate the labyrinth of hardship and challenges that even in the face of challenges, the human spirit possesses an innate capacity to adapt, endure, and ultimately thrive.

Positive Outlook

This phrase embodies the art of finding light in the darkest moments, turning challenges into opportunities, and emerging stronger from adversity. It reflects the human capacity to face shadows, whether they be difficulties or setbacks, and to intentionally transform them into rays of sunshine through a positive mindset and determined spirit. This concept inspires a mindset shift, encouraging individuals to seek growth, strength, and optimism even in the face of life's inevitable shadows.

Given challenging duties that frequently call on them to work and perform while under extreme stress and experiencing terrible occurrences being resilient is one way that can turn the challenges into positivity (Collins et al., 2022). It would appear that having these people be as resilient as they can be would be advantageous to everyone since it would enable them to work well while maintaining a balanced mental and physical state in their personal lives (Crowe et al., 2018).

Fostering a Healthy Working Environment

The theme refers to the deliberate creation of an environment that prioritizes the health and happiness of individuals within a community or organization. This idea emphasizes the proactive promotion of physical, mental, and emotional well-being. A culture of well-being seeks to create a space where individuals can thrive and flourish by promoting supportive practices, open communication, and initiatives that address the holistic needs of its members.

Good communication and teamwork are a key part of disaster response to avoid conflict and elicit trust among colleagues and support groups (Bowen, 2019). In addition, trust, respect, and cooperation define effective teams. It is one of the biggest advocates of cooperation. A workplace culture where everyone works toward a common objective and collaborates to get there fosters a culture of teamwork (Collins et al., 2022).

Linking Chain of Network

Participants make sure to cope with the challenges in disaster response through linkages. Moreover, it underscores the importance of forging linkages within the security and safety of the people, fostering collaborations that enhance effectiveness. The goal is to safeguard the life of every individual through generating partnerships with other stakeholders.

Coordination with various offices and stakeholders is vital during disaster response. Collaboration among different agencies, governmental bodies, non-profit organizations, community groups, and international entities helps streamline efforts, optimize resource allocation, and enhance the effectiveness of the response. By fostering collaboration, responders can pool their expertise, resources, and capabilities, ensuring a more comprehensive and organized approach to addressing the disaster (Secret PH, 2023).

Insights of New Bataan Emergency Action Team (NEAT) in Rescuing Lives During Disasters

Revealing Core Concepts and Viewpoints

The last emergent theme is Revealing Core Concepts and Viewpoints. Examining the insights of responders involves a nuanced exploration of the core concepts and viewpoints that shape their perspectives. Whether in emergency response or crisis management, understanding the fundamental principles guiding responders unveils the intricate web of decisions and actions they undertake. By unraveling these core concepts, one gains insight into the methodologies, strategies, and values that inform responders' approaches. This process not only enhances comprehension of their roles but also fosters a deeper appreciation for the challenges they face, paving the way for improved support, training, and collaboration within the emergency response community.

The first cluster theme is Stimulating Passion. It talks about the participants fulfilling their passion through gratitude and support from the people. The second theme Imbibing the Right Values conveys that the participant develops the right values for self, among teammates, and, the community. The last theme Promoting Opportunities is proof that participants should be provided with the necessary refresher courses, benefits, and equipment to deliver their mandates as responders.

Stimulating Passion

During rescue operations, the phrase Stimulating Passion takes on a profound meaning as it reflects the unwavering support and gratitude extended by people toward the brave responders. This explores the vital role that a collective 'fueling its passion' plays during crises, illuminating the rescue efforts with a radiant spirit of encouragement and appreciation. As responders face challenges, the outpouring of support from communities not only serves as a beacon of strength but also embodies the gratitude that fuels resilience and unity in the face of adversity.

As rescuers navigate the complexities of their challenging roles, the collective support and genuine appreciation from the communities they serve become the driving force that fuels their determination and strengthens the bonds between heroes and those they strive to protect (Tubman, 2020).

Imbibing the Right Values

This concept emphasizes the importance of nurturing foundational values to foster personal growth and contribute positively to the world. In this brief

exploration, responders delve into the idea of sowing the virtues, cultivating integrity, empathy, and compassion that, when nurtured, can thrive and bear fruit in the form of a well-grounded and principled individual.

Right values become the compass that guides rescuers' actions as they navigate the unpredictable terrain of their noble profession. They not only improve their effectiveness in rescue operations by upholding principles such as compassion, integrity, and responsibility, but they also contribute to the creation of a more compassionate and unified society. Right values become the roots from which the resilient tree of effective and ethical rescue efforts can grow and thrive (Colmenares, 2022).

Promoting Opportunities

Opportunities demand readiness, awareness, and action. It represents sparking possibilities and fostering growth through refresher courses, benefits, and resources. It urges us to craft our destiny by acknowledging and nurturing opportunities that pave the way for new horizons and transformative experiences. Learning diminishes with time, necessitating the administration to offer refresher training for responders. Colman (2023) advocates for retraining to ensure responders maintain the requisite skills and knowledge crucial for effective rescue operations. In addition, responders, concerned about job risks, prioritize life insurance due to uncertainties during rescue operations, recognizing its necessity (Horvath, 2023. Lastly, the goal of any administration is to minimize the risk of accidents as much as possible. Having the equipment, you'll need to handle an emergency is part of your preparation (Rockwell, 2018).

Recommendations

First, to improve first responders' health and efficiency, trauma-informed training methods that prioritize resilience building and mental health support must be implemented. During catastrophe reactions, the efficient and safe deployment of resources—including necessary tools and equipment—guarantees the effectiveness of responders. Additionally, creating family-centered support programs and offering life insurance to allay concerns about their well-being are two ways to address family issues. Also, it's critical to develop resilience via training and to create a welcoming environment. Apart from this, collaboration and communication are key components in creating healthy work environments. Furthermore, disaster response is optimized when communities and stakeholders work together. A robust and successful emergency response community is further enhanced by upholding fundamental ideals and providing ongoing education.

Second, the study suggests further investigation of first responders' experiences, with a focus on subtle obstacles and coping strategies. It proposes looking at the psychological consequences of weariness, resource scarcity, uncertainty, and restricted family time. Future research should look into coping mechanisms, emphasizing positive outlooks, healthy working environments, and supporting networks, while also recognizing potential biases and pushing for varied samples and mixed approaches. The study's drawback is its emphasis on responders' perspectives, which should be supplemented with family and community perspectives for a more comprehensive knowledge of disaster response issues and coping strategies.

Finally, studying the lives of responders extends across various domains of nursing research, from mental health and resilience to communication dynamics, ethical decision-making, and patient-centered care. By addressing these aspects, nursing research can play a pivotal role in enhancing the preparedness, well-being, and

effectiveness of healthcare professionals in emergency and disaster settings.

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Motivation and Cultural Competence as Predictors of Work Performance among Healthcare Workers in Selected Hospitals in Maguindanao del Sur

Nadine Joy A. Sangkigay, RN

Davao Doctors College, Inc.

Davao City, Philippines

Abstract

Motivation and cultural competence are regarded as significant factors in work performance. This study aimed to determine whether motivation and cultural competence predict the work performance of healthcare workers. Employing a predictive-correlational research approach, 139 respondents comprising nurses, midwives, and nursing attendants were conveniently chosen as respondents of the study. The study utilized questionnaires adapted from the studies of Tremblay et al. (2009) for Motivation, CVIMS (2021) for Cultural competence, and Ramos-Villagrasa et al. (2009) for Work performance. The questionnaires were modified to fit the study's goal and subjected to validity and reliability testing with McDonald's Omega results of .78, .86, and .87, respectively. Results revealed that healthcare workers have high intrinsic motivation, mainly on personal fulfillment and commitment. They showed commendable cultural competence, highly evident in cultural awareness and skills domains, but with lesser cultural knowledge. Further, the respondents exemplified above-average work performance on both task and contextual performance dimensions while displaying poor performance on counterproductive work behavior. Furthermore, there is a moderate positive correlation between motivation, cultural competence, and work performance, signifying that increased motivation and cultural competence correspond to increased work performance among healthcare workers. The regression coefficients associated with motivation indicate a greater significance than cultural competence, inferring that motivation has a more substantial predictive capacity than cultural competence.

Keywords*: Cultural Competence, Social Science, Predictive, Maguindanao del Sur*

Corresponding email: iamnadine101690@gmail.com

Introduction

A health system comprises all the organizations, institutions, and resources collectively dedicated to enhancing health outcomes (Ousman & Worku, 2022). Hospital performance heavily relies on staff engagement, prompting the need for conducive working conditions that support the performance of employees (Karaferis et al., 2022; Ousman & Worku, 2022). Significant factors affect the outcome of the performance of healthcare workers. Among these are motivation and cultural competence (Bustamam et al.,2020). Though it is widely assumed that healthcare professionals' work motivation is beneficial for the quality of patient care in hospitals (Berenson and Rice, 2015, as cited in Veenstra et al., 2020), low motivation remains a critical challenge for healthcare systems recognized as the second most crucial health workforce problem after staff shortages (Karaferis et al., 2022). Comparably, cultural diversity has become one of the significant causes of health disparities that lead to poorer patient outcomes and lower satisfaction with care (Birhanu et al., 2022). To alleviate these disparities, organizations must enhance the cultural competence of their employees (Nair & Adetayo, 2019).

Motivation significantly impacts performance in both public and private sector organizations (Imran et al., 2017, as cited in Hussain et al., 2018). Motivation encompasses intrinsic and extrinsic factors impacting an individual's inclination to engage in a particular course of action or strive toward a specific objective. Motivation refers to the internal or external factors that prompt an individual to engage in specific behaviors or activities (Morris et al., 2022). Various factors can act as motivators, such as individual goals, incentives, acknowledgment, principles, convictions, societal influence, and occupational contentment. Motivation is crucial in achieving success across various domains, such as academics, athletics, professional and personal growth, and the workplace (Cherry, 2020). Healthcare professionals who lack motivation or engagement may exhibit a higher likelihood of committing errors, experiencing burnout, and delivering suboptimal care. The adverse consequences of this phenomenon are not limited to patients alone but extend to healthcare establishments, resulting in augmented costs, reduced efficiency, and harm to their standing (Chiara et al., 2019). A recent study in Indonesia revealed a significant relationship between work motivation and the performance of health workers. It suggests that health workers with lower levels of work motivation are more prone to experiencing poorer performance than those with higher ones (Mutmainah, 2023).

Cultural competence is an ongoing process wherein healthcare professionals strive to effectively operate within the cultural framework of individuals, families, or communities from diverse cultural backgrounds. This involves cultural awareness, sensitivity, knowledge, and understanding (Berie et al., 2021). In Kenya, pay, recognition, career growth, and workplace environment strongly influence healthcare personnel's performance, with motivation correlating with their effectiveness (Nyaboga et al., 2022). Likewise, understanding healthcare professionals' cultural competence is also vital for improving healthcare quality (Berlin et al., 2010 as cited in Peterson et al., 2020). Despite this importance, Lin, We, and Hsu's (2019) study revealed nurses' lack of preparedness in handling diverse cultures. With projections indicating that minorities will comprise around 50% of the US population by 2050 (Nair & Adetayo, 2019),

cultural competence and awareness are becoming essential skills for healthcare professionals to provide effective and culturally responsive healthcare services (Pettersson, 2020).

There is a significant shortage of around 200,000 healthcare workers in the Philippines. The Department of Health emphasizes the need for policies, such as better benefits and salaries, to address motivational factors and effectively increase the country's healthcare workforce (Bosano, 2022). In a study by Soriano et al. (2019), Filipino nurses demonstrated a commendable competence level. This finding suggests these nurses possess the essential skills to deliver culturally sensitive patient care. Rubio (2019) further studied the cultural competence of the healthcare workers in some hospitals in the Philippines, claiming that the insufficiency of scholarly inquiry about Filipino nurses regarding these subjects is notable.

Although numerous studies explore motivation (Manda et al., 2022) and cultural competence (Shepherd et al., 2019; Constantinou et al., 2022) separately as influencers of work performance, there is a notable lack of research examining these concepts jointly within a single study, particularly concerning healthcare workers in the Philippines. Examining the background above, the researcher was interested in researching the effect of motivation and cultural competence on the work performance of healthcare workers in selected hospitals in Maguindanao del Sur. The significance of the study lies in its potential to illuminate participating hospitals' efforts to enhance their employees' work performance through interventions that focus on motivation and training in cultural competence.

Methods

This study utilized a predictive-correlational research design to examine the relationships among motivation, cultural competence, and work performance of healthcare workers. The predictive correlational design aimed to predict the variance in work performance based on the variances in motivation and cultural competence. The research was conducted in Level 1 and Level 2 hospitals in Buluan and Datu Hoffer urban areas, respectively, within Maguindanao del Sur.

The study involved healthcare workers, including nurses, midwives, and nursing attendants, selected through convenience sampling due to geographical distance and availability. Inclusion criteria included active work in the nursing service unit, direct patient care as the primary job function, and willingness to participate. A total of 139 respondents were chosen from a combined population of 270. Power analysis was conducted to calculate the desired sample size at 95% power level, 0.05 significance level, and an effect size of 30%.

The study employed three adapted questionnaires, each corresponding to the specific areas under investigation. The research tools underwent thorough evaluation and validation by experts, incorporating feedback to ensure suitability. Reliability testing was conducted to ensure the consistency and validity of the tool. McDonald’s Omega was utilized due to the multidimensional nature of the survey questionnaires.

The first questionnaire focused on socio-demographic profiles regarding age,

sex, educational attainment, monthly salary income, employment status, and years of employment. The second, based on the Work Extrinsic and Intrinsic Motivation Scale, assessed different types of motivation: intrinsic, integrated, identified motivation reflecting the self-determination index for self-regulatory motivation, as well as introjected, external regulations, and amotivation forming the non-self-regulatory motivation index. The third, adapted from the Cultural Competence Self-Assessment Checklist, measured cultural competence. The fourth, the Individual Work Performance Questionnaire, evaluated job performance in terms of task performance, contextual performance, and counterproductive work behavior.

Results and Discussion

Table 1. The Demographic Profile of the Respondents

Demographic Profile	Frequency (n=139)	Percentage
Age:		
23 and below	9	6.5%
24-28	31	22.3%
29-33	39	28.1%
34-38	35	25.2%
39-43	10	7.2%
44-48	7	5.0%
49-53	3	2.2%
54-58	4	2.9%
59 and above	1	0.7%
Total	**139**	**100%**
Sex:		
Male	18	12.9%
Female	121	87.1%
Total	**139**	**100%**
Highest Educational Attainment:		

2-year/Diploma	26	18.7%
4-year degree	106	76.3%
MA units	0	0%
MA degree	7	5.0%
PhD units	0	0%
PhD degree	0	0%
Total	**139**	**100%**
Monthly Salary:		
7,000- 10, 000	30	21.6%
10,001- 15, 000	33	23.7%
15, 001- 20, 000	11	7.9%
20,001- 25, 000	3	2.2%
25, 001- 30,000	1	0.7%
30, 001-35,000	9	6.5%
35, 001-40,000	21	15.1%
>40, 000	31	22.3%
Total	**139**	**100%**
Employment Status:		
Job Order	73	52.5%
Contract of Service	28	20.1%
Temporary	0	0%
Permanent	38	27.3%
Total	**139**	**100%**
Years of employment:		
0-1 year	31	22.3%
1 ½ years- 2 years	14	10.1%
2 ½ -5 years	24	17.3%
5 ½- 10 years	44	31.7%
>10 years	26	18.7%
Total	**139**	**100%**

Table 1 presents the demographic profile of healthcare worker respondents in selected hospitals in Maguindanao del Sur. Most respondents are within the 29-33 age group, indicating a relatively young and dynamic workforce. Females constitute 87.1%, suggesting a significant gender imbalance with a predominantly female healthcare workforce. In terms of educational attainment, 76.3% have completed a 4-year degree, reflecting a well-educated workforce, and 5.0% have attained a master's degree.

Monthly salary distribution shows diverse income ranges, with 21.6% earning 7,000 to 10,000 PHP, 23.7% earning 10,001 to 15,000 PHP, and 22.3% earning more than 40,000 PHP, indicating economic diversity. Employment status reveals a mix of contractual (52.5%) and permanent (27.3%) positions, reflecting varied work

arrangements. Regarding years of employment, 31.7% have 5 1/2 to 10 years of experience, suggesting a considerable number of mid-career professionals. In comparison, 22.3% have 0-1 year of experience, indicating a notable presence of relatively new professionals in the healthcare sector.

Table 2. The Respondents' Level of Intrinsic and Extrinsic Motivation

Indicators	Mean	SD	Interpretation
Intrinsic Motivation	**4.29**	**1.94**	Very high
Integrated Regulation	**4.21**	**0.74**	Very high
Identified Regulation	**4.17**	**0.69**	High
Introjected Regulation	**3.77**	**0.88**	High
External Regulation	**4.11**	**0.75**	High
Amotivation	**2.95**	**0.86**	Moderate

Note: 4.21-5.00---Very High;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very low; SD- Standard Deviation.

The respondents' intrinsic and extrinsic motivation levels are categorized into six types. Intrinsic motivation and integrated regulation, with mean scores of 4.29 and 4.21, respectively, are considered very high. Identified regulation (m=4.17), introjected regulation (m=3.77), and external regulation (m=4.11) are interpreted as high. Amotivation, with a mean score of 2.95, is considered moderate. Results echo the study by Garcia et al. (2022), which revealed that healthcare workers exhibit high levels of intrinsic motivation, integrated regulation, and identified regulation. These factors indicate a strong internal drive and a sense of personal alignment with their work (Ramos & Malik, 2023).

Table 3. The Respondents' Level of Cultural Competence

Indicators	Mean	SD	Interpretation
Cultural Awareness	**3.38**	**0.68**	Very High
Cultural Knowledge	**3.01**	**0.59**	High
Cultural Skill	**3.36**	**0.65**	Very High

Legend: 3.21-4.00---Very High; 2.41-3.20---High; 1.61-2.40---Average; 0.81-1.60---Poor; 0-0.80--- Very Poor

Table 3 presents the respondents' cultural competence in terms of three components. Cultural awareness and cultural skills have very high mean values of 3.38 and 3.36, respectively, while cultural knowledge has a high mean of 3.01. The findings align with the study by Albougami, as cited in Rubio (2019), revealing that Filipino nurses have greater perceived cultural awareness and sensitivity.

Table 4: Test of Relationship Between the Level of Cultural Competence and Work Performance of the Respondents.

Cultural Competence	Work Performance			
	r_s	p-value	Decision on Ho	Remarks
Cultural Awareness	.249	.003	Reject	S
Cultural Knowledge	.335	.000	Reject	S
Cultural Skill	.330	.000	Reject	S

Note: $p<0.05$; S-Significant; NS- Not Significant; r_s= rho; IV- Cultural Competence; DV-Work Performance

The relationship between the respondents' level of cultural competency and work performance yielded significant, positive relationships between the three components of cultural competency and work performance. This is supported by the study conducted by Weech-Maldonado et al. (2018), emphasize the need for strategic interventions and organizational initiatives that enhance cultural awareness, knowledge, and skills among healthcare workers, ultimately contributing to improved work performance and the delivery of high-quality patient care.

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Table 5. Prediction of Motivation and Cultural Competence on the level of Work Performance of the Respondents

IWP	Observed Estimate	Bootstrap SE	Z	P-value	Decision	Remarks
Mean						
Effect						
WEIMS	0.365	0.099	3.68	0.000	Reject $_{Ho3}$	Significant
CULCOM	0.296	0.106	2.78	0.005	Reject $_{Ho3}$	Significant

Note: Significant if p-value <.05; R^2= 0.4262; IV- WEIM & CULCOM; DV-IWP.

This table shows that increased motivation is associated with higher work performance among healthcare workers. The p-value of 0.000 suggests strong evidence against the null hypothesis, supporting the significance of motivation in predicting work performance.

Similarly, the significant positive estimate for cultural competency (CULCOM) suggests that increased cultural competency is associated with higher work performance. The p-value of 0.005 indicates that this relationship is statistically significant.

The R^2 value of 0.4262 suggests that motivation and cultural competency collectively explain approximately 42.62% of the variance in work performance. This means these variables substantially impact predicting work performance, but other factors contribute to the remaining 57.38% of the variance.

Conclusion and Recommendation

The study surveyed respondents primarily between the ages of 29 and 33, predominantly female, holding bachelor's degrees, earning 10,001 to 15,000 pesos, in job order positions, and working within the institution for 5 ½ - 10 years. The respondents exhibited significant intrinsic motivation, finding profound meaning and satisfaction in their work, though some displayed a

moderate lack of motivation, showing signs of passiveness, inefficiency, or purposelessness. Cultural competence was notably high, with respondents excelling in understanding and respecting cultural differences, contributing to effective interaction and culturally congruent healthcare services. Work performance was outstanding, with respondents adhering to job descriptions, refraining from undermining behaviors, and going beyond formal requirements to contribute to organizational efficiency. The study established a significant correlation between motivation levels and work performance, emphasizing the link between individual motivation and professional efficacy. Additionally, a substantial correlation was found between cultural competence and work performance, underscoring its effectiveness in healthcare service delivery. Both motivation and cultural competence were identified as predictors of work performance, providing a foundation for targeted interventions and strategic initiatives to enhance overall performance; however, other influencing factors may also be investigated for a complete understanding.

To enhance healthcare team performance, it is recommended to implement team-building initiatives with a motivational focus, emphasizing shared goals, intrinsic motivation, and a positive work environment. Encourage collaboration and open communication among team members to strengthen interpersonal relationships, fostering a motivated and cohesive team that is more likely to contribute to enhanced overall work performance. Integrate motivation and cultural competency into leadership training, equipping leaders with the skills to create an inclusive and motivating work environment where cultural diversity is celebrated. Leadership is central and crucial in shaping an organization's culture.

Furthermore, implement a holistic workforce development program that integrates continuous training, mentorship opportunities, and avenues for professional growth. By addressing motivational and cultural aspects concurrently, healthcare organizations can cultivate a high-performance culture aligned with organizational goals. A need to explore further factors that potentially predict work performance would be beneficial. Employing mixed-method approaches could provide a substantial and more holistic understanding of motivation and cultural competence as influencers of the work performance of healthcare workers.

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Unheard Voices of Mothers of Discharge Vagrant Psychotic Patients: A Phenomenology

Leah Grace G. Sapidan, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

This study aimed to explore the experiences of mothers caring for discharged vagrant children in Davao City, utilizing a qualitative descriptive phenomenological research design. Fourteen mothers whose children were discharged from mental facilities were purposively sampled and interviewed. Applying Colaizzi's (1978) method, rigor was ensured through the application of verification and validation. So, from the 159 significant statements, 10 themes emerged. The mothers' experiences included balancing responsibilities, embracing reality with positivity, and stigma and social challenges. Coping mechanisms centered on family support, unconditional love, and keeping faith. Participants shared insights with fellow mothers and the community about societal acceptance and community support. The challenges faced by mothers caring for mentally ill children, such as maintaining a positive outlook and unwavering commitment, underscore the critical need for a supportive environment, reduced stigma, and comprehensive services, emphasizing the importance of holistic support and collaborative efforts from various stakeholders.

Keywords: *Vagrant Psychotic Patients, Social Science, Phenomenology, Davao City*

Corresponding email: leahgracesapidan@gmail.com

Introduction

Mental health issues, particularly psychosis, present profound challenges not only to individuals but also to their families, specifically mothers who often assume primary caregiving roles. Despite an extensive body of literature addressing the experiences of caregivers for mental health patients, there is a notable gap in understanding the unique challenges faced by mothers of discharged vagrant psychotic patients. Sadly, most mentally ill persons are out there in the street, becoming vagrants because they are either expelled by their families or they are neglected. Beyond those realities, legislation has managed to cope with the reduction of both vagrancy and psychotic illness for street people through custodial and medical care (Diamond, 2020).

Additionally, the mental health of a child and the mother have a strong connection. This kind of connection gives a distinct approach of a mother to her mentally ill child during isolation. The mother must deal with her own emotions as well as the needs of the child. The problems of the child can feel like a

reflection of the failure of her parenting and nurturance (Centers for Disease Control and Prevention, 2022).

According to a study in Indonesia, treatment of post-passing (physical restraint) patients with mental disorders has become a new problem in Indonesia in its effort to free the country from the physical restraint program. Problems emerge when the patient returns to the family and society at large, and families that refuse to allow the patient to come back home risk the possibility that the patient may eventually become a psychotic vagrant (Yunita et al., 2020).

In the Philippines, it was found that the mental well-being of Filipino children continues to be neglected. Even though these are experiences that are shared by all people, regardless of age, children face more obstacles to their emotional and social development than adults do. They may also be more likely to develop mental health issues like depression and anxiety (Malolos et al., 2021).

In Davao City, the local government unit through the initiative of the former mayor, now Vice President Sarah Duterte, vagrant mentally ill in the city were rescued and sheltered in the designated wellness center. One of the main reasons for sheltering these patients is their high probability spreading of COVID, and the risk of viral infection (Llemit, 2020).

The transition from psychiatric care to community life is a critical period for both patients and their families. Mothers, in particular, play a pivotal role during this phase, grappling with the complexities of caring for a discharged vagrant psychotic patient. Despite these prevailing realities, there is no global, national, or local published research focused on the experience, perceptions, and views of mothers whose child became a vagrant psychotic patient, medically admitted, and subsequently discharged which eventually back to their custody. For this reason, this phenomenological study aims to discover these utmost matters concerning mothers of vagrant psychotic patients here in Davao City. This research addresses a significant gap in the understanding of the unique challenges faced by mothers of discharged vagrant psychotic patients, particularly in the context of homelessness and mental health. This study seeks to fill this crucial gap by exploring the lived experiences of mothers of vagrant psychotic patients in Davao City, providing valuable insights for improved support systems and interventions tailored to their unique needs.

Methods

This study utilized a qualitative descriptive phenomenological research design to explore the personal lived experiences of mothers caring for their children with psychosis, who had been discharged from a psychiatric facility in Davao City. Using phenomenology in this study, the researcher explored how these experiences of mothers influenced daily activities, uncovering previously unknown aspects of their lived realities. This approach provided a rich and detailed exploration, shedding light on the meaning that mothers attach to their caregiving role. Ultimately, the study contributes valuable insights for the development of meaningful interventions and support systems. In addition, Qutoshi (2018) described phenomenology as a low-hovering, in-dwelling, meditative philosophy that glories in the concreteness of person-world relationships and accord lived experiences. Ho and Limpaecher (2022) suggested that if you want to seek the reality of individuals on their lived experiences, the process of phenomenology as a methodological framework is the ideal one to employ; the authors specifically referred to it as existential philosophy –a phenomenological philosophy which reflects a need to focus on lived experience. In doing the qualitative method using phenomenological inquiry, the researcher should examine only a small number of cases in an intensive

approach since it is important to understand the phenomena holistically.

Individual differences and context were highlighted by the participants in the conduct of in-depth interviews (IDI). Initial findings that will be generated in the IDI will be affirmed and validated through Focus Group Discussion (FGD) as participated by other nurses. FGD will subsequently employ after IDI for verification and clarification. The findings that will be generated will serve as a description of the essential structure which is believed to contribute deeper understanding of the adversities and success experienced by these mothers taking of vagrant psychotic patients.

The study was conducted in the Philippines, specifically in Davao City (refer to Figure 1: Site Map), situated in Southeastern Mindanao Island. It explored how mothers care for discharged vagrant psychotic children in selected barangays within Davao City. The primary focus was on understanding how mothers provide care in this urban setting. Choosing Davao City was essential for aligning with the study's objectives and ensuring convenient access to participants in residential areas. This intended selection aimed to capture a diverse range of perspectives. Collaborating with barangay officials played a key role in facilitating a comprehensive understanding of experiences within the urban setting of Davao City.

The study utilized the purposive sampling technique, selecting participants based on specific inclusion criteria: being 18 years of age or older, being mothers with a vagrant psychotic son or daughter discharged from a psychiatric facility for at least 2 months, expressing a willingness to participate, possessing the ability to communicate experiences and opinions, and being residents of Davao City. This method proved effective in excluding participants who were medically unstable or had conditions that might compromise their active participation. It also ensured that participants were at least 2 months post-discharge, that their sons or daughters were discharged from psychiatric facilities, and that the discharge was related to psychiatric conditions. The non-random selection method allowed the researcher to create a sample that fit a particular profile, ensuring a targeted and meaningful selection of participants (Lavrakas, P.J., 2018).

Results and Discussion

Collectively, the sample table above illustrated the research process in which data from 190 transcripts was analyzed. From this analysis, 159 significant statements were identified and used to form 7 cluster themes. These cluster themes then led to the discovery of 3 larger emergent themes. The analysis incorporated the narratives of the participants and ultimately resulted in a comprehensive explanation of their personal experiences. The following section describes the emergent themes using narratives of the participants, extracted from interview data. It contains the discussion of the participant's answers to the research questions: “What are the lived experiences of mothers of discharged vagrant psychotic patients?”, “How do participants cope with the challenges of their experiences?” and “What insights can participants share with their fellow mothers and to society in general?”

Emergent Theme 1: Resilience Journey

The Resilience Journey theme explores how mothers overcome challenges in caring for mentally ill children post-discharge from a mental health facility. A significant aspect of this journey involves the mothers' remarkable ability to balance both work commitments and their dedication to supporting their mentally ill children. It emphasizes their exceptional skill in balancing work and caregiving with enduring dedication. Additionally, embracing reality with positivity is a pivotal component of the Resilience Journey. Despite difficulties, these mothers approach their circumstances with a positive mindset, using it as a driving force in their journey. This optimistic approach is integral to their resilience, enabling them to confront adversity with strength. Furthermore, the theme also explores the stigma and social challenges these mothers face due to their children's mental health history, adding an extra layer of complexity to their journey. The description sheds light on the mothers' courage as they confront and challenge these stigmas, working towards fostering understanding and empathy within their communities. In conclusion, the Resilience Journey vividly illustrates the strength, adaptability, and enduring commitment of mothers facing adversity while caring for mentally ill children recently discharged from a mental health facility.

In a study by Levy-Gigi et al. (2018), resilience is explored, emphasizing the importance of adaptive responses to stress by mothers caring for children with mental illness. So, therefore, the resilience journey shows how mothers respond to life's unpredictable nature in caregiving. They adopt a mindful positive approach, enhancing stability while embracing adaptability and perseverance in caring for psychotic children who have been discharged from mental facilities.

Cluster Theme 1.1: Balancing Responsibilities

The cluster theme of *Balancing Responsibilities* addresses the significant challenge faced by mothers who work while caring for their psychotic children post-discharge from a mental facility. The statements from participants vividly capture the challenges faced by mothers in balancing responsibilities while caring for mentally ill children, contributing to the emergent theme of the *Resilient Journey*. Participants' experiences explore the ongoing struggle to concentrate on work while constantly monitoring their child's condition. Adjustments to daily routines, as mentioned by participants, highlight the profound impact on professional life as caregiving takes precedence. Despite the difficulties, commitment to maintaining a positive mindset reflects the resilience inherent in the journey. The conversations collectively illustrate the dedication and sacrifices made by these mothers as they navigate the intricate balance between work obligations and the demands of caring for mentally ill children, forming an emotional narrative of resilience in the face of adversity.

A study by Shair et al. (2019) shows that mothers of children with mental illnesses experience a higher care burden while working, leading to increased stress, and compromised responsibilities in both caregiving and work. Another study by the authors explores the impact of mental health difficulties, particularly in mothers, on their ability to effectively parent children with mental disorders and how parenting responsibilities can affect work (Hancock & O'Reilly, 2019).

Cluster Theme 2: Embracing Reality with Positivity

The cluster theme *Embracing Reality with Positivity* is for mothers caring for psychotic children, and it centers around

confronting challenges with hope and a positive outlook. Despite the difficulties, participants express acceptance, hope for improvement, and resilience. These statements illuminate the Resilient Journey's theme of embracing reality with positivity. Some mothers accept their child's current situation while maintaining hope for improvement, emphasizing a positive outlook. They also recognize the need for patience in caring for their child's well-being, confidently expressing dedication to adapting positively to their child's illness. Despite the pain, these mothers are trying their best to care for and nurture their children. Collectively, these statements highlight how mothers, amidst the challenges, approach their Resilient Journey with a positive mindset, emphasizing hope, strength, and positivity as crucial components of their resilience.

Additionally, another study by Ellis et al. (2018) highlighted distinct caregiving challenges, such as supporting housing, medication adherence, and daily living activities. Despite these hurdles, the mothers demonstrated resilience by adapting to these demands and navigating the complexities of caring for their loved ones. This cluster was expressed by the participants through these statements:

Emergent Theme 2: Compassionate

Synergy

Compassionate Synergy explores the collaborative and empathetic interactions among mothers caring for psychotic children post-discharge. This theme emphasizes the combined impact of empathetic connections from family, along with unconditional love, support, and spiritual resilience. It highlights how these elements collectively create a holistic and empowering environment for both mothers and their psychotic children, effectively addressing the challenges associated with caregiving for individuals with mental health conditions.

Moreover, conducted research by experts examines how compassion, mindfulness, prayer, and parental resilience interconnect, influenced by contextual factors like social support and the child's condition. These elements act as mediators, showcasing the complexity of caregiving for children with chronic conditions (Kirby et al., 2018).

In short, "Compassionate Synergy" emphasizes how mothers collaborate and show empathy in caring for psychotic children post-discharge. It stresses the combined impact of family connections, unconditional love, and spiritual resilience, serving as a guide to build a strong support system in this challenging caregiving situation.

Cluster theme 1. Family Support

The first sub-theme under this emergent theme is Family Support highlighting the crucial role of family for mothers caring for psychotic children post-discharge. Participants expressed gratitude for family involvement, noting activities such as visiting a farm and spending enjoyable time together. The statements underscore the significance of family support in supporting a child with mental illness, with a shared sentiment of happiness and preparation for the child's discharge. Families are recognized as essential support systems, providing 100% backing.

Consequently, the recent study by Karthika et al. (2021) highlights the significance of supporting psychotic children in transitional living within urban poor areas. It emphasizes the necessity for effective family interventions to address challenges and positively impact the well-being and transition of these children. This cluster was expressed by the participants through these statements:

Cluster theme 2: Unconditional Love

The next cluster is Unconditional Love among mothers caring for psychotic children revolves around the unwavering and boundless love these mothers have for their children despite the challenges of mental illness. The participants expressed deep concern for their children's well-being, acknowledging the challenges and fears associated with caring for a child with mental illness. Love and absolute care are prevalent, with a commitment to ongoing support despite the illness. It underscores the unique care required for children with special needs and the dedication to providing support and happiness while fostering a sense of normalcy.

In related literature, the significance of supportive relationships for mothers with adult children facing disabilities, including psychotic disorders, is highlighted. The studies underscore the positive impact of love and support on maternal well-being, emphasizing the ongoing need for support throughout the caregiver's lifespan (Shilton et al., 2019). Another study explores the emotional well-being of mothers caring for adult children with schizophrenia, emphasizing the crucial role of emotional support in helping mothers cope with the challenges they face (Huxley et al., 2018). This cluster was conveyed by the participants through the following statements:

Cluster theme 3: Keeping the Faith

The theme of Keeping the Faith among mothers caring for psychotic children revolves around the consistent reliance on faith and prayer for the well-being of their children. This theme highlights the advice given by one participant to maintain faith in God, while others expressed gratitude, and trust in God and consistently prayed for blessings and healing for their children. The shared sentiment emphasizes a deep and enduring spiritual aspect in the coping mechanisms of these mothers, underscoring the importance of faith throughout their caregiving journey.

Several studies emphasize the significance of love and prayer as essential forms of emotional support for mothers during challenging times. Prayer serves as a means for mothers to express their love, fears, hopes, and frustrations, providing an emotional outlet and comfort in a higher power. Utilizing the benefits of love and prayer can lead to improved mental health, increased coping abilities, and enhanced overall well-being for both mothers and their children (Masters et al., 2018). This combination of love and prayer empowers mothers caring for discharged psychotic children, promoting mental well-being, effective communication, and family support (Al-Yousefi et al., 2020).

Emergent Theme 3: Social Support

The emergent theme of Social Support among mothers caring for discharged vagrant psychotic children is demonstrated by the collaborative assistance provided by the community. Mothers in this situation rely on support from neighbors, relatives, and local officials, which contributes significantly to their ability to navigate the challenges associated with caring for children with mental health issues. This community support goes beyond mere acknowledgment, encompassing tangible help, understanding, and encouragement, creating an inclusive environment that aids mothers in their caregiving journey.

Creating a supportive environment that reduces stigma and enhances knowledge and skills empowers communities to effectively assist mothers in their caregiving roles (Brown et al., 2018). Further research and the development of targeted interventions are warranted to enhance social support and improve outcomes for mothers and their discharged psychotic children (Berry et al., 2020).

In conclusion, social support for mothers caring for psychotic children involves receiving help, understanding, and encouragement from friends, family, and the community. It includes emotional support, practical assistance, and a network of people who offer understanding and compassion, providing mothers with the strength, resources, and connection needed to navigate the complexities of their caregiving role.

Cluster Theme 1: Community Support

Community support emphasizes the vital role of mothers caring for psychotic children discharged from mental facilities. Participants highlight assistance from neighbors and barangay officials, including access to free medicine, provision of fruits, and overall positive support. The community's involvement, as credited by the participants, significantly eases the challenges faced by these mothers, underscoring the importance of collective help in promoting the well-being of both mothers and their psychotic children.

Furthermore, a study by various authors pointed out the challenges these mothers face in seeking help for their children within the community. Many encounter obstacles to accessing suitable services due to the stigma linked to mental health conditions (Smith et al., 2019). Another study emphasized the importance of raising awareness and educating the community about mental health conditions to decrease social stigma. The researchers suggested interventions that offer support, resources, and a supportive community for both mothers and their children (Brown et al., 2017). education and collaborative approaches are crucial for a successful reintegration process. Creating a supportive environment that reduces stigma and enhances knowledge and skills empowers communities to effectively assist mothers in their caregiving roles (Brown et al., 2018). Further research and the development of targeted interventions are warranted to enhance community harmony and improve outcomes for mothers and their discharged psychotic children (Berry et al., 2020).

Recommendation to Future Researchers

The following recommendations were formulated by the researcher for future researchers to continue the gathering of data to ensure credibility, transferability, dependability, and confirmability.

Initially, the study employed method triangulation by utilizing two distinct data gathering methods – in-depth semi-structured interviews, a focus group discussion guided by a validated questionnaire, and observations. However, to enhance the study's credibility further, it is highly advisable to incorporate a different type of triangulation or a combination of triangulation methods during both data collection and analysis. Researchers may opt for data triangulation, specifically, collecting data through diverse sampling strategies, such as at different times, in varied contexts, and from different individuals or sources, to strengthen the robustness of the study.

Next, inclusive studies are recommended including a diverse perspective, such as fathers, extended family members, or other primary caregivers, which would offer a more comprehensive picture of the support networks and challenges faced in the care of discharged psychotic children.

Lastly, exploring technology's role in supporting mothers of discharged psychotic children, researching the effectiveness of mental health education programs, and investigating tailored resilience-building strategies can collectively address the unique needs of these mothers in challenging caregiving situations, contributing to the development of more effective support systems.

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COVID-19 Stress, Coping Styles and Psychological Well-Being Among Staff Nurses in a Public Hospital in Mati City

Alice S. Sobiaco, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

This study investigates coping styles, COVID-19 stress, and psychological well-being among staff nurses in public hospitals. Utilizing a non-experimental quantitative research design with a predictive-correlational approach, the study explores the intricate relationships between these variables. Significant COVID-19-related stressors, including fear of danger, contamination, xenophobia, and traumatic stress, were identified, highlighting the pandemic's psychological impact on nurses. Despite these stressors, nurses exhibited high psychological well-being, characterized by personal growth, self-acceptance, positive relations, environmental mastery, autonomy, and purpose. The study revealed intricate associations between coping styles and psychological well-being, emphasizing the importance of effective coping mechanisms, particularly problem-solving and social support, in maintaining nurses' psychological health. Furthermore, the research highlighted the substantial impact of COVID-19 stressors on psychological well-being, underscoring the need for tailored interventions and support systems. Based on these findings, the researcher provides recommendations for patients, nurses, hospital administrators, and future researchers, focusing on creating supportive environments, organizing targeted workshops, offering mental health resources, and conducting comprehensive research to enhance understanding and support for healthcare professionals facing similar challenges.

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Corresponding email: uoieasobiaco@gmail.com

Introduction

The global COVID-19 pandemic has created a significant public health crisis, profoundly affecting individuals both physically and psychologically. Nurses, positioned at the forefront, encounter unique challenges that severely impact their well-being, leading to heightened stress, anxiety, depression, disrupted sleep, mood swings, and increased post-traumatic stress (Forte et al., 2020). Coping mechanisms vary among individuals, influenced by their unique strategies (Beighton & Wills, 2017). For nurses with pre-existing health issues, the pandemic exacerbates stress, complicating their coping efforts (Umucu & Lee, 2020). Historically, those battling illnesses are particularly vulnerable to stress. Therefore, understanding nurses' coping strategies and stress levels is crucial for mitigating mental health impacts and protecting their well-being (Girma et al., 2021). This highlights the urgent need to recognize and address the unique challenges nurses face during the COVID-19 pandemic.

Frontline nurses and medical staff have suffered from anxiety and depression due to high workloads, insufficient personal protective equipment, lack of knowledge of the pathogen, and direct contact with patients (Zhang et al., 2020; Zhou et al., 2020; Zhu et al., 2020). Consequently, nurses have commonly been reported to experience a greater decline in morale and decreased job satisfaction due to the nature of the profession (Shen et al., 2020). In addition, nurses have reported feelings of anxiety, pressure, exhaustion, persistent stress, and isolation throughout the COVID-19 pandemic. This continuing stress has an influence on nurses' mental health, their ability to feel safe, and their ability to provide the best care possible (Cheung et al., 2020). Therefore, mental health initiatives are important to support the psychological well-being of nurses during the unprecedented health crisis of the COVID-19 pandemic (Figueroa & Aguilera, 2020; Geoffroy et al., 2020).

However, the psychological distress faced by nurses during this pandemic will also occur during future healthcare crises. Coping strategies to promote psychological well-being in nurses must be developed and implemented to counter this psychological distress. Some of the strategies require substantial lead time and potentially challenging negotiations with organizational stakeholders (Heath et al., 2020). However, evidence from the COVID-19 outbreak suggests that a pro-active, multifaceted approach should instill confidence in nurses that they will be supported by their organization; provide appropriate preparation and training for the pandemic (Greenberg et al., 2020) and improve adaptive coping strategies such as problem-solving, seeking support, and reducing avoidance behaviors (Heath et al., 2020).

Several researchers have thoroughly discussed the impact of a pandemic on the psychological well-being of frontline health workers. Moreover, based on the available literature, there is an evident lack of investigation on coping styles, COVID-19 stress, and the psychological well-being of nurses who work on the frontline of the COVID-19 pandemic (De los Santos & Labrague, 2020). Practically, no studies have been conducted that focus on identifying the significant influence of

coping styles and COVID-19 stress on the psychological well-being of staff nurses in public hospitals who cared for patients during their stay on the frontline amidst COVID-19 pandemic about the concepts in the local setting. The scarcity of studies in this area prompted the need to explore the nurse's situation on the ground to address this research gap.

Methods

The staff nurses in public hospitals in Mati City, Davao Oriental were the respondents of this study. This study employed a non-probability sampling technique where the researcher chooses to examine the entire population that has a particular set of characteristics. Only those staff nurses who are currently working at a chosen government-owned public hospital were respondents to the study. They were chosen as respondents because the researcher wanted to find out the level of coping styles, COVID-19 stress, and psychological well-being of nurses. The computed sample size for this study was 149 respondents.

The study was conducted by drawing on a web-based survey method in the form of Google Forms instead of a paper survey due to the pandemic situation brought about by COVID-19. Before the administration of survey questionnaires, the instrument was subjected to validation and reliability testing. Three (3) experts in the field were asked to validate the research instrument. After this, the researcher conducted a pilot study wherein thirty (30) respondents were requested to answer the survey questionnaire followed by a Cronbach's Alpha reliability analysis or consistency testing.

There were four (4) parts of the survey questionnaire. The first part of the questionnaire pertains to the respondent's demographic profile. This includes age, sex, educational status, and length of service. The second part of the questionnaire contained questions that sought to ascertain the level of coping styles of the staff nurses. The third part of the questionnaire contains the COVID-19 stress of the respondents. Lastly, the fourth part of the questionnaire comprised questions on the respondent's level of psychological well-being among the staff nurses in public hospitals in Mati City.

The study incorporated Frequency Distribution and Percentage to describe the respondents' demographic profile in terms of age, sex, sex, educational status, and length of service. Moreover, Mean was used to measure the levels of coping styles, COVID-19 stress, and psychological well-being among the staff nurses in public hospitals in Mati City. On the other hand, Pearson Chi-square was utilized to determine the association between demographic profile and coping styles, COVID-19 stress, and psychological well-being, while Pearson r was utilized to determine the relationship between coping styles and COVID-19 stress and psychological well-being. Furthermore, Multiple Linear Regression was employed to measure the degree of influence of coping styles and COVID-19 stress and psychological well-being among staff nurses in public hospitals in Mati City.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Profile	Frequency	Percentage
Age		

20-25 years	7	4.7
26-30 years	15	10.1
31-35 years	77	51.7
36-40 years	30	20.1
41-45 years	9	6.0
46 years above	11	7.4
Total	149	100.0
Sex		
Male	113	75.8
Female	36	24.2
Total	149	100.0
Educational Status		
College	38	25.5
Graduate	90	60.4
Post Graduate	21	14.1
Total	149	100.0
Length in Service		
3 years below	27	18.1
4-6 years	29	19.5
7-9 years	35	23.5
10 years below	58	28.9
Total	149	100.0

The various demographic profiles of the respondents are shown in Table 1, which addresses the first objective of the study. Most of the staff nurses fall within the age group of 31-35 years, constituting 51.7% of the total sample. Nurses between 26-30 years old account for 10.1%, while those aged 46 years and above represent 4.7%, 6.0%, and 7.4% of the total staff nurses, respectively. A higher proportion of the respondents were female (113, 75.8%), while males composed 36 (24.2%). Furthermore, 90 (60.4%) of the respondents had a graduate degree, 38 (25.5%) had a college degree, and the remaining 21 (14.1%) had a postgraduate degree. Additionally, a large number of respondents have been serving their respective hospital institutions for about 10 years or less (58, 55.8%), followed by those who have been working for 7-9 years (35, 23.5%), 4-6 years (29, 19.5%), and fewer respondents (27, 18.1%) have been working for less than 3 years.

Table 2. Coping Styles Among Staff Nurses in Public Hospitals in Mati City

Indicator	Mean	SD	Description
Problem-Solving	4.29	0.44	Very High
Seeking Social Support	4.13	0.48	High
Avoidance	3.76	0.71	High
Overall	4.06	0.42	High

Presented in Table 2 is the level of Coping Styles Among Staff Nurses in Public Hospitals in Mati City. The staff nurses exhibit a very high level of problem-solving skills, with a mean score of 4.29. Seeking social support is also relatively high, with a mean score of 4.13, and a high level of Avoidance with a mean score of 3.76, with an overall mean score of 4.06. This indicates that staff nurses in Mati City predominantly employ coping mechanisms at a high level, with a tendency to use problem-solving skills and seek social support while also resorting to

avoidance strategies to deal with stressors in their workplace environment.

These findings suggest that staff nurses in public hospitals in Mati City possess strong problem-solving skills, actively seek social support, and generally exhibit high coping styles. These strengths can be leveraged through targeted interventions to create a positive and resilient work environment for healthcare professionals.

This aligns with the National Academies Press (2021), which notes that nurses' well-being influences their physical and mental health, job satisfaction, and patient care perceptions. Conversely, Babapour et al. (2022) found that job stress negatively impacts nurses' health and quality of life, showing a significant negative relationship between job stress and both quality of life and caring behaviors. Thus, nurses with high coping styles benefit from effective problem-solving skills and social support, contributing to their positive mental health.

Two studies highlight the importance of prioritizing healthcare workers' mental health during crises like the COVID-19 pandemic. Søvold et al. (2021) recommend offering psychological first aid, long-term mental health support, resilience and mindfulness courses, ongoing training, and mental health awareness programs as coping mechanisms for nurses amidst adversities. Halms et al. (2023) emphasize the value of social support, suggesting team supervision, individual counseling, and pastoral care to support healthcare workers' mental well-being. Both studies agree on the benefits of recognizing effective coping strategies among healthcare workers and underscore the necessity for healthcare institutions to provide resources and support to maintain and enhance their staff's mental well-being.

Table 3. COVID-19 Stress Among Staff Nurses in Public Hospitals in Mati City

Indicator	Mean	SD	Description
Danger and Contamination	4.09	0.70	High
Xenophobia	3.46	1.12	High
Traumatic Stress	2.96	1.19	Moderate
Overall	3.51	0.86	High

Presented in Table 3 is the level of COVID-19 Stress Among Staff Nurses in Public Hospitals in Mati City. Staff nurses report high levels of stress related to danger and contamination, with a mean score of 4.09, Xenophobia is also reported at a high level among the nurses, with a mean score of 3.46, In terms of traumatic stress, nurses report a moderate level of stress, as indicated by a mean score of 2.96. the table presents the overall mean score stands at 3.51.

This suggests that staff nurses in Mati City are experiencing elevated stress levels in response to the various challenges posed by the COVID-19 pandemic, encompassing concerns about danger, contamination, xenophobia, and traumatic stress. This stress level aligns with findings from other studies, indicating elevated stress and burnout among healthcare workers during this global crisis (Arnetz et al., 2020; Chan et al., 2021; Tomaszewska et al., 2022). The stress experienced by staff nurses in Mati City is likely attributed to the heightened risk of exposure to COVID-19, the fear of transmitting the virus to loved ones, and the emotional toll of caring for critically ill patients. Hence, healthcare organizations must offer adequate support and resources to assist these nurses in managing the stress and trauma induced by the pandemic.

Additionally, there might be increased anxiety or negative sentiments towards individuals perceived to be from regions heavily affected by COVID-19. These findings align with a study by González-Gil et al. (2021) conducted in the Philippines, which explored nurses' perceptions and demands regarding COVID-19 care delivery in critical care units and hospital emergency services. The results of that study also indicated a high level of danger and contamination concerning COVID-19, consistent with the findings observed in Mati City.

Similarly, multiple studies corroborate the findings regarding the moderate level of traumatic stress experienced by staff nurses in COVID-19 environments (Andhavarapu et al., 2022; Benfante et al., 2022; Gabra et al., 2022), among others. These studies offer additional proof of the impact of COVID-19 on nurses' mental health, emphasizing the prevalence of work-related traumatic stress responses. They underscore the necessity for interventions aimed at supporting the mental well-being of healthcare workers, especially nurses, operating in COVID-19 settings.

Table 4. Psychological Well-Being Among Staff Nurses in Public Hospitals in Mati City

Indicator	Mean	SD	Description
Autonomy	3.75	0.82	High
Environmental mastery	4.15	0.66	High
Personal growth	4.49	0.58	Very High
Positive relations	4.17	0.64	High
Purpose in life	3.71	0.81	High
Self-acceptance	4.21	0.61	Very High
Overall	**4.08**	**0.48**	**High**

Table 4 illustrates the Psychological Well-Being Among Staff Nurses in Public Hospitals in Mati City. Notably, the indicators of Personal Growth and Self-Acceptance exhibit very high levels of psychological well-being among the nurses, with mean scores of 4.49 and 4.21 respectively. Additionally, in the context of psychological well-being, the nurses demonstrate high levels of Environmental Mastery (mean score of 4.15), Positive Relations (mean score of 4.17), Autonomy (mean score of 3.75), and Purpose in Life (mean score of 3.71). The overall psychological well-being, considering all indicators, is high, with a mean score of 4.08.

This suggests that staff nurses in Mati City public hospitals generally experience positive psychological well-being, with particularly notable strengths in the areas of personal growth and self-acceptance. These findings underscore the importance of meaningful work in fostering job satisfaction and overall well-being among nurses (Javanmardnejad et al., 2021).

Hospitals where staff nurses experience high levels of psychological well-being are likely to have lower turnover rates, higher job satisfaction, and potentially better patient care outcomes. This implies a positive organizational culture that promotes employee well-being and, consequently, enhances patient satisfaction (Søvold et al., 2021).

While these findings are positive, ongoing efforts should be made to maintain and further enhance the psychological well-being of nurses. Regular assessments and interventions can ensure that the positive work environment is sustained, contributing to the overall quality of healthcare services in Mati City. Among the indicators, personal growth and self-acceptance received the highest mean scores of 4.49 and 4.21, respectively.

This suggests that individuals undergo continuous personal and professional development, accepting both their strengths and weaknesses, leading to positive self-perception. These findings align with previous studies by Abbott et al. (2006) and Anjum (2020), which also highlighted the importance of ongoing self-improvement and positive self-regard in personal and professional aspects of life.

Table 5.1 Association between Demographic Profile and Coping Style Among Staff Nurses in Public Hospitals in Mati City

Demographic Profile	Coping Styles	
	p-value	Interpretation
Age	*0.772*	Not Sig
Educ	*0.272*	Not Sig
Sex	*0.291*	Not Sig

LOS	*0.324*	Not Sig

Accept Ho¹

Presented in table 5.1 shows the association between Demographic Profile and Coping Style Among Staff Nurses. The "p-value" column indicates the level of significance of the relationship between each indicator and coping style. The indicator "Age" with a p-value of 0.772 garnered the highest score. This indicates that there is no significant relationship between age and coping styles among the participants. While the indicator "Sex" with a p-value of 0.291 got the lowest score.

This result also suggests that there is no significant relationship between sex and coping styles among the participants. Therefore, the hypothesis stating that there is no significant association between demographic profiles and coping styles among staff nurses in public hospitals in Mati City is *accepted*. The implications of these findings suggest that indicators such as age and sex do not significantly influence coping styles among the participants. In other words, regardless of age or gender, individuals in this study demonstrate similar coping strategies when faced with stressors.

According to a study by Smith et al. (2019), which examined the relationship between demographic factors and coping styles among healthcare professionals, they found no significant association between age or sex and coping strategies. This aligns with the findings of the current study, indicating that demographic variables may not play a significant role in determining coping styles among nurses in public hospitals.

Table 5.2 Association between Demographic Profile and COVID-19 Stress Among Staff Nurses in Public Hospitals in Mati City

Demographic Profile	**COVID-19 Stress**	
	p-value	Interpretation
Age	*0.144*	Not Sig
Educ	*0.184*	Not Sig
Sex	*0.671*	Not Sig
LOS	*0.306*	Not Sig

Accept Ho¹

The results of statistical tests examining the relationship between various indicators of demographic profile and COVID-19 stress among staff nurses are presented in Table 5.2. The p-value column indicated the level of significance of the relationship between each indicator and COVID-19 stress. The highest p-value, 0.671, was observed in the indicator “Sex,” suggesting no statistically significant difference in COVID-19 stress levels between male and female participants. This finding aligns with previous research indicating that during crises or pandemics like COVID-19, stress levels may not significantly differ between genders (Alsubaie et al., 2020).

Conversely, the lowest p-value, 0.144, was associated with the indicator “Age,” indicating no statistically significant difference in COVID-19 stress levels among participants of different age groups. Despite some prior research suggesting age as a significant predictor of stress during pandemics, this

study found similar levels of COVID-19 stress across different age brackets (Liu et al., 2021).

The non-significant results for both sex and age suggest that these demographic factors did not significantly influence COVID-19 stress levels among the participants. This implies that interventions and support strategies aimed at addressing COVID-19 stress should be tailored not based on gender or age but rather on individual needs and circumstances.

Moreover, it indicates that the impact of COVID-19 stress may be widespread across various demographic groups, underscoring the importance of implementing broad-based interventions to effectively address this issue. Therefore, while gender and age are not significant factors in determining COVID-19 stress levels among staff nurses, a comprehensive approach to support and intervention is necessary to ensure the well-being of healthcare workers facing the challenges of the pandemic.

Table 6.1 The Relationship Between Coping Styles and Psychological Well-Being Among Staff Nurses in Public Hospitals in Mati City

CS	**Auto**		**EnviMastery**		**Personal Growth**		**Positive Relation**		**Purpose in Life**		**Self-Acceptance**		**PWB**	
	r value	Int.	r value	Int.	r value	Int.	r value	Int.	r value	Int.	r value	Int.	r value	Int.
Problem-Solving	.362**	Sig	.413**	Sig	.420**	Sig	.197*	Sig	0.051	Sig	.267**	Sig	.397**	Sig
Seeking Social Support	.271**	Sig	.387**	Sig	.380**	Sig	.415**	Sig	.263**	Sig	.242**	Sig	.460**	Sig
Avoidance	.174*	Sig	.335**	Sig	.182*	Sig	.252**	Sig	.325**	Sig	0.151	Sig	.343**	Sig
CS	.326**	Sig	.479**	Sig	.392**	Sig	.368**	Sig	.301**	Sig	.270**	Sig	.505**	Sig

** Sig @ p value>0.05*

*** Sig @ p-value >0.01 Reject Ho²*

Table 6.1 illustrates the relationship between coping styles and psychological well-being among staff nurses in public hospitals in Mati City, indicating correlation coefficients (r values) and significance levels. The findings reveal meaningful positive relationships between specific coping styles and various aspects of psychological well-being. Notably, the Problem-Solving coping style showed moderate positive relationships with Positive Relations and Self-Acceptance in psychological well-being. Seeking Social Support as a coping strategy exhibited several positive relationships with Autonomy, Environmental Mastery, Positive Relations, Purpose in Life, self-concept, and overall psychological well-being.

Additionally, mild to moderate positive relationships were observed between Avoidance coping style and Personal Growth, as well as self-concept in psychological well-being. Consequently, the hypothesis suggesting no significant relationship between coping styles and the psychological well-being of staff nurses in Mati City was rejected.

These findings align with prior research, such as Feldman and Snyder (2005), who found a positive relationship between problem-solving coping style and the sense of purpose in life among hospital nurses. Similarly, Gholami et al. (2022) emphasized that nurses with higher psychological well-being tend to utilize various coping strategies, to improve their mental health. Reports from the Agency for Healthcare Research and Quality (2022) underscored the relevance of factors like transformational leadership and psychologically safe environments in healthcare teams for optimal performance and well-being.

Overall, specific coping styles, including problem-solving and seeking social support, were

positively linked to various facets of psychological well-being among staff nurses in public hospitals, highlighting the crucial role of coping mechanisms in enhancing their mental health.

Table 6.2. The Relationship Between COVID-19 Stress and the Psychological Well-Being Among Staff Nurses in Public Hospitals in Mati City

COVID-19 Stress	**Auto**		**Envi Mastery**		**Personal Growth**		**Positive Relation**		**Purpose in Life**		**Self-Acceptance**		**PWB**	
	r value	Int.	r value	Int.	r value	Int.	r value	Int.	r value	Int.	r value	Int.	r value	Int.
Danger and Contamination	.423**	Sig	.298**	Sig	0.139	Not Sig	.161*	Sig	.184*	Sig	0.077	Not Sig	.321**	Sig
Xenophobia	.433**	Sig	0.082	Not Sig	-0.094	Not Sig	0.051	Not Sig	.314**	Sig	-0.044	Not Sig	.214**	Sig
Traumatic Stress	.459**	Sig	.202*	Sig	-0.055	Not Sig	.196*	Sig	.423**	Sig	0.045	Not Sig	.338**	Sig
COVID-19 Stress	.513**	Sig	.210*	Sig	-0.028	Not Sig	0.156	Not Sig	.381**	Sig	0.023	Not Sig	.335**	Sig

** Sig @ p value>0.05*

*** Sig @ p-value >0.01 Reject Ho²*

Table 6.2 illustrates the relationship between COVID-19 stress and various dimensions of psychological well-being among staff nurses in public hospitals in Mati City. The table presents correlation coefficients (r values) indicating the strength and direction of the relationships, along with their significance levels. The study reveals diverse relationships between COVID-19 stress and different aspects of psychological well-being among staff nurses in public hospitals in Mati City.

Notably, there is a moderate positive correlation between stress related to danger and contamination and Positive Relations in psychological well-being, along with a mild positive correlation with the sense of Purpose in Life. Xenophobia-related stress shows a mild positive correlation with Positive Relations but a moderate negative correlation with Self-Acceptance in psychological well-being. Traumatic Stress exhibits moderate positive correlations with various aspects of psychological well-being. Consequently, the hypothesis suggesting no significant relationship

between COVID-19 stress and the psychological well-being of staff nurses in public hospitals in Mati City has been rejected.

The findings align with existing research, notably that of Arnetz et al. (2020), underscoring how nurses grappled with heightened stress levels during the COVID-19 pandemic, negatively impacting their mental health and overall well-being. This resonance is further echoed by the U.S. Department of Health and Human Services (2022), which emphasized the exceptional strain the pandemic placed on healthcare workers in the United States. Furthermore, these findings are consistent with the study conducted by Pappa et al. (2020), shedding light on the substantial impact of COVID-19 on the psychological well-being of frontline hospital staff, including nurses. The collective body of evidence emphasizes the urgent need for targeted support and interventions within healthcare settings, recognizing the unique and profound psychological toll the pandemic has taken on nurses and other healthcare professionals.

The observed variations in the relationships between COVID-19 stress and different aspects of psychological well-being among staff nurses in public hospitals in Mati City highlight the complexity of their experiences during the pandemic. Although some relationships are mild and lack statistical significance, others exhibit moderate to strong positive relationships with overall psychological well-being. Acknowledging the nuanced nature of these stressors is crucial for healthcare administrators and policymakers, emphasizing the importance of tailored strategies to address the diverse psychological challenges faced by nurses. Such interventions should be designed to alleviate traumatic stress, mitigate the overall impact of COVID-19-related stress, and promote the holistic well-being of nurses, ensuring their resilience and effectiveness in providing essential healthcare services during challenging times.

Conclusions and Recommendations

The study concludes that the nursing workforce in Mati City is predominantly young, with a significant proportion of staff nurses aged 31-35 and a majority being female (75.8%). Most nurses hold graduate degrees (60.4%) and have varying levels of experience, highlighting the need for tailored support and training strategies. The research found that nurses employ proficient coping mechanisms, especially problem-solving and seeking social support, though avoidance was also observed. COVID-19-related stress significantly impacted the nurses, underscoring the pandemic's psychological toll. Despite these stressors, nurses demonstrated high psychological well-being, marked by personal growth, self-acceptance, and positive relations. Demographic factors like age, education, sex, and length of service did not significantly influence coping styles, COVID-19 stress, or psychological well-being. The study highlighted the intricate relationships between coping styles and psychological well-being, noting that effective coping strategies are crucial for maintaining nurses' mental health. Both coping styles and COVID-19 stress significantly influenced psychological well-being, emphasizing the importance of support in the healthcare environment.

Based on these findings, several recommendations are offered. Patients should adhere to hospital safety protocols and recognize the stress

faced by healthcare providers to foster a supportive environment. Staff nurses would benefit from specialized workshops focusing on effective coping strategies and raising awareness about the negative impacts of avoidance. Regular self-care practices, mindfulness, and peer support are essential for maintaining psychological well-being. Hospital administrators should create a supportive workplace by offering counseling services, workshops, and mental health resources, providing training in stress management and resilience, and promoting work-life balance through adequate staffing and regular well-being assessments. Future researchers are encouraged to conduct comprehensive studies on coping mechanisms and stressors in diverse healthcare demographic groups, undertake longitudinal research to track changes over time, and investigate the effectiveness of interventions like mindfulness programs.

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Knowledge of Disease, Prevention and Treatment, and Vaccination Compliance among Animal Bite Patients in a District Hospital in Davao City

Enrisa D. Sta. Ana, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

This study investigates the knowledge of disease, prevention and treatment, and vaccination compliance among Category II animal bite patients at the District Hospital in Davao City. The descriptive-predictive design was used to predict the relationship between the independent and dependent variables. The study was conducted through purposive sampling with the use of a G*Power calculator the 146 respondents were determined. Results revealed that most of the respondents were aged 36-47 years old, and the majority are female; most of them are Cebuano in ethnicity; high school graduates; and working as a farmer with an average range of income from Php 10,000- 15, 000. Respondents demonstrated a high level of knowledge about rabies disease, and Knowledge about rabies prevention and treatment, these predictors do not significantly influence compliance with anti-rabies vaccination, and it could be other factors could be predicted. The study recommends a comprehensive program for the District Hospital, advocating for full rabies vaccination, community awareness campaigns on rabies, its prevention, and symptoms, emphasizing timely vaccination, and garnering support from leaders, healthcare providers, and stakeholders. This approach aims to enhance public understanding of rabies, ultimately promoting effective rabies control in the region.

Keywords: *Vaccination Compliance, Health, Predictive, Davao City.*

Corresponding email: staanaenrisa1983@davaodoctors.edu.ph

Introduction

One common problem at the District Hospital is the high number of cases of animal bites, particularly those caused by dogs. In Davao City, where the District Hospital is situated, the data of the quarterly reported bite cases for 2022 are as follows: first quarter: 8,297; second quarter: 10,368; third quarter: 9,813; and fourth quarter: 10, 674 (Department of Health – Freedom of Information, 2022). A certain percentage of the patient population residing in remote areas had difficulties in acquiring appropriate medical care for rabies due to their lack of awareness of the disease. Therefore, these individuals choose to seek alternative remedies from faith healers, such as the application of *tandok* and other traditional practices.

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Rabies is a fatal disease in developing countries where it is estimated that 24,000 people die each year from rabies in Africa. The major strategies to decrease human rabies deaths are mass dog vaccines and timely post-exposure prophylaxis (PEP) for dog-bite victims (Wilde,2018). Reducing rabies-related fatalities requires a well-informed healthcare workforce as well as ready access to rabies biologicals in healthcare institutions (Hemachudha, 2018). Also, raising awareness of dog vaccination, post-exposure prophylaxis, and wound cleaning might help in rabies prevention

(Omodo, 2020).

Human cases of rabies in the Philippines have not declined over the previous decade, despite efforts to do so. Dogs in high-risk areas should receive a rabies vaccine at a coverage rate of 70% because rabid dogs pose the greatest risk in the countries with the highest rabies burden (Menendez, 2020). Better rabies vaccination rates and public awareness campaigns can be implemented with data on the number of privately owned dogs in a community (Dizon, 2022). Also, the majority of the dog bite victims in Davao City, are younger than 15 years old, which drives the City Veterinarian's Office (CVO) to run a school-based information and education campaign (IEC) to inform the city's vulnerable age group about rabies. The knowledge score for rabies is also highly influenced by the student participant's age, whether they have had a human rabies vaccination, the gender, educational level, and monthly income of the household's head, as well as the CVO's IEC lecture (Lachica, 2021).

The researcher plans to concentrate on this field and aims to determine if the level of knowledge of the disease, its prevention, and treatment, among animal bite patients predicts vaccination compliance. The effect of proper knowledge dissemination, however, has not received much attention (Bundalian et al., 2020). On the other hand, the data that is currently available emphasizes the difficulties in treating, preventing, and raising awareness of rabies in the context of animal bites, especially those from dogs. Lastly, the severity of the problem, the frequency of animal bites, and the significance of public awareness efforts are all emphasized in the present studies.

Methods

The researcher employed a descriptive-predictive design for this study. It was descriptive as it presented the demographic profile and level of knowledge of the disease, the prevention and treatment of rabies among animal bite patients – these constituted the independent variables. Another facet of the study encompassed predictive research design, a type aiming to predict outcomes based on specific factors or variables. In this study, the researcher sought to predict if knowledge of rabies, prevention, and treatment influenced vaccination compliance, the dependent variable.

It was also mentioned by Guiao and Lacap (2022), that this approach involved using statistical models to predict the relationship between the independent and

dependent variables. As per Burns and Groove (2020), predictive design, often termed predictive-correlational design, uses regression analysis to test hypotheses while exploring causal correlations between variables. By employing this research design, the study aimed to identify trends and possible causal relationships alongside correlations between variables. This provided crucial insights into the intricate interactions among vaccination compliance, preventive measures, and knowledge levels in the context of rabies. The method ensured a thorough and rigorous study surpassing simple correlation, contributing to the field's depth of knowledge and potentially guiding the development of more potent public health interventions

Additionally, the researcher utilized non-parametric regression analysis, where predictors were built using information from the data rather than adhering to preset forms with predetermined answers. Even in cases where the linear regression hypothesis was not supported, non-parametric regression remained a reliable method of prediction (Sharma, 2022).

This study was done in a district hospital, specifically at Lower Kibalang, Marilog District, Davao City. It is one of the city's district hospitals, and it provides major healthcare services to people in the barangays and other far-flung areas of Marilog District. Likewise, it is one of the City Government of Davao's infirmary hospitals located in geographically isolated, disadvantageous areas (GIDA).

The researcher's considerations were aligned with the strategic choice of this specific place as the study setting. This location has a significantly greater frequency of animal bite cases, which makes it a good place to study the dynamics of rabies awareness, prevention, and treatment. The Animal Bite Treatment Center (ABTC) is one of the many services available in the hospital. Further, the place is far from the city, which has more and bigger hospitals.

Respondents in this research consisted of 146 patients at the Animal Bite Treatment Center in the District Hospital.

This study employed a purposive sampling technique to select respondents. This kind of non-random sampling in research involves the researcher purposefully choosing people or groups to include in a study according to predetermined traits or standards. Purposive sampling entails a deliberate and purposeful decision made by the researcher, as opposed to random sampling, which depends on chance to guarantee that every member of the population has an equal chance of being selected.

Using the G*Power calculator, the number of samples was determined. This approach is most effectively used with the purpose of testing as a component of hypothesis creation, obtaining a preliminary understanding of viewpoints, or as an initial pilot preceding subsequent research endeavors. Lastly, participants must be between the ages of 18 to 60 and have received at least one dose of post-exposure prophylaxis rabies vaccine. Those who decline to participate in the survey, however, have the option to do so without incurring any consequences, penalties, or loss of benefits, per the withdrawal criteria.

The primary source of data for this study was the questionnaire responses from the participants. Every survey was double-checked for accuracy, and the demographic profile questionnaire was carefully examined in light of the inclusion/exclusion criteria. The researcher used secondary data for the determination of the anti-rabies vaccination compliance of the respondents. The secondary data was taken from the Animal Bite Treatment Center in the District

Hospital. Proper consent was secured from each respondent for access to their record, and approval from the Hospital Chief of the District Hospital was sought.

The researcher utilized a research-made survey questionnaire for the determination of the demographic profile, level of knowledge on rabies as a disease, and level of knowledge on the prevention and treatment of rabies of the respondents. The survey questionnaire is made up of three parts. The first part is for the demographic profile of respondents. The second part of the questionnaire is a 15-item binary-type questionnaire intended for the level of knowledge on rabies as a disease. The third part is also a 15-item binary-type questionnaire intended for the level of knowledge on the prevention and treatment of rabies.

The survey questionnaire was subjected to content validation by several experts in the field. The pilot testing was conducted after the content validation to establish the reliability of the survey questionnaire. The overall reliability index of the survey questionnaire using the KR-20 is 0.713, which indicates good reliability.

The 15-item questionnaire on Knowledge of Rabies Disease has an excellent level of content validity index (S-CVI/AVE = 0.98; S-CVI/UA = 0.93). On the other hand, 15 items related to the Level of Knowledge on Rabies in terms of Prevention and Treatment has also an excellent content validity index as per the average method (S-CVI/UA=1.00) and universal agreement (S-CVI/UA=1.00).

The primary goal of this study is to determine the level of knowledge related to the disease, its prevention, and treatment among individuals who have experienced animal bites. Additionally, the study aims to predict the possibility of compliance with rabies vaccination programs among these patients. Based on the data that will be gathered, an intervention program will be developed and proposed. The objective of this study is to collect data on the extent of vaccine compliance among patients who have been bitten by animals at Marilog District Hospital.

The findings of this study will contribute to the current structures of knowledge regarding individuals who demonstrate a high level of compliance with anti-rabies vaccination protocols. The result of the study will be disseminated to the community, with particular attention being placed on the people involved who would benefit from the most significant advantages.

The study employed a researcher-developed questionnaire to evaluate the knowledge level of animal bite patients regarding disease, prevention, treatment, and vaccination compliance. Rest assured that the study will only be used for the study's purposes. The findings of this study have the opportunity to support researchers in implementing intervention strategies aimed at strengthening the comprehensive rabies prevention and vaccination program. These interventions can contribute to achieving full compliance with rabies vaccination, increasing community awareness about the disease, its prevention, symptoms, and the importance of timely and complete vaccination. Furthermore, the study may help in promoting strong support from community leaders, healthcare providers, and other stakeholders.

The voluntary nature of the respondent's participation in this study is emphasized. Respondents have the authority to refuse involvement if they experience any form of discomfort. Furthermore, in the case that respondents initially decide to participate in the study, they have an opportunity to discontinue their involvement at any time without facing any negative implications. If

respondents decide not to continue their involvement in the study, any information that they provide will be excluded from the gathered information.

The researchers remained true to the principles of transparency, legitimate purpose, and proportionality in gathering, preserving, and analyzing personal data, as stated in the Data Privacy Act of 2012. Regarding confidentiality and privacy, respondents will be guaranteed the opportunity to remain anonymous. Even though those who participated provided their names and other identifying details, such information will not be linked to any section of the written research report.

The data collected in this study will be maintained with strict adherence to confidentiality protocols. In case this research study is published in the future, it is important to understand that any information presented within the material will be carefully protected to ensure the complete confidentiality of the respondents. Furthermore, the researcher is unwilling to share any information regarding the collected data with those who are not affiliated with the study and make inquiries. The information collected will be maintained in a very confidential manner and will only be accessible to the designated researchers. After completing the study, participants have the option to request a copy of the results. Finally, the raw data will be appropriately discarded upon the completion of the study.

In collecting the data, the following steps were undertaken: To initiate the data collection process, the researcher first composed a letter seeking permission from the Program Chairman. Subsequently, upon obtaining approval, the researcher submitted the manuscript to the Research Ethics Committee (REC) of the designated Animal Bite Treatment Center at the District Hospital, ensuring adherence to all ethical considerations throughout the study. Following REC approval, permission was sought from the selected locale, and written consent was obtained from each study participant.

Upon securing the necessary approvals, the researcher conducted the study, administering the questionnaire through face-to-face interactions. The questionnaires were retrieved on the same day they were administered to ensure the accuracy of data gathering. Post-collection, data interpretation was undertaken.

The survey duration ranged from 10 to 30 minutes, starting immediately after respondents received instructions. Once completed, the researchers, acting as facilitators, gathered and collected the data. All information obtained was handled with the utmost confidentiality and stored securely on a computer accessible only by the researchers, who possessed the exclusive password. After data collection, the analysis and interpretation were carried out solely by the study experts and the researcher. Confidentiality remained a paramount concern throughout the entire process, even after the data had been analyzed and interpreted.

The study incorporated Frequency Distribution and Percentage to describe the animal bite patients' demographic profile. Moreover, Mean was used to determine the level of knowledge of disease which consists of rabies, prevention, and treatment. On the other hand, Standard Deviation was also used to determine the average amount of variability in the data collected. It tells on average, how far from the mean, while low standard deviation indicates that values are clustered close to the mean. Furthermore, Non-Parametric Regression Analysis was incorporated to determine the level of knowledge in terms of the disease and prevention and

Normality Test indicates whether or not the sample data came from a population that was normally distributed. It is typically carried out to confirm that the research's data have a normal distribution.

Lastly, Power analysis is the calculation used to determine, given a necessary statistical power, effect size, and significance level, the minimum sample size required for an experiment. It aids in figuring out whether an experiment's or survey's outcome is coincidental or real and meaningful.

This study was focused on determining the level of knowledge of disease, prevention, treatment, and vaccination compliance among animal bite victims using a descriptive design following the IV-DV-Output model. The total number of respondents is 146 patients from Animal Bite Treatment Center, in the District Hospital in Davao City. The researcher employed a purposive sampling technique in choosing the respondents for the study. Also, the research instruments were researcher-made survey questionnaires to measure the levels of knowledge of the disease, prevention, and treatment. Each questionnaire will be subjected to validation by the three experts in the field to obtain higher reliability and effectiveness during the data collection. Frequency, percentage, mean, standard deviation, and non-parametric regression, were used as statistical tools for the study. The researcher conducted the study from August to December 2023.

Notwithstanding the many benefits that the conduct of this study yielded, the researcher might have encountered disadvantages that could have influenced the study's conclusions. The time restrictions of the study might have limited the extent to which the data were collected, examined, and evaluated. This constraint could have led to a less comprehensive exploration of the study concerns, hence reducing the overall robustness of the findings. Finances being a big obstacle were another challenge facing the project. Some aspects of the study, like acquiring supplies, gaining access to specialized databases, and simplifying fieldwork, depended on adequate funding.

Results and Discussion

Table 1. Profile of the Respondents

Profile	Frequency*(n=146)*	Percentage
Age		
48 – 60 years old	46	31.5%
36 – 47 years old	57	39.0%
18 – 35 years old	43	29.5%
Total	**146**	**100.0%**

Sex		
Female	81	55.5%
Male	65	44.5%
Total	**146**	**100.0%**
Ethnicity		
Muslim	14	9.6%
Tagalog	9	6.2%
Cebuano	74	50.7%
Bagobo	49	33.6%
Total	**146**	**100.0%**
Education		
Bachelor Degree	4	2.7%
Vocational Course	19	13.0%
High School Graduate	78	53.4%
Elementary	45	30.8%
Total	**146**	**100.0%**
Occupation		
Farmers	93	63.7%
Office Workers	19	13.0%
Others	34	23.3%
Total	**146**	**100.0%**
Income		
> Php 15,000	12	8.2%
Php 10,001 – Php 15,000	79	54.1%
< Php 10,000	55	37.7%
Total	**146**	**100.0%**

Table 1 displays the respondent's demographics. Out of the 146 patients that underwent animal bites, the most common demographic was that they were Cebuano in ethnicity, female, and belonged to early middle age ranging from 36 to 47. On the other hand, the majority of them have a high school diploma, and they are farmers who earn between 10,000 to 15,000 pesos per month.

Table 2. Level of Knowledge on Rabies Among Respondents in Terms of Disease and Prevention and Treatment

Knowledge on Rabies	Mean	SD	Description
Knowledge on Disease	3.43	0.40	High
Knowledge on Prevention and Treatment	3.91	0.27	High
Overall	3.67	0.34	**High**

Table 2 reveals that respondents' Level of Knowledge about rabies, in terms of disease, prevention, and treatment, got an overall mean score of 3.67 and a standard deviation of 0.34, describing it as High. The respondents displayed a high level of understanding in their knowledge of rabies, its prevention, and treatment of the rabies disease.

On the other hand, the results were consistent with the reported cases of rabies in Bohol, Philippines, which were evaluated by Miranda (2019). The program was assessed following the implementation of the Bohol Rabies Prevention and Elimination Program. Though most participants were knowledgeable about the name "rabies," only a few had a thorough knowledge of the disease. Just 18 percent of people surveyed knew they should call the police if they observed a rabid dog.

Moreover, this is consistent with the studies conducted in a global context. In Nigeria, 82% of the respondents demonstrated high knowledge of rabies prevention (Edukugho et al., 2018). In various regions of Ethiopia, research findings indicated that awareness of rabies prevention through vaccination was at 65.9% in one study, while another study revealed that over half, or 52.1% of the participants, possessed a good knowledge of rabies prevention (Ahmed et al., 2022; Bihon, Meresa, & Tesfaw, 2020). However, a study in Tanzania highlighted a significant portion of the population facing rabies risk due to insufficient awareness of prevention methods. This underscores the urgency of addressing this issue to prevent avoidable fatalities (Sambo et al., 2018).

Table 3. Compliance with Anti-Rabies Vaccine

Compliance	First Dose		Second Dose		Third Dose	
	F	Percent	F	Percent	F	Percent
Yes	146	100.0	145	99.3	112	76.7
No	0	0.0	1	0.7	34	23.3

Table 3 shows the compliance with the anti-rabies vaccine among the respondents. It shows the degree of their compliance, from the start of their dose until done. In their first dose, all 146 (100%) respondents complied. This is consistent with the study of Wang, Zhang, & Yu (2018), that there was a strong adherence to the first dose of vaccination.

While the study of Praveen et al. (2019) also showed a full compliance for the first dose, most (94.1%) of the individuals who had been bitten by animals came for the second dose, and the difference is far greater with this study, since 145 (99.3%) of the respondents went back for the second dose, or 1 (0.7%) out of 146 (100%) respondents did not show up, however, only 112 (76.7 %) had received their third dose in this study, or 34 (23.3%) out of 146 (100%) did not show up for the third dose, and this is inconsistent from the same study mentioned, where 87.5% of the participants attended for the third dose.

The fluctuation of vaccination is even persistent from a study conducted by Vinay in year 2013, where it was found that compliance with the second dose on day 3 was high (84.7%), but decreased for subsequent doses. However, a recent study in India showed that 78% of patients took the last dose of the vaccine, which is a smaller difference from 76.7% of participants from this study who took the last dose (Sastry et al., 2023).

Table 4. The Prediction of Knowledge on Disease, Prevention, and Treatment of the Compliance with Anti-Rabies Vaccination.

COMPL	Observed Estimate	Bootstrap SE	Z	P-value	Decision	Remarks
Mean						
COMPL	1.225	0.035	35.10	0.000		
Effect						
K_DSE	-0.415	0.229	-1.81	0.071	Accept H_{01}	Not Significant
PREV_TMT	0.455	0.581	0.78	0.433	Accept H_{01}	Not Significant

Note: Significant if p-value <.05; R^2= 0.0437; IV- K_DSE & PREV_TMT; DV- COMPL.

Table 4 shows that knowledge of disease (p=.071) and prevention and treatment (p=.433) did not significantly predict compliance with anti-rabies vaccination among the respondents. Moreover, the findings were apparent in the results of nonparametric regression analysis in which 4.37% of the variance of compliance with anti-rabies can be explained by the knowledge of disease, and prevention and treatment as indicated by an r-square of 0.0437. This would mean that 95.63% of the variation can be attributed to other factors aside from the independent variables.

The findings indicate that there is no significant relationship between the respondents' compliance with anti-rabies vaccination and their level of knowledge about the disease, their prevention, or their treatment. Given that non-knowledge-related factors account for 95.63% of the compliance, it is possible that other factors or elements left out of the study, have a greater

impact on compliance with anti-rabies vaccination.

Based on the correlation between the findings of this study and the research conducted by Bahiru et al. (2022), the degree of rabies knowledge was found to be a significant predictor of practice in the multivariable mixed effect logistic regression model of respondents' rabies-related practices, including vaccination.

However, in this study, knowledge does not predict their compliance with vaccination, suggesting other factors that may be involved, Praveen et al. (2019) underscored that the improvement in rabies

preventative measures compliance has been attributed to the particular deficiencies that were addressed ensuring economic stability,

Based on the findings of the study, what enhancement program may be proposed?

The majority of respondents have ex tensive knowledge of rabies treatment and

improving vaccine accessibility, enhancing transportation options, and implementing efficient reminder systems.

These consistent outcomes emphasize the imperative for holistic approaches aimed at eliminating barriers to compliance. Integrating such insights into public health initiatives could lead to more targeted and effective strategies, fostering vaccination adherence and bolstering rabies prevention across diverse communities. These findings advocate for a nuanced and comprehensive understanding of the multifaceted factors influencing compliance, guiding the development of policies and interventions that resonate with the specific challenges faced by different populations.

prevention, however, there is a need for impr ovement when it comes to rabies disease, as it is rated lower on a mean basis.

Conclusion and Recommendations

The study was intended to determine the knowledge of disease, prevention, treatment, and vaccination compliance among animal bites patients in the District Hospital in Davao City. Out of the 322 patients at the aforementioned hospital who had suffered animal bites from July 2023 to September 2023, 176 people completed the survey. The G*Power calculator was used to determine the participation count. There were 146 participants in the survey and 30 of the 176-sample size were used for pilot testing.

In choosing the respondents, this study employed the purposive sampling technique implementing the following inclusion criteria: must have an age range of 18 years old and above, an animal bite patient, received at least one dose of PEP Rabies Vaccine (Category II), a resident in Davao City, and his willingness to participate in the study. Also, the research instruments used in this study were research-made survey questionnaires to measure their knowledge of disease and knowledge on its prevention and treatment.

The findings indicate that there is no significant relationship between the respondents' compliance with anti-rabies vaccination and their level of knowledge about the disease, their prevention, or their treatment.

Based on the findings of the study, a comprehensive rabies prevention and vaccination enhancement program is proposed.

The purpose of the study is to achieve 100% rabies vaccination coverage within the District Hospital raise community awareness about rabies as a disease, its prevention, its symptoms, and the importance of timely and complete vaccination, and establish robust support from community leaders, healthcare providers, and other stakeholders.

Most of the respondents belong to early middle age ranging from 36-47 years old, and the majority of the gender is female; most of them are Cebuano; High school graduates; and are working as farmers. The majority of the respondents' income ranges from Php10,001-15,000 monthly.

The respondents displayed a high level of understanding in their knowledge in terms of rabies as a disease, its prevention, and treatment.

The findings indicate a high level of anti-rabies vaccination compliance.

Moreover, knowledge about rabies as a disease, prevention, and treatment is not a significant predictor of compliance with anti-rabies vaccination.

The proposed intervention initiative revolves around a focused training program designed to raise awareness and support education, with a particular emphasis on the vital component of appropriate wound care, specifically the careful washing of bite wounds with soap to reduce the risk of rabies deaths. The plan consists of an all-encompassing, multifaceted campaign that uses several platforms, including social media and instructional materials, to raise awareness, support current programs, and push for more funding to be allocated to the elimination of rabies.

Education can also be made before administering the vaccine. The educational resources, which include posters and instructive pamphlets, are purposefully designed to make complex ideas about how various animal species might spread rabies easier to understand. This design demonstrates a considerate and inclusive approach by guaranteeing accessibility for a wide range of audiences. The intervention emphasizes the critical role that anti-rabies vaccinators play in the field of rabies vaccination. They are important not only for giving vaccinations but also for teaching patients about the value of immunization, the steps involved in the process, and how important it is to finish the vaccination schedule. This individualized strategy is intended to increase patient awareness and ensure compliance commitment.

The program must have active participant engagement if it is to produce the greatest possible advantages. It is required of participants to exhibit a sincere desire to start making improvements and positive changes in their health-related behaviors. This proactive participation is essential to the initiative's success because it highlights the significance of personal accountability in the group's fight against rabies and the advancement of public health. By addressing the subtleties of rabies prevention and vaccination in detail, the proposed intervention ultimately aims to produce a ripple effect of informed acts, contributing to a safer and healthier community.

The study's insights prompt recommendations for diverse stakeholders engaged in addressing animal bites and rabies prevention.

Patients**.**Reminding all patients of the importance of seeking medical treatment right away and encouraging them to get involved or participate in any forum about the rabies disease awareness campaign.

Animal Bite Treatment Programs. Emphasizing key information by giving some information education and communication materials like a booklet, leaflets, etc., about rabies FAQs and its prevention and treatment before and after the vaccination procedure. On the other hand, emphasizes the importance of the anti-rabies vaccination compliance on the given schedule to prevent further complications.

Local Government Units (LGUs). The local government is collaborating with the animal bite treatment center facility to promote public awareness, develop community-based programs, and strengthen healthcare facilities. They are supporting the program by allocating funds to enhance it.

Non-government Organizations (NGOs). Participation in community outreach, collaborating with stakeholders, and providing for those most in need are all recommended for this domain. It also emphasizes the importance of supporting research programs that aim to develop innovative preventive techniques.

Furthermore, it is highly recommended to su pport programs that address specific information about rabies treatment and prevention; these initiatives should primarily focus on dispelling myths about traditional practices and encourage responsible pet ownership.

Private sectors. It is recommended that this sector consider promoting community health programs that communicate with people about reaching out to particular groups through tailored communications. Making sure that local healthcare facilities access all the medical supplies they need by supporting their logistical networks.

Department of Health. It is recommended that this sector prioritize strengthening capacity, support local collaboration, and continuously seek more financing and policy assistance on a global scale. As a bonus, this will go toward funding community-based rabies education programs, which will target areas with both high incidence rates and deficiencies in knowledge. Working together with local healthcare leaders to strengthen healthcare infrastructure and increase access to rabies vaccination doses.

Future researchers. Are encouraged to conduct research into various methods of preventing rabies, explore the social and cultural factors that influence compliance, analyze the effects of rabies on the economy as a whole, and conduct longitudinal studies to determine the long-term effects.

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Effectiveness of Information, Education, and Communication Program on Knowledge and Attitude in Controlling Blood Pressure Among Residents of Purok 32 with Chronic Hypertension

Ma. Karla F. Tomas, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

The researcher aimed to determine the effectiveness of information, education, and communication programs on knowledge and attitude in controlling blood pressure among residents with chronic hypertension. The results revealed that most of the respondents were female, aged 51 to 60 years old, married, and had a secondary level of education. Further, it was found that the participants had a satisfactory level of knowledge about controlling hypertension before the implementation of the IEC program and very satisfactory after the implementation of the intervention. Moreover, the participants had a favorable attitude about controlling hypertension before the IEC program and had a highly favorable attitude following the program. In addition, the IEC program resulted in a statistically significant improvement in both knowledge and attitude toward controlling hypertension among respondents. Thus, it is concluded that IEC materials were effective in increasing the knowledge and attitude of hypertensive patients in controlling their blood pressure. Consequently, a recommended enhancement program for hypertension control was proposed accordingly.

Keywords: *Knowledge & Attitude in Hypertension, Health, Quasi-Experimental, Davao City*

Corresponding email: mkftomas1987@gmail.com

Introduction

As hypertension has become rampant in Purok 32 in Barangay Cabantian, Davao City, most of the residents diagnosed with chronic hypertension have ignored the signs of such disease to the extent that some of them have suffered mild strokes before seeking medical attention. Despite the use of multiple platforms in amplifying the awareness of hypertension; many still lack information. It has become prevalent for around 11.2 thousand inhabitants in Barangay Cabantian, Davao City in the year 2020. As a result, the Local Government Unit through the health office has intensified its campaign to raise consciousness and encourage citizens to counter this modern epidemic after it found out that hypertension continues to be the leading cause of death this year and in the last five years. Detecting hypertension early on will be able to better

manage it and reduce the risk of developing a cardiovascular event (Philippine Health Statistics, 2020).

Worldwide, the prevalence of hypertension is increasing. Today, 1.28 billion have hypertension. By 2050, a total of 24.28 million to 33.82 million people are expected to have hypertension (WHO, 2023). Hypertension is considered the number one contributing risk factor for global deaths, causing strokes, heart attacks, and other cardiovascular complications. Information, education, and communication (IEC) material in controlling hypertension are used to convey public health messaging to support the overarching behavior change to respond to a public health problem.

The study by Bhardwaj et al. (2019), conducted in New Delhi India, revealed that hypertensive women initially had a low level of knowledge and practice skills, but after receiving IEC intervention, their scores were much higher than they had been before. Women's knowledge and practice have been observed to increase after the IEC program. Another study conducted in an adopted community in San Fernando, Pampanga, showed that the majority of the respondents have controlled blood pressure. Aside from this advancement, clients have increased awareness and knowledge regarding their medical condition. There is a significant improvement in the health-seeking behavior of every individual in the community as evidenced by the increasing number of consultations in the healthcare facility (Development Academy of the Philippines, 2021).

In terms of knowledge in controlling blood pressure, a certain methodological and empirical gap was found in a study by Almomani et al. (2022). Their study which utilized a cross-sectional, descriptive, and exploratory design found only a lack of knowledge regarding many risk factors for hypertension but did not surface how a certain hypertension prevention program impacts the level of knowledge about chronic hypertension among hypertensive patients. The researcher intends to determine the effectiveness of the IEC program on the level of knowledge and attitude in controlling blood pressure among residents with chronic hypertension. The researcher aims to evaluate the utilization of the IEC program and the level of knowledge and attitude in controlling blood pressure among clients with chronic hypertension at Purok 32 in Barangay Cabantian, Davao City. In this way, it will elevate the public's awareness of this type of health condition, capacitate the decision-making skills, and champion timely health-seeking behavior of this community.

Methods

The study utilized the quasi-experimental research with one group pre-test post-test design. This research design is also called a causal-comparative method or simply a comparative method. According to George (2021), a quasi-experimental method of research is concerned with the effect of an intervention and participants will not be chosen at random. Meanwhile, a one-group pretest-posttest design is a type of experiment wherein measurements are taken both before and after the treatment is implemented (Zach 2020). This design was used to evaluate residents with chronic hypertension by testing the knowledge and attitude before and after rendering the intervention, the IEC Program.

For this study, only the quasi-experimental study worked because it needed to evaluate the effectiveness of the intervention, the IEC program on knowledge

and attitude in controlling blood pressure and to select hypertensive clients.

The actual data gathering was conducted at Purok 32, Barangay Cabantian in Davao City, Philippines. It is one of the 182 barangays in Davao City. It is located in the northern-east part of the city. It is geographically located at approximately 7.1340, 125.6107, on the island of Mindanao. Elevation at these coordinates is estimated at 83.6 meters or 274.3 feet above mean sea level. As of 2022 DOH statistics, the total population in Barangay Cabantian is 50,856.

Research respondents were selected through a total enumeration of clients diagnosed with chronic hypertension. The participation of patients was subjected to consent without coercion. To be exact, the number of participants in this study was 110 patients. According to Canonizalo (2021), the total enumeration method is a type of purposive sampling technique that involves examining the entire population that has a particular set of characteristics.

A total of 110 residents with chronic hypertension completed the pre and post-test. The respondents in this study possessed the following characteristics: a resident of Purok 32, Barangay Cabantian, between the ages of 18 and 79, male and female with Hypertension, and with blood pressure ranging from 140-180/90-110 mm of Hg; and his willingness to participate in the study.

Adopted standardized research questionnaires were used to gather data from the respondents. The questionnaire used in this study was an adoptive questionnaire from the study of Anoop, 2014, comprising thirty-four (34) questions to assess the level of knowledge and attitude in controlling hypertension before and after the implementation of the IEC program among residents of Purok 32 with chronic hypertension.

The questionnaire was divided into three parts. The first part of the questionnaire pertains to the respondent's demographic profile. This includes age, sex, civil status, and educational attainment. The second part of the questionnaire contained 20 multiple-choice questions to assess the knowledge of controlling blood pressure among the clients in the areas of causes, symptoms, medication, dietary changes, physical exercise, and follow-up. Lastly, the third part of the questionnaire comprised 14 statements to assess the attitude toward controlling blood pressure among patients in the areas of their behavior, lifestyle modification, and practices in controlling blood pressure. The following are the results of the reliability test of this adopted questionnaire with the use of split split-half method. This indicated that the r value was +0.92 for the knowledge questionnaire and +0.95 for the attitude questionnaire.

The study incorporated Frequency Distribution and Percentage to determine the profile of respondents with hypertension in terms of age, sex, marital status, and educational attainment. Moreover, Mean was used to assess the knowledge and attitude towards controlling blood pressure of clients with chronic hypertension. Furthermore, Wilcoxon signed-rank Test was used to compare the respondents' knowledge and attitude before and after completing the program and analyze the significant differences.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Demographic Profile	n=110	%
Age		
26-30	2	1.82
31-40	5	4.55
41-50	27	24.55
51-60	**45**	**40.91**
More than 61 years old	31	28.18
Total	110	100.00
Sex		
Male	54	49.09
Female	**56**	**50.91**
Total	**110**	**100.00**
Marital Status		
Single	24	21.82
Married	**78**	**70.91**

Widowed	8	7.27
Total	110	100.00
Educational Attainment		
College	33	30.00
Secondary	**71**	**64.55**
Elementary	6	5.45
Total	**110**	**100.00**

The various demographic profiles of the respondents are shown in Table 1 in terms of age, sex, marital status, and educational attainment. Almost half of the respondents, 45 (40.91 %) were in the age group of 51-60 years. A higher proportion of the respondents were females 56 (50.91%) while males composed 54 (49.09%). Furthermore, most of them are married with 70.91%. Also, a large number of respondents possessed a secondary education.

Table 2. Level of Knowledge of the Participants in Controlling Hypertension Before and After the Implementation of the IEC Program

	Mean	**SD**	**Interpretation**
Pre-test Knowledge Score	13	2.26	Satisfactory
Post-test Knowledge Score	17	1.43	Very Satisfactory

Legend: 16-20: Very Satisfactory; 11-15: Satisfactory; 5-10: Fair;0-4: Poor

Presented in Table 2 is the level of knowledge of the participants in controlling blood pressure before and after the implementation of the IEC program.

The participants in this study had a satisfactory level of knowledge with a mean score of 13 and a standard deviation of 2.26 about controlling blood pressure before the start of the IEC Program. Most of the participants do not know the normal blood pressure reading of an adult and that the common symptom of hypertension is headache. Also, almost half of the participants do not know that the toxin present in cigarettes can increase blood pressure. This is in line with the study of Bhardwaj et al. (2019), that initially, participants had a low level of knowledge of hypertension and risk factors among patients with hypertension. The same with the study of Kurnia et al. (2020), the pretest results revealed that respondents are still not informed about the management of hypertension.

Furthermore, the participants had a very satisfactory level of knowledge with a mean score of 17 and a standard deviation of 1.43 in hypertension control after the IEC Program. The participants are highly knowledgeable in controlling hypertension after rendering the IEC program as supported by the result of the post-test that their scores increased. This indicates that there is a gain in knowledge by all study subjects and the intervention was effective in increasing their knowledge in controlling hypertension. This

is confirmed in the study of Bhardwaj et al., (2019), following the administration of the IEC, 27 women (67.5%) received an average score, whereas 10 women (25%) showed an increase in knowledge and scored above average. The same findings were also noted in the study of Kurnia et al., (2020), the result revealed that the provision of the educational program increases knowledge.

The result of the present study showed that the participants are knowledgeable about the basics of hypertension. Participants knew that they should check their blood pressure levels every week and that hypertension can lead to stroke. Also, they knew the meaning of hypertension, the normal blood pressure values, and the values that need medical attention, and they also believed that clients use different methods for lowering blood pressure such as exercise, and lifestyle modifications.

The respondents live proximate to the Barangay Health Center and hospital which led them to have a sufficient understanding of hypertension. The possible explanation for this could be the closest distance might allow clients to visit a healthcare facility which could increase their chances of obtaining health information from healthcare workers delivering health education.

In the study of Sabouhi et al. (2021), although the patient's awareness, knowledge, attitude, and practices regarding their disease were rather high, their hypertension was nonetheless uncontrolled. This implies that other obstacles exist. The most significant obstacles to controlling hypertension include but are not limited to, physician turnover, disregard for established protocols or guidelines, prescribing antihypertensive medications from one category or selecting two medications from the same category, adverse effects (like bradycardia, abrupt drop in blood pressure that prompts medication discontinuation), improper mixing of medications, and lack of a primary care physician. The participants' age, educational level, and knowledge scores were significantly correlated.

Moreover, the participants' understanding of the symptoms, treatment options, risk factors, and complications of hypertension was lacking. Programs for public health education that emphasize hypertension awareness are necessary. It is the responsibility of nurses and other healthcare professionals to lead the way in hypertension education. To improve Jordanians' understanding of hypertension and its associated preventative and control measures, it is necessary to strategically plan and implement programs for the condition (Almomani et al., 2022).

Table 3. Level of Attitude of the Participants in Controlling Hypertension Before and After the Implementation of the IEC Program

	Mean	**SD**	**Interpretation**
Pre-test Attitude Score	3.45	0.35	Very High
Post-test Attitude Score	4.65	2.11	High

Legend: 4.21-5.00: Very High; 3.41-4.20: High; 2.64-3.40: Moderate; 1.81-2.60: Low; 1.00-1.81: Very Low

Presented in Table 3 is the level of attitude the respondent’s level of attitude in controlling hypertension before and after the implementation of the IEC

program.

The results revealed that the respondents had favorable attitudes before the intervention with a mean score of 3.45 and a standard deviation of 0.35. This indicates that the respondents knew that too much stress may cause hypertension, elevated blood pressure can be controlled with lifestyle modifications in the initial stage, and enough rest and sleep is needed to control hypertension. A similar result was reported in another study conducted in Iran that the pre-test attitude score in patients with hypertension was low (Mahmoodi et al., 2019).

Furthermore, the respondents had a highly favorable attitude after the IEC program, respondents had an overall mean score of 4.65 with a standard mean of 2.11. Results showed that most respondents strongly agreed that smoking can increase the complications from hypertension with a mean score of 4.73 and a standard deviation of 0.45. There was a noteworthy finding that reducing oil intake and psychological stress can help prevent hypertension with a mean score of 4.71 and a standard deviation of 0.48. Respondents believed that people at high risk for hypertension should improve their lifestyle going influence the management of hypertension. This is also supported by Yuan et al. (2020), that the attitude of people with hypertension is influenced by several factors such as the source of information obtained by the respondent in the mass media both print and electronic media, and health education campaigns.

This is confirmed in the study of Mansi (2021) that the blood pressure of the participants was not controlled despite good awareness and attitude. This study included patients between the ages of 18-60 years old. In this study, it was concluded that to rule out incorrect blood pressure measurement practices, adequate training for taking blood pressure at home should be provided.

Furthermore, a study by Bashaar et al. (2019) suggests that the healthcare industry must take proactive measures to increase knowledge, awareness, and attitude regarding hypertension and reduce associated risks. Since mass media campaigns have a crucial role in raising public awareness of hypertension, television, and radio ads should be used for mass conveyance of messages about controlling hypertension.

The result signifies that the program was effective in promoting positive attitudes toward the intervention. Respondents showed a willingness to improve their attitude towards the treatment of hypertension which includes increased exercise, salt restriction, smoking cessation, treatment adherence, and a healthy diet. The provision of the IEC program helped the respondents learn the proper management of hypertension. The increased knowledge of the respondents automatically increases also their willingness to address ways to control hypertension.

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This is in parallel to the study of Kurnia et al. (2020), it is stated that respondents' attitudes can be influenced by health education if the information provided is clear, simple, and easily understood by respondents. The more often the health information is given the more easy-going influence on the management of hypertension. This is also supported by Yuan et al. (2020), that the attitude of people with hypertension is influenced by several factors such as the source of information obtained by the respondent in the mass media both print and electronic media, and health education campaigns.

Table 4. Test difference of Before and After in the Knowledge and Attitude in Controlling and After the Implementation of the IEC Program

Variables	W	z	p	Decision	Remark
Knowledge	1.43	-15.45	0.00	Reject H_{o1}	S
Attitude	0.15	-34.62	0.00	Reject H_{o1}	S

Note: Wilcoxon Signed-rank test. S-significant

As shown in Table 4, the pre and post-knowledge and attitude tests were computed using the Wilcoxon signed-rank test. The result revealed that the IEC program resulted in a statistically significant improvement in both knowledge and attitude toward controlling hypertension among respondents. The knowledge score (w=114.50, z-score -8.63, $p < 0.001$), and the attitude score (w=0.00, z-score -9.10, $p < 0.001$). These results suggest that the IEC program was effective in promoting positive attitudes and increasing knowledge about hypertension management. This may lead to improved self-care behaviors and reduced risk of hypertension-related complications. This is in line with the study of Kurnia et al. (2020), that health education about hypertension effectively improves knowledge and attitudes toward willingness to carry out the treatment of hypertension management. The same findings were also noted in a study conducted by Bhardwaj et al. (2019), it was concluded that the mean pretest and post-test of knowledge and attitude scores indicate significant gain, thus, the IEC program for the prevention of hypertension was found to be an effective strategy. This statement has been proven by the results of the Wilcoxon signed-rank test in this study.

Conclusion and Recommendations

The current study concluded that most of the respondents were married females, in middle adulthood and possessed a secondary education. Most respondents had an adequate level of knowledge before the implementation of the IEC program. This means that the respondents had exposure to various useful information which may lead them to have a good understanding of their disease. Respondents enthusiastically participated in this study. They have a positive attitude towards the IEC program. In general, respondents are willing to seek medical attention and treatment when necessary. There is a significant improvement in both knowledge and attitude before and after the implementation of the IEC program. This implies that IEC materials were effective in increasing the knowledge and attitude of hypertensive patients in controlling their blood pressure.

The researcher recommends that enhancement programs for hypertension

control should be strongly promoted to increase awareness of the community and continuously educate programs and campaigns for early detection, primary prevention, and control of hypertension. However, there is still a need to intensely campaign prevention of disease progression, proper management, and practices such as having regular check-ups, eating a healthy diet, doing regular exercise, and avoiding harmful substances. Moreover, the researcher also recommends conducting a longitudinal study to determine the effectiveness of IEC over the long term in influencing hypertension prevention practices and to replicate the study with a larger sample size.

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Organizational Culture and Perceived Leadership Style of Nurses in Selected Private Hospitals in Tagum City

Vickie Mae B. Turquia, RN, USRN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

Organizational culture is the values of the organization. This research is conducted to determine nurses' organizational culture and leadership style in selected private hospitals in Tagum City. The study used a descriptive-predictive design, a strong methodology that allows for prediction, analysis, and correlation of culture and leadership. The study's respondents comprised all nurse participants in selected private hospitals. The questionnaire from Sashkin, Rosenbach, and Northhouse 2009 was adapted for data gathering. It was modified to fit the study's goal and subjected to validity testing. The multidimensional questionnaire on Organizational Culture showed an excellent level of validity as per the universal agreement approach S-CVI/UA = 0.97 and based on the overall agreement of three experts by average method S-CVI/AVE =0.99. Similarly, the Leadership Style also revealed an excellent level of S-CVI/UA =0.95; and S-CVI/AVE =0.98. The reliability was tested through McDonald's Omega with the following values for organizational culture indicators: managing change 0.772, achieving goals 0.779, coordinating teamwork 0.702, cultural strength 0.848, and patient orientation 0.757. The leadership style was reliable, with values of authoritarian 0.812, democratic 0.944, and laissez-faire 0.803. The study results showed that organizational culture among managers is very satisfactory, particularly regarding cultural strength, while coordinating teamwork should be developed. Further, a nurse manager's democratic leadership style was revealed to be highly acceptable. It was also found that a positive relationship existed between culture and leadership styles. The influence of achieving goals on leadership styles is paramount for organizational success.

Keywords: *Organizational Culture, Social Science, Descriptive-Predictive, Tagum City*

Corresponding email: vickiemaeturquia@gmail.com

Introduction

The organizational culture is the values of the organization. Leaders are influential in upholding its culture. The kind of leadership they portrayed is essential in achieving the vision. When leaders such as managers lack leadership skills, have weak organizational orientation, and demonstrate negative attitudes, a cynical effect on staff and the institutions may result. According to Cakir and Adiguzel (2020), leaders maneuver organizational success. They shape and carry out significant roles, while their attitudes and

management strategies mold culture (Huamán et al., 2023). Leaders who lack good management and a solid organizational culture disrupt organizational norms (Bamidele, 2022). This situation is the challenge a private healthcare institution faces in Tagum City. Nurse managers' leadership and attitudes hurt staff, confusing policies and norms to follow. Leaders frame the culture and are accountable for reinforcing values and beliefs (Aydogdu, 2023). Without a shared organizational value, the system will be chaotic, creating confusion for members and havoc on its culture (Bamidele, 2022; Solomon, 2019).

The global study of Alsaqqa and Akyürek (2021) proved that an association between organizational culture and a leader's behavior and values affects the organization they lead. Similarly, in a comprehensive analysis of the organizational culture of nursing in Indonesia, South Korea, Australia, the United States, Portugal, Iran, Taiwan, Vietnam, and Lithuania, an interconnection between organizational culture and healthcare

management revealed influence in the profession, commitment, retention, management, and nursing leadership (Aydogdu, 2024). Likewise, in two studies (Akparep et al., 2019; Nguyen et al., 2023) in Nigeria and Vietnam, it was noted that attributes of an organization's culture shape the course of leadership style and that leadership was bonded to the organization's culture. Moreover, in a Pakistan study, a reciprocal result was that leadership style motivates employee behavior, contributing to the organization's culture (Khan et al., 2020).

A local study of organizational culture and leadership revealed that culture and leadership influenced and sustained a culture. Furthermore, having the right blend of leadership empowers participation for success (Bautista & Uy, 2023). Assimilation of leadership involving support and direction results in effective leadership (Lusung et al., 2023). A higher perceived score for leadership meant a higher correlational aspect of an organization's culture. This fact emphasizes that strategic leadership behavior impacts the organization culturally (Amorin, 2021; Palencia, 2022). According to Belarmino (2019), in his study of the mediating role involving leadership styles transformational and transactional. A study on process concluded that leadership roles influenced organizational culture and quality management.

This study uses a descriptive-predictive design instead of the usual descriptive-correlational design, such as Belarmino's (2019) and Lusung et al. (2023) studies. It describes and predicts the organizational culture and leadership level among nurse managers, giving valuable insight to nurse leaders. This study explored the expected respondents of business supervisors at the nursing level and uncovered other styles of leadership not included by previous researchers.

Methods

The study utilized the descriptive, predictive research design. A descriptive design is used to systematically obtain information to tell or describe a particular situation or respondents of the study. It helps provide answers to questions that relate to the what, when, where, and how of the research problem. This study employed descriptive methods to comprehensively explain and describe the nurse respondents' demographic profiles and the level of organizational culture and leadership styles among nurse managers.

A predictive design, by definition, predicts and forecasts the behavioral patterns described in a research variable. This study uses predictive design to determine the organizational culture level among nurse managers and their leadership styles.

The researcher conducted the study in selected private level 2 healthcare

institutions in Tagum City, Davao del Norte. The community's critically ill adults, children, and newborns, as well as those from nearby provinces and municipalities, are served by level two hospitals with an authorized 100-bed capacity. These hospitals also provide dialysis, adult medical, pediatric, surgical, obstetric, and gynecological cases. The institutions have similar facility services dedicated to medicine, laboratories, and diagnostic imaging. The criteria for the selection of hospital setting is duly based on the same level of approved hospital-level license category, and all are located within Tagum City, a province of Davao del Norte in Northern Mindanao.

The questionnaire was adapted and modified from the works of Marshall Sashkin, Ph.D and William E. Rosenbach, Ph.D of the Organizational Culture Assessment Questionnaire (OCAQ). The Leadership Style Questionnaire (LSQ), however, came from Peter G. Northouse's work fitted for this research. The Organizational Culture questionnaire was treated for a validity measurement test, garnering a result of 0.99, an excellent level of content validity. In contrast, the Leadership style questionnaire also revealed a 0.98 excellent validity result. Likewise, a reliability test using McDonald's Omega resulted in acceptable remarks proving the tool's consistency: Organizational Culture and its specific indicators: managing change 0.77, achieving goals 0.77, coordinating teamwork 0.70, cultural strength 0.84, and patient orientation 0.75 markings. At the same time, the leadership style tool provided a reliability test result of authoritarian 0.81, democratic 0.94, and laissez-faire 0.80, which were all acceptable marks.

The research tool comprised three parts: Part 1 covered the profile of nurse participants in terms of name, age, gender, and nursing area of assignment. Part 2, the Organizational Culture and Assessment Questionnaire (OCAQ), assessed the level of organizational culture among nurse managers. Part 3, the Leadership Style Questionnaire (LSQ), assessed the level of styles in leadership of nurse managers.

A step-by-step process was adhered to make the study feasible. Permission to utilize the questionnaire is duly obtained from the following authors: Marshall Sashkin, Ph.D, William E. Rosenbach, Ph.D and Peter G. Northouse. When obtained, it was adapted, developed, and modified to fit the study goal. This was subjected to validity testing and was tested for reliability using McDonald's Omega. Ethical approval was sought and secured from the ethics program head. Written authorization was obtained from the Program Chair of the Master of Arts in Nursing at Davao Doctors College to conduct the study. Formal communication letters were handed and a gained approval from the hospital president and medical director of the selected level 2 private hospitals in Tagum City to conduct the study was obtained. Before gathering the data, respondents were informed of this research's objectives and ethical values. Upon agreement to participate, written consent was obtained. Followed by the distribution of questionnaire tools to the participating nurses in a Tagum City setting. The data was gathered, checked, and validated for the accuracy and completeness of data collection. Data were tallied according to their hospital group, tabulated, and computer-processed. A statistical interpretation commenced followed by a discussion of results and recommendations.

The data are analyzed through means to statistically reflect the degree and extent of the organization's culture and the perceived leadership style of nurse managers. The variance for identifying the following indicators of leadership styles: autocratic, democratic, and laissez-faire. The standard deviation presented the distribution that indicated high and low results. The Spearman rho gave an adequate interpretation of the strength of the relationship and association between two presented variables: the

organization's culture and leadership style among nurse managers.

Results and Discussion

Table 1. The Nurse Manager's Level of Organizational Culture

Indicators	Mean	SD	Interpretation
Managing Change	3.93	0.88	High
Achieving Goals	3.86	0.84	High
Coordinating Teamwork	3.72	0.85	High
Cultural Strength	4.03	0.75	High
Patient Orientation	3.86	0.81	High
Overall	**3.88**	**0.83**	**High**

Note: *4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low; SD- Standard Deviation; n=135.*

Table 1 presents the nurse manager's level of culture in the organization in terms of making changes, reaching goals, collaborative teamwork, cultural strength, and patient orientation. The result showed that cultural strength had a mean value of 4.03 and a standard deviation of 0.75, which was interpreted as the highest among the other indicators. Coordinating teamwork had the lowest mean value of 3.72 and a standard deviation of 0.85, although it was interpreted to be high. Overall, the data revealed a 3.88 mean value and 0.88 standard deviations, highlighting that nurse managers' level of culture is very satisfactory in selected private hospital organizations in Tagum City.

The highest result of cultural strength among nurse managers at the level of organizational culture implies a very satisfactory demonstration of fostered shared values within the organization that align with the set visions. A strong sense of culture tailors the formation of excellent problem-solving skills when a problem occurs. The unique strengths and abilities to work out solutions are intensely practiced by nurse managers, increasing their level of the organization's culture. In addition, it emphasizes the nurse manager's belief that compromising policies and procedures are ineffective in meeting goals. Nurse managers knew and understood their objectives and priorities within the organization by sharing the same set of solid cultural values to reach goals.

According to Alkhodary (2023), companies with strong cultural values increase innovation, collaboration, and engagement, as she likened to Google and Zappos. Likewise, (Akpa et al., 2021) it was

emphasized that having similar beliefs and values guided by consistency and adaptability increases an organization's cultural strength. Further, a practice of habits guided by the organization's standard and strategic plans enhances work completion and solution performance within the organization. This means that if a team joins to solve the problem, with shared and open discussion, it builds and sustains organizational culture. This also fosters management success related to unity and goal alignment (Fadnavis et al., 2020).

On the other hand, though it is interpreted as high, coordinating teamwork garnered the lowest; it can be accounted that the nurse managers' level of teamwork coordination needs to be enhanced or developed. Coordinating teamwork is emphasized as the collaboration within the nursing team organization duly influenced by the leadership of nurse managers. However, the results revealed that collaboration in the organization's culture needs to be improved regarding teamwork. There needs to be a better level of interpersonal, technical, and authoritative skills among nurse managers, and it has affected the capabilities of the team to coordinate effectively. It implies that nursing managers who lack the authority to verbally emphasize to members the essentiality of finishing the task effectively. Connectively, when nurse managers lack authority and have a weakness in communicating with the team about their functions and roles, it highly affects the skill to work together efficiently. When members included in the team do not know what is anticipated from them, do not know the gravity of their cooperation, and a weak authority on the nurse manager's side cuts off the "what is in it for me approach," it somehow affects the team success and thus highly impact's patients too. The line of authority of communication should be well-built among nurse managers to foster a high level of coordination. Further, novice nurse managers in selected private hospitals have shown deficiencies in technical and administrative skills as they are still adapting and coping with their new roles.

Accordingly, (Huaman et al., 2023) attitudes and management strategies take part in shaping a culture's teamwork; thus, by saying this, it implies that good management strategies, including a solid line of communication and an excellent demonstration of a nurse manager's behavior, mold cultural teamwork. According to Arogundade (2020), employees who have reserved liberty to express opinions in the team affect the organization's procedures in task performance teamwork, which mitigates the tendency to thrive. Nurse managers must possess good communication skills through openness and transparency to radiate positive effects in environmental workspaces and staff. Besides, nurse managers with few years of experience decrease engagement performance in managing nurse activities. The need to develop communication and leadership skills affects cultural organization relevant to effective teamwork (Jankelová et al., 2021).

Table 2. Nurse Manager's Level of Leadership Style.

Indicators	Mean	SD	Interpretation
Authoritarian leadership style	3.05	0.90	Moderate
Democratic leadership style	4.16	0.67	High
Laissez-faire leadership style	3.26	0.96	Moderate
Overall	**3.49**	**0.84**	**High**

Note: *4.21-5.00---Very High ;3.41-4.20---High; 2.61-3.40---Moderate; 1.81-2.60---Low; 1.00-1.80---Very Low; SD- Standard Deviation; n=135.*

Table 2 shows the nurse manager's perceived level of leadership style. Results show that the leadership democracy style gained the highest mean, 4.16 value, with a standard deviation of 0.67. In contrast, authoritarian leadership had the lowest mean value of 3.05, with a standard deviation of 0.90. Overall, the nurse manager's leadership style gained a satisfactory 3.49 mean value with a 0.84 standard deviation. This explains that nursing managers in selected private hospitals in Tagum City demonstrated a high satisfaction leadership for a democratic style emphasizing empowerment and shared decision-making within the organization. Autocratic leadership is the least dominant

The result implies that managers in nursing highly posited a value in democratic leadership exercise. Nurses felt the highest sense of assistance and support, which kindled a sense of value for a passionate job performance from their nurse managers. The passion that amidst challenges within the organization and its working environment, nurses feel secure that their nurse managers exist to help them. They have experienced meaningful leadership that showcased supportive communication to accomplish their work tasks. Nurse managers value the importance of supportive management so that nurses can complete and perform their designated tasks well toward becoming competent healthcare providers. In addition, nursing staff's perception is being guided in accepting their work responsibility as a professional nurse. They viewed their nurse managers as good leaders who guide without adding pressure and felt they were highly needed to contribute to decision-making.

Chukwusa (2019) stated that democratic is the best leadership style due to its ability to nurture growth as influenced by organizational culture and performance. Moreover, it promotes shared vision in decision-making by engaging personal goals with organizational goals (Wang et al., 2022). Agreeably (Ariani et al., 2022), democratic leaders positively impact how nurses perform their tasks. It demonstrates collaboration and trust in team members to complete designated roles. Also, nurses felt more competent in their job responsibilities, which implies confidence without pressure (Qtait, 2023). Likewise, a supportive clinical working environment is vital for an organization's leverage (Huamán et al., 2023).

On one side, autocratic leadership gained the lowest level of style, implying that nurses do not view their nurse managers as lazy and have poor trust in them, insinuating insecurity in their work performance. They viewed this kind of leadership as least dominant in the character of their nurse managers. There needs to be more engagement in distrusting staff's work performance, including punishment and rewards. Nurses instead believed that their nurse managers provided democracy over dictatorship. They saw their nurse managers' character of leadership as not strongly controlled and not highly bureaucratic but rather providing freedom to decide, work, and participate.

This authoritarian leadership is defined as leadership that strictly mitigates authority in controlling (Wang et al., 2019). The notion is that nursing leaders are the only source of hierarchical power and prowess decisions and do not actively involve members to develop a sense of accountability and independence (Jain et al., 2021).

Table 3: Test of the Relationship between the Organizational Culture and the Perceived Leadership Style of Nurse Managers.

Organizational Culture	Leadership Style			
	r_s	p-value	Decision	Remarks
Managing Change	.511	<.001	Reject H_{01}	S
Achieving Goals	.552	<.001	Reject H_{01}	S
Coordinating Teamwork	.279	.001	Reject H_{01}	S
Cultural Strength	.424	<.001	Reject H_{01}	S
Patient Orientation	.536	<.001	Reject H_{01}	S

Note: p<0.05 (Significant); S-Significant; r_s= rho; IV-OC (MC, AC, CT, CS, CO); DV-LS.

Table 3 shows the degree of relationship between organizational culture and the perceived leadership style among nurse managers. The results babbled that there is a positive association of relationship between nursing managers' organizational culture relating to managing change (rs =.511, p=<.001), achieving goals (rs =.552, p=<.001), coordinating teamwork (rs =.279, p=.001); cultural strength (rs =.424, p=<.001), patient orientation (rs =.536, p=<.001); and the perceived leadership style. As a result, the null hypothesis (H01) was not accepted as their p-values are less than 0.05 alpha level of significance. This suggests that an increase in nurse managers' organizational culture, in general, is correlated with an increase in their perceived leadership style. It further means that organizational culture enhances the leadership style of nurse managers. The organization's established culture provides a positive relationship for the nurse manager's ability to drive leadership functions to accomplish the goals and vision of the organization. Overall, it implies that organizational culture and leadership styles have a positive association. The ability to manage change, reach goals, nurture teamwork, develop solid cultural values, and uplift patient orientation significantly shapes the organizational culture of an organization.

This data further implies that the set values and beliefs are strong drive that makes an organization effective, and to produce that effectiveness, nurse managers carry their roles by showing and leading the members to become highly adaptive to managing change, one in reaching organizational goals. Foster a high value of coordinating teamwork to materialize goals and vision. To share similar cultural beliefs and values that the organization nurtures and efficiently enhance patient well-being by meeting their needs. This set of indicators significantly encompasses the hallmark of nurse managers' leadership abilities and their commitment to aligning with the culture's organization to thrive and succeed.

According to Akparep et al. (2019), an association of leadership styles is necessary to achieve a culturally enhanced organization, which implies a correlational relationship exists. Also, the association of managing the sustainability of organizational culture exists as how managers play their significant role within the organization (Solomon, 2019). Furthermore, staff perceptions of leadership and organizational

culture provide significant awareness that a line of communication is established to form a relationship. The organization's institutional culture provides structural meaning to team members, and the processes within establish a close relationship between the organization and leadership. Organizational culture affects leadership as leaders are accountable for developing and reinforcing organizational values and beliefs, producing significant correlation (Jerab, 2023).

Table 4. The Influence of Organizational culture on the Leadership styles of Nurse Managers.

LS	Observed Estimate	Bootstrap SE	Z	P-value	Decision	Remarks
Mean LS	3.444	0.039	87.65	0.000		
Effect						
Managing Change	0.057	0.092	0.61	0.540	Accept H_{02}	Not Significant
Achieving Goals	0.231	0.100	2.31	0.021	Reject H_{02}	Significant
Coordinating Teamwork	-0.012	0.119	-0.10	0.920	Accept H_{02}	Not Significant
Cultural strength	0.021	0.088	0.24	0.808	Accept H_{02}	Not Significant
Patient Orientation	0.190	0.114	1.66	0.096	Accept H_{02}	Not Significant

Note: Significant if p-value <.05; R^2= 0.8384; IV-OC (MC, AC, CT, CS, CO); DV-LS.

Table 4 revealed that an organization's culture concerning managing change (OE=0.057, p=.540), achieving goals (OE=0.231, p=.021), coordinating teamwork

(OE=-0.012, p=.920); cultural strength (OE=0.021, p=.808); and patient orientation (OE=0.190, p=.096), did not significantly influence the extent and degree of perceived leadership style of nurse managers. On the other side, achieving goals (OE=0.231, p=.021) was the only indicator in the organization's culture that significantly influenced the degree of the perceived leadership style of nurse managers.

The findings were apparent in the outturn of nonparametric regression analysis, in which 83.84% of the variation of perceived leadership style can be explained by the organization's set culture as indicated by an r-square of 0.8384. This result would mean that 16.16% of the variation can be ascribed to other components besides the independent variable. Overall, this implies that the ascendancy of the organization's culture and the nurse manager's leadership style is crucial and significant in reaching the organization's established goals. The right blend of leadership to obtain the set organizational culture, vision, and goals is critical to reaching the organizational goals. Leadership is a bridge that navigates an influence for members of the organization to follow. This, in turn, assimilates an organization's culture and uplifts nurse managers in selected private hospitals in Tagum City to demonstrate a style of leadership that would enhance the member's ability to arrive at common goals. Shared values among nurse managers reflected the organization's family fueling for efficient teamwork. Teamwork produces the same desired result that is favorable for the organization.

According to Jerab and Mabrouk (2023), organizational culture influences leadership. Likewise, a nurse manager's proper application of leadership style is paramount in achieving organizational outcomes (Bush et al., 2021). An appropriate leadership style results in goal achievement as influenced by the prevalent organizational culture (Akparep et al., 2019). A strong cultural nurse leader is highly effective in implementing evidence-based practices that ensure the achievement of organizational objectives (Alsadaan et al., 2023). Moreover, organizational culture impacts good nursing management and leadership roles (Aydogdu, 2023). According to Srimulyani et al. (2022), leadership and organizational culture are interdependent because every aspect of leadership execution shapes the organizational culture. It is accounted that values, culture, and beliefs, including the organization's goals, are factors that build the leader's ability to produce engagement with workers. On top of that, organizational culture drives the vision, customs, and philosophy of how things are done in an organization, pointing to the credibility of leadership roles to achieve goals (Bhardwaj, 2022).

Conclusion and Recommendations

In conclusion, there is a very satisfactory cultural strength and the least in coordinating teamwork among nurse managers. The result determined that among the nurse managers, the democratic consensus style of management was very satisfactory, as there is a culture of empowerment and shared decision-making within the healthcare organization. A positive correlation is that an increase in organizational culture enhances the leadership styles among nurse managers. The influence of a culture's organization on the styles of leadership among nurse managers revealed that achieving goals was the only indicator that significantly influenced the level of style of nurse managers' leadership.

Drawn from the result several recommendations have been made. The nurse manager's level of teamwork coordination should be nurtured to become highly effective and efficient as a leader of the nursing organization. The researcher recommends integrating and strengthening developmental skills in leadership through training. They should be encouraged and supported to strengthen teamwork capabilities and assertion of leadership

authority, especially for new nurse managers. Provide activities that nurture team building, leadership qualities, and communication training. Fostering and uplifting the orientation of nursing organizational culture to nurse managers and training them to lead subordinates will impact active participation and influence. The respondents needed to improve their coordination of teamwork. The researcher highly recommends that the institution foster teamwork collaboration by establishing team-building programs, developing programs for enhancing communication skills, and initiating technical nursing skills needed to work effectively as a team. The researcher recommends that hospital administrators efficiently support the nursing organization in its endeavor to improve nurse leadership programs and strengthen organizational culture. Future researchers suggest that a more comprehensive population application will be suggested in the coming studies. It should undergo a higher form of validity of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), including gauging responses from other interdisciplinary nursing teams.

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Navigating the Labyrinth of Stillness: Lived Experiences of Pediatric Nurses' Journey with Vegetative Patients

Noraisa Kabasalan Usop, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

Pediatric nurses dedicate their careers to the well-being of children, more so when these children are in a vegetative state. This phenomenological study aimed to explore the lived experiences of pediatric nurses in caring for vegetative patients. A qualitative, phenomenological approach was used to capture the lived experiences of the nurses. Twelve pediatric nurses from the Cotabato Regional and Medical Center were selected through purposive sampling. In-depth interviews and focus-group discussions were conducted with the participants to gather their experiences. Data were analyzed using Van Manen's methodological structure. The following Essential themes emerged: a) Prolonging the Misery and b) Achieving Holistic Support. These Cluster themes encompassed several essential experiences of the nurses: a) Going through Challenging Tasks, b) Carrying Emotional Burden, c) Being Optimistic, d) Involving Family, e) Collaborating with Others, and f) Keeping the Faith. By understanding the experiences and challenges the nurses faced, the research may serve as a reference for the development of interventions and programs to enhance the quality of care delivery for both patients and staff. This study underscored the need for a holistic approach to pediatric care in a vegetative state that addresses the physical and emotional needs of both patients and nurses.

Keywords: *Pediatric Nurse Experiences, Nursing, Hermeneutics, Cotabato City*

Corresponding email: noraisaguinaid09@gmail.com

Introduction

Pediatric nurses dedicate themselves to fostering growth and well-being in children. However, a unique and emotionally charged scenario arises when caring for children in a vegetative state (Giacino et al., 2018). These children lack responsiveness, often with an unknown prognosis, creating a constant tension we term "uncertain hope." Nurses provide constant, complex care for a child whose future remains unclear (Cassidy et al., 2023). This unique situation creates a multitude of challenges for nurses. They face the emotional strain of caring for a child with an unknown trajectory, often grappling with hope for recovery while confronting the harsh reality of limited progress (Jiménez-Herrera et al., 2020). The constant demands of care, coupled with the emotional weight of witnessing a child's unchanging state, can lead to feelings of helplessness, frustration, and even moral distress (Salari et al., 2022).

Vegetative state (VS), caused by brain injuries or oxygen deprivation, affects more children worldwide than previously thought. Estimates suggest 1.3 cases per

100,000 globally (Sheehan et al., 2019). Causes differ by region: high-income countries (e.g., North America, Europe, Australia) see more traumatic brain injuries, while low- and middle-income ones (e.g., Africa, Asia, and parts of South America) have a higher prevalence of infectious diseases like encephalitis (Menon et al., 2020; Cassidy et al., 2023). This necessitates regionally specific care approaches. While advancements improve outcomes in wealthier nations (Irzan et al., 2022), the ethical dilemmas and emotional toll on nurses caring for these children remain significant (Logeswaran et al., 2018; Pinel-Jacquemin, 2023). Studies exploring the experiences of nurses caring for comatose patients, a similar state to VS, highlight the emotional strain and ethical complexities involved (Jiménez-Herrera et al., 2020; Salari et al., 2022). Unlike adult patients, children in the vegetative state often have a longer potential lifespan, creating a constant tension between hope for recovery and the reality of limited progress. This "uncertain hope" can be emotionally draining for nurses (Cassidy et al., 2023).

While the Department of Health reports a concerning number of pediatric vegetative state cases in the Philippines, research specifically exploring the experiences of nurses caring for these children is lacking (Valenzuela, et al., 2022). In Cotabato Regional and Medical Center alone, 2022 saw 5 such cases. Nurses assigned to these patients highlight the unique challenges of providing not only medical assistance but also critical care in this emotionally charged situation. This limited research and the nurses' own experiences underscore the need for a deeper understanding of this specific aspect of pediatric care in the Philippines (Alibudbud, 2023). "Navigating the Labyrinth of Stillness: Lived Experiences of Pediatric Nurses with Vegetative Patients" addresses a gap in research by focusing on the unique emotional and psychological experiences of pediatric nurses caring for children in a vegetative state. Existing research on vegetative state care often overlooks the specific challenges faced by nurses who work with children, whose situations are characterized by "uncertainty" and a lack of clear prognosis. This descriptive phenomenological study aims to capture the lived experiences of these nurses, illuminating the emotional toll and potential support structures needed in this under-researched area.

Thus, this aimed to explore the lived experiences on the journey of pediatric nurses in caring for vegetative state patients at Cotabato Regional and Medical Center. Specifically, it aimed to answer the following research query: What are the lived experiences of pediatric nurses caring for vegetative state patients?; How do pediatric nurses cope with the challenges they experience?

Furthermore, the results will benefit pediatric nurses as these findings will have the potential to empower nurses directly. By providing new information on caring for vegetative patients within a holistic care framework, the research can equip nurses to deliver safer, higher-quality care to their young patients. Also, a significant value for nurse administrators. Examining the challenges faced by nurses caring for vegetative patients can inform the development of targeted strategies to bolster their coping mechanisms. These strategies could take the form of a comprehensive professional development program designed to enhance both the capacities and competencies of nurses in this emotionally demanding role.

Methods

This study utilized a descriptive hermeneutic phenomenological approach Also, it focuses on meanings of medical tasks, based on experiences, particularly the emotional toll of "uncertain hope". The study was conducted within the Cotabato Regional and Medical Center (CRMC), specifically its pediatric ward, located in Cotabato City, Philippines. The study focused on pediatric nurses' experiences with vegetative patients.

Also, this study utilized purposive sampling. Only registered nurses working in the pediatric ward of CRMC are included in the study with participants that have at least two years of experience working in the ward. Twelve nurses who have worked in the pediatric ward for at least two years were selected. This time frame helped ensure they have encountered and navigated the complexities of caring for this specific patient population. The selection aimed for a degree of homogeneity, meaning the participants shared similar experiences caring for vegetative state patients

Moreover, the data source for this research design relied on primary data articulated from the lived experiences of the nurses who had experienced the journey of caring for vegetative pediatric patients. Based on the Van Manen methodological structure, the responses of the informants during the interview were the primary data source for this study on their lived experience through one-on-one interviews. Secondary data from the related literature provided support for the primary data.

Furthermore, a step-by-step process based on the implemented protocols by the college for conducting qualitative research. The first step was the development of the interview guide questions to be evaluated by validators, and checked by the adviser and panelist. Then the researcher got the approval to conduct the study from the Master of Arts in Nursing Program Chair of Davao Doctors College, Inc. The participants, after evaluating their credentials, were then selected and notified through face-to-face interviews. They were asked for their voluntary consent to participate in the study. The researcher assured the participants that responses obtained from the interview would be treated with utmost confidentiality and anonymity.

On the day of the actual interview, the researcher personally conducted the interview. Strict compliance to the research protocols including the orientation on the purpose of the study. Likewise, the adherence to the health protocols such as wearing of face mask and social distancing were complied with to protect the researcher and participants. After the interview, the data gathered was analyzed using thematic analysis.

The collected data of the study was analyzed using Van Manen's six-step interpretive phenomenological approach. The first step was turning to the nature of lived experience. The second step was the investigation of the experience as it was lived by the participant. The third was reflecting on the essential themes, which characterize the phenomenon. The fourth was describing the phenomenon in the art of writing and rewriting. The fifth was maintaining a strong and orientated relation to the phenomenon. The sixth was balancing the research context by considering the parts and the whole

Also, all data were anonymized. No personal identifiers were linked to interview transcripts, or any other data collected. Participants were assigned codes to protect their identities during data analysis and reporting of the research findings. Data were securely stored following institutional guidelines. Participation in the study was

entirely voluntary. Participation may evoke emotional responses as nurses reflect on their experiences. The researcher ensured informed consent, emphasized the voluntary nature of participation, and provided participants with a list of mental health resources if needed. Participation allowed nurses to share their experiences, potentially contributing to improved support systems and ultimately better care for vegetative state patients. Nurses may also have gained a sense of catharsis and validation through participation. Also, Nurses were informed of their right to withdraw from the study at any point without repercussions

Results and Discussion

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Ten out of the 12 participants are female, while the remaining two are male. They are assigned to the CRMC Pediatric Ward and have handled vegetative patients for about 2 years. The results of the analysis of the participant's overall responses to the lived experiences of staff nurses were presented in a thematic map shown in Figure 2.

Van Manen's methodological structure, rooted in phenomenology, offered a comprehensive framework for exploring the lived experiences of pediatric nurses caring for patients in a vegetative state. Nurses' experiences were investigated through in-depth interviews, focusing on their subjective perceptions, emotions, and reflections. Out of the 120 responses, 124 significant statements were extracted. These were analyzed using thematic analysis, and common themes and patterns in nurses' experiences of caring for vegetative pediatric patients were identified.

Essential Theme 1: Prolonging the Misery

The first essential theme that emerged from our study is *Prolonging the Misery***.** This theme captures the emotional burden nurses experience when caring for patients in a vegetative state for extended periods. The theme "Prolonging the Misery" arose from the qualitative analysis of nurses' experiences. While medical advancements have undoubtedly increased life expectancy in vegetative state patients (Goudarzi et al., 2018), these advancements may come at a cost. Nurses described feelings of helplessness and emotional strain as they cared for patients with little to no chance of

recovery. The life expectancy and population of individuals in vegetative states have increased due to recent advancements in medical technologies that have enabled them to live longer. In the past, these patients did not have extended survival rates, but these days, more and more of them are, and as a result, their condition is progressing toward a minimally conscious state or a vegetative state. For patients in a vegetative state, excellent care is essential to preventing avoidable consequences. To prevent aspiration, standard measures included tracheostomy suctioning when necessary, maintaining good skincare, providing adequate nutrition, often through gastrostomy tubes, managing the patient's doubly incontinent bladder and bowel with caution, and paying close attention to oral and dental hygiene. Professional caregivers, such as nurses, are required to administer the majority of the care given to these patients before they are endorsed for home care and are taken care of by the family (Keykha et al., 2022).

Cluster Theme 1.1 Going through Challenging Tasks

The first Cluster Theme is *Going through Challenging Tasks.* Keywords for this cluster include challenge, hard, difficult, work, job, task, life-sustaining, equipment, resources, and skills. While skilled nursing care is vital for extending the lifespan of patients, nurses face significant hurdles in achieving this for those in a vegetative state. This can lead to feelings of detachment, discouragement, and questioning the impact of their efforts. Furthermore, limited resources and high patient-to-nurse ratios can make it difficult to provide the intensive level of care required for long-term vegetative state management. Despite these hurdles, nurses' dedication and expertise remain crucial in promoting comfort, preventing complications, and ultimately, extending the lifespan of these patients.

The unpredictable nature of persistent vegetative state (PVS) recovery in children adds another layer of complexity to the challenges nurses face. Unlike adults, there's limited data on how likely a pediatric PVS patient might regain consciousness (Quiñones-Ossa, 2021). This lack of a clear prognosis makes it difficult for nurses to develop a long-term care plan for the child, creating a sense of uncertainty and hindering their ability to effectively plan for the child's well-being (Rubic et al., 2022). Furthermore, the absence of robust, evidence-based guidelines specifically for pediatric PVS adds another layer of difficulty. Nurses may struggle to find clear protocols for managing these complex cases, leading to feelings of inadequacy and frustration.

Cluster Theme 1.2 Carrying an Emotional Burden

The second Cluster Theme is *Carrying an Emotional Burden.* Keywords for this cluster include pity, pain, sadness, emotions, compassion, and helplessness. While nurses' meticulous observation and personalized care routines contribute to preventing complications, this constant vigilance also leads to emotional strain. Witnessing a child's prolonged state of unresponsiveness, coupled with the emotional turmoil of families, takes a toll. Nurses may struggle with feelings of helplessness, frustration, and compassion fatigue. Additionally, ethical dilemmas surrounding care decisions can add another layer of emotional burden.

While empathy, a core component of nursing, allows nurses caring for vegetative state (VS) patients to understand their situation (Moudatsu et al., 2020), this understanding comes at a significant emotional cost. Nurses in this study described a constant emotional strain. Their empathy allows them to comprehend the emotions of the families involved, witnessing their grief and helplessness firsthand. This emotional investment, coupled with the child's prolonged state of unresponsiveness, can lead to feelings of frustration, helplessness, and compassion fatigue. The very act of caring for a VS patient requires meticulous observation and personalized care routines to identify subtle changes in vital signs or responsiveness (Jackson & Cairns, 2020). This vigilance, while crucial for preventing complications, can be emotionally draining. Nurses carry the weight of hope for even the smallest sign of progress, knowing the prognosis for recovery is often bleak (Flaubert, 2021).

Essential Theme 2: Achieving Holistic Support

The second Essential Theme is *Achieving Holistic Support*. Keywords for this include support, resilience, strategy, faith, adaptive, and coping mechanisms. This theme, identified through qualitative analysis of nurses' narratives, highlights their commitment to providing comprehensive well-being for themselves, their patients, and the families involved. Nurses described a conscious effort to manage stress and cultivate resilience to provide the best possible care. This holistic approach encompasses emotional well-being, effective communication, and collaboration with families. Nurses caring for VS patients face emotional challenges due to the prolonged unconscious state of the child and the emotional turmoil of families. By developing coping mechanisms like stress management techniques and seeking support from colleagues, nurses can build emotional resilience and prevent burnout (Garcon-Paul, 2023). Maintaining calmness allows nurses to communicate more effectively with families experiencing unimaginable grief (Molina-Mula & Gallo-Estrada, 2020). Open and honest communication is crucial for fostering trust and shared decision-making.

Cluster Theme 2.1 Being Optimistic

The third Cluster Theme is *Being Optimistic.* Keywords for this cluster include optimism, positivity, mindset, motivation, focus, and resilience. This highlights the crucial role optimism plays in a nurse's ability to navigate the emotional challenges of caring for vegetative state (VS) patients. By acknowledging the emotional toll and proactively developing coping mechanisms, nurses build resilience. This proactive approach fosters a sense of control and prevents burnout. Optimism allows nurses to maintain a sense of hope, not just for the patients, but also for themselves and their families. This hope fuels their dedication and prevents them from succumbing to despair.

By acknowledging the emotional toll and proactively developing coping mechanisms like optimism, nurses build resilience. This proactive approach fosters a sense of control and prevents burnout. Managing stress is a behavior that is important for people's health. The way that personal resources are used affects one's health, happiness, and ability to perform successfully at work (Babapour et al., 2020). The selection of adaptive stress-reduction techniques can also be impacted by a broad and comparatively stable dispositional

orientation, which is distinctive to a particular person and establishes the basic manner in which that person perceives experiences, and comprehends the environment in which they live as well as their own life (Betke et al., 2021).

Cluster Theme 2.2 Involving Family

The fourth Cluster Theme is *Involving Family.* This emerged from the analysis of how nurses described their interactions with families. Keywords for this cluster include family and support. In the demanding world of caring for vegetative patients, involving the family becomes a crucial adaptive strategy for nurses. This goes beyond simply keeping them informed. Nurses who actively involve families can leverage their unique knowledge of the patient's preferences and history. This collaboration allows for a more personalized care plan, potentially improving the patient's comfort and well-being.

Childhood experience with a chronic illness causes families to adjust their routines and make requests for care. They begin to have intense anxiety about taking care of the sick child, who now requires daily attention, food, and medication, in addition to ongoing worries about their clinical condition, which places a burden and pain on the family. Since the orientation and involvement of the family in this process determines how the care progresses, caring for children with chronic illnesses inevitably means viewing them through the lens of their relationship with the mother, father, and/or other caregiver figures (Spurr et al., 2023). This is because the health of one directly impacts the state of the other. Research demonstrates that forming a relationship with parents or other family members enhances both the standard of pediatric nursing practice and the care provided to children with chronic illnesses (Vaz, et al., 2018).

Cluster Theme 2.3 Collaborating with Others

The fifth Cluster Theme is *Collaborating with Others.* Keywords for this cluster include colleague, teamwork, coordination, and collaboration. The emotional and physical demands of caring for vegetative patients necessitate collaboration as a central adaptive strategy for nurses. Working closely with colleagues on the unit fosters knowledge sharing, allowing nurses to learn from each other's experiences and expertise. This collaborative approach ensures continuity of care and minimizes disruptions for the patient. Through collaboration, nurses can navigate the complexities of caring for vegetative patients with both clinical proficiency and emotional fortitude. Furthermore, collaboration with other departments is also most beneficial for the patient.

Enhancing nursing teamwork is a cornerstone of effective patient-centered care. An experienced nurse might excel at clinical assessments, while another offers exceptional emotional support. By working together, they can create a holistic approach that addresses both the physical and emotional well-being of the patient. This emotional resilience is crucial for preventing burnout and maintaining a patient-centered focus (Sundal & Vatne, 2020).

Cluster Theme 2.4 Keeping the Faith

The sixth Cluster Theme is *Keeping the Faith.* Keywords for this cluster include prayer and God. While medicine offers a scientific framework for care, nurses caring for vegetative patients often find solace and strength in keeping the faith, a powerful adaptive strategy. This faith can manifest in various ways, from personal religious beliefs to an unwavering belief in the human spirit's potential for recovery. It allows nurses to find meaning and purpose in their care, even in seemingly hopeless situations. This faith doesn't diminish the emotional challenge but rather provides a source of inner peace and resilience. Religion and spirituality act as powerful lifelines for nurses navigating the relentless tide of stress in their profession. For some, faith provides a sense of purpose and meaning (Rachel et al., 2019). Witnessing illness and loss can be deeply challenging, but religious or spiritual beliefs can offer a framework for understanding suffering and the potential for peace, even in difficult situations. Prayer or meditation becomes a source of strength, a way to find solace and inner peace amidst the chaos (Perera et al., 2018).

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Implications and Recommendations

The purpose of this study was to explore the lived experiences of pediatric nurses in caring for patients in vegetative states. It primarily focused on their experiences and how they managed to cope with the challenges brought by the complexity of the situation.

This qualitative research can help nurse managers and other healthcare leaders understand the challenges faced by the nurses. Unveiling the lived experiences of pediatric nurses caring for vegetative patients can significantly impact nursing practice. By illuminating the emotional burdens, ethical dilemmas, and communication needs encountered, these insights can inform curriculum development. This equips future nurses with the emotional resilience, ethical frameworks, and communication skills necessary to navigate this challenging yet crucial aspect of pediatric care, ultimately fostering a more holistic and compassionate approach for both patients and their families.

This research may also help in the enhancement of the nursing curriculum as valuable insights into the experiences of the staff allow the integration of best practices to better equip students in their nursing careers. The study can reveal the specific emotional burdens, communication needs, and ethical dilemmas these nurses face. Integrating these insights allows educators to develop training that equips future nurses with the emotional resilience, communication skills, and ethical frameworks necessary to navigate this challenging yet crucial aspect of pediatric care.

Examining the lived experiences of pediatric nurses caring for vegetative patients can spark a new wave of impactful nursing research. These narratives can illuminate underexplored areas like the specific stressors nurses face, their coping mechanisms, and their impact on ethical decision-making. This newfound knowledge can guide future research efforts, leading to targeted interventions to improve staff well-being, communication strategies with families, and potentially, advancements in care approaches for these complex pediatric patients.

. To comprehensively improve care for both pediatric vegetative patients and the nurses who dedicate themselves to their well-being, nursing research should prioritize exploring the lived experiences of these nurses. Qualitative methodologies, particularly in-depth interviews and focus groups, are ideal for capturing the richness and complexity of these experiences. The research focus should encompass several key areas.

Firstly, the emotional toll deserves in-depth exploration. Researchers should investigate the specific emotional burdens nurses face, including compassion fatigue, burnout, and the unique challenges associated with caring for a child who cannot respond. Understanding their coping mechanisms is crucial, as it can inform the development of targeted interventions to bolster emotional resilience and prevent staff burnout.

Secondly, research should explore the ethical dilemmas nurses face in caring for vegetative patients. Treatment decisions, the allocation of scarce resources, and navigating the ethical gray areas surrounding end-of-life care all present significant challenges. By examining these dilemmas, researchers can contribute to the refinement of ethical frameworks and decision-making processes within pediatric care for vegetative patients.

Thirdly, future research with a larger sample size (10 IDIs and 8 FGDs) would provide a more generalizable picture of the challenges nurses face. The current study (6 IDIs and 6 FGDs) offers valuable insights, but it may not have captured the full range of experiences across different healthcare settings, geographic locations, or patient populations.

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Looking through the Lens: Lived Experiences of Nurses Caring for People Living with Dementia

Jackieline G. Verana, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

This qualitative study aimed to explore the experiences of 14 nurses caring for dementia patients in Homes for the Aged in Davao City. Researchers used a descriptive phenomenological approach and interviewed nurses through purposive sampling. Personalized care, resilience, communication, collaboration, adaptation, and well-being were identified as fundamental for effective caregiving. This focus on a multifaceted approach led to themes exploring the complexities of dementia care, the nurses' journey in finding strength and purpose, and the importance of lifelong learning. These findings advocate for holistic approaches to support both patients and nurses. Integrating these insights into nursing education, research, and practice can lead to significant improvements. Nursing education can incorporate in-depth training on dementia care, including personalized care strategies and fostering nurses' well-being. Research can explore interventions supporting nurses and communication with families. The healthcare system can prioritize readily available resources for personalized care planning, mental health support for nurses, and fostering teamwork. By implementing these recommendations, nurses can deliver compassionate and effective dementia care, ultimately enhancing patients' quality of life and well-being.

Keywords: *Dementia, Nursing, Healthcare, Descriptive-Phenomenology, Davao City*

Introduction

Caring for individuals with dementia presents unique challenges for healthcare professionals, especially nurses who often play a frontline role in diverse clinical settings (Alzheimer's Association, 2021). Beyond medical aspects, the complexities of dementia care encompass emotional, psychological, and social dimensions (Stroud and Larson, 2021). Nurses frequently experience frustration and stress, particularly when managing patients' aggressive or agitated behaviors (Brodaty et al., 2019). Their real-life experiences significantly shape care quality and profoundly influence the lives of patients and caregivers (Rogers and Reeves, 2019).

Globally, the prevalence of dementia is rising, with approximately 50 million people affected and projections suggesting a doubling by 2030 (WHO, 2021). Consequently, there is an increasing demand

for healthcare services, particularly from nurses, to support individuals with dementia. However, studies in Turkey revealed that nurses often lack the necessary expertise and confidence to manage dementia-related symptoms, leading to job dissatisfaction and emotional distress (Cevik et al., 2022).

In the Philippines, studies have highlighted both positive and challenging experiences among nurses providing Person-Centered Care (PCC) to dementia patients (Cheong et al., 2021). Despite initial obstacles, nurses improved their skills through training and collaboration, underscoring the importance of teamwork in dementia care. Another study by Dela Cruz et al. (2020) emphasizes a holistic approach to dementia care in aged care facilities, highlighting the importance of staff training and prioritizing resident dignity and quality of life.

However, concerns persist regarding the acknowledgment of nurses' contributions by other healthcare professionals. Recent research has shed light on the unique challenges faced by healthcare providers in managing dementia within the Philippine context, stressing the urgent need for enhanced support systems and resources for patients and caregivers (Mercado & Del Rosario, 2019). Studies conducted in cities like Davao and Tagum, such as Adrian et al. (2019), have explored the interplay of aging, dementia care, and the built environment, emphasizing the importance of nurses' experiences and the suitability of care environments in promoting the well-being of dementia patients.

Nevertheless, Smith et al. (2021) revealed a significant gap in understanding the lived experiences of nurses providing dementia care, particularly in Davao City. This study presents an opportunity to identify research gaps in exploring the challenges nurses face in this context. Investigating traditional, economic, and communication factors influencing dementia care delivery, alongside assessing the effectiveness of support systems and training programs, could offer valuable insights for enhancing care quality in nursing homes and care facilities. Despite Davao City's commitment to dementia patient care, a gap persists in how nurses provide care in hospice homes. In addition, further investigation into adequate nurses' continuous training and the obstacles they encounter. Understanding the impact of this care on patients and assessing the sufficiency of support systems for caregivers is crucial. By examining these factors, opportunities emerge for improving dementia care for the geriatric in Davao City.

Methods

This study utilized a qualitative descriptive phenomenological design, as employed by Bhandari (2020), to explore the lived experiences of nurses caring for dementia patients in Davao City. The researchers aimed to capture how nurses perceived their work environment and how these perceptions influenced their caregiving approach. In-depth interviews and focus groups, common qualitative data collection methods, were chosen by Bhandari (2020) to capture the richness of the nurses' experiences.

The study was conducted in Davao City, Philippines (refer to Figure 1: Site Map), situated in Southeastern Mindanao Island. It aimed to understand the caregiving practices of nurses for dementia patients. Researchers focused on two privately owned hospices or homes for the aged specializing

in managing dementia, located within the city's urban environment. This ensured participant accessibility and a wide range of perspectives.

Fourteen (14) nurses working various shifts in these facilities participated in the study. Seven participated in in-depth interviews (IDI), and seven participated in a focus group discussion (FGD). Participants were selected through purposive sampling, a non-probability sampling method aimed at elucidating a theme, concept, or phenomenon (Robinson, 2019). The researcher recruited participants with significant experience caring for dementia patients based on the established specific inclusion criteria. Only Registered Nurses (RNs) currently employed at a home for the Aged in Davao City were eligible. Additionally, participants had to be at least 18 years old and with at least two years of direct care experience with dementia patients. Finally, willingness and ability to provide informed consent was mandatory. However, exclusion criteria set by the researcher to keep the target population in focus were nurses with less than two years' dementia care experience, those not currently working in a Davao City aged care home, and those unable to provide informed consent (due to cognitive impairment or other reasons) were excluded from the study.

Results and Discussion

From 283 transcripts, 134 significant statements were extracted, resulting in the development of 9 formulated meanings. These meanings were subsequently categorized into 7 cluster themes, eventually merging into 3 emergent themes, as depicted in Figure 2 below.

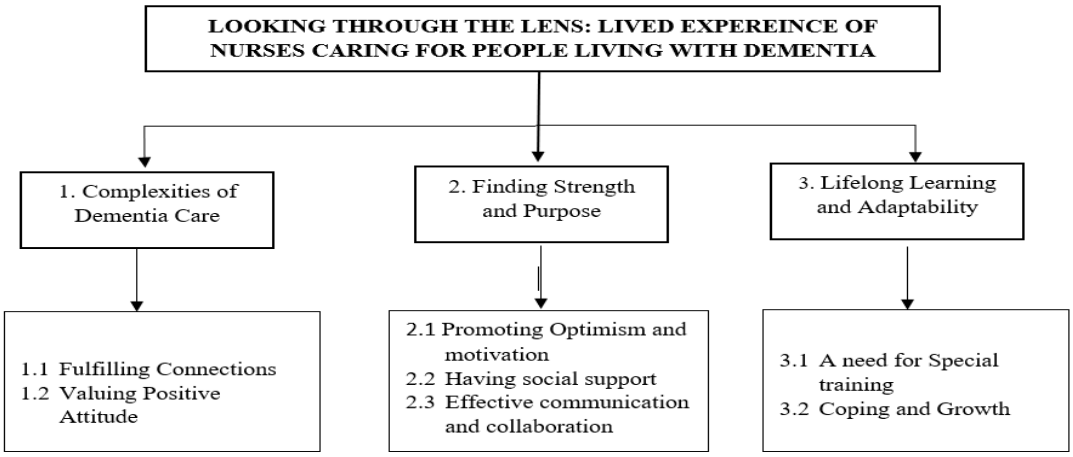

Figure 2: Thematic Map

Emergent Theme 1: Complexities of Dementia Care

The theme " *Complexities of Dementia Care* " signifies the ongoing process wherein nurses strive to comprehend, adjust to, and meet the

complex needs of individuals grappling with dementia, highlighting the unique perspectives and insights gained by caregivers especially the nurses in this role. Concerning the study, nurses face fulfilling moments and connections alongside challenges as they prioritize patient safety and well-being, relying on standardized protocols and a safe environment. Challenges like managing wandering and medication resistance demand adaptability and patience. Despite the difficulties, nurses find solace in cherishing moments with loved ones and seeking community support. Through resilience, valuing positive attitude, adaptability, and empathy, they navigate the caregiving journey with dedication and compassion. It suggests that navigating the complexities of dementia care, with all its emotional ups and downs, ultimately leads to a sense of purpose and the ability to make a positive difference.

One key aspect of dementia caregiving is the importance of maintaining patient safety and well-being. Research by Smith et al. (2019) highlights the significant role that caregivers play in ensuring a safe environment for patients, particularly in managing challenging behaviors such as wandering and medication resistance. This study emphasizes the need for nurses to exhibit adaptability and patience in addressing these challenges.

Cluster Theme 1.1: Fulfilling Connections

The cluster theme " *Fulfilling connections* " in dementia caregiving refers to the meaningful bonds and positive relationships formed between nurses and patients despite the challenges presented by the disease. These connections are a source of fulfillment and reward for nurses and contribute to a more positive experience for both caregivers and patients. This revolves around the multifaceted experiences of caregiving in dementia care. Participants expressed the emotional toll of witnessing individuals with dementia struggle to express themselves and cope with changes in their personality and condition, which can be heartbreaking and stressful. However, amidst these challenges, there's a profound sense of fulfillment in creating a secure and caring environment, making a tangible difference in their lives, and witnessing moments of joy and connection through engaging activities. Yet, the caregiving journey is also marked by constant vigilance and concern for the safety of those under their care, particularly regarding issues like wandering and orientation difficulties, which demand ongoing attention and support.

Dementia caregiving is a complex and emotionally charged experience. Despite challenges such as communication difficulties, emotional turmoil, and safety concerns, nurses find immense rewards in creating a haven, making a positive impact, and witnessing moments of joy. Their dedication and unwavering support are vital lifelines for those in their care, profoundly impacting the lives of individuals with dementia.

Studies confirm the emotional toll of dementia caregiving, with caregivers experiencing significant stress and strain (Roth et al., 2021). However, these challenges are balanced by the rewards of making a positive difference. The Verve Senior Living Blog (2022) highlights the sense of purpose and connection caregivers can find. Lin et al. (2019) also explore the concept of "caregiver burden," acknowledging the emotional, physical, and social challenges while suggesting potential positive aspects like fulfillment. Ultimately, the dedication of dementia

caregivers demonstrates the profound impact they have on their patients' lives.

Cluster Theme 1.2: Valuing a positive attitude

This theme “Valuing a positive attitude” in dementia care, among nurses is essential for navigating the challenges inherent in this complex field. Maintaining optimism and empathy allows nurses to approach communication barriers and behavioral challenges with creativity and compassion, fostering a supportive environment where patients feel understood and valued. This positive mindset also promotes resilience, enabling nurses to adapt to the unpredictable nature of dementia care while inspiring the same resilience in their patients and colleagues. By prioritizing a positive attitude, nurses (Participants 2 & 10) not only enhance the quality of care provided but also contribute to a compassionate and empowering care environment that supports the well-being and dignity of individuals living with dementia. Witnessing patients with dementia can trigger memories of their parents, causing sadness (Participant 2).

It emphasizes the importance of cherishing moments with family members while they still have their cognitive abilities intact. Additionally, it emphasizes the need for nurses to find support from their own families and colleagues, recognizing the importance of maintaining one's well-being while providing care to others.

Emergent Theme 2: Finding Strength and Purpose

The theme "Finding Strength and Purpose in Dementia Care" centers on discovering meaning and motivation despite challenges. Caregivers find fulfillment in making a positive impact on patients, drawing inspiration from their resilience, and fostering a positive environment through strong communication and teamwork. Dementia care, though demanding, can be a source of strength and purpose. Meaningful connections with patients and the positive influence on their lives provide significant motivation. The resilience of dementia patients inspires nurses to contribute to their well-being. Witnessing the human spirit's resilience and the power of love in overcoming adversity further strengthens caregivers. Personal positivity is crucial, with some caregivers recognizing the importance of happiness to stay motivated. Effective communication, patience, empathy, and teamwork are essential to navigating challenges and creating a positive environment for both patients and caregivers.

Wright et al. (2020) highlight that caregivers can find satisfaction in the positive influence they have on dementia patients' lives. Lin et al. (2019) emphasize that the resilience of those with dementia serves as a source of inspiration, motivating caregivers. McConnell et al. (2019) underscore the importance of fostering a positive environment through strong communication and teamwork with colleagues and families for the well-being of both nurses and patients. These combined factors create a sense of purpose that empowers caregivers to navigate the complexities of dementia care.

Cluster theme 2.1. Promoting optimism and motivation

The theme of Promoting Optimism and Motivation highlights the nurses’ determination to find deep meaning and purpose in their work. Their primary focus is ensuring patient safety and well-being through secure environments and an understanding of patients' backgrounds and preferences as stated by the participants.

The training emphasizes familiarity and comfort, fostering genuine connections that inspire unwavering support from caregivers, especially nurses. Witnessing patients' resilience further fuels their

motivation. This support network extends beyond patients, with colleagues, family, and facility administration playing a crucial role in helping caregivers navigate challenges effectively. Through patience, empathy, and adaptability, nurses find fulfillment in providing compassionate care, ultimately making a positive impact on patients' lives living with dementia.

Studies by Jones and Patel (2019) and Lee et al. (2019) highlight resilience in dementia care, showing how healthcare providers overcome challenges while staying committed to compassionate support. Smith et al. (2021) explore how positive psychology interventions enhance well-being and resilience in dementia caregivers, while Johnson et al. (2020) examine the link between emotional intelligence, coping strategies, and resilience, emphasizing the role of optimism in managing caregiving challenges.

Cluster theme 2.2: Effective Communication and Collaboration

The cluster theme of Effective communication and collaboration involved clear and empathetic interactions among healthcare providers, especially nurses, patients, and their caregivers. Caring for dementia patients involved adapting communication techniques, interpreting non-verbal cues, fostering open communication within the team, collaborating with patients' families, and maintaining patience and understanding throughout the caregiving process. Additionally, collaboration among healthcare team members ensures coordinated efforts to address the complex needs of patients and enhance their overall well-being.

Effective communication and collaboration are crucial in dementia care. Nurses need to adapt their communication styles, interpret non-verbal cues, and foster open interactions with patients, families, and the healthcare team. Collaboration ensures a holistic and coordinated approach to patient care.

Research by Kales et al. (2019) underscores the importance of multidisciplinary collaboration. McConnell et al. (2019) highlight the necessity for nurses to master communication skills, while Feng et al. (2021) emphasize the significance of teamwork in addressing patients' complex needs.

Cluster theme 2.3: Having Social Support

The theme "Having Social Support" highlights the crucial role of emotional and practical support for dementia nurses. Family and friends offer understanding, encouragement, and a safe space to express struggles, creating an essential emotional support network. This support extends beyond loved ones to include colleagues and facility administration, who provide encouragement, advice, and practical assistance.

Balancing caregiving duties with self-care is vital to prevent burnout. Nurses engage in activities that bring them joy, like reading or exercise, to maintain mental and emotional well-being. Journaling serves as a therapeutic outlet for processing thoughts and emotions. Support from family, friends, support groups, and healthcare professionals provides caregivers with the resources, encouragement, and respite needed to navigate the complexities of dementia care. This support helps manage stress, cope with emotional challenges, and sustain resilience, ultimately improving the quality of care provided.

In essence, dementia care demands a robust social support system to empower nurses and ensure their well-being. This includes external support from family, friends, colleagues, and healthcare professionals, as well as internal self-care practices. Such a network provides resources, encouragement, and respite, helping nurses manage stress and build resilience. Prioritizing self-care through activities like exercise or relaxation further aids in stress management. A comprehensive support system enables caregivers to deliver

compassionate and high-quality dementia care.

Garcia et al. (2019) found that diverse support, including emotional aid and practical help, reduces stress and boosts resilience, highlighting the importance of strong social networks in dementia caregiving. Lin et al. (2019) emphasize that social support from colleagues and supervisors is crucial for helping nurses cope with the demands of dementia care, positively impacting their well-being and ability to provide quality care.

Emergent Theme 3: Lifelong Learning and Adaptability

The theme of lifelong learning and adaptability in dementia care underscores the importance of continually acquiring new knowledge and skills to meet the evolving needs of Alzheimer's patients. This involves focusing on personalized care plans, creative activities, and continuous training to ensure consistent and high-quality patient care. Ongoing education, crisis intervention techniques, and medication management enhance caregivers' ability to provide empathetic and effective support.

Smith and Whitehead (2019) emphasize the role of ongoing education and flexibility in improving care quality and managing caregiving challenges. Reeve et al. (2019) compare family caregivers and professional nurses, highlighting the importance of continuous education and crisis management skills in effectively addressing dementia's challenges. Both studies underscore the significance of lifelong learning and adaptability in providing optimal care for individuals living with dementia.

Cluster theme 3.1: A Need for Special Training

The theme "A Need for Special Training" in dementia care emphasizes the importance of personalized care and specialized training. Effective dementia care involves understanding individual needs and preferences, allowing nurses to tailor support accordingly. Specialized training equips caregivers with skills to manage dementia-specific challenges, improving patient well-being and caregiver effectiveness.

Discussions underscore the complexity of dementia, with participants emphasizing the variability among individuals. One participant highlighted that "each elderly person is different," emphasizing the need for personalized approaches. Specialized training addresses behavioral management and communication techniques specific to dementia, enabling nurses to effectively connect with patients and manage challenging behaviors.

In dementia care, specialized training tailored to each patient's needs is essential. This includes fostering social engagement, adapting activities, managing medication and dietary concerns, navigating behaviors, and prioritizing self-care. Personalized care and ongoing training help nurses manage challenges, connect with patients, and improve their quality of life.

Kim and Park (2020) highlight effective personalized approaches, Wang and Lee (2019) stress individualized strategies for managing behaviors, and Chenoweth et al. (2019) emphasize the need for specialized training to address patients' comprehensive needs. Bradford et al. (2020) underscore the importance of ongoing education for nurses to enhance dementia care practices and outcomes.

Cluster theme 3.2: Coping and Growth

This cluster theme explores the essential “Coping and Growth” that nurses utilize to navigate the demanding and emotionally complex world of dementia care. These strategies equip them to not only provide high-quality care but also maintain their well-being. This captures the essence of both adjusting to new challenges and continuously learning in dementia care. It's concise and emphasizes the ongoing nature of the caregiver's role. Nurses emphasized relying on patience, flexibility, and adaptability in their practice to address

individual patient requirements. They noted undergoing specialized training and seeking personal growth opportunities to stay updated on new trends and innovative care approaches. Participants stressed the importance of past training and support for caregivers, advocating for the implementation of person-centered care approaches. They recommended creating a supportive environment that facilitated learning and growth for both patients and nurses.

Thriving in dementia care requires adaptability, a growth mindset, and a supportive environment for both patients and caregivers. Nurses who embrace lifelong learning and stay updated on dementia care practices can provide better care. Kim and Park (2020) highlight the importance of continuous learning for caregivers, while Cheung and Wong (2019) show that mindfulness-based interventions can reduce stress and improve well-being. These strategies are crucial for navigating the complexities of dementia care.

Recommendation to Future Researchers

The following recommendations were formulated by the researcher for future researchers to continue gathering data and ensure the credibility, transferability, dependability, and confirmability of findings.

This qualitative study on dementia care in Davao City's aged care facilities highlights limitations and suggests future research directions. The small sample size of 14 nurses may not fully represent diverse caregiver experiences. Future research should include nurses with varied backgrounds and incorporate patient and family perspectives for a more holistic understanding. To improve generalizability, longitudinal studies should track nurses over time. Additionally, research should explore cultural competence, evaluate caregiver support programs, address ethical considerations, assess the impact of healthcare policies, and enhance provider education and training. Implementing quality improvement initiatives and continuous learning mechanisms is also essential. These steps will advance dementia care knowledge and improve outcomes for patients and caregivers in Davao City and beyond.

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Pag-amuma sa mga Lumad: **Lived Experiences of NDP Nurses Caring for Indigenous People Amidst COVID-19 Pandemic**

Crisedith D. Viloria, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

The study explores the experiences of 11 NDP nurses in Marilog District, Davao City, during the COVID-19 pandemic. The authors used a descriptive-phenomenological approach to understand their experiences, identifying 16 themes from 207 statements. These included navigating cultural nuances, language barriers, personal dilemmas, and resource disparity. Coping strategies included surviving the trail, forming collaborative partnerships, providing a supportive system, gaining trust, and combating the virus. The insights shared by the nurses include the need for security, room for improvement, and adaptive strategies. By providing more support to nurses, healthcare organizations can ensure Indigenous patients receive the necessary care during the pandemic.

Keywords*: Caring for Indigenous People, Social Science, Phenomenology, Davao City*

Corresponding email: viloriacris27@gmail.com

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Introduction

Geographically isolated and disadvantaged areas pose significant challenges in health service delivery. Maru et al. (2018) discuss the implications of geographical isolation in healthcare and how it affects access to health services, particularly for Indigenous people. With the pandemic requiring social distancing and travel restrictions, the availability of healthcare services in remote areas can be more limiting. This situation can directly impact the nurses' isolation experience, affecting their mental health and their delivery of care.

Indigenous people disproportionately experience chronic health conditions, poverty, and social determinants of health that exacerbate their vulnerability to COVID-19 and other infectious diseases. Nurses struggle to address these underlying issues and provide culturally appropriate care. According to Patel et al. (2022) the importance of culturally sensitive nursing care, addressing health inequities, and increasing the availability of culturally tailored resources will improve the care of Indigenous people during the pandemic and beyond.

The COVID-19 pandemic has generated an unprecedented level of stress and anxiety among healthcare workers worldwide, particularly nurses. Many healthcare professionals have experienced psychological distress, burnout, and symptoms of post-traumatic stress disorder (PTSD) as a result of the pandemic (Xiang et al., 2020). In the Philippines, healthcare providers, including community health nurses, face a heightened risk of COVID-19 infection due to the scarcity of personal protective equipment (PPE) and the lack of adequate healthcare infrastructure in remote and underserved regions. As of October 2021, the Department of Health (DOH) reports that 41,851 healthcare workers nationwide had contracted COVID-19, resulting in 116 fatalities (Department of Health, 2021). Marilog District, Davao City considered as a Geographically Isolated Disadvantage Area (GIDA) wherein indigenous people living in this area could hardly access medical in the far-flung hinterland areas of the city were formally opened at the Marilog District Hospital.

Providing easily accessible healthcare services is not enough to ensure that Indigenous people have access to primary care. Addressing the unique challenges faced by indigenous communities is crucial for achieving equitable healthcare access. Ensuring the accessibility of healthcare for Indigenous communities, who often face a range of additional barriers, can be complex. According to Harfield et al. (2018), providing easily accessible healthcare services is not enough to ensure that Indigenous people have access to primary care. Addressing the unique challenges faced by indigenous communities is crucial for achieving equitable healthcare access.

The researcher's goal was to identify the factors that impede Indigenous peoples from accessing primary healthcare and then investigate how, if at all, these obstacles were addressed by Indigenous healthcare providers, including the firsthand experiences of nurses deployed to this region during the COVID-19 pandemic. This study delves into the lived experiences of nurses who demonstrate altruistic care and concern for the well-being of Indigenous patients battling COVID-19.

The paucity of research on this understudied aspect of nursing compelled the researcher to embark on an in-depth exploration of the situation. Given the limited number of studies exploring the lived experiences of Filipino nurses during the COVID-19 pandemic, this phenomenological study aimed to explore and comprehend the meaning of nurses' work within the community healthcare settings of Marilog District, Davao City, amidst the pandemic.

Methods

This study utilized a qualitative descriptive phenomenological approach to investigate the lived experiences of NDP nurses providing care during the COVID-19 pandemic. Phenomenology is a research methodology that explores subjective experiences, understanding the meanings individuals attribute to their

experiences, and uncovering the essence of their lived worlds. The study was conducted at Tamugan Health Center in Marilog District, Davao City, Philippines, where 11 NDP nurses working in barangay health centers (BHCs) provided essential community health services.

The participants in the study were 11 NDP nurses working in BHCs in Marilog District, providing essential community health services such as first aid, mother and child health care, and communicable disease control. Data saturation was used to ensure enough participants were included to provide rich and comprehensive insights into the experiences of NDP nurses during the pandemic. Participants must meet specific criteria, including being currently employed and working as a frontline nurse in the BHCs, serving in the community for at least 6 months since the declaration of the COVID-19 public health crisis in the Philippines, and being willing to participate without expecting any compensation.

Phenomenological analysis focused on conversations and thoughts on actual visual experiences and encounters with the topic of this research. Narratives from one-on-one in-depth interviews with participants and focused group discussions served as the primary data source. A structured individual interview process was implemented, with open-ended questions employed throughout the interview process to facilitate diverse perspectives and insights. Secondary data sources, including recent studies, articles, journals, and reviews of relevant literature, were consulted to enrich the interpretation of the primary data and gain a deeper understanding of the lived experiences of the participants.

To enhance the credibility and dependability of the study's findings, member checking was done, where preliminary findings were presented to the participants to seek feedback on the accuracy and completeness of the interpretations. Data triangulation was employed during the data collection phase, corroborating information and validating emerging themes by consulting with other nurses during focused-group discussions.

The study involved in-depth individual interviews with 11 nurses in the Marilog District to explore their lived experiences during the COVID-19 pandemic. The central question was "What are the lived experiences of nurses assigned in the Marilog District amidst the COVID-19 pandemic health crisis?" A panel of experts validated this question, and open-ended questions were asked to follow up on participants' responses. Individual face-to-face interviews were considered the most effective data collection method due to the quality of information it can yield.

Results and Discussion

This chapter delves into the lived experiences of eleven NDP nurses who served in the Marilog District during the height of the COVID-19 pandemic. Through in-depth interviews and focused group discussions, the study uncovered and analyzed their experiences in delivering healthcare to Indigenous people. The research aims to contribute to a more equitable and effective healthcare system for these vulnerable communities.

The study ensured that participants were informed about privacy measures through written consent and verbal confirmation. Audio/video recordings were securely stored after the study, and participants were informed of their right to end the interview or withdraw from the study at any time. As a result, 207 significant statements from 186 transcripts and 15 themes emerged.

The participants' ages ranged from 32 to 49 years old, with a median age of 41 years old. Five out of eleven participants were female as illustrated in Table 1. Participants were NDP nurses with not less than three years of experience working in the Marilog District Health Center.

The data collected through in-depth interviews and focused group discussion was meticulously transcribed and subjected to rigorous analysis. Adhering to Collaizi's method of data analysis, statements about the experiences of NDP nurses caring for Indigenous people during the height of the COVID-19 pandemic

were systematically identified, coded, and categorized according to their shared characteristics. Statements deemed significant to the study were subsequently associated with formulated meanings that encapsulated their essence. There are 207 significant statements and 23 formulated meanings identified in the study.

Significant statements and related formulated meanings were found in the cluster themes, which accurately represented the core of the participants' shared experiences. 13 clustered themes emerged in this study.

Experiences of NDP Nurses Caring for Indigenous People Amidst Covid-19 Pandemic

Traversing a Difficult Path

The first theme "Traversing a Difficult Path" highlights the challenges faced by nurses serving Indigenous communities during the COVID-19 pandemic. These healthcare providers face numerous challenges, including geographical isolation, lack of access to adequate facilities, and logistical difficulties.

The geographical isolation of Indigenous communities, often scattered across remote regions, creates logistical challenges for nurses, who must travel long distances through challenging terrain to reach their patients. This limited accessibility can lead to delayed diagnoses, increased risk of complications, and reduced access to essential care. For Indigenous patients, the remoteness of their communities can also hinder their ability to seek and receive necessary healthcare services. Transportation difficulties, financial constraints, and cultural barriers can further exacerbate these challenges, leading to underutilization of healthcare services and poorer health outcomes. The cluster themes of *navigating cultural nuances*, *language barriers, roadblocks encountered, personal dilemmas, and resource disparity* further illustrate these experiences.

Navigating Cultural Nuances. Nurses in Marilog District are navigating cultural differences and sensitivities to provide culturally appropriate care. This involves understanding traditional healing practices, respecting dietary restrictions, and adapting communication styles. Cultural competency is crucial in healthcare, especially when serving Indigenous communities. Indigenous peoples have distinct beliefs and practices regarding health and illness, which can significantly influence their healthcare-seeking behaviors. Nurses must be cognizant and respectful of these cultural nuances to ensure care aligns with their patients' beliefs and traditions. The rich diversity within Indigenous cultures, including ethnicities, languages, and traditions, requires nurses to approach each patient with humility and a willingness to learn about their specific cultural context.

Language Barriers

Language barriers are a significant issue in healthcare settings, particularly between NDP nurses and indigenous communities. Indigenous languages often differ significantly from the dominant language, creating a fundamental barrier to effective communication. This disparity can lead to misunderstandings, misdiagnoses, and non-adherence to treatment plans. Nurses often struggle to convey the importance of vaccines due to the difference in language used. Limited proficiency in the dominant language can hinder effective patient-provider interactions, causing misunderstandings about vaccine purpose, safety, and efficacy. Language barriers can exacerbate existing fears and mistrust within Indigenous communities, as individuals may feel excluded or unable to communicate effectively with healthcare providers. Additionally, many Indigenous peoples speak their languages, making it difficult for nurses to communicate with them, leading to misunderstandings and limiting culturally sensitive care.

Roadblocks Encountered

The roadblocks encountered by nurses working in remote Indigenous communities are

numerous and can significantly impact their ability to provide adequate healthcare services. These challenges include misinformation, poor communication infrastructure, limited transportation options, and financial constraints. Misinformation, fueled by limited access to accurate information and negative reports in the media or radio personalities, can erode trust in healthcare providers and hinder patient adherence to treatment plans, leading to delayed diagnoses, worsening health conditions, and increased healthcare costs.

Poor communication infrastructure also poses significant challenges for nurses, hindering the timely exchange of information and collaboration with colleagues and healthcare facilities. This can delay or prevent essential referrals and treatment recommendations, potentially compromising patient outcomes. Limited transportation options and high transportation costs further exacerbate the difficulties faced by nurses in remote Indigenous communities, leaving them with less time to provide care and impacting their overall well-being.

Difficult terrain, coupled with the need for transportation on unpaved roads or through remote areas, poses additional challenges for nurses, leading to delayed responses to emergencies, increased risk of accidents, and physical strain on nurses. Financial constraints stemming from low salaries and limited access to financial support can significantly impact the lives of nurses working in remote Indigenous communities, leading to difficulties in covering living expenses, purchasing necessary supplies, and accessing necessities.

The guarded mindset of Indigenous people, exemplified by instances of aggressive behavior towards health center staff, is particularly evident during the COVID-19 pandemic, as Indigenous people have been disproportionately affected by the virus and expressed concerns about the safety and efficacy of vaccines. This heightened distrust stems from a combination of factors, including limited access to accurate information, misinformation spread through social media, and cultural beliefs that emphasize traditional healing practices.

Overcoming these roadblocks requires a multifaceted approach that addresses the root causes of these challenges. Investing in accurate and accessible information, improving communication infrastructure, enhancing transportation options, addressing socioeconomic disparities, and providing support services for nurses can significantly improve the ability of nurses working in remote Indigenous communities to deliver quality healthcare and enhance the health outcomes of Indigenous patients.

Personal Dilemma

During the COVID-19 pandemic, healthcare workers faced numerous personal, mental, and emotional challenges due to the unprecedented challenges posed by the virus. The constant threat of contracting the virus and potentially transmitting it to loved ones caused significant anxiety and fear among healthcare workers. The unpredictable nature of the virus and evolving knowledge about its transmission further amplified these concerns. The surge in COVID-19 cases led to an unprecedented workload for healthcare workers, resulting in widespread burnout, emotional exhaustion, depersonalization, and a reduced sense of accomplishment.

The prolonged use of PPE and the physically demanding nature of caring for COVID-19 patients led to physical fatigue and strain. Ethical decisions, such as allocating scarce resources or making life-or-death treatment decisions, often cause moral distress, guilt, shame, and regret. Nurses also reported increased exposure to COVID-19, increasing their risk of contracting the virus themselves, leading to physical and psychological health problems and fear of infecting their families and loved ones.

Resource Disparity

The pandemic caused significant disruptions to global supply chains, resulting in

shortages of essential medical supplies and PPE. These disruptions were exacerbated by export restrictions, panic buying, and hoarding. Underserved regions often lacked the infrastructure and financial resources to procure adequate supplies, making them particularly vulnerable to shortages. This disparity was further compounded by their limited access to reliable transportation networks. Likewise, in Marilog district which is a situated along mountain range could not easily access supplies in the urban areas of the City. Philippines during the COVID-19 pandemic found that 80% of health centers reported shortages of PPE, while 60% reported shortages of essential medications (Santos et al., 2021). Similarly, a study from Kenya revealed that 75% of health facilities faced shortages of PPE and vital drugs during the pandemic (Enock et al., 2020).

Coping Mechanisms of NDP Nurses Caring for Indigenous People Amidst Covid-19 Pandemic

Surviving the Trail

The Second emergent theme encapsulates the resilience, perseverance, and unwavering dedication of nurses during the tumultuous period of the COVID-19 pandemic. Just as pioneers braved treacherous terrains and harsh conditions to reach their destinations, nurses navigated the uncharted territory of the pandemic, facing unprecedented challenges and personal sacrifices to provide care to those in need.

The trail, in this context, symbolizes the relentless surge of COVID-19 patients, the overwhelming workload, the constant threat of infection, and the emotional toll of witnessing suffering and loss. Nurses, like the pioneers of old, endured these hardships with unwavering courage and determination, driven by their unwavering commitment to their patients and their profession. NDP nurses coping mechanisms were multifaceted, encompassing a range of strategies to manage the emotional, psychological, and physical strains of their work. These experiences were further illustrated in the cluster themes: *Collaborative Partnerships, Helpful Support System, A Warm Embrace, Gaining their Trust, and Combating the Virus*.

Collaborative Partnerships

This theme aptly describes the crucial role of NDP nurses in carrying out health measures established by the Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and the Department of Health (DOH). Through collaborative partnerships with local organizations like the Davao City Health Office, the Local Government Unit of Davao City, community leaders, pastoral and religious leaders, tribal leaders or chieftains, and healthcare providers, community health nurses have successfully adapted and implemented these measures to address the specific needs and challenges of their indigenous communities.

Studies have highlighted the importance of nurses' collaborative partnerships in effectively addressing the challenges of the pandemic. A study by Wong et al. (2022) demonstrated that nurses' collaborative partnerships with community organizations enhanced access to healthcare and improved health outcomes for vulnerable populations during the pandemic.

Helpful Support System. This cluster theme presented the unrelenting demands of the pandemic, coupled with the inherent risks and uncertainties, placed immense strain on the mental, emotional, and physical well-being of healthcare workers. In this context, the availability and strength of support systems emerged as crucial factors in sustaining resilience and preventing burnout among healthcare professionals. Family support played a pivotal role in providing emotional comfort, practical assistance, and a sense of connection during the pandemic. Healthcare professionals, often working long hours under stressful conditions, found solace in the understanding, encouragement, and love of their family members. This unwavering support helped them

cope with the challenges of their work and maintain their emotional well-being.

Leaders who acknowledged the challenges faced by their staff, provided opportunities for feedback and expression of concerns, and implemented strategies to reduce workload and burnout demonstrated their commitment to the well-being of their employees. This supportive leadership culture fostered a sense of trust and appreciation, contributing to the resilience of healthcare professionals.

Teamwork and camaraderie among colleagues provided a sense of shared purpose, mutual support, and shared experiences. Healthcare professionals working in challenging environments, such as those serving indigenous communities, found strength and resilience in the bonds they formed with their colleagues. They relied on each other for guidance, support, and emotional camaraderie, creating a collective coping mechanism that helped them navigate the difficulties of the pandemic. Accordingly, nurses who have strong relationships with their colleagues are more likely to feel supported and less likely to experience burnout. (Laschinger, et al., 2020; Wong et al., 2021).

A Warm Embrace. This theme best illustrates the comfort, security, and a sense of belonging, the joy of self-worth and being valued offers a similar sense of well-being and fulfillment. It is an internal warmth that radiates from within, emanating from a deep-seated belief in one's own worth and significance.

Self-worth and being valued are inextricably linked. When we feel valued by others, it reinforces our sense of self-worth. Conversely, when we feel confident in our own worth, we are more likely to seek and accept the appreciation of others.

According to Fredrickson, (2022), nurses who feel valued are often empowered to make decisions, take ownership of their work, and contribute to patient care plans. This sense of autonomy fosters their professional growth and enhances their job satisfaction, leading to a more fulfilling and meaningful experience in their respective fields. The nursing profession is a noble calling, demanding dedication, compassion, and unwavering commitment to the well-being of others. Nurses play a pivotal role in the healthcare system, providing patients with essential care, support, and expertise throughout their medical journey. While the tangible rewards of nursing, such as salaries and benefits, are undoubtedly important, it is the intangible reward of being valued that holds profound significance for nurses and their overall professional experience.

A study by Aiken et al. (2020) found that positive work environments, where nurses felt valued and respected, led to improved patient care outcomes and reduced healthcare costs. Thus, public perception of nurses has improved significantly during the pandemic. Nurses are now seen as highly skilled and compassionate professionals who are essential to the healthcare system. (Leung et al., 2021; Park et al., 2020).

Gaining Trust

Presents the authentic engagement and shared experiences of NDP nurses to the indigenous communities. Building trust with indigenous people begins with a foundation of respect for their culture, traditions, and beliefs. It means approaching them with an open mind, free from preconceptions and biases, and recognizing the richness and diversity of their worldview. It involves acknowledging the historical injustices and ongoing challenges they face and demonstrating a genuine desire to learn from their experiences. Building trust with indigenous people is not a one-time event or a quick fix; it is an ongoing journey that requires patience, understanding, and a willingness to adapt. It involves recognizing that cultural differences may lead to misunderstandings and approaching these with openness and a willingness to learn from them. It requires a long-term commitment to building relationships, demonstrating consistency in actions and words, and earning trust through genuine respect and collaboration.

Combating the Virus

This theme encompasses how nurses were able to fight against COVID-19 in the community of indigenous people. Nurses implemented culturally sensitive vaccination strategies, considering factors such as vaccine hesitancy, traditional beliefs, and logistical challenges in remote areas. They provided clear and accurate information about vaccine safety and efficacy, addressing concerns and building trust in the vaccination process.

Also, NDPs conducted contact tracing and community surveillance activities within Indigenous communities, adapting protocols to respect cultural privacy and confidentiality. They worked closely with community leaders to identify and isolate potential cases and prevent further transmission.

In addition, nurses played a vital role in educating community members about infection prevention and control measures, including hand hygiene, respiratory etiquette, and social distancing. They tailored their teaching methods to align with cultural sensitivities and provided resources to encourage adherence to these preventive practices. Similarly, a study by Dobbins et al. (2020) found that translating health education materials into local languages and using culturally appropriate imagery significantly improved understanding and adherence to healthcare recommendations.

Insights of NDP Nurses Caring for Indigenous People Amidst Covid-19 Pandemic

Paving a Better Road for Tomorrow.

This third emergent theme delves into the nurses' insights that investing in nurses and addressing their concerns is essential for building a strong and resilient healthcare system that can effectively respond to current and future challenges. Just as a well-maintained road provides a smooth and efficient path for transportation, creating a supportive environment for nurses fosters their well-being, professional development, and ability to provide exceptional care. Numerous studies have highlighted the positive impact of investing in nurses and addressing their concerns on healthcare outcomes. For instance, a study by Lake et al. (2020) found that nurses who reported feeling supported and valued were more likely to report providing high-quality care. Similarly, a study by Whitehead and Cummings (2021) demonstrated that increased investment in nurse education and training led to improved patient outcomes. This situation will be further expressed in the enumerated cluster themes: *Need for Security, Room for Improvement, and Adaptive Strategies*.

Need for Security

This theme encapsulates the critical insights of NDP nurses on the importance of providing permanent or regular employment status and comprehensive health insurance coverage. These measures significantly contribute to their overall well-being, job satisfaction, and ability to provide quality care to Indigenous communities.

Permanent employment offers NDP nurses a sense of stability and security, fostering a committed and dedicated workforce. It also provides access to essential professional development opportunities, such as training programs, conferences, and certifications, enabling nurses to enhance their skills, knowledge, and career prospects.

A study by Aiken et al. (2022) aptly demonstrates the benefits of permanent employment, revealing that nurses with permanent contracts experienced lower levels of emotional exhaustion and higher levels of job satisfaction compared to nurses with temporary contracts.

Comprehensive health insurance coverage plays a pivotal role in safeguarding the physical and mental well-being of NDP nurses. It ensures that they have access to quality healthcare services, including preventive care, treatment for work-related illnesses, and mental health support. This access not only promotes their overall health but also alleviates financial burdens, particularly

in the event of serious illnesses or injuries. By reducing stress and anxiety, comprehensive health insurance coverage allows NDP nurses to focus on their work and personal lives with greater peace of mind, knowing that they and their families are protected from the financial repercussions of unexpected health problems.

In the context of caring for Indigenous communities, ensuring the stability and well-being of NDP nurses is paramount. The unique challenges and cultural considerations associated with providing healthcare in remote Indigenous settings demand a resilient and dedicated nursing workforce. By addressing the "Need for Security," NDP nurses can thrive in their roles, fostering long-term relationships with Indigenous communities and providing culturally sensitive, high-quality care.

Room for Improvement

This theme proposed the different areas of nursing service that need enhancement. The phenomenon of the COVID-19 pandemic has underscored the urgent need for healthcare systems to establish detailed and flexible response plans that can be swiftly activated when facing public health crises such as pandemics. These plans serve as critical roadmaps, guiding healthcare providers and organizations through the complexities of managing infectious disease outbreaks, minimizing their impact, and protecting the well-being of communities. Especially in the far-flung areas like Marilog District, which has a different kind of set-up in terms of culture, people, accessibility through transportation, and communication. It also includes an improved health care system, a health emergency plan, a preparedness and mitigating plan, and training and skill enhancement programs. Therefore, by implementing well-defined roles, effective communication strategies, reliable escalation protocols, and adaptability, healthcare systems can enhance their preparedness and response to future pandemics, mitigating their impact and protecting the health and well-being of communities. Investing in pandemic preparedness is a crucial step towards building resilient healthcare systems and safeguarding the future of public health.

Detailed and flexible response plans can help to reduce the impact of public health crises by providing a framework for coordinated action. These plans should clearly outline roles and responsibilities, communication protocols, and resource allocation strategies, (Nelson et al., 2020; Gostin & Friedman, 2021).

Another study implies that regular reviewing and updating response plans is essential to ensure they remain relevant and effective in the face of evolving threats. This includes incorporating lessons learned from past crises and adapting to new scientific knowledge, (Nelson et al., 2020; Gostin & Friedman, 2021)

Adaptive Strategies

This theme characterized NDP nurses' resilience and adaptability amidst the COVID-19 Pandemic showcasing their unwavering commitment to patient care and the well-being of the indigenous communities despite the overwhelming demands as the frontline providers of care. Dealing with an unprecedented virus that constantly changes its behavior, healthcare workers face ongoing challenges and must adapt rapidly to emerging protocols, treatment guidelines, and personal protective equipment (PPE) recommendations. They faced the constant risk of exposure to the virus, jeopardizing their health and well-being. They grappled with feelings of anxiety, fear, and burnout, while simultaneously providing emotional support to patients and their families. Nurses emerged from the pandemic as beacons of hope and resilience. Thus, their contributions during the COVID-19 pandemic serve as a testament to their unwavering commitment to the nursing profession, their compassion for humanity, and their unwavering role as pillars of strength and resilience in healthcare.

Also, nurses have exhibited remarkable resilience in the face of immense stress, anxiety, and fear for their health and safety, as well as that

of their families and colleagues. Their ability to maintain composure and continue providing care despite these challenges is a testament to their dedication and emotional strength. (Laschinger et al., 2021; Wong et al., 2021)

Recommendations

The researcher of the study has made the following recommendations for future research that focused on understanding the lived experiences of NDP nurses caring for indigenous people amidst the COVID-19 pandemic, to enhance the credibility. transferability, dependability, and confirmability of future studies: 1) conducting a similar study directed towards determining the lived experiences of NDP nurses caring for Indigenous people in the new normal, and 2) preference to use both the quantitative and qualitative research designs concurrently or simultaneously.

First off, since the study has already started on the endeavor of knowing the NDP nurse's experiences in being liner amidst the pandemic, it is also recommended that research plans must be directed towards knowing the quality of life of nurses after the height of the pandemic or what we now called the new normal. Through this measure, the issues about how the learning of past experiences changed the present health system management be identified, studied, and in turn, addressed accordingly.

In addition, the use of quantitative research in supplementing data for qualitative analysis for this type of study is also recommended to ascertain the richness of the data of this study Since this study has only utilized in-depth interviews as the method for the data gathering. It is recommended that to gain a deeper understanding of the experiences that these NDP nurses employed during the height of the pandemic, it is important to find ways to improve the characteristics of the data that will be collected and put into analysis so that a rich and trustworthy research study may be generated.

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Impact of Physical Fitness Program on the Body Mass Index of PNP Personnel Diagnosed with Hypertension in Regional Office 11

Omayma M. Yasin, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

This study examined the impact of a Physical Fitness Program on the Body Mass Index of PNP personnel diagnosed with hypertension in Regional Office 11. A quasi-experimental design was used, with a five-point Likert survey questionnaire used to assess the program's effects on diet, nutrition, physical activity, and educational sessions. The majority of the population, aged 35-39, were male and had 10 years or more of service. The study found that the program significantly improved the participants' BMI, from overweight to normal, and that frequent participation in the program led to significant improvements in their BMI. The results suggest that the program should be considered in the management of hypertension patients, suggesting its positive impact on their health.

Keywords: *PNP Physical Fitness Program, Health, Quasi-Experimental, Davao City.*

Corresponding email: omayma.mangacop@gmail.com

Introduction

The Philippine National Police (PNP) faces a high risk of hypertension due to their demanding work environment, high stress levels, and exposure to traumatic events. The 2019 PNP-BMI Nationwide Report shows that 34.6% of PNP personnel are overweight, 8.15% obese, and 0.16% underweight.

Police work is a demanding profession that can lead to health issues such as hypertension and obesity. In Switzerland, 40.6% of officers have hypertension and 30.4% have obesity. A 2021 study in Brazil found that a combination of physical fitness and lifestyle intervention effectively reduced BMI and improved blood pressure control in officers with hypertension. This suggests that physical fitness programs can effectively reduce BMI and blood pressure levels in police officers with hypertension.

Hypertension is a prevalent health issue in the Philippines, affecting 22.5% of the adult population. It is particularly high among Philippine National Police (PNP) personnel, with up to 50% potentially having hypertension. Targeted interventions to promote healthy weight and reduce obesity could help reduce the burden of hypertension and other chronic diseases among PNP personnel.

PNP employees in Davao City were disproportionately overweight and obese, with 45.2% of them being overweight and 10.3%

being obese. Datu and others, 2018). By implementing extensive health and wellness programs, Police Regional Office 11 has taken proactive steps to treat hypertension (Garcia et al., 2023). In addition, the PNP Headquarters in Davao City has put in place a thorough health and wellness program designed especially to address the high rate of hypertension among its employees. Regular blood pressure checks, dietary advice, and physical activity are all part of the program (Alviar et al., 2020).

It is in this light, that study has been conducted. This study aims to determine if the Physical Fitness Program of the PNP Regional Office 11 has an impact on the Body Mass Index of PNP personnel. Moreover, the study focuses only on PNP personnel that has been diagnosed with hypertension. The results of this study could potentially have significant implications for the development of future physical fitness programs for individuals with hypertension, as well as for the management of chronic diseases.

Methods

A total of 163 out of 281 PNP personnel who were diagnosed with hypertension participated in the study. These are the PNP personnel who meet all of the inclusion criteria. The inclusion criteria are as follows: (1) Assigned at the National Police Regional Office 11, (2) diagnosed with hypertension, (3) willing to participate in the study, (4) willing to provide informed consent, and (4) does not ask for compensation. PNP personnel who failed to meet even one of the inclusion criteria were not included in the study.

The study utilized a quasi-experimental research design to evaluate the impact of a physical fitness program on the Body Mass Index (BMI) of Police National Police (PNP) personnel in Regional Office 11. The research design allowed for a comparison of changes in BMI and provided a practical and cost-effective approach for evaluating the effectiveness of the program within the existing PNP structure and resources.

One Hundred Sixty-Three (163) were selected using the purposive sampling method due to inclusion criteria and ethical considerations. The researchers measured the BMI of the respondents during the pretest and posttest using age, weight, and height measurements. The data gathering started in July 2023 and ended in October 2023.

The data needed for this study were using an adapted survey questionnaire. The Survey Questionnaire is a 5pt-Likert-type questionnaire that is made up of two parts. Before the administration of survey questionnaires, the instrument was subjected to validation and reliability testing. Three (3) experts in the field were asked to validate the research instrument. After this, the researcher conducted a pilot study wherein thirty-five (35) respondents were requested to answer the survey questionnaire followed by a Cronbach's Alpha reliability analysis.

There were two (2) parts of the survey questionnaire. The first part identified the demographic profile of the respondents in terms of age, sex, body mass index, and length of service. The second part of the questionnaire is the effect of Physical Fitness on the Body Mass Index among the respondents in terms of diet and nutrition, physical activities, and educational sessions.

The study used various statistical methods to analyze the demographic profile of respondents, including frequency and percentages, mean and standard deviation, paired T-test, and Shapiro-Wilk Test. The results showed that the Physical Fitness Program significantly impacted Diet and Nutrition, Physical Activity, Educational Sessions, and Body Mass Index. The Paired T-test showed a significant difference in BMI before and after the program, while the Shapiro-Wilk Test confirmed a normal distribution of BMI among respondents.

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Results and Discussion

Table 1. Demographic Profile of the Respondents

Profile	Normal		Overweight		Obese C1		Total	
	F	F	F	%	F	%	F	%
Age*								
29 years old and below	5	35.7	8	57.1	1	7.1	**14**	**100.0**
30 – 34 years old	17	45.9	15	40.5	5	13.5	**37**	**100.0**
35 – 39 years old	19	31.1	35	57.4	7	11.5	**61**	**100.0**
40 – 44 years old	7	31.8	13	59.1	2	9.1	**22**	**100.0**
45 – 50 years old	2	8.0	21	84.0	2	8.0	**25**	**100.0**
51 years old and above	3	75.0	0	0.0	1	25.0	**4**	**100.0**
Total	**53**	**32.5**	**92**	**56.4**	**18**	**11.0**	**163**	**100.0**
Sex								
Male	27	25.0	66	61.1	15	13.9	**108**	**100.0**
Female	26	47.3	26	47.3	3	5.5	**55**	**100.0**
Total	**53**	**32.5**	**92**	**56.4**	**18**	**11.0**	**163**	**100.0**
Length of Service								
1 – 3 years	14	45.2	16	51.6	1	3.2	**31**	**100.0**
4 – 6 years	18	56.3	12	37.5	2	6.3	**32**	**100.0**
7 – 9 years	5	18.5	18	66.7	4	14.8	**27**	**100.0**
10 years and above	16	21.9	46	63.0	11	15.1	**73**	**100.0**
Total	**53**	**32.5**	**92**	**56.4**	**18**	**11.0**	**163**	**100.0**

The demographic profile of the respondents in the Philippines is presented in Table 1, which shows that the majority of them are aged 35-39 years old, with 37% of the total respondents being male. In terms of sex, 66% of the respondents were male, while 34% were female. This indicates that gender is associated with hypertension, with males having a higher prevalence of hypertension than females (Li et al., 2020).

Body mass index (BMI) classifications show that the majority of PNP personnel have a BMI from Obese Class 1 to Overweight, with 66% classified as overweight. This suggests that more male PNP personnel are at risk of developing hypertension and other diseases due to being overweight compared to female personnel.

In terms of length of service, 44.2% of the respondents have a length of service of 10 years and above, while 11.0% have a length of service of 4-6 years. Police officers in the Philippines have the option to work an 8-hour shift or a 12-hour shift, depending on the situation and call of duty. Longer lengths of service and regular working hours may increase the risk of hypertension, as hypertension is associated with working longer hours.

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Table 2. Impact of Physical Fitness Program in terms of Diet and Nutrition, Physical Activities, and Educational Sessions.

Indicators of Fitness Program	Mean	SD	Level of Implementation
Diet and Nutrition	4.32	0.42	Very High
Physical Activities	4.34	0.43	Very High
Educational Session	4.42	0.46	Very High
Overall	**4.36**	**0.39**	**Very High**

Legend: 5.00-4.21 – Very High; 4.20-3.41 – High;3.40-2.61 – Moderate; 2.60 – 1.81-1.00 – Very Low

Table 2 shows the impact of physical fitness programs in terms of Diet and Nutrition, Physical Activities, and Educational Sessions. The results show that the impact of the Physical Fitness Program is very high in terms of Diet and Nutrition (Mean: 4.32, SD: 0.42), Physical Activities (Mean: 4.34, SD: 0.43), Educational Session (Mean: 4.42, SD: 0.46), and in the overall impact of the Physical Fitness Program (Mean: 4.36, SD: 0.39). However, the impact of the Physical Fitness Program among PNP personnel is more profound in Educational Sessions with the highest mean of 4.42, and least profound in Diet and Nutrition with the lowest mean of 3.32.

The study found that PNP personnel actively participated in the Physical Fitness Program, focusing on Nutrition and Diet, Physical Activities, and Educational Sessions. They emphasized knowledge about healthy eating habits and exercise routines. However, they did not prioritize Diet and Nutrition, which includes following a nutritionist's meal plan, drinking 8 glasses of water daily, and limiting rice intake. The program's impact on these aspects was high, with a mean of 4.32, indicating that PNP personnel followed their assigned diet and nutrition.

Promoting healthy eating behaviors and proper nutrition can improve cognitive and mental health among police officers. A randomized controlled trial found that a nutritional intervention targeting omega-3 fatty acids significantly improved cognitive performance and mood. Physical fitness programs on nutrition education can lead to improvements in eating habits. Physical activities, such as jogging, can improve strength, power, and agility, and reduce the risk of injuries. Early-life physical activity is a strong predictor of middle-aged police officers' physical fitness, supporting their ability to continue their work. Despite being aware of their food choices, officers struggle to implement healthy eating habits due to hectic schedules and inconsistent work schedules.

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Table 3. The Respondents' Body Mass Index Before and After the Implementation of the Physical Fitness Program

Outcome	Before			After				
	Mean	SD	n	Mean	SD	n	95% CI	t
Body Mass Index	26.2	2.62	163	23.9	1.99	26.2	[1.94, 2.52]	28.29*

The Respondents' Body Mass Index before and after the implementation of the Physical Fitness Program is presented in Table 3. The results show that the mean BMI of the PNP personnel before the implementation of the Physical Fitness Program is 26.20, with a standard deviation of 2.62, and a mean BMI classification of overweight. Moreover, 95% of the PNP personnel has a BMI range from 25.80 to 26.60 before the implementation of the Physical Fitness Program. On the other hand, the mean BMI of the PNP personnel after the implementation of the Physical Fitness program is 23.90, with a standard deviation of 1.99, and a mean BMI classification of Normal. Furthermore, 95% of PNP personnel have a BMI range from 23.59 to 24.21 after the implementation of the Physical Fitness Program. The results imply that the mean BMI of PNP personnel has reduced after the implementation of the Physical Fitness Program.

A similar study reveals that a combined exercise program for overweight adults, including resistance training, cardiovascular exercise, and yoga significantly reduced participants' BMI, improved cardiovascular health indices, and increased flexibility (Shohani et al., 2019). It is corroborated in a randomized controlled trial that a 12-week exercise program resulted in significant improvements in glucose control and body composition among individuals (Tanaka et al., 2019). In addition, assessing the physical fitness levels of individuals before starting an exercise program can be an important step in creating a safe and effective exercise program. Evidence suggests that pre-intervention assessments can help identify any underlying health conditions or physical limitations that may affect exercise safety and efficacy. Moreover, pre-exercise screening and assessment help tailor exercise prescriptions to individual needs and preferences, particularly among older adults (Rikli and Jones, 2018). Similarly, a review highlighted the importance of pre-exercise medical clearance and physical in identifying contraindications and modifying exercise programs for individuals with chronic diseases (Balducci and colleagues, 2018). Moreover, a Post-intervention assessment of a physical fitness program can provide valuable information on the effectiveness of an exercise program and guide modifications for future programming (Karavirta and colleagues, 2018). Furthermore, it can shed light on the possible advantages of exercise regimens for particular demographics or medical problems. The importance of the Physical Fitness Program cannot be understated. Exercise interventions, such as resistance and aerobic training, helped enhance physical function and quality of life in older persons (Hess and colleagues, 2018).

Table 4. Test of Difference in the Body Mass Index of the Respondents Before and After the Physical Fitness Program

	Before		After		Mean Difference	Cohen's d	t-stat	p-value	Decision @ 0.05 Level
	Mean	SD	Mean	SD					
BMI	26.2	2.62	23.9	1.99	2.3	2.23	28.49	0.00	Significant (Reject Ho)

The test of difference in the BMI of the respondents before and after the Physical Fitness Program is presented in Table 4. The paired test was used since the BMI before and after the Physical Fitness Program follows a normal distribution.

The results show that the mean BMI of the respondents after the implementation of the Physical Fitness Program has decreased by 2.3 (Mean Difference: 2.3). The effect size of the difference is found to be small (Cohen's d: 2.25). However, the decrease in the BMI is found to be significant (t: 28.49, $p<0.05$) at a 0.05 level of significance. Thus, the null hypothesis which states, that there is no significant difference in the Body Mass Index of the respondents before and after the Physical Fitness Program is rejected at a 0.05 level of significance.

The results imply that the Physical Fitness Program has a positive impact on the Body Mass Index of PNP personnel diagnosed with hypertension in Region XI. The BMI of the respondents has improved from the overweight category, into the normal category.

This study has similar results to the study, showing that physical fitness programs focusing on body weight reduction, aerobic exercises, and resistance training can improve physical fitness and reduce BMI among overweight and obese adults (Chen et al., 2018). Moreover, the results of the study also conformed with the study, that an exercise-based intervention helps decrease BMI, and as a result, improves cardiovascular health indices among obese adults (Kao et al., 2019). Moreover, Physical Fitness Programs have been widely recognized as crucial to keeping one's health and well-being. It is a defined regimen involving various forms of exercises and activities designed to enhance an individual's physical and mental aptitudes (Yazaki et al., 2019). Research has shown that following a physical fitness program can reduce several health risks, such as hypertension, metabolic syndrome, obesity, and cardiovascular diseases (Wang et al., 2018).

Conclusion and Recommendations

The current study concluded that most respondents are aged 35 to 39, male, and with 10 years and above length of service. The respondents had a very high effect of the physical fitness program on the body mass index in Diet and Nutrition, Physical Activities, and Educational Sessions. Moreover, the respondents' body mass index before the implementation of the

Physical Fitness Program. This indicates that a well-designed physical fitness program can effectively help respondents transition from an overweight BMI to a healthy normal BMI, promoting weight management and potentially reducing the risk of chronic health conditions. There is a significant difference in the body mass index before and after the implementation of the Physical Fitness Program. This indicates a strong positive impact on body mass index and potentially reducing their risk of chronic health conditions.

Based on the findings that were gathered, the following recommendations were offered for consideration: PNP personnel may continue and expand the current physical Fitness Program, given the high overall impact and significant improvement in BMI, maintaining and potentially expanding the program seems crucial. Consider targeting the program towards personnel outside the 35-39 age range to ensure wider participation and a more balanced fitness culture. Partner with PNP to replicate the program for other demographics: The program's effectiveness in improving BMI suggests its potential applicability to wider populations. Collaborating with healthcare professionals can help adapt the program for different age groups, fitness levels, and health conditions. This can further enhance the program's impact on overall health and well-being. Emphasize Nutritional Education and Support The high perceived impact of educational sessions suggests a desire for a deeper knowledge of diet and nutrition. Consider expanding educational sessions, and offering workshops on healthy meal planning, portion control, and specific dietary needs for optimal performance. Partnering with nutritionists, integrate registered dietitians or nutritionists into the program for individual or group consultations on personalized dietary plans and challenges. Leveraging technology, develop a mobile app or online platform with nutritional resources, recipes, and progress-tracking tools. Future researchers are encouraged to replicate the study using different methodologies. This could include randomized controlled trials or longitudinal studies to provide more definitive causal inferences and may serve as a great resource of information. For alternative programs, future researchers can offer a variety of workout durations to cater to different fitness levels and preferences and also, offer modifications and alternatives for exercises to accommodate different fitness limitations or injuries.

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Organizational Culture and Psychological Safety Among Nurses in a Tertiary Hospital in Cotabato City

Kristine Grace I. Yu, RN

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

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Organizational culture and psychological safety are the factors least studied in the healthcare industry. This study aimed to determine if organizational culture could significantly influence the psychological safety of staff nurses in one of the hospitals in Cotabato City. Specifically, the study aimed to determine the demographic profile of the staff nurses, their level of organizational culture, psychological safety, and whether there is a significant relationship between organizational culture and psychological safety. The data were collected using the organizational culture scale (CVI = 1.00; $\propto$ = 0.941) and psychological safety scale (CVI = 1.00; $\propto$ = 0.980). The questionnaires were administered to 306 staff nurses in a tertiary hospital in Cotabato City following the convenience sampling method. The results revealed that most staff nurses were females, aged 34-36, and had 4-6 years in service. Moreover, their perceived organizational culture was found to be high. Similarly, their psychological safety was also interpreted as high. The results also revealed a significant moderate positive relationship between organizational culture and psychological safety. Lastly, it was found that organizational culture significantly influenced the psychological safety of the staff nurses. The results imply that activities that aim to improve the organizational culture should be fostered to promote an environment that enhances employees' psychological safety.

Keywords: *Workplace Resilience, Social Science, Predictive Design, Cotabato City*

Corresponding email: kristine.grace.g.ibot@gmail.com

Introduction

Nurses constitute a critical and indispensable part of the workforce responsible for delivering patient care in the global healthcare landscape (World Health Organization, 2022). Organizational culture impacts every aspect of an organization, from punctuality and attitude to contract conditions and employee benefits (Wong, 2023). Moreover, psychological safety in healthcare settings can improve employee involvement and organizational commitment, positively improving the clinical environment for healthcare providers and their patients and overall patient safety (Kingston et al., 2022; Davis, 2020). However, a significant concern in healthcare settings worldwide is the low psychological safety of nurses, which is closely linked to their inability to speak up, share concerns, and actively engage in the patient care process (Murray et al., 2022; Health Care Experience Foundation, 2023). Similarly, there is a disconnection between work culture and the performance of healthcare employees, as mentioned by Almutairi et al. (2022).

The Philippines has recently invested significantly in healthcare infrastructure and services (Alibudbud, 2023; Boone et al., 2023). However, occupational health and safety issues among nurses, particularly concerns about psychological safety, have yet to be addressed. According to Grailey et al. (2021), Filipino nurses face high levels of job strain and burnout, known to be barriers to psychological safety. Furthermore, there is a lack of psychological safety, as evidenced by nurses not challenging doctors' practices and a lack of open communication, which can be a component of culture in the workplace. Minimal research is conducted on the

variables identified in this study, mostly confined to the academic and financial sectors, not the nursing sector (Labrague, 2020).

Cotabato City, situated in a region marked by unique sociocultural dynamics and healthcare challenges, houses a tertiary hospital that caters to the needs of the local population (Bangsamoro Information Office, 2022). Understanding how the hospital's organizational culture impacts nurses' psychological safety in this locale is essential for addressing local healthcare needs and enhancing patient care.

Numerous studies have shown the connection between organizational culture and employee well-being in healthcare settings. Still, only a few were conducted recently, such as the work of Lyman et al. (2020), which was participated by newly graduated registered nurses. Sinurat et al. (2023) focus on the relationship between the organizational culture and nurses' behavior. Seo et al. (2022) noted that hospital management and supervisor support significantly affected nurses' errors and communication openness. However, no existing studies have investigated the influence of organizational culture on healthcare professionals' psychological safety. There is also a lack of such research in Cotabato City and the Philippines. Therefore, this study sought to determine the level of organizational culture in a tertiary hospital in Cotabato City, as perceived by the staff nurses, and investigate whether it significantly impacted the psychological safety of staff nurses. This study aimed to improve the psychological safety of nurses in Cotabato City, which can lead to better patient care outcomes.

Methods

A quantitative descriptive-predictive research design was used to determine organizational culture's influence on the staff nurses' psychological safety in a tertiary hospital in Cotabato City. In selecting the respondents, the following inclusion criteria were considered: (1) nursing staff, (2) > 19 years old, (3) full-time or job-order nurses, and (4) those who consented to be part of the study. On the other hand, the exclusion criteria included (1) nurses with managerial positions, (2) < 18 years old, (2) nurses on extended leave, and (3) those who did not consent to be part of the study.

The study utilized Sieveking et al. (1993) and Sasaki et al. (2022) questionnaires to assess organizational culture and psychological safety among nurse staff. The questionnaire included demographic profiles, perceptions of organizational culture, and psychological safety questions. The survey was answerable by a 5-point Likert Scale ranging from 1- "Strongly Disagree" to 5- "Strongly Agree." The reliability test for organizational culture revealed a Cronbach's alpha value of 0.941, indicating that the items have excellent reliability. Similarly, the psychological safety items had a Cronbach's alpha value of 0.980, indicating that the items have excellent reliability. Moreover, the validity test results showed excellent content validity per the universal agreement approach (S-CVI/UA =1.00) and based on the agreement of the three (3) content experts.

The levels of organizational culture were interpreted using the following descriptors: Outstanding (4.20-5.00), Very Satisfactory (3.40-4.19), Satisfactory (2.60-3.99), Need Improvement (1.80-2.59), and Unsatisfactory (1.00-1.79). On the other

hand, psychological safety was interpreted using the following descriptors: Very High (4.20-5.00), High (3.40-4.19), Moderate (2.60-3.99), Low (1.80-2.59), and Very Low (1.00-1.79).

The survey was designed to require respondents to click a "button" or input their responses to indicate their willingness to participate. The questionnaires were sent online and truthfully completed, and no electronic identifiers were included in the final data file. Data was tallied, recorded, and analyzed afterward. Frequency distribution, percentage, mean, and standard deviation were used to analyze and describe the continuous data. Spearman's rank-order correlation was used to determine the influence of organizational culture on psychological safety.

Furthermore, respondents participated in this research freely, equipped with complete knowledge about what it means to participate. They consented before participating in the study and had excellent informed consent distribution and presentation. The respondents were allowed to withdraw for any reason, which the researcher warmly accepted, and the researcher made it very apparent that they would not be subject to any form of coercion. Also, the respondents' personal information that was collected was handled following the Data Privacy Act of 2012 and its implementing regulations and guidelines.

Results and Discussion

Table 1 presents the demographic profiles of staff nurses at a tertiary hospital in Cotabato City, focusing on sex, age, and length of service. Based on the results, female nurses dominated the workforce, comprising 76.14% (n=233), while males only constituted 23.86% (n=73). Moreover, most nurses were 34-36 years old (30.72%, n=94), while the least was from age 46-48 (0.98%, n=3). Regarding the length of service, most staff nurses have 4-6 years in service, comprising 30.72% (n=94), while the least have 16-18 and 19-21 years in service, comprising 0.65% (n=2) each.

The demographics coincide with the study by Shim and Park (2023) on the influence of gender equity in nursing education programs, which mentioned that the number of male nurses in Asian countries remains low, indicating that most staff nurses are females. Moreover, this is supported by Kharazmi et al. (2023), who focused on studying the distribution of the nursing workforce globally using the Gini coefficient. Their data sources were the World Health Organization (WHO) and the United Nations (UN) databases, and they found that most of the nurses in the world are females (76.91%) and were in the age group of 35-44 (29.1%). Moreover, the findings confirm the results of Jafari Kelarijani et al. (2014) that 81% of the nurses have <15 years of length in service, while the least of them (19%) have more than 15 years in service.

Table 2 shows the evaluation of organizational culture within a tertiary hospital in Cotabato City as perceived by the staff nurses in terms of supervision, hospital image, and benefits. The results show that indicator supervision got a mean of 3.92 (SD=0.88), which is very satisfactory. It indicates that the staff nurses' perception of the organizational culture in their workplace in terms of the supervision of their superiors is often favorable. Similarly, the indicator hospital image got a mean of 3.83 (SD=0.78),

Table 1. Demographic Profiles of the Staff Nurses at a Tertiary Hospital in Cotabato City

Profile	Frequency (n=306)	Percentage
Sex		
Male	73	23.86
Female	233	76.14
Total	**306**	**100.00**
Age		
22-24	25	8.17
25-27	20	6.54
28-30	34	11.11
31-33	71	23.20
34-36	94	30.72
37-39	34	11.11
40-42	19	6.21
43-45	6	1.96
46-48	3	0.98
Total	**306**	**100.00**
Length of Service		
1 to 3 years	85	27.78
4 to 6 years	94	30.72
7 to 9 years	71	23.20
10 to 12 years	48	15.69
13 to 15 years	4	1.31
16 to 18 years	2	0.65
19 to 21 years	2	0.65
Total	**306**	**100.00**

interpreted as very satisfactory. This indicates that the staff nurses' perception of the organizational culture in their workplace in terms of the image of their hospital is often favorable. Lastly, the indicator benefits have a mean of 3.88 (SD=0.83), interpreted as very satisfactory. This indicates that the staff nurses' perception of the organizational culture regarding the hospital's benefits is often favorable. Overall, the organizational culture as perceived by the staff nurses got a mean of 3.88, which is interpreted as very satisfactory, indicating that the staff nurses' perception of the organizational culture in their workplace is often favorable. Moreover, the overall standard deviation was 0.83, which is less than one, denoting that the staff nurses had ratings that were practically almost the same.

Table 2. Level of Organizational Culture in a Tertiary Hospital in Cotabato City

Domains	Mean	SD	Interpretation
Supervision	3.92	0.88	Very Satisfactory
Hospital Image	3.83	0.78	Very Satisfactory
Benefits	3.88	0.83	Very Satisfactory
Over-all	**3.88**	**0.83**	**Very Satisfactory**

Legend: 4.21-5.00- Outstanding, 3.41-4.20- Very Satisfactory, 2.61-3.40-Satisfactory, 1.81-2.60- Needs Improvement, 1.00-1.80-Unsatisfactory

The results in the indicator of supervision coincide with those of De Carlo et al. (2020), which focused on positive supervisor behavior. The study's respondents were 330 Italian employees from five different Italian companies. The results revealed a mean of 3.63 (SD = 0.51), indicating a positive outcome for the domain of positive supervisory behaviors, which is practically the same as that in the present study. Similarly, the survey by Hannang et al. (2020) on the effect of supervision levels on the performance of employees in 117 respondents in the City of Manpower Office of Palopo in Indonesia also supports the findings of this investigation. The results of their study revealed that the level of supervision carried out in their workplace was interpreted as "good," indicating that the supervision is carried out in their workplace according to their organization's goals and plans.

Similarly, in the indicator of hospital image, the results of the present study coincide with those of Dhir and Shukla (2019), which focused on determining the role of organizational image in the engagement of employees and ways to improve their performance. The results revealed a positive perception of organizational image, as indicated by the high coefficient results. On the other hand, in the indicator of benefits, the results coincide with the positive results from the study of Ojedoyin and Jegede (2022), who focused on nurses' perceptions of advance directives in healthcare facilities in Nigeria. The descriptive-comparative study evaluated the nurses' perceptions of the benefits, drawbacks, and roles in initiating and implementing advance directives. The results revealed more favorable perceptions of the respondents on the benefits the hospitals offer.

Overall, the results resonate with the findings by Choi and Kim (2023) on the nurses' professional competency, professional commitment, and organizational culture in Daegu City in South Korea, which noted a mean of 3.35 (SD = 0.46) for the nursing organizational culture, which indicates a positive organizational culture in their workplace. Similarly, the study by Lee and Jang in 2019 on the factors that significantly affect nurse turnover in South Korea's health facilities showed a slightly higher organizational culture mean of 3.50 (SD=0.43).

Table 3: Level of Psychological Safety in a Tertiary Hospital in Cotabato City

Indicators	Mean	SD	Interpretation
Team Leader	4.03	0.85	High

Peer	4.03	0.85	High
Over-all	**4.03**	**0.85**	**High**

Legend: 4.21-5.00- Very high, 3.41-4.20- High, 2.61-3.40-Moderate, 1.81-2.60- Low, 1.00-1.80-Very Low

The table above shows the evaluation of psychological safety within a tertiary hospital in Cotabato City as perceived by the staff nurses in terms of team leader and peers. The findings indicate that the peers and team leader domains have a mean score of 4.03 (SD = 0.85), which is considered high. It suggests that the psychological safety of the staff nurses in terms of their interaction with their team leaders and peers was always evident. Concerning the overall psychological safety as perceived by the staff nurses, it also got a mean of 4.03, which was interpreted as high, indicating that the psychological safety of the staff nurses in their workplace was always evident. Moreover, the overall standard deviation was 0.85, which is less than one, denoting that the staff nurses had ratings that were practically almost the same.

The results on psychological safety regarding the team leader indicator as perceived by the staff nurses coincide with the findings of Rahmadani et al. (2020), who focused on leadership and its impact on work engagement and job outcomes. Their investigation revealed a high performance of supervisors as perceived by the 607 employees from eight (8) districts in Northern Sumatra, noted by a mean of 4.13 (SD=0.25). Engaging leadership focusing on inspiring and empowering employees can lead to team learning and innovation. Similar outcomes were seen in the study by Sasaki et al. (2022), which measured the psychological safety of healthcare and non-healthcare workers in Japan. Their results revealed a rating of 4.89 (SD=1.32) for the healthcare workers, indicating that the psychological safety of healthcare workers in their research setting was excellent. Overall, the present study's findings are consistent with previous research examining nurses' psychological safety and the effectiveness of their supervisors or team leaders, indicating that the psychological safety of healthcare workers such as staff nurses was generally high and positive.

On the other hand, for the indicator peers, the results coincide with the study by Tran et al. (2018), which investigated how employees' job performance was affected by having positive relationships with coworkers at work. Their study involved 314 respondents, and their sample size was from two (2) hospitals in Binh Duong province in Vietnam. Their results revealed high-quality workplace relationships with peers ranged from 3.69-3.92 (SD = 0.81 - 0.91), indicating a relatively positive relationship with workmates in their research locale. Similarly, the study by Sasaki et al. (2022), which measured the psychological safety of healthcare and non-healthcare workers in Japan, had the same findings. Their results revealed a rating of 5.04 (SD=1.36) for the healthcare workers, indicating that the psychological safety of healthcare workers in their research setting, specifically in the aspect of peers, was excellent.

On a different note, the results on the overall psychological safety of the staff nurses vary with some of the existing research. For example, the findings of Grailey et al. (2021), which aimed to review

62 papers from 19 countries that focused on the psychological safety of healthcare professionals, negate the current study's findings. Their analysis found 16 studies that have shown low levels of psychological safety, which highlighted reasons for not challenging the practices of physicians, unaccommodating seniors, and the fear of unclear outcomes, which later on have a negative influence on patient risk of harm. Conversely, in the same study, the authors found six (6) studies that reported a high level of psychological safety in their workplace, highlighting the importance of empowering individuals, supportive leadership, and having shared goals with the team, thus increasing their perceived psychological safety. These findings emphasize that there is still a need to study employees' psychological safety more, particularly in the healthcare setting, to address the barriers to having higher psychological safety in the workplace.

Table 4. The Test of Relationship Between Organizational Culture and Psychological Safety

Organizational Culture	**Psychological Safety**			
	r_s-value	p-value	Decision	Remarks
Supervision	0.561	0.000	Reject H_{O1}	Significant
Hospital Image	0.522	0.000	Reject H_{O1}	Significant
Benefits	0.395	0.000	Reject H_{O1}	Significant

Note: Significant if $p < 0.05$; IV= Organizational Culture: DV= Psychological Safety

The table above analyses the relationship between various domains of organizational culture and psychological safety within the tertiary hospital in Cotabato City as perceived by the staff nurses. Based on the results, all domains—Supervision (rs=0.561, p=0.000), Hospital Image (rs=0.522, p=0.000), and Benefits (rs=0.395, p=0.000) —have a statistically significant positive correlation with psychological safety, as indicated by R-values and p-values at 0.05 alpha level. Overall, the organizational culture had an r-value of 0.574, indicating a moderately positive relationship with psychological safety. More so, the relationship is significant, as indicated by the p-value of 0.000. The findings suggest that adequate supervision, a positive hospital image, and perceived benefits are all significantly related to the perception of psychological safety among staff nurses. As positive perceptions of organizational culture increase, psychological safety also increases.

The results imply that supervision, hospital image, and benefits, which comprise the domains of organizational culture, contribute to the psychological safety of the staff nurses at the research locale. Moreover, the significant, moderately positive relationship between organizational culture and psychological safety suggests that improving the managerial culture in the

research locale can significantly enhance the perceived psychological safety of the staff nurses. The findings emphasize the importance of fostering supportive and positive workplace environments to improve staff well-being and performance.

The results above resonate with the claims in the literature, which assert that organizational culture and psychological safety are two (2) related constructs. According to Coleman (2023) and Novakovic (2022), psychological safety is a crucial aspect of organizational culture, which asserts that these two (2) are related and interconnected. However, as per the studies that have assessed if there is a significant relationship between the two (2) variables, no similar studies can be found, which highlights the limitation of this study. Hence, more studies about this context are needed.

Table 5. Results on the Influence of Perceived Organizational Culture on Psychological Safety

Psychological Safety	Observed Estimate	Bootstrap SE	z	p-value	Decision	Remarks
Mean						
Psychological Safety	4.059	0.044	92.660			
Effect						
Supervision	0.359	0.090	3.980	0.000	Reject H_{O2}	S
Hospital Image	0.137	0.088	1.560	0.119	Accept H_{O2}	NS
Benefits	0.236	0.082	2.860	0.004	Reject H_{O2}	S

Note: R- squared = 0.788; IV= Organizational Culture: DV= Psychological Safety; S= Significant; NS= Not Significant

The table above shows the results of the Kernel regression analysis in determining if the perceived organizational culture can influence psychological safety in a tertiary hospital in Cotabato City. In the first part of the analysis, the domains supervision (estimate= 0.359, p=0.000) and benefits (estimate= 0.236, p= 0.004) have statistically significant influence on the psychological safety of the staff nurses. Conversely, the domain hospital image (estimate= 0.137, p= 0,119) did not significantly influence psychological safety. In the subsequent analysis, the overall organizational culture (estimate= 0.749, p= 0.000) significantly influenced the staff nurses' psychological safety. Meanwhile, the model explains 78.82% of the variance in the psychological safety of the staff nurses, as explained by the combined influence of the domains of organizational culture in this study, as indicated by R2= 0.7882. This means that 21.18% of the variance in the psychological safety of the staff nurses can be attributed to factors other than organizational culture.

The results imply that the supervision and benefits domains of organizational culture can significantly influence the perceived psychological safety

of the nurses, and interventions that enhance supervision and benefits to the staff nurses may improve their psychological safety. More so, the overall results that organizational culture can significantly influence the perceived psychological safety of the staff nurses in the research locale suggest that organizational culture is crucial for the well-being of the staff nurses and that actions that aim to improve the organizational culture in the research locale are essential in refining the psychological safety of the employees.

The results above resonate with the findings in some existing studies. First, the survey by Grailey et al. (2021) explored the presence and possible influence of psychological safety in healthcare and discovered that organizational culture is vital in establishing psychological safety. In another study, Ito et al. (2022) investigated psychological safety and its applicability to healthcare settings, highlighting that organizational culture is a broader concept than the workplace. According to the findings, recognizing the connection between organizational culture and psychological safety can help enhance patient safety and healthcare results. Furthermore, Leet et al. (2021) investigated the function of inclusive leadership as a mediator between organizational culture and psychological safety, supporting a psychological safety culture and encouraging nurse voice behavior and error reporting. According to the findings, knowing the relationship between these variables might assist in enhancing patient safety and healthcare results by encouraging open communication and learning from mistakes.

The study's results confirm the assertions of some studies that supervision and benefits could influence the psychological safety of nurses. According to Parker et al. (2022), supervisor behavioral integrity for safety is critical in understanding how employee perceptions of top-management safety climate, safety motivation, and safety performance are related. In a psychologically safe workplace, employees think their superiors or coworkers will respect their ideas and competencies (Liu et al., 2020). A supervisor's perceptions can significantly impact an employee's psychological safety (Liu et al., 2020; Brown, 2023). Thus, findings highlight that organizational culture and psychological safety are two (2) connected factors in the healthcare setting. Understanding these two (2) factors can lead to a supported, conducive, and dynamic work environment for healthcare workers.

Conclusions and Recommendations

The analysis results of the relationship between organizational culture and psychological safety were moderate with supervision and hospital image, while weak with benefits. All of the relationships were positive and significant. Moreover, the overall relationship between organizational culture and psychological safety was moderately positive and essential. This indicates that as the positive perceptions of organizational culture increase, psychological safety also increases. Moreover, the domains of supervision and benefits have a statistically significant influence on the psychological safety of the staff nurses. Conversely, the domain hospital image did not significantly influence psychological safety. Lastly, the organizational culture significantly influenced the staff nurses' psychological safety.

The high psychological safety among staff nurses suggests that workplace practices should be maintained, particularly in team leadership and peer relationships. Additionally, exploring ways to enhance trust and openness is recommended. Moreover, the study suggests that investing in initiatives to strengthen workplace culture is recommended due to the moderately positive and significant relationship between organizational culture and psychological safety. Moreover, the study recommends enhancing organizational culture, maintaining supervision practices, and improving the hospital's image to enhance staff nurses' psychological safety, focusing on regular feedback sessions, training, and employee benefits reviews. Future research should explore contingency factors like leadership style, team dynamics, structure, evaluation process, and policies and use mixed methods to understand the relationship between organizational culture and psychological safety among staff nurses.

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Mediating Effect of Organizational Culture on the Relationship between Technological Advancements and the Work Environment of Radiologic Technologists

Mazda B. Bugabong, RRT

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

This study explores how organizational culture mediates the relationship between technological advancements and the work environment among Radiologic Technologists in selected hospitals in Lanao del Sur. Using a descriptive-predictive design, data were collected from fifty Radiologic Technologists. The demographic data indicated an equal representation of genders, predominantly in their early to mid-thirties, most of whom were college graduates with varied years of service. The assessment of

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organizational culture included dimensions such as innovation, collaboration, communication, commitment, and job stress. The findings showed high levels of innovation, collaboration, communication, and trust, but also indicated notable variability in job stress levels. Technological advancements were rated highly for their usefulness, ease of use, and positive impact on the work environment. Overall, the work environment was viewed favorably, with high levels of satisfaction, good support, and satisfactory work-life balance, though perceptions of workload and stress varied. Significant positive correlations were found between organizational culture, technological advancements, and the work environment. Mediation analysis revealed that organizational culture fully mediates the relationship between technological advancements and the work environment, emphasizing the important role of a supportive organizational culture in leveraging technological advancements to improve workplace conditions. To maintain a consistently positive work environment, it is important to address job stress and control.

Keywords: *Technological advancements, Radiologic Technology, Descriptive-Predictive, Lanao del Sur*

Introduction

The effective integration of technological advancements and the cultivation of conducive work environments are critical factors for optimizing patient care delivery and promoting the well-being of healthcare professionals. Radiologic Technologists utilize advanced technologies to produce accurate and timely diagnostic results. Nevertheless, they encounter difficulties like high workload, stress, and maintaining work-life balance, which can impact their job satisfaction and performance (Abraham et al., 2021). Additionally, the high demands of the job can lead to significant levels of stress (Parajuli et al., 2020). The variability in job stress and control among technologists further underscores the complex nature of their work environment (Smith & Roberts, 2019).

The integration of new technologies in Radiologic practices, while aimed at enhancing efficiency and diagnostic accuracy, has also led to increased workloads and stress among Radiologic Technologists creating a more challenging work environment (Kim, et al., 2023). Studies have shown that technological advancements while enhancing workflow efficiency, can also contribute to increased stress levels among Radiologic Technologists due to the constant need for learning and adaptation to new technologies. This phenomenon has been observed across various healthcare settings, highlighting the importance of managing organizational culture to mitigate these stress effects and support technologists in their roles (Baldwin et al., 2021; Jackson et al., 2020; Tavakoli et al., 2021). In Europe, it is becoming more widely acknowledged that corporate culture is paramount in reducing these pressures and preserving a healthy work environment. (Jackson et al., 2020). Furthermore, advancements in standardizing Radiological reports have highlighted the critical role of supportive organizational culture in effectively implementing new technologies (Jones et al., 2022).

In the Philippines, the regulatory framework outlined in Republic Act No. 7431 emphasizes the significance of security, professionalism, and adherence to standards in the practice of Radiologic Technology. This legal framework influences organizational culture by emphasizing competency, ethical conduct, and continuous learning (Garcia & Lopez, 2021). However, the organizational culture within healthcare institutions varies, affecting employee satisfaction and performance. For instance, studies have

demonstrated that certain factors within the organizational culture of healthcare institutions in the Philippines significantly influence employee satisfaction and performance (Martinez et al., 2022). Moreover, the successful utilization of technology and the creation of supportive work environments are influenced by organizational culture, which shapes the values, norms, and practices within healthcare institutions (Perez & Santos, 2019).

Despite the recognition of these factors, there remains a gap in understanding the mediating role of organizational culture on the connection between technological advancements and the work environment of Radiologic Technologists, particularly in the Philippines (Jackson et al., 2020; Jones et al., 2022). By examining how organizational culture affects the integration of technical innovations and the resulting work environment, this study aims to close this gap. Finding the organizational culture's mediating role in this relationship is the primary goal of this research.

Methods

This study wanted to investigate the mediating role of organizational culture between technological advancements and the work environment among Radiologic Technologists in selected hospitals in Lanao Del Sur. Employing a descriptive-predictive research design, data were collected through surveys to describe demographic profiles and variables related to organizational culture, technological advancement, and work environment. The setting of the study was nine hospitals in Lanao Del Sur, chosen to capture the diverse experiences of Radiologic Technologists in healthcare settings. The participants consisted of fifty Radiologic Technologists with over one year of work experience, selected using purposive sampling to ensure the collection of meaningful insights.

The measures included an adapted Organizational Culture Inventory (OCI) to assess dimensions such as innovation, collaboration, communication, commitment, and job stress; items adapted from Davis (1989) to measure perceived usefulness, ease of use, impact on work environment, and training support related to technological advancements; and items adapted from Spector (1985) to evaluate work satisfaction, workload, stress, support, resources, and work-life balance. The response of the Radiologic Technologists was rated using a Likert scale. Ethical considerations ensured voluntary participation, confidentiality, and anonymity, adhering to the Data Privacy Act of 2012.

In analyzing the data, the study calculated the mean scores to evaluate the levels of organizational culture, technological advancements, and work environment. Spearman's rank correlation coefficient was utilized to determine relationships between variables, and Partial Least Squares Structural Equation Modeling (PLS-SEM) was also used to examine the mediating effect of organizational culture. Despite its thorough approach, the study faced limitations, including a small sample size, reliance on self-reported data, and a cross-sectional design, which restricted causal inferences. These boundaries emphasize the importance of conducting future research with larger sample sizes and longitudinal methodologies to confirm these results.

Results and Discussion

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Table 1. Respondent's Demographic Profile

		Frequency	Percentage
Sex			
	Male	22	44
	Female	28	56
	Total	50	100
Age			
	20-25 years old	3	6
	26 - 30 years old	13	26
	31- 40 years old	24	48
	40 and above years old	10	20
	Total	50	100
Educational Attainment			
	College Graduate	48	96
	Master's degree	1	2
	Doctorate	1	2
	Total	50	100
Length of Service			
	1-3 years	14	28
	4-6 years	21	42
	7-9 years	9	18
	10 and above years	6	12
	Total	50	100

Table 1 presents the demographic profile of the Radiologic Technologists in selected hospitals in Lanao del Sur. Out of 50 respondents, 44% were male and 56% were female, indicating a balanced sex representation in the profession. Age distribution presented that general of the respondents (48%) were aged 31-40, highlighting a significant presence of mid-career professionals. Educational attainment data revealed that 96% were college graduates, with 2% holding a master's degree and another 2% a doctorate, underscoring the importance of formal education in this field. Length of service varied, with 28% having 1-3 years, 42% with 4-6 years, 18% with 7-9 years, and 12% with over 10 years of experience, suggesting a diverse range of professional experience levels. The balanced sex representation promotes inclusivity in the healthcare workforce (Abraham et al., 2021). The predominance of mid-career professionals aged 31-40 suggests the necessity for strategies to attract and retain younger professionals to ensure sustainability in Radiologic Technology services (Forro, 2023; Muto et. al., 2020). This focus on mid-career professionals highlights a potential gap in the workforce that could impact the future of radiologic services. The high level of formal education among respondents emphasizes the need for constant professional development to support career advancement (Smith, 2020). Lastly, the mix of experience levels among technologists can enhance patient care by incorporating

diverse perspectives into treatment plans (European Society of Radiology (ESR), 2023).

Table 2. Level of Organizational Culture

Organizational Culture	Mean	Std. Deviation	Description
Innovation and Openness	4.18	.919	High
Collaboration and Teamwork	4.50	.678	Very High
Communication and Support	4.42	.575	High
Commitment and Trust	4.42	.673	High
Job Stress and Control	4.10	.863	High
Overall Mean	4.40	.606	High

Legend: 4.50 – 5.00 Very High; 3.50 – 4.49 High; 2.50 – 3.49 Neutral; 1.50 – 2.49 Low; 1.00 – 1.49 Very Low

Table 2 provides a detailed analysis of the organizational culture among Radiologic Technologists in selected hospitals in Lanao del Sur. The findings highlight high echelons of innovation and openness (mean score of 4.18), collaboration and teamwork (mean score of 4.50), communication and support (mean score of 4.42), and commitment and trust (mean score of 4.42), indicating a positive organizational culture. The dimensions in standard deviations (ranging from 0.575 to 0.919) suggest consistent perceptions among respondents, reinforcing the strength of these cultural aspects. However, job stress and control scored slightly lower (mean score 4.10) with a higher standard deviation (0.863), indicating variability in stress perceptions among the technologists.

These high scores across various dimensions suggest promoting a work environment that raises creativity, teamwork, effective communication, and employee commitment, essential for high-quality patient care (ALFadhalah & Elamir, 2019). The variability in job stress and control highlights the need for targeted stress management strategies to further improve the work environment. Overall, the findings propose that the hospitals possess a robust organizational culture conducive to a helpful work environment, with room for improvement in managing job stress (Kharjahrin & Hrangkhawl, 2022; Harhash et. al., (2020); Garcia et al., 2023; West et al., 2019; Lee et al., 2023). These insights can help healthcare leaders implement interventions to enhance organizational culture, ultimately leading to better healthcare delivery and patient satisfaction.

Table 3. Level of Technological Advancements

Technological Advancements	**Mean**	**Std. Deviation**	**Description**
Perceived Usefulness	4.46	.788	High
Perceived Ease of Use	4.52	.707	Very High
Impact on Work Environment	4.56	.675	Very High
Training and Support	4.46	.613	High
Overall Mean	4.48	.646	High

Legend: 4.50 – 5.00 Very High; 3.50 – 4.49 High; 2.50 – 3.49 Neutral; 1.50 – 2.49 Low; 1.00 – 1.49 Very Low

Table 3 presents an analysis of the extent of technological advancements among Radiologic Technologists in selected hospitals in Lanao del Sur. The study

evaluated several dimensions, including perceived usefulness, ease of use, impact on the work environment, and the availability of training and support. The findings revealed a high mean score of 4.46 for perceived usefulness, indicating that technologists find technological advancements significantly beneficial for improving work efficiency. The low standard deviation of 0.788 suggests a strong agreement among technologists on this aspect. Furthermore, the mean score for ease of use was 4.52, with a standard deviation of 0.707, suggesting that the technology is seen as intuitive and user-friendly. The impact on the work environment scored even higher, with a mean of 4.56 and a standard deviation of 0.675 which indicates that technology substantially enhances efficiency, communication, and workflow processes in the work. The availability of training and support also received a high mean score of 4.46, with a low standard deviation of 0.613, reflecting robust support systems for acquiring technological skills. The overall mean score of 4.48 for technological advancements indicates a positive perception among Radiologic Technologists regarding the impact, usability, and support for technology in their work. These findings have significant implications for diagnostic imaging and patient care delivery, consistent with research by Smith and Jones (2021) and Johnson and Smith (2019), which feature the positive influence of technological innovations on diagnostic accuracy and efficiency. The high perceived ease of use supports optimized workflow efficiency, as discussed by Lee et al. (2022) and Garcia et al. (2021). Moreover, the significant impact of technology on the work environment underscores its role in reshaping processes and promoting collaboration among healthcare professionals, as noted by Smith and Jones (2021) and Ali (2024). The availability of training and support is crucial for the effective utilization of emerging technologies in clinical practice, as highlighted by Ahmad (2024). Overall, these insights emphasize the importance of continued investment in technological innovations and education initiatives to support the evolving needs of Radiology Departments and enhance patient care delivery.

Table 4. Level of Work Environment

Work Environment	Mean	Std. Deviation	Description
Work Satisfaction	4.62	.602	Very High
Workload and Stress	4.36	.802	High
Support and Resources	4.32	.794	High
Work-Life Balance	4.12	.940	High
Overall Mean	4.38	.753	High

Legend: 4.50 – 5.00 Very High; 3.50 – 4.49 High; 2.50 – 3.49 Neutral; 1.50 – 2.49 Low; 1.00 – 1.49 Very Low

Table 4 provides insights into the work environment of Radiologic Technologists in selected hospitals in Lanao del Sur, focusing on work satisfaction, workload and stress, support and resources, and work-life balance. The findings show a very high mean score of 4.62 for work satisfaction, with a low standard deviation of 0.602, indicating that most technologists feel fulfilled and content in their roles. A high level of satisfaction can contribute to job retention and overall morale (Abraham et al., 2021; Tavakoli et al., 2021). The mean score for workload and stress is 4.36, suggesting significant levels of stress and workload among technologists. The standard deviation

of 0.802 points to some variability in these perceptions, implying that while many technologists experience high-stress levels, individual experiences may differ (McDonald et al., 2021; Parajuli, 2020). This stresses the necessity for useful stress management and workload reduction strategies.

Support and resources received a mean score of 4.32 and a standard deviation of 0.794, indicating that technologists generally feel supported and have access to necessary resources, though some variability exists. Ensuring consistent support and resource availability across different departments is crucial for maintaining this perception (Tavakoli et al., 2021; Abraham, 2021). Work-life balance scored a mean of 4.12, with a higher standard deviation of 0.940, indicating considerable variability in individual experiences. This result indicates that although many technologists perceive good stability relating to work and individual life, others may struggle (Parajuli et al., 2020; Forro, 2023). Implementing targeted interventions to address these discrepancies is important for enhancing well-being and job satisfaction. Overall, the high mean score of 4.38 across these metrics suggests a generally favorable work environment for Radiologic Technologists in Lanao del Sur. However, the variability in perceptions, particularly regarding workload, stress, and work-life balance, underscores the need for tailored interventions to address individual needs and improve these aspects. Effective leadership, supportive communication, and adequate resource allocation are important for creating a conducive work environment (Muto et al., 2020; Tavakoli et al., 2021). Personalized stress management and workload reduction programs, along with constant professional improvement prospects, can further enhance job satisfaction and performance, ultimately leading to better patient care outcomes (Abraham et al., 2021; McDonald et al., 2021).

Relationship of Organizational Culture and Technological Advancements in the Work Environment of Radiologic Technologist

Table 5. Relationship between the Variables

	rs	p value	Remarks
OC	.584	.001	Significant
TA	.449	.000	Significant

Table 5's correlation analysis identifies notable relationships between organizational culture (OC), technological advancements (TA), and the work environment (WE) among Radiologic Technologists in selected hospitals in Lanao del Sur. The correlation coefficient between overall organizational culture and technological advancement is 0.449 with a significance level of $p = 0.001$, indicating a moderate positive relationship. This means that improvements in organizational culture are connected with increased technological advancements. A positive organizational culture likely promotes an environment conducive to adopting and implementing technological innovations, highlighting the relationship between these factors in enhancing workplace dynamics (Johnson et al., 2023; Garcia et al., 2023).

Moreover, the moderately positive correlation between technological advancements and work environment ($r = 0.568$, $p < 0.01$) indicates that technological

advancements significantly impact the overall work environment of Radiologic Technologists. PACS greatly enhanced picture access and retrieval, simplifying workflow and cutting down on time spent looking for films, Ahn et al. (2021). As a result, Radiologic Technologists can concentrate on complex procedures and patient care. While these advancements hold the potential to enhance the work environment by streamlining tasks and improving diagnostic accuracy, they may also introduce numerous new complexities and sources of stress, depending on organizational readiness and support (Tavakoli et al., 2020; Ahmad, 2024).

Additionally, there is a significant positive correlation between the organizational culture and the workplace environment ($r = 0.584$, $p < 0.01$). This notable relationship highlights the crucial role that organizational culture plays in shaping the work environment. A supportive, transparent, and collaborative culture can provide a conducive work setting where technologists feel valued and engaged, thereby enhancing job satisfaction and performance (Abraham et al., 2021; Parajuli et al., 2020). Conversely, a poor organizational culture can lead to a stressful and unsatisfactory work environment, negatively impacting employee well-being and productivity (Kharjahrin & Hrangkhawl, 2022).

These findings parallel with existing literature that emphasizes the significant part of organizational culture in determining workplace dynamics, communication practices, and leadership approaches. Effective organizational culture promotes openness, innovation, and constant learning, which are needed for leveraging technological advancements in healthcare settings (Parveen et al., 2023). Conversely, organizations resistant to change may struggle with technological adoption, hindering progress and innovation within radiology departments (Garcia et al., 2023). Overall, the correlation analysis suggests that promoting a positive organizational culture is essential for advancing technological innovations and creating a favorable work environment for Radiologic Technologists. These insights provide important contributions to provide understanding among healthcare leaders aiming to enhance organizational culture and technological adoption to improve patient care outcomes and professional satisfaction (Johnson et al., 2023; Parajuli et al., 2020).

Table 6. Mediating Effecting of Organizational Culture and Technological Advancements on the Work Environment of Radiologic Technologists

The direct effect of TE on WE

Effect	Standard-error	t	Pr > |t|	Lower bound (95%)	Upper bound (95%)
-0.081	0.121	-0.670	0.506	-0.324	0.162

Indirect effects of X on Y:

	Effect	Standard error	Lower bound (95%)	Upper bound (95%)	Significant

OC	0.947	0.170	0.620	1.181	Yes

OC is a full mediator variable of the relationship between X and Y.

The analysis of the direct effect of technological advancements on the work environment (WE) shows an effect size of -0.081, indicating a small negative relationship that is not statistically significant. The confidence interval includes zero, suggesting that the true effect could be slightly negative, zero, or slightly positive. The t-value of -0.670, reflecting the ratio of the effect size to the standard error, further supports the conclusion that the observed effect is not statistically significant.

However, the indirect effect of Technological advancement on the Work Environment through organizational culture is substantial, with a value of 0.947, indicating a strong positive relationship. This indirect effect is statistically significant, as evidenced by a p-value less than 0.05. This means that technological advancements indirectly enhance the work environment by positively impacting organizational culture. The substantial mediation analysis proposes that organizational culture is important in how technological advancement affects the work environment, stressing the importance of a supportive organizational culture in leveraging technological advancements to improve the work environment (Smith & Jones, 2021; Johnson et al., 2021).

The findings align with studies that emphasize the role of a supportive organizational culture in facilitating the integration and utilization of new technologies, thereby improving the work environment (Lee et al., 2023). Organizational programs that initiate open communication, collaboration, and continuous learning are critical in this context. A supportive organizational culture mitigates potential negative effects of technological advancements, such as increased workload and job insecurity, by providing necessary resources, training, and emotional support (Kim et al., 2023).

Moreover, a culture that values innovation and encourages experimentation creates a sense of psychological safety, allowing employees to feel comfortable exploring new technologies and adapting to changes. This enhances job satisfaction, and engagement, and reduces turnover rates among Radiologic Technologists (Patel et al., 2023; Garcia et al., 2023). A positive organizational culture not only supports current technological advancements but also drives continuous improvement and innovation, ensuring that radiology departments remain at the lead of technological progress, continually improving patient care and operational efficiency (Johnson et al., 2023).

Conclusion and Recommendations

The analysis of Radiologic Technologists in selected hospitals in Lanao del Sur, as detailed in Tables 1-6, reveals several key findings. Demographically, there is a balanced gender representation, a significant proportion of mid-career professionals, and significant educational qualifications among the technologists. The perception of organizational culture is favorable, with high scores in innovation, teamwork, communication, and trust, though there is variability in job stress levels. Technological advancements are regarded as beneficial, easy to use, and significantly impacting the work environment positively when mediated by a supportive organizational culture. The direct effect of technological advancements on the work environment is small and not statistically significant, but the indirect effect, mediated by organizational culture, is substantial.

In essence, the study highlights the significant role of organizational culture in enhancing the work environment and the effective integration of technological advancements. The findings suggest that a supportive organizational culture can mitigate the potential negative effects of technological changes and enhance job satisfaction, efficiency, and overall performance.

Therefore, to address the variability in job stress, targeted stress management and workload optimization programs should be implemented. Regular training and professional development opportunities are essential to sustain high job satisfaction levels and performance, particularly for mid-career professionals. Enhancing communication channels and support systems within the organizational culture can further solidify the positive work environment. Continuous investment in training and resources is crucial to fully leverage technological advancements. Lastly, promoting a culture that values

innovation and adaptability will help sustain the positive impact of technological advancements and support ongoing improvements in the work environment. These will enhance the well-being, satisfaction, and performance of Radiologic Technologists, ensuring high-quality patient care and technological and organizational development in healthcare institutions in Lanao del Sur. Nevertheless, researchers may use the same tool but must conduct a Content Validity Index (CVI), Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA) in a wider population. Use a probability sampling technique and a different type of research design such as qualitative to determine the experiences that fully mediate the organizational culture on the relationship between technological advancements and the work environment among Radiologic Technologists.

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Risk Perception and Safety Attitude on the Infection Prevention Behavior of Radiologic Technologists Working in Selected Institutions in Region XI

Iverse Joy J. Diaz, RRT

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

The risk of health-acquired infections (HAIs) is rising in imaging sections because of the growth in patients and the expansion of the utilization of imaging modalities to incorporate more medical interventions and treatments. Further, the imaging department has been particularly susceptible to HAIs for the reason that it serves as a transfer point for infected and non-infected patients, aside from healthcare staff. The study aims to figure out the level of perceived threat and safety attitude and its relationship to infection prevention behavior among Radiologic Technologists (Radtechs) working in selected institutions in Region XII. A quantitative approach, specifically the descriptive-predictive research method, was utilized in this thesis study. Data were gathered from 111 respondents using sets of adopted questionnaires, with participants chosen through the sampling called purposive. Further, Mean, Spearman Rho, and Kernel Regression Analysis were the statistical methods used in the study. The analysis result showed that Radiologic Technologists have an increased level of high-risk perception, safety attitude, and infection prevention behavior. Moreover, the relationship analysis shows an important correlation between safety attitude and infection prevention behavior. However, risk perception has no important correlation with infection prevention behavior. Furthermore, risk perception and safety attitude influence infection prevention behavior, indicating their contributory roles in explaining variance in infection prevention

behavior. Further research is necessary to investigate and develop interventions for promoting a culture of safety among healthcare workers.

Keywords: *Risk Perception, Social Science, Radiologic Technologist, Region XII*

Corresponding e-mail: iversejoyligayadiaz@gmail.com

Introduction

Healthcare-associated infections (HAIs) rank second in terms of frequency of death and are a significant cause of illness and death (Haque et.al., 2020). The occurrence of HAIs is related to various factors, such as inadequate knowledge resulting in noncompliance with basic aseptic practices, unfavorable attitudes of healthcare workers (HCWs) towards infection prevention protocols, and inadequate supply of medical supplies, which forces patients to share devices (Michael & Nguyen, 2022). Reducing preventable HAIs and ensuring the safe, efficient, and high-quality provision of healthcare services depend on effective infection prevention and control (IPC). Therefore, understanding particular challenges and opportunities encountered in these settings is essential for improving IPC (Lowe et al., 2021).

HAIs affect millions of people yearly and are a crucial world's public health issue (Tartari, et al., 2021). Additionally, a lack of awareness regarding the infectious means of spread among medical imaging professionals could result in the rapid spread of transmissible diseases (Naji et al., 2020). Wherein, risk perception has a crucial role in choosing health-protective actions (Savadori and Lauriola 2021). As cited by (Ilyas et al., 2019), the risk of HAIs is increasing in imaging departments as the number of patients grows and the usage of imaging services expands to include more medical treatments and therapy.

Further, the Department of Imaging has been particularly susceptible to HAIs for the reason that it serves as a transfer point for infected and non-infected patients, aside from healthcare staff (Alamer et al., 2022). Furthermore, there is a higher risk of infections related to healthcare since interventional imaging technologies include invasive procedures and direct patient contact (Chaluvashetty, et al., 2021). As they do their duties on the front lines, radiologic technologists should be aware of the possible risks related to infectious diseases and take the best possible precautions to lessen them (Stogiannos et al., 2020). To stop the proliferation of disease, radiologic technologists necessary to be well-informed about infection control measures (Aljondi et al., 2021).

Meanwhile, in the Philippines, the study done by Galeon (2023) concluded that radiologic technologists showed a very high degree of attitude toward infection control measures. Moreover, according to (Lau et al., 2020), those with an increased awareness of the possible form of spread of infection performed more preventive actions. This is also parallel to the conclusions of Jael et al., (2019), who found an important correlation between knowledge and implementation of standard preventative measures, implying that increased awareness leads to better infection prevention practice.

While there is existing research on healthcare professionals' general attitudes toward infection control (Sukumar, et al, 2023; Srivastava et al., 2021; Yu et al., 2020); Lau et al., 2020, there is a scarcity of studies that specifically delve into the perceptions and attitudes of Radiologic Technologists and instead more on Nurses and other Healthcare Professionals (Kayi, et al., 2023; Saqluin et al., 2020; Iorfa et al., 2020; Jael et al., 2019). Thus, the study aims to pinpoint the level of perceived risk as well as safety attitude and its association with the Infection Prevention behavior of Radiologic Technologists.

Risk Perception

Perceived Risk is the subjective assessment of the possibility that a particular kind of accident will occur. It is the degree of anxiety about the consequences. Additionally, perceived risks are often influenced by emotions, sometimes even more so than objective facts (Bavel, et.al., 2020). According to Karasneh et al. (2021), the avoidance and co-management of contagious illnesses must have adequate knowledge of pandemics and be aware of the factors that influence their perceptions of risk and approaches to communication. Protecting healthcare workers from risk factors is crucial. On the other hand, amid an increasing epidemic, several elements, such as emotional characteristics, information sources, and illness expertise, might affect how risk is perceived (Zhong et. al., 2020).

Sobkòw, et. al (2020) studied the stress, perceived risk, and management in predicting intentions toward COVID-19 preventive behaviors, they learned that when individuals create pleasant mental images of the future, it is less possible for them to practice and undergo preventive actions on infectious diseases particularly COVID-19. This means that those who are more likely to see the pandemic as having positive effects tend to underestimate the perceived risk associated with the health threat and, as a finding, are less likely to undergo preventative measures.

Safety Attitude

Safety Attitude is a predictor of improved observance of standard preventative measures among healthcare personnel (Donati, et.al., 2020).

Positive safety attitudes led to lower rates of patient falls, medication mistakes, infections related to healthcare, mortality, and increased patient satisfaction (Alanazi, et.al., 2021). According to Lai et al., (2023), safe working conditions are a result of both attitude and competency. Generally speaking, work-related accidents result from inadequate supervision, insufficient knowledge or training, or inadequate resources to complete the activity properly. According to Lai et al., (2023), safe working conditions are a result of both attitude and competency. Generally speaking, work-related accidents result from inadequate supervision, insufficient knowledge or training, or inadequate resources to complete the activity properly.

Additionally, a safety attitude is essential to maintaining and enhancing safe work environments. This can be accomplished by company safety culture, employee safety practices, or the capacity to stop and avoid errors or work-related injuries (Pradhan et al., 2020). Furthermore, safety attitude gauges how ready an institution is to manage and prevent incidents and also create safety objectives and targets to lower the extent of casualties brought on by hazards (Tao et al., 2021).

Infection Prevention Behavior

Infection Prevention Behavior is a concept that assists people in achieving ideal health by preventing the occurrence of infectious diseases in their day-to-day life activities (Heo and Yang, 2021).

Health professionals and international health organizations, just as the World Health Organization (WHO), advise several preventive actions, like washing your hands, and avoidance actions, such as social separation or distancing and or quarantine, to contain infectious disease epidemics like COVID-19 (Weston, et al.; Lewnard & Lo, 2020).

According to (Shahin and Hussien, 2020), one of the primary reasons for the public's increased involvement in disease-prevention initiatives is their awareness of the hazards related to pandemics. In addition, worldwide, the vast majority of individuals are mindful of the coronavirus and understand that preventing its spread requires adopting infection-preventive behavior (Balkhi, et al, 2020). While some adhere to the regulations religiously, others disregard or put them off and gather in big groups in their homes or public spaces (Nofal, et al., 2020). People's views regarding the threat caused by this virus vary tremendously depending on who they are and where they reside, as seen by the fact that they behave so differently at moments of collective action (Zhang, et al., 2020).

By implementing the necessary preventive measures and fostering a safety-attitude mindset in daily activities and work, transmissions will be reduced to a minimum. To lower infection and mortality rates, preventive behavior is very important (Card, 2022).

Methods

The study used a descriptive-predictive design to analyze. Descriptive analysis seeks to understand and characterize the present situation of a specific circumstance. This involved collecting information, synthesizing it, and expressing it understandably. It gives an overview of what occurs at a particular moment in time. Predictive analysis makes use of the descriptive phase's data to create plans or programs that may predict future results or trends. This involved finding connections in the data and utilizing them to produce accurate forecasts of what could happen in the future. The research study was conducted in selected Healthcare Institutions in Region XII, also known as SOCCSKSARGEN. The Region is composed of 4 Provinces (Cotabato, Sarangani, South Cotabato, and Sultan Kudarat) and 4 Cities (General Santos City, Tacurong, Kidapawan, and Koronadal). However, the researcher focused on the City of General Santos, the City of Koronadal, and South Cotabato Province for the reason that they have a higher number of healthcare facilities compared to other areas in the region. This is also done to achieve the necessary sampling during the proceeding of the thesis study.

This study employed a technique known as purposive sampling. Using a non-probability sampling technique called purposeful sampling, the researcher chooses only study participants who, in their opinion, meet the study's objectives. Using this sampling strategy, the researcher selects study participants at random from the study population. Thus, the researcher's judgment and context-specific knowledge are essential to the entire sampling process. Clear inclusion criteria and justifications are necessary for a purposive sample to be effective. Proper use of purposive sampling can benefit the researchers by screening unrelated comments that have shown no importance from the perspective of the investigation. Since the data sources closely match the research environment, it also reduces the margin of error in data collecting (Obilor, 2023).

Those Registered Radiologic Technologists who were actively practicing their profession were selected as respondents of this study and divided the population accordingly, 37 participants per area (General Santos City, Koronadal City, and South Cotabato) with a total number of 111 respondents. The population size was computed through Power Analysis.

The study used a questionnaire adopted from literary experts, consisting of three parts: Risk Perception (23 items), Safety Attitude (6.5 items), and Infection Prevention Behavior (29 items). The questionnaires had Cronbach's alpha ratings greater than 0.75, with 23 items and 6 items respectively. The Cronbach's alpha for the questionnaire was 0.976, indicating strong internal consistency.

The researcher made sure the research tool was ready and ensured the questions necessary for the way to the study to be conducted before beginning the data and information-gathering process. Also, the questions were validated by using numerous ethical considerations and verifying that the phrases included in the questionnaire were correct. Following the preparation and validation of the research tool, a request letter for the commencement of the thesis study for approval was prepared and endorsed to the head of the Imaging Department or the approving body of the selected institution. Without approval on the commencement of the research study from the identified Institution, strictly no interviews were conducted. Necessary documents for approval were attached by the researcher including but not limited to Certification from the school to conduct the study, respondent’s consent, and other pertinent

information needed or required by the identified institution.

Following the approval of the conduct of the study, the researcher began the survey by endorsing the survey questionnaire in Google Forms. Everyone who participated understood that their involvement would have to be voluntary and without force. Additionally, the researcher would accommodate any clarifications on the questions upon receiving the clarification from the respondents. The Radiologic Technologists were requested and instructed to evaluate and answer every provided statement by ticking the matching figure that most accurately represents their opinion.

Further, the researcher ensured the respondents that data privacy and confidentiality would be observed throughout the conduct of the study until it was presented, approved, and published. The responses including the personal information of the respondents were disposed of properly by deleting the file permanently. The researcher was not able to conduct the proper sampling technique and was not able to perform the content validity index. Thus, these were included in the recommendations of future researchers.

The following were utilized in the data analysis: Mean and Standard Deviation to identify the levels of risk perception, safety attitude, and infection prevention behavior. Spearman Rho was utilized to find the correlations among risk perception, safety attitude, and infection prevention behavior. Kernel Regression was utilized to determine the risk perception, safety attitude, and infection prevention behavior. The assumptions of Spearman Rho and Kernel regression analysis were fulfilled before using it.

Results and Discussion

Table 1. Summary of Level of Risk Perception of the Radiologic Technologists working in selected Institutions in Region XII

Risk Perception	Mean	Standard Deviation	Description
OVERALL MEAN	**2.18**	**1.237**	**Very High**

Extremely High- 1.00-1.79; Very High- 1.80-2.59; High 2.60-3.49 ; Moderate-3.40-4.19; Low- 4.20-4.99; Very Low- 5.00 – Extremely Low-5.79; 5.80 – 7.0

Level of Risk Perception of Radiologic Technologists working in selected Institutions in Region XII

Table 1 shows the level of Perceived Risk of Radiologic Technologists. The risk perception garnered an overall mean of 2.18 and a standard deviation of 1.237. Concerning the perceived risk of infection prevention, Radiologic technologists exhibit the highest mean in following Infection prevention recommendations will protect them from becoming ill with a mean of 1.77 which is also labeled as extremely high. In contrast, the lowest mean is 3.45 wherein they are afraid of accommodating ill patients with infectious disease which is termed as Moderate. This recommends that having that Risk perception could prevent Radiologic Technologist from acquiring health-associated infections. The overall mean on the level of Perceived Risk is 2.18 which is described as Very High. This entails that the Radiologic technologists strongly agree about the significance of Perceived Risk to prevent infectious diseases.

This aligns with the findings of Yesilgul, et al., (2018) who assessed the perceived risk among healthcare workers, demonstrating that it is an important tool for altering attitudes and fostering a safer and healthier work environment.

Table 2. Summary of Level of Safety Attitude of the Radiologic Technologists working in selected Institutions in Region XII

Safety Attitude	Mean	Standard Deviation	Description
OVERALL MEAN	**4.60**	**.866**	**Very High**

Very High- 4.20-5.00; High-3.40-4.19; Moderate-2.60-3.49; Low-1.80-2.59; Very Low- 1.00-1.79

Level of Safety Attitude of Radiologic Technologists working in selected Institutions in Region XII

Table 2 shows the level of Safety attitude of Radiologic Technologists. The overall mean is 4.60 while its standard deviation is .866.In terms of Safety Attitude, it shows the highest mean of 4.68 stating that it is necessary to practice hand hygiene, and is labeled as Very High. In contrast, it got the lowest mean of 4.39 which is still described as Very High stating that it is important to receive training according to the prerequisites of the hospital and cleaning company.

Generally, the Radiologic technologists expressed that a safety attitude is very important in preventing infectious diseases with an overall mean of 4.60 which is labeled as Very High. This recommends that Radiologic technologists strictly adhere to the set precautionary standards including but not limited to hand hygiene and other infection prevention practices. Further, this suggests that the safety attitude of Radiologic technologists could effectively contribute to preventing them from acquiring infectious diseases. This supports the study of Donati, et.al., (2020) which states that safety attitude is a predictor of improved observance with standard preventative measures among healthcare personnel.

Further, this conforms to the ideas of Alanazi, et.al., (2021) wherein positive safety attitudes led to lower rates of infections related to healthcare, mortality, and increased patient safety and satisfaction.

Table 3. Summary of Level of Infection Prevention Behavior of the Radiologic Technologists working in selected Institutions in Region XII

Infection Prevention Behavior	Mean	Standard Deviation	Description
OVERALL MEAN	**4.22**	**.899**	**Very High**

Very High- 4.20-5.00; High-3.40-4.19; Moderate-2.60-3.49; Low-1.80-2.59; Very Low- 1.00-1.79

Level of Infection Prevention Behavior of Radiologic Technologists working in selected Institutions in Region XII

Table 3 shows the level of Infection Prevention Behavior of Radiologic Technologists. The overall mean is 4.22 while its standard deviation is.89 In particular, the highest mean for Infection Prevention Behavior is 4.55 described as Very High wherein they do the handwashing with running water and soap or Apply disinfectant for hands after using public restrooms. This means that Radiologic Technologists always agree about the value

of infection prevention behavior to prevent infectious diseases.

However, it got the lowest mean of 3.62 described as High wherein they get medical treatment if any respiratory problems are present such as cough, fever, runny nose, etc. This means that Radiologic Technologists oftentimes agree about the significance of infection prevention behavior to prevent infectious diseases. Generally, the Radiologic Technologists said that they firmly agree with the significance of infection prevention to avoid being sick or infected with an overall mean of 4.22, which is described as Very high.

This conforms to the study of Heo and Yang (2021) wherein infection prevention behavior assists people in achieving ideal health by preventing the occurrence of infectious diseases in their day-to-day life activities. Also, according to Weston, et al.; and Lewnard and Lo (2020), handwashing, coughing manners, as well as social distancing behavior are important preventive behaviors to prevent from being infected.

Table 4. Relationship between Risk Perception and Safety Attitude on the Infection Prevention Behavior of Radiologic Technologists

Variables Paired	r	p-value	Remarks
RP & IPB	.006	.954	**Not Significant**
SA & IPB	.707	.000	**Significant**

Relationship between Risk Perception and Safety Attitude on the Infection Prevention Behavior of Radiologic Technologists

Table 4 shows whether Risk Perception and Safety Attitude have a relationship with infection prevention behavior. The correlation's finding shows that safety attitude has a significant relationship to infection prevention behavior (r=.707, p=.000). Since p<0.000, then the relationship is significant.

This is parallel to the result of Card (2022), demonstrating that by implementing the necessary preventive measures and fostering a safety-attitude mindset in daily activities and work, transmissions of infectious diseases will be reduced to a minimum. To lower infection and mortality rates, preventive behavior is very important.

However, the radiologic technologists' perceived risk revealed no important relationship to infection prevention behavior (r=.006, p=.954). This implies that there is a necessity to strengthen the perceived risk of the Radiologic technologists about infection prevention behavior.

This result is also parallel to the study of (Sobkòw, et. al, 2020), who studied stress, perceived risk, and management in predicting objectives toward COVID-19 preventative measures, they have identified that whenever individuals create pleasant mental images of the future, they might refrain from participating in preventive actions against infectious diseases particularly COVID-19. This entails that those persons who better see the pandemic as having positive effects tend to underestimate the perceived risk associated with the health threat and, as a consequence, are less probably to practice preventative actions.

Table 5. Predictive performance of Risk Perception and Safety Attitude on Infection Prevention Behavior

IPB	Observe estimate	Bootstrap SE	Z	P - value	Decision	Remarks

Mean IPB	4.245787	.0734831	57.78	0.000		
Effect RP	-. 3151639	0.0934078	-3.37	0.001	Reject H_{03}	Significant
SA	0.7076161	0.1378084	5.13	0.000	Reject H_{03}	Significant

As presented in Table 5, a non-parametric kernel regression analysis was utilized through the Epanechnikov kernel on a population size of 111 observations. The cross-validated bandwidth was employed, resulting in an R-squared value of 0.7542. This indicates that the variance is approximately 75.42% in the dependent variable (IPB) illustrated by the independent variables (RP and SA). Meanwhile, the mean observed estimate for IPB is 4.245787, with a bootstrap standard error (SE) of 0.0734831. This yields a Z-score of 57.78, with a p-value of 0.000. The p-value that is less than .05 implies that the mean estimate is significant.

However, the negative coefficient for RP suggests that there is an inverse relationship between RP and IPB. Specifically, a one-unit increase in RP is associated with a decrease of approximately 0.315 units in IPB. The p-value of 0.001, being less than the significance threshold of 0.05, leads to the rejection of H03, indicating that this effect is statistically significant.

Moreover, the positive coefficient for SA indicates a direct relationship between SA and IPB. A one-unit increase in SA corresponds to an increase of approximately 0.708 units in IPB. The p-value of 0.000 confirms that this effect is statistically significant, supporting the rejection of H03.

Conclusions and Recommendations

The level of perceived risk of Radiologic Technologists is very high with an overall mean of 2.18. A similar result was shown on the level of safety attitude of the Radiologic Technologists with an overall mean of 4.50. This entails that they firmly agree about the significance of Perceived Risk to prevent infectious diseases and they always express that a Safety attitude is very important to prevent infectious diseases. The level of infection prevention behavior of Radiologic Technologists is very high with an overall mean of 4.22. This entails that they constantly agree about the significance of infection prevention behavior to prevent infectious diseases. Further, the risk perception with a standardized coefficient of 0.010 indicated a minimal positive effect on the dependent variable, infection prevention behavior. Similarly, safety attitude with a standardized coefficient of -.340 exhibited a remarkable result on the dependent variable, infection prevention behavior. This may represent that there is a strong correlation between infection prevention behavior and independent variables.

Furthermore, an inverse and direct influence were noted between Risk Perception and Infection Prevention Behavior, the same with the Safety Attitude and Infection Prevention Behavior, respectively, indicating their impactful roles in explaining variance in Infection Prevention Behavior.

With these conclusions, recommendations were drawn for reference of future researchers: Since risk perception is a more precise predictor of infection prevention behavior, it is suggested that Radiologic Technologists continue to increase their risk perception to its optimum level. Also, since safety attitude is a more precise predictor of infection prevention behavior, it is recommended that radiologic technologists continue to increase their safety attitude to its optimum level. Future researchers are recommended to conduct a random sampling technique; and perform a Content Validity Index (CVI) and Exploratory Factor Analysis to enhance the validity of the utilized tool.

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Resonating the Echoes from the Gamma Chamber: Lived Experiences of Radiologic Technologists Working in Nuclear Medicine

Dean Carl C. Elbinias, RRT

Davao Doctors College, Inc.

Davao City, Philippines

Abstract

In the ever-evolving landscape of modern medicine, nuclear medicine stands out as a powerful tool that uses radioactive materials for therapy and diagnosis of many medical conditions. According to recent studies, Radiologic Technologists are challenged to determine their cope and limitations within nuclear medicine practice due to increased occupational radiation exposures and role extensions. Thus, this study was conducted to describe the experiences, coping strategies, and proposed intervention plans of the Radiologic Technologists assigned in the nuclear medicine department by utilizing a hermeneutic phenomenological design. The results exhibited the experiences of Radiologic Technologists working in nuclear medicine as a double-edged phenomenon through developed diagnostic and therapeutic competence, administrative-related constraints, and personal limitations. Coping strategies employed were through positive personal and professional disposition by workflow optimization, professional development, and maximizing social interactions. These actions were essential for enabling Radiologic

Technologists to overcome obstacles and provide excellent patient care. Moreover, challenges have fueled them to propose intervention plans by elevating Radiologic Technologist competency through upskilling and administrative recalibration. The study's findings provide implications for the Radiologic Technology profession by highlighting the needs of Radiologic Technologists working in nuclear medicine, providing a more comprehensive preparation for aspiring Radiologic Technologists, and guiding future researchers to explore the technical skills and clinical knowledge of Radiologic Technologists working in nuclear medicine.

Keywords: *Nuclear Medicine, Social Science, Hermeneutic Phenomenology, Southern Mindanao*

Corresponding email: d.elbinias01@gmail.com

Introduction

Radiologic Technologists in nuclear medicine are involved in the preparation and intravenous administration of radiopharmaceuticals for diagnostic and therapeutic procedures (Boccato et al., 2019). As a result, they are challenged to determine the scope and limitations of their practice due to increased occupational radiation exposures and role extensions (Elliott et al., 2022). In the United Kingdom, Radiologic Technologists performing diagnostic procedures, such as bone and thyroid scintigraphy, are tasked with radiopharmaceutical administration (Woznitza et al., 2021). To navigate through this complex task, some Radiologic Technologists from Oman felt the need to have academic qualifications before accepting any role extensions (Al Shiyadi & Wilkinson, 2020).

Another challenge for Radiologic Technologists is the probable risk related to increased radiation exposure (Martin et al., 2019). In Egypt, Radiologic Technologists receive the highest radiation exposure during diagnostic procedures of Fluorine-18 FDG and therapeutic procedures of Iodine-131 ablation therapy (Fathy et al., 2019). Similarly in Thailand, Radiologic Technologists specifically highlighted greater radiation exposure during Iodine-131 preparation for thyroid ablation therapy (Sisai, 2023). Moreover, within the Philippines, Radiologic Technologists stationed in nuclear medicine departments reported notably higher occupational radiation exposures compared to their counterparts in other radiology departments (Dean et al., 2022).

Given the circumstances mentioned above, the researcher delved into the lived experiences of Radiologic Technologists who have nuclear medicine experience. Recognizing the challenges that surfaced, it became evident that existing literature predominantly presented quantitative data regarding the experiences of Radiologic Technologists while working in nuclear medicine departments (Kumar et al., 2021; Shields et al., 2021). Furthermore, due to the limited availability of nuclear medicine imaging facilities within the Philippines, qualitative studies on the lived experiences of Radiologic Technologists in nuclear medicine can highlight significant topics that affect the manner of their practice (Bailey & Harding, 2024). Consequently, this study endeavors to fill this gap by uncovering and documenting these experiences, intending for its findings to serve as a cornerstone for aspiring Radiologic Technologists venturing into the field of nuclear medicine.

Nuclear Medicine

In the post-World War II era, nuclear scientific research initially employed for destructive purposes was swiftly redirected towards advancements in medicine (Endo, 2021). Notably, Iodine-131 found successful applications in treating conditions such as Graves' disease and thyroid cancer (Goksel & Ugur, 2023). Furthermore, a critical milestone was the development of the Molybdenum-99/Technetium-99m generator in 1958, along with the emergence of the gamma camera, single-photon emission computed tomography (SPECT), and positron emission tomography (PET) machines (Anderson et al., 2019).

Some of the most prevalent scintigraphy procedures encompass the imaging of the thyroid, bones, and kidneys (Kane & Davis, 2022). On a more novel approach, nuclear medicine has transitioned to enable simultaneous imaging and targeted radionuclide therapy called theranostics (Wang, 2023). The application of Lutetium-177 prostate-specific membrane antigen (PSMA) and Iodine-131 therapy enabled a more individualized approach to diagnosing and treating various carcinomas (Keam, 2022). In recent studies,

Lutetium-177 PSMA has provided positive treatment outcomes (Hofman et al., 2021) and a noteworthy decline in prostate-specific antigen levels (Kalmthout, 2020).

Nuclear Medicine and Radiologic Technologists

Within their responsibilities, Radiologic Technologists provide patient comfort and explain the procedure to patients before beginning any imaging procedures (Baun et al., 2022). To guarantee a seamless and enjoyable encounter, this calls for thorough patient education and preparation (Chen et al., 2019). Using sophisticated imaging devices such as gamma cameras, SPECT, and PET, Radiologic Technologists can acquire images of various anatomy and physiology with increased sensitivity and specificity (Mohan et al., 2021).

Furthermore, Radiologic Technologists in the Philippines are also the ones who prepare radiopharmaceuticals (Barizo & Bustillo, 2021). Within this, Radiologic Technologists perform elution and reconstitution of a radioactive source to a pharmaceutical (Eakins et al., 2022). This practice is considered a core value since Radiologic Technologists ensure the safe use of ionizing radiation during radiopharmaceutical preparation. Then again, most developing countries have used Nuclear Medicine Technologists as a collective term for both Medical Laboratory Scientists and Radiologic Technologists assigned to nuclear medicine (Koo, 2019; Owen et al., 2020). Consequently, some Radiologic Technologists experience the extended role of injecting radiopharmaceuticals intravenously (Woznitza et al., 2021).

Challenges and Coping of Radiologic Technologists

Radiologic Technologists in nuclear medicine encounter a spectrum of challenges integral to their roles. Handling radioactive materials stands as a primary challenge, involving working with radiation sources that can significantly expose staff, patients, and the environment (Boschi & Duatti, 2019). As Radiologic Technologists continue to handle radioactive materials, they also suffer from increased occupational radiation exposure (Alkhorayef et al., 2020). To cope with this, Gillings et al. (2021) underscored the importance of adhering to implemented quality assurance protocols to ensure proper preparation and administration of radiopharmaceuticals. This maximizes the appropriate utilization of radiopharmaceuticals to enhance overall patient safety (Ramil et al., 2022).

Moreover, Radiologic Technologists in Western Switzerland reported that adequate education during their internship years provided them with a better understanding of properly applying radiation safety principles to reduce the risks attributed to radiation exposure (Reis et al., 2023). As they face these problems every day, Radiologic Technologists assigned to nuclear medicine are therefore required to have high levels of knowledge and awareness of radiation safety principles (Nyathi, 2022).

Another problem that poses difficulty for Radiologic Technologists is their role in the department as they pursue a career in nuclear medicine (Dillenseger et al., 2020). As they become employed in nuclear medicine, Radiologic Technologists become part of an umbrella term known as Nuclear Medicine technologists (Camoni et al., 2023). There is also a large discrepancy in the training and education for Radiologic Technologists in nuclear medicine across the globe (Foley et al., 2022). Nevertheless, as Radiologic Technologists in nuclear medicine continue to serve their patients, Bailey and Harding (2024)

have unveiled their dual professional identity as both providers of care and users of science and technology, regardless of their training pathway.

Methods

The study employed a hermeneutic-phenomenological research design to explore the lived experiences of Radiologic Technologists working in nuclear medicine. The study was conducted in selected medical facilities of Region XI, Philippines, encompassing the cities of Tagum and Davao with nuclear medicine departments that have Radiologic Technologists as part of their workforce. The study focused on seven eligible Radiologic Technologists with a clinical experience of 6 months or more in the field of nuclear medicine grounded upon the suggestion of Creswell (2013) to obtain a heterogeneous group of a minimum of 3 to a maximum of 15 individuals. The researcher utilized purposive sampling for the study. Purposive sampling serves to pinpoint and select cases that offer comprehensive and in-depth information, optimizing the use of available resources (Patton, 2002). This method involves singling out individuals or groups possessing a profound understanding or substantial experience pertinent to the phenomenon under observation (Creswell & Plano Clark, 2017).

The study used in-depth interviews with Radiologic Technologists working in nuclear medicine as the primary data source.

The collected data were analyzed using the six-step interpretive phenomenological approach of van Manen (2006): focusing on the nature of lived experience, exploring the experience as it unfolds, analyzing the essential themes that define the phenomenon, crafting a strong and focused relationship with the phenomenon, presenting the phenomenon in the art of writing and rewriting, and coordinating the research context by accounting the parts and the whole. Textual analysis helped build processes and reflective awareness of the phenomenon being studied, each being explicated from Heidegger's (1962) hermeneutic circle.

Results and Discussion

The themes in this study were the expressive parts of the participant's experience that portrayed the understanding as a whole. Significantly, three emergent themes were discovered grounded on eight essential themes with twenty-six formulated meanings. The first emergent theme was a double-edged phenomenon, with the essential themes of developed clinical competence, administrative-related constraints, and personal limitations. The second emergent theme was the positive personal and professional disposition of the Radiologic Technologists as they cope with their challenges, with essential themes including workflow optimization, professional development, and maximizing social interactions. Meanwhile, the third emergent theme was elevating Radiologic Technologist competency as part of the intervention plans suggested by the participants, with the essential themes of upskilling and administrative recalibration. Each emergent theme was defined and discussed from the coded transcript of the participants' interviews and supported by the researcher's point of view, theoretical lens, and the vast findings from related literature.

Emergent Theme 1. Double-edged Phenomenon

The participants were asked the general question “What are the lived experiences of the Radiologic Technologists while working in the nuclear medicine department?” This delves into the personal encounters of Radiologic Technologists as they steer their way within nuclear medicine. It emphasizes the subjective, firsthand encounters, challenges, successes, and reflections of Radiologic Technologists as they engage with their work. Understanding the lived experiences of Radiologic Technologists as they work in nuclear medicine is crucial for appreciating the multifaceted nature of this branch of medicine.

Essential Theme 1. Diagnostic and Therapeutic Competence

When Radiologic Technologists are assigned to the nuclear medicine department, they are given the chance to learn advanced imaging techniques such as SPECT and PET. Since being assigned to nuclear medicine, I have been able to manipulate highly sophisticated machines. While preparing the patients for their procedures, I was able to hone my venipuncture skills when I administered the radiopharmaceuticals intravenously. Most of the participants also acquired significant venipuncture skills when they were the ones administering the radiopharmaceuticals.

Since the procedures involved intravenous administration of radioactive tracers, the participants also strived to learn proper venipuncture and include it in their daily routine. Having worked in nuclear medicine for several years, I have gained firsthand experience of the heightened occupational radiation exposure. Alkhorayef et al. (2020) mentioned that this is because of the radioactive sources being used for diagnostic and therapeutic procedures. Consequently, the participants were particularly motivated to reinforce their understanding of radiation safety to reduce the amount of exposure they receive.

Essential Theme 2. Administrative Related Constraints

In addition to the positive experiences and valuable learning opportunities, I can confirm the multifaceted challenges that accompany our daily roles. After the COVID-19 pandemic, nuclear medicine facilities have been recovering, steadily increasing the number of patients (Hirschfeld et al., 2023). I also experienced similar situations when patients with difficult cases entered the department for imaging or therapy. Given that nuclear medicine often caters to oncological diseases, cancer patients constitute a predominant demographic (Gomes Marin et al., 2020).

Meanwhile, relational misunderstandings present a common challenge for the participants. Likewise, I also experienced my fair share of these misunderstandings when working with my colleagues.

Collaboration within a multidisciplinary department like nuclear medicine can pose difficulties due to the diverse medical backgrounds of each staff (Camoni et al., 2023).

Essential Theme 3. Personal Limitations

When I entered the workforce, I was expected to learn venipuncture due to the extended role of radiopharmaceutical administration. However, I was ill-equipped with this specific skill. Woznitza et al. (2021) agree that Radiologic Technologists do not have inherent venipuncture skills and must be trained by experts in this aspect to improve their efficiency. Before scanning procedures, my responsibilities include preparing radiopharmaceuticals for various protocols. Due to multiple responsibilities, Radiologic Technologists in nuclear medicine face inherent hazards associated with handling radioactive materials and radioactive patients (Marengo et al., 2021).

Emergent Theme 2. Positive Personal and Professional Disposition

Exploring further, the study delineates the coping strategies employed by Radiologic Technologists amidst the unique challenges of their profession. The study delves deeper into their daily experiences within the nuclear medicine department. By understanding the coping strategies utilized by the participants, we gain insight into their resilience, adaptability, and dedication to maintaining the highest standards of patient care amidst adversity. This inquiry illuminates the personal strategies adopted by Radiologic Technologists and underscores the importance of holistic support systems within the medical community to foster well-being and professional growth.

Essential Theme 1. Workflow Optimization

In the fast-paced and demanding environment of nuclear medicine, taking breaks emerges as a crucial aspect of self-care and professional sustainability (Sovold et al., 2021). In times when I feel extreme pressure from the workload, I take my time to regroup and calm myself down. Similarly, the participants also note that every aspect of their work demands careful planning and prioritization. This approach lines with the problem-focused coping strategy by breaking the problem into more manageable pieces (Stallman, 2020).

Furthermore, there has been an escalation in the volume of patients I attended to daily, increasing my workload. The participants also experienced the same increase in workload in preparing and administering radiopharmaceuticals. This surge in activity heightens the risk of errors, such as inadvertent administration to the wrong patient (Kasalak et al., 2020). Misadministration incidents pose a significant concern and are identified as prevalent radiation emergencies in nuclear medicine (Tandon et al., 2022).

Thus, Reis et al. (2023) mentioned a strict adherence to radiation safety principles to reduce radiation exposure.

Essential Theme 2. Professional Development

In response to the inherent demands of nuclear medicine, I strived to learn the different protocols for every procedure. The participants also exhibited remarkable adaptability through self-directed learning initiatives. When my efforts were not enough, I reached out to my seniors to guide me with what I needed to know.

Another strategy that I used was practicing intravenous injections insistently to achieve muscle memory when administering the radiopharmaceuticals. The participants mentioned doing the same strategy to hone their skills. Consistent practice and training can properly equip the staff for further role extensions (Al Shiyadi & Wilkinson, 2020).

Essential Theme 3. Maximizing Social Interactions

Recognizing the complexity of nuclear medicine, the participants prioritize open and proactive communication. I found that proactively communicating streamlines workflow and offers an even better exchange of information. Moreover, defusing conflicts is essential in the workplace through recognizing the diverse perspectives and contributions of each team member (Owen et al., 2020). I have also come to appreciate the importance of this strategy by getting through difficult conversations with some of my colleagues. Gottlieb (2020) mentioned that humility aligns with collaboration and fosters a positive culture.

Emergent Theme 3. Elevating Radiologic Technologist Competency

As nuclear medicine continues to evolve, the participants recognize the ever-changing nature of healthcare and the importance of continually enhancing their services to provide the best possible care for their patients. With this in mind, these technologists have developed a series of intervention plans aimed at improving their department's quality of service. These plans reflect not just their commitment to excellence, but also their genuine desire to ensure that every patient receives the highest level of care possible. The study takes a closer look into the plans stated by the Radiologic Technologists, embodying their dedication to their craft and their patients. By addressing these intervention plans, the participants aim to elevate the standard of care provided to patients, promote professional growth, and ensure the long-term success and sustainability of their practice.

Essential Theme 1. Upskilling

As a means to further enhance my skills and expertise in the field, I attended seminars and trainings when given the opportunity. The participants also emphasized the importance of mastering their venipuncture skills to apply the best practices during radiopharmaceutical administration. I also have a similar suggestion since I was not properly equipped with venipuncture when I started my career. The study of Nyathi (2022) revealed that radiographers are required to have high levels of knowledge in radiation safety.

Furthermore, the participants also underscore the importance of acquiring specific training conducted by the Philippine Nuclear Research Institute. A particularly coveted training is the CMR or Course on the Medical Use of Radioisotope. When I started my career, I anticipated this training because I knew it would give me an edge.

Essential Theme 2. Administrative Recalibration

To combat the increased workload that the participants experience, they propose a proper assignment of workload and interdisciplinary collaboration to optimize productivity. I also agree with this suggestion since I find it beneficial for the team to work cohesively. Moreover, the participants also mentioned an increasing number of patients being scheduled for various procedures.

As their workload increased, the participants also emphasized the significance of collegial collaboration within their departments. I also often encourage other members to collaborate to streamline the workflow. A strategy that I do is to regulate the patient scheduling according to the estimated amount of Technetium-99m for that day. Once patient schedules are regulated, this ensures that the utilization of the radiopharmaceuticals is maximized and delivered on time (Ramil et al., 2022).

Implications

It is important to remember that findings from a qualitative, phenomenologically focused study like this are rarely generalizable or transferrable to other situations. A thorough explanation of occurrences that leads to a knowledge of the fundamental framework of lived experiences is the goal of phenomenology. Future research endeavors could amplify and enrich the current understanding by incorporating several key considerations.

For the next researcher, conduct longitudinal studies to examine the long-term effectiveness of coping strategies and intervention plans on technologist well-being, job satisfaction, and patient care outcomes. This can shed light on the sustainability of coping mechanisms applied by Radiologic Technologists.

Since this is a qualitative study, the next researcher can utilize a mixed-methods approach that combines both quantitative and qualitative research methods. This approach can provide a more comprehensive understanding of the lived experiences, coping strategies, and intervention needs of Radiologic Technologists in nuclear medicine.

The next researcher can increase the area coverage of their research setting beyond Region XI of the Philippines. By including Radiologic Technologists from various regions, future researchers can capture a broader range of perspectives, challenges, coping strategies, and intervention plans that may differ based on local contexts, healthcare systems, and cultural factors.

The next researcher can employ focus group discussions to better triangulate data sources and capture a broader range of insights. Incorporating focus group discussions in the research methodology would enhance the validity and richness of the findings to further understand the experiences and demands of Radiologic Technologists in nuclear medicine.

Since the study mainly focused on the general lived experiences of Radiologic Technologists working in nuclear medicine, the next researcher can highlight the diagnostic and therapeutic concepts of nuclear medicine that the Radiologic Technologists perform. Focusing on this topic can allow future researchers to provide insights into the technical skills, clinical knowledge, and professional competencies required for effective practice in nuclear medicine.

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Development and Utilization of Radiographic Positioning Aid and Immobilization Device for Horizontal Beam Projections

Shielah Mae P. Estares, RRT

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

Accurate patient positioning and immobilization are crucial in radiography for obtaining precise and reproducible images. However, recent studies have revealed concerning trends in cross-table examinations, such as lateral projections of the lumbar spine, hip, and knee, showing alarmingly high reject rates. These rejections are primarily due to patient movement, discomfort, and improper positioning, which significantly distort and degrade radiographic images. This problematic situation highlights the necessity of developing a positioning aid and immobilization device, particularly in horizontal beam projections, to ensure diagnostically useful images. This study was conducted to determine the user-friendliness, extent of patient comfort, and immobilization safety, and to determine the visibility and image shape distortion of the newly developed positioning aid and immobilization device for horizontal beam projection via experimental technique. The device was rated very good for ease of use and usefulness respectively and very high in terms of level of satisfaction. The extent of patient comfort is described as very good and immobilization safety is described as very good. Radiographic positioning and image artifacts were frequently and rarely observed. Overall, the data indicates that positioning aids and immobilization devices frequently ensure proper radiographic positioning and rarely

cause image artifacts and shape distortion. For future researchers, intending to use this study, it is crucial to improve the research questionnaire items related to usefulness, ease of use, satisfaction, positioning comfort, and visibility which received a lower CVI of 0.66, indicating areas needing improvement.

Keywords: *Positioning Aid and Immobilization Device, Radiologic Technology, Quasi-Experimental, South Cotabato*

Corresponding email: estaresshielahmae@gmail.com

Introduction

Accurate patient positioning and immobilization are pivotal in radiography, ensuring precise and reproducible image acquisition (Bushong, 2020; Ehrlich & Coakes, 2020). However, recent studies highlight concerning trends during cross-table examinations, such as the lateral projection of the lumbar spine, hip, and knee revealing alarmingly high reject rates. These studies attribute these rejections to patient movement, discomfort, and improper positioning, which significantly distort and degrade radiographic images (Alashban, et. al., 2022; Atkinson, et. al., 2019; Adler & Carlton, 2019; Rajput et al., 2022). This underscores the criticality of meticulous patient setup, especially in horizontal beam projections, to achieve diagnostically useful images (Bushong, 2020; Stephenson-Smith et al., 2021; Tosun et al., 2023).

In a 2023 study from New Zealand on Digital Radiography Reject Analysis, positioning errors emerged as the predominant cause of image rejection, constituting a substantial 79.4% (Bantas et al., 2023). In Australia, the research highlighted frequent projection repetitions involving knee and hip examinations under horizontal beam conditions (Stephenson-Smith et al., 2021). Similarly, findings from Saudi Arabia indicated that the shoulder axial and lumbar spine cross-table lateral projections had the highest reject rates for fixed and portable radiography (Alashban et al., 2022). These insights underscore the need for enhanced strategies to minimize unnecessary radiation exposure and improve overall imaging quality.

Locally, this issue is also evident as highlighted by Alipio and Lantajo (2020) in their study on Determinants of Image Retakes in General Digital Radiography in the Southeastern Philippines, where image retakes in five hospitals were found to be as high as 54.07%. Their findings underscored that retakes were notably frequent among non-sthenic and non-ambulatory patients, as well as in procedures involving the axial body section. Moreover, research conducted at St. Luke's Medical Center indicated that recommending lateral or cross-table prone lateral abdominal radiographs showed a high positive predictive value for identifying Hirschsprung Disease, making these views reliable tools for diagnosis in infants and young children (Concepcion & Jusi, 2022).

Kim (2018) highlights those male technologists under 30, particularly in general hospitals, face increased radiation exposure risks from physically positioning patients during imaging. To mitigate these risks, there has been a suggestion to use positioning aids and immobilization devices, which have shown benefits in improving image quality and reducing retakes in general radiography (Adler et al., 2023; Bushong, 2020). However, a significant gap exists in the development of specific aids for horizontal beam examinations in general radiography (Ng & Doyle, 2019; Noonan et al., 2017). Alipio and Lantajo (2020) also underscore the need to explore equipment-related factors to address high rates of image retakes. This study aims to fill this gap by designing a versatile and customizable positioning device tailored for horizontal beam procedures, to improve efficiency, accuracy, and patient comfort across a broad range of radiological exams.

Methods

This study employed a quasi-experimental design with a nonequivalent

group approach to evaluate a radiographic positioning aid and immobilization device by examining the produced images, avoiding unnecessary radiation exposure, and adhering to ethical standards without pretests. Maciejewski et al. (2013), used purposive sampling to include only those scheduled for radiographic exams, ensuring alignment with specific criteria and facilitating controlled data collection. Xie (2022) and Joshi (2022) emphasize customized sampling in MRI for efficiency, and Rodet (2003) supports purposive sampling in PET studies. Accordingly, this study used purposive sampling for participants undergoing horizontal beam projections, enhancing data quality and research efficiency, ensuring a representative sample, and providing deeper insights based on participants' experiences.

The study took place at a Level 2 hospital in Koronadal City, South Cotabato, Region 12, equipped with a capable radiology department for conducting horizontal beam examinations. The hospital's team included skilled and certified Radiologic Technologists with extensive experience in performing these procedures. Moreover, the facility had qualified radiologists proficient in interpreting imaging results, ensuring robust diagnostic capabilities.

The research employed purposive sampling to select participants who could effectively contribute to its objectives, specifically focusing on those undergoing horizontal beam projections. This targeted approach ensured that the sample met the study's criteria, enhancing the validity and applicability of the findings. Radiologic Technologists and radiologists from a hospital in Koronadal, Philippines, played pivotal roles in conducting examinations and interpreting radiographs with a new horizontal beam device, providing valuable insights into its practicality and usability. Patients undergoing these X-rays offered feedback on positioning comfort and satisfaction. The study included 15 patients and 15 Radiologic Technologists, with three Radiologists assessing radiographic images, aligning with sample size recommendations in the relevant literature. Inclusion criteria ensured precise participant selection, focusing on safety and relevance while maintaining ethical standards, thus improving research efficiency and yielding deeper insights into the device's impact.

The study utilized self-made questionnaires to evaluate patient experience, Radiologic Technologists' perceptions of device user-friendliness, and Radiologists' assessments of image quality specific to a newly developed device. These instruments were tailored for this research to address the device's unique aspects. Overall, the Content Validity Index (CVI) of the researcher-made questionnaire examining radiographic positioning aids and immobilization devices showed strong agreement on most items, with perfect scores of 1. However, specific items on usefulness, ease of use, satisfaction, positioning comfort, and visibility received a CVI of 0.66, indicating lower consensus among experts and suggesting a need for clarity and relevance enhancements. Conversely, the dimension assessing immobilization safety achieved a unanimous agreement with a CVI of 1, highlighting robust content validity in this critical area.

The study focused on enhancing positioning devices in radiography, aiming to improve patient care and diagnostic accuracy. It aimed to revolutionize healthcare by advancing these devices, potentially leading to more precise imaging and better patient experiences. Participants were assured of voluntary participation and privacy protection throughout the study. Radiologic Technologists were trained on device usage, and patients provided consent before procedures. During imaging, patients were positioned using the device, ensuring proper immobilization and image quality. Post-procedure, patients and technologists completed questionnaires on comfort and usability, while radiologists assessed image quality. Data processing included removing outliers and ensuring accurate computations by a statistician.

During the conduct of the study, participants were limited to individuals aged 18 and above, following the established inclusion criteria. Consequently, the device's suitability

and comfort level for younger individuals remain unassessed. Additionally, to ensure patient safety, those with suspected fractures or dislocations were excluded from the study, leaving its use and comfort for this specific group undetermined. Furthermore, the extent of horizontal beam examinations for anatomical structures other than the chest and knee was not explored due to a limited number of imaging requests. Additionally, regarding image quality, the use of the device in knee horizontal beam projections revealed artifacts caused by the metal at the base of the device, which supports the necessary angulation and flexion of the knee.

Results and Discussion

Table 1. Demographic Profile of the Respondents

Demographic profile of the Respondents	**Frequency**	**Percentage**
Age		
11-20 years	0	0%
21-30 years	11	73.33%
31-40 years	4	26.67%
41-50 years	0	0%
51-60 years	0	0%
61-70 years	0	0%
Gender		
Male	11	73.33%
Female	4	26.67%

The demographic profile of respondents, as depicted in Table 1, reveals a notable distribution across age groups and gender. Among the surveyed individuals, there were no respondents in the age categories of 11-20 years, 41-50 years, 51-60 years, 61-70 years, or 71-80 years. The majority of respondents fell within the 21-30 age bracket, constituting 73.33% of the sample, while those in the 31-40 age group accounted for 26.67%. Gender-wise, males were prominently represented, making up 73.33% of the respondents, while females comprised 26.67% of the sample. These findings underscore a skew towards younger age cohorts and a male predominance within the surveyed population.

In terms of usefulness, the positioning aid and immobilization device received a very good rating with a mean score of 4.23. This indicates that users generally find the device helpful in performing radiographic procedures for horizontal beam projection. The standard deviation of 0.34 suggests that these positive ratings are fairly consistent across users, with minimal variation in opinions on its usefulness.

Additionally, Radiologic Technologists appreciate the device's seamless integration into workflows, simplified procedures, adaptability to various needs, and consistent performance (M=4.23, SD = 0.46; M=4.20, SD=0.561; M=4.00, SD=0.535; M=4.06, SD=0.594). Features for quick error recovery further enhance user confidence and efficiency. Overall, this data suggests the device is well-designed with a focus on user experience, making it easy to learn and operate for both experienced and occasional users (M=4.15, SD=0.403).

Perceived User-Friendliness of the Device	Mean	Description
Usefulness	4.227	Strongly Agree
Ease of Use	4.147	Strongly Agree
Satisfaction	4.320	Strongly Agree

OVERALL MEAN	**4.231**	**Strongly Agree**

Table 2. Level of Perceived User-Friendliness of the Device to Radiologic Technologists

Table 2. Legend: 1.00-1.80 Strongly Disagree/Very Low/Very Poor; 1.81-2.60 Disagree/Low/Poor; 2.61-3.40 Neutral/Moderate; Fair 3.41-4.20 Agree/High; Good 4.21-5.00 Strongly Agree/Very High/Very Good

Furthermore, the remarkably high mean score (4.32) suggests users are highly satisfied, with strong agreement on statements reflecting enthusiasm. This satisfaction stems from the device's contribution to both improved workflow efficiency and successful imaging procedures. Notably, users also appreciate the device's role in fostering a more positive and satisfying work environment. The low standard deviation (0.43) further highlights a consistent level of satisfaction across users.

In terms of the user-friendliness of the device, a very good rating for both usefulness and ease of use was recorded mainly emphasizing the device's seamless integration into workflows and efficiency in patient positioning thus resulting in expedited procedures. The same conclusion was made by the respondents in a study by Hubie et., al. (2016) where the staff overwhelmingly preferred the BodyFIX without vacuum wrap over the other two immobilization devices. They found it to be the most efficient to use in terms of set-up time, which was a big factor in their preference. Additionally, staff reported feeling more confident using the device, likely due to its ease of use and the accuracy of immobilization it provided.

Table 3. Level of Perceived Patient Comfort and Immobilization Safety

Perceived Patient Comfort and Immobilization Safety	Mean	Description
Positioning Comfort	4.30	Very Good
Immobilization Safety	4.29	Very Good
OVERALL MEAN	**4.29**	**VERY GOOD**

Table 3. Legend: 1.00-1.80 Strongly Disagree/Very Poor; 1.81-2.60 Disagree/Poor; 2.61-3.40 Neutral/Fair; 3.41-4.20 Agree/Good; 4.21-5.00 Strongly Agree/Very Good

Table 3 shows that the study respondents found the positioning device to be very comfortable (Mean= 4.43, SD= 0.76). They reported no pressure points or discomfort from the material itself (Mean=4.43, SD= 0.756) and indicated that the device was easily adjustable to fit individual needs (Mean=4.43, SD= 0.514), further enhancing comfort. Overall, users strongly agreed that they felt comfortable throughout the entire procedure because of the design of the positioning device (Mean=4.30, SD= 0.513).

Likewise, the data also suggests that users felt safe and secure during the procedure due to the positioning device (Mean: 4.50, Sd: 0.519). Scores indicate a positive perception of the device's ability to hold them securely and minimize movement (Mean= 4.21, SD= 0.802). Users also reported that the device felt sturdy (Mean=4.41, SD=0.770) and the straps were comfortable (Mean= 4.36, SD= 0.633).

This research has shown that the prototype received excellent ratings for immobilization safety and positioning comfort among respondents, underscoring its effectiveness in enhancing patient well-being during procedures. This aligns with Munn et al.'s (2019) study on nonpharmacologic interventions, indicating the positive effects of patient positioning devices on outcomes. Additionally, findings from Angmorterh et al. (2019) reveal that

70% of volunteers found lying on the X-ray table without a mattress very uncomfortable, with over 81% of pain concentrated at the head, emphasizing the need for proper padding to improve comfort and potentially reduce pressure ulcer risk during X-ray procedures. Nkubli's (2018) study highlights the ideal features of immobilization devices, emphasizing secure patient restraint without compromising positioning or image quality, and Cross and Baskerville's (2001) study suggests that softer materials in positioning devices can significantly reduce discomfort, supporting the high mean scores for the prototype's positioning comfort.

Table 4.1 Level of Image Quality in Terms of Visibility

Image Quality: Visibility	Median	Description
1. There is a correct rotation of anatomical structures because of the use of positioning aids and immobilization devices.	4.00	Frequently Observed
2. There is accurate alignment or tilting of body parts using positioning aids and immobilization devices.	3.00	Occasionally Observed
3. There is no partial visualization or cutoff of anatomical structures resulting from improper placement or sizing of positioning aids and immobilization devices.	3.00	Occasionally Observed
4. There is no misalignment of the central ray with the intended anatomical structure while using the device.	2.00	Rarely Observed
5. There is no misalignment of the central ray caused by incorrect positioning or fixation of the device during radiographic imaging.	2.00	Rarely Observed
Visibility	**3.00**	**Frequently Observed**

Table 4.1. Legend: 1.0-1.75 Not Observed; 1.76-2.51 Rarely Observed; 2.52 – 3.27 Occasionally Observed; 3.28 – 4.0 Frequently Observed.

Table 4.1 presents the evaluation of image quality, focusing on visibility assessed by radiologists. The visibility of structures was frequently noted, with a mean score of 3.0, indicating adequate clarity. The device effectively maintained the correct rotation of anatomical structures without anatomical cutoff, with mean scores of 4.0 and 3.0 respectively, which indicates that the use of the device presents the expected anatomical structures.

Table 4.2 Level of Image Quality in Terms of Distortion

Image Quality: Visibility	Median	Description
1. The positioning aids and immobilization devices interfere with the proper alignment or placement of the detector during radiographic imaging, causing image artifacts due to misregistration or distortion.	2.00	Rarely Observed
2. Improper placement of positioning aids and immobilization devices introduced foreign objects into the radiographic field, leading to artifacts such as shadows or streaks on the resulting images	3.00	Occasionally Observed
3. The use of positioning aids and immobilization devices affects image quality causing uneven pressure distribution that results in artifacts such as grid lines or uneven exposure.	2.00	Rarely Observed
4. Despite the use of immobilization devices, patient motion still occurs due to discomfort or involuntary movement, contributing to image artifacts in radiographic images.	2.00	Rarely Observed
5. The utilization of positioning aids and immobilization devices eliminated patient motion, and its fit did not exacerbate the likelihood of motion artifacts in radiographic images.	1.00	Not Observed
Shape Distortion	**2.00**	**Rarely Observed**

Table 4.2. Legend: 1.0-1.75 Not Observed; 1.76-2.51 Rarely Observed; 2.52 – 3.27 Occasionally Observed; 3.28 – 4.0 Frequently Observed.

Table 4.2 presents the evaluation of image quality in terms of shape distortion. It was infrequently observed (M = 2.0), and occasional artifacts were noted during device use (M = 3.0). These results suggest overall satisfactory image quality with minor occurrences of shape distortion and artifacts, highlighting areas for potential refinement in future iterations.

An additional area that was evaluated in the development and utilization of the device prototype is radiographic image quality. Testing the device's ability to consistently achieve correct anatomical rotation yielded a high success rate, demonstrating its effectiveness. However, the occasional appearance of artifacts was noted on the knee lateral projections due to the metal attachments on the base of the device which served to angle the device. Nonetheless, the artifact on the base of the device did not interfere with the anatomy being imaged. Studies show that evaluating image quality can be biased and vary greatly between radiographers and radiologists. Dunn and Rogers found that radiologists deemed 50% more images with positioning errors as usable compared to radiographers. Further research by Kjelle et al. (2022) supports this notion. While both professions generally agree on what constitutes a high-quality image, radiologists are more likely to accept images that radiographers would reject due to perceived low quality. This, explains the occasional rating on the frequency of shape distortion from the perspectives of the radiologists.

Table 5. Test of Difference in Patient Safety and Comfort by Sex and Age

		Mean	t-value	p-value	Remarks
Positioning Comfort	Female	4.289	-0.105	0.918	Not Sig.
	Male	4.320			
Immobilization Safety	Female	4.444	2.045	0.063	Not Sig.
	Male	4.000			
Positioning Comfort	21-30	4.133	-1.757	0.104	Not Sig.
	Above 30	4.600			
Immobilization Safety	21-30	4.200	-0.989	0.342	Not Sig.
	Above 30	4.440			

Table 5 shows the result of the test of difference in Patient Safety and Comfort by Sex and Age. Based on the result, the difference is not significant in terms of positioning comfort and immobilization safety (t=-0.0105; p=0.918; t=2.045; t=-17.575; t=-0.989). This means that the device is favorable for both sexes, across age groups.

Interestingly, the study found that demographic factors like age and gender appeared to have an insignificant impact on the use of the positioning aid and immobilization device. This was also evident in the study by Abuzaid, et. Al (2023) which explored the patient satisfaction with radiology services. Their results showed that waiting times and staff attitudes significantly influence patient satisfaction, while demographic factors, such as nationality, education, and age, do not significantly impact them.

Conclusions and Recommendations

The study's findings indicate high ratings for the device's usability and safety across multiple criteria. Participants rated its usefulness, ease of use, and satisfaction levels very positively. Patient safety, comfort, and immobilization were also highly rated, suggesting effective performance during procedures. Radiographic quality showed adequate visibility with minimal artifacts, indicating overall satisfactory imaging outcomes.

To enhance the study's methodological rigor and generalizability, it is recommended to conduct a repeat study with a larger sample size that includes both Radiologic Technologists and patients, incorporate a control group, focus on younger demographics, periodically monitor the device's performance in hospitals, use phantoms for simulating patient conditions, and ensure the research questionnaire's reliability through rigorous testing, including a pilot study. For design and materials, it is advised to explore radiolucent alternatives to reduce imaging artifacts, add accessible handles and automated mechanisms for angulation, and research lightweight yet durable radiolucent materials to improve the device's usability, transport, and handling in clinical settings.

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Radiating the Essence of the Profession: The Lived Experiences of Radiologic Technologist Educators

Joan Rana R. Imperial, RRT

Davao Doctors College, Inc.

Davao City, Philippines

Abstract

The primary goal of this research was to analyze and comprehend the lived experiences, including their motivations, inherent rewards, challenges, and the coping mechanisms employed by Radiologic Technologist educators that contributed to their sense of fulfillment and commitment to their profession. This analytic qualitative research examined the experiences of Radiologic Technologist educators with a minimum of three years of experience within Higher Educational Institutions (HEIs) in Davao City. The title, "Radiating the Essence of the Profession," captures the core concept of Radiologic Technologists' dedication to their profession. Ten (10) participants were chosen through purposive sampling. The research delved into their motivations, rewards, challenges, and coping mechanisms employed during difficult situations. One-on-one online interviews were conducted. Data analysis was enriched using Creswell's

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(2018) rigorous six-step method to identify, analyze, and report patterns. This analysis revealed four emergent themes, eight cluster themes, eighteen formulated meanings, and 89 significant statements from the ten transcripts. The experiences of Radiologic Technologist Educators encompassed **Sustaining a Professional Practice, Overcoming Difficulties in the Academic World, and Realizing the Nobility of the Profession, while t**heir coping mechanisms centered on **Maintaining a Professional Equilibrium**. These results reveal useful knowledge on supporting Radiologic Technologist Educators and ultimately strengthening the pipeline of qualified healthcare professionals.

Keywords: *Radiologic Technologist Educators, Social Science, Phenomenology, Davao City*

Introduction

Radiologic Technologist educators are essential in molding the future generation of healthcare professionals. However, their nuanced experiences in the academic setting are confronted with challenges and difficulties that can adversely impact their well-being and job satisfaction (Jones & Ross, 2023). Additionally, extreme burnout and a decrease in work productivity are attributed to heavy workloads, including effective teaching, administrative tasks, research, and clinical application (Kim et al., 2021). In the United States, **b**udgetary constraints often restrict access to necessary equipment, technology, and educational materials, hindering the learning experience (Smith & Jones, 2022). In addition, a **lack of professional development opportunities can hinder the ability of educators to stay updated on advancements in the field** (Lee & Park, 2019). **Furthermore, unrealistic expectations placed upon educators by institutions can negatively impact teaching practices and educational outcomes.**

In the Philippines, the chronic stress of workload can have detrimental effects on the Radiologic Technologist educators' physical and mental health, potentially leading to anxiety, depression, and other health concerns (Garcia & Lopez, 2020). Educators are often undervalued and underpaid, ultimately impacting job satisfaction and teaching quality (Santos & Cruz, 2023).

Moreover, Radiologic Technologist educators lack access to professional development opportunities and specialized training in educational pedagogy. This can result in outdated teaching methods, limited use of technology, and difficulty adapting to the evolving needs of the field (Cruz & Reyes, 2021).

While existing research offered a beneficial understanding of the specific aspects of the Radiologic Technologist educator's role, such as instructional practices and curriculum development (Chen et al., 2020), there remained gaps in our knowledge **regarding in-depth studies explicitly focusing on the nuanced experiences of Radiologic Technologist educators in Davao City, as the majority of the inquiries were conducted in other geographic locations (Klassen et al., 2018).** Furthermore, this research intended to understand the intrinsic rewards, the role of **challenges in their profession, and the methods of coping** they adopted throughout difficult times.

Motivations and the Inherent Rewards of Radiologic Technology Educators

The inherent rewards of teaching may act as an origin of motivation for Radiologic Technologist educators. Effective teaching and seeing student success are rewarding experiences for both educators and learners. Hofkens &Van Petegem (2020) suggest that witnessing students who achieve professional success and understand a complex subject contributes significantly to an educator's sense of fulfillment. Another rewarding experience was when former students became their colleagues. Educators grasp fresh concepts from their mentees, while at the same time supplying them with the essential guidance for their career advancement (Gutiérrez & Mensah, 2022**). Appreciation and acknowledgment are vital incentives for Radiologic Technologist educators. Studies by Goddard & Goddard (2019) demonstrate that positive student feedback fosters an understanding of intrinsic reward and personal connection for educators. Aside from student validation, Radiologic Technologist educators also draw encouragement from the beneficial feedback they gain from supervisors and colleagues (Lasater, 2019). The validation stems from recognition of their dedication to outstanding teaching practices, curriculum development, and student mentoring.**

One motivator for Radiologic Technologist educators is the higher and competitive compensation. According to Hutchinson & Jang (2018), educators who earn adequate compensation experience less financial stress. They tend to feel less anxious and can be more productive at work when their essential needs are met. Furthermore, offering competitive salaries and incentives can be instrumental in attracting and retaining the most skilled educators. As a result, quality education is provided to the students (Walker et. al, 2018). Several factors motivate Radiologic Technologists to transition from clinical practice to the academic setting. Studies suggest that the COVID-19 Pandemic has had an enormous impact on Radiologic Technologists in the hospital as a career choice. Among the variables determining the career change are high patient volumes, fear of contracting the virus, and the absence of resources, which contributes to excessive exhaustion among Radiologic Technologists (Shah et al., 2020). Compared to a stressful hospital environment, Radiologic Technologists perceive that a change of career offers them a more consistent schedule and potentially less physical strain (Jones et. al, 2019).

Challenges Faced by Radiologic Technologist Educators

Excessive workload emerged as a prominent concern among educators, significantly impacting their job satisfaction and overall well-being (Smith & Brown, 2019). This finding aligns with Awais & Sodergren's (2019) study, which highlights that overworked educators are prone to encounter emotional exhaustion, fatigue, and burnout. Excessive absenteeism and increased educator turnover are long-term results of work-life imbalance.

Overburdened educators are more vulnerable to physical and mental health issues, further contributing to absenteeism (Moen & Laird, 2020).

Radiologic Technologist educators, irrespective of their years of teaching experience, exhibit reduced confidence in their capacity to apply technology in the teaching process in the most productive way. Keeping the curriculum relevant is a continuous challenge for educators. This necessitates ongoing curriculum development to make certain that learners acquire the latest knowledge (McAlpine & Morton, 2018). Additionally, according to Aydin & Orhan (2023), the technology's application in education has been found to foster increased student engagement and facilitate interactive learning experiences. This underscores the critical role of educators in maintaining their technological proficiency and incorporating innovative components in line with the evolving landscape of Radiologic Technology. However, educators felt immense pressure to continuously pursue professional development to stay relevant and incorporate new trends into their lessons (Erdogan & Ozdilek, 2021). This challenge is significant due to the frequent technological innovations and procedural updates in the dynamic healthcare landscape.

Coping Mechanisms of Radiologic Technologist Educators

Radiologic Technologist educators, to preserve their well-being and effectiveness, cultivate diverse coping mechanisms, enabling them to navigate the inherent challenges of their profession (Lee, 2023). **One key strategy for Radiologic Technologist educators to manage stress and promote well-being through self-care practices,** including exercise, relaxation techniques, interacting with loved ones, and, taking mental health breaks, demonstrating enhanced capacity to manage stress and promote their overall well-being (Opfer & Pedder, 2020; Park et al., 2018). **Educators who experience supportive environments fostered by colleagues and administrators exhibit increased job satisfaction, and reduced stress levels (**Jung & Kim, 2021**).** Additionally, one's social support system, including family and friends, helps to create a stable, welcoming environment that fosters resilience in the face of difficulties (Chang & Lin, 2021). **Additionally, seeking professional mental help can equally be significant. E**ducators who went to interventions received the appropriate coping mechanisms, emotional assistance, and a safe space to share their difficulties (Schaufeli & Enzmann, 2018). Furthermore, **access to professional development opportunities was highly significant.** Active participation in Continuous Professional Development (CPD) training plays a vital role in enhancing the knowledge and skills of an educator. This, in turn, equips them to effectively mentor students with the latest advancements in healthcare education (Yi et al., 2020).

Methods

The descriptive phenomenological type of qualitative methodology was applied in this research to gain a solid and thorough knowledge of the nuanced experiences of Radiologic Technologist educators. The inquiry took place in Davao City, situated within Region XI of Mindanao. The informants of this research were Radiologic Technologist educators with three years of experience from selected Higher Educational Institutions (HEIs) in Davao City. The study utilized purposive sampling, which emphasized the significance of collecting data from a homogeneous group with shared encounters with a particular phenomenon. Examining the similarities and differences in the participants' interactions enabled a fuller perception of the occurrence (Creswell, 2018).

The core research tool in this investigation is the one-on-one in-depth interviews conducted through online meetings. A modified interview guide was meticulously crafted to obtain detailed and contextually nuanced information from participants, considering the study's goals. The questions were purposefully created to be flexible and open-ended, encouraging participants to provide extensive and spontaneous responses that facilitated a comprehensive investigation of their emotions and perspectives. In addition, before the interview process, proper informed consent was given to all the participants. A meticulously planned interview timetable was followed to ensure a systematic approach to data collection. The recorded interviews were converted to text and translated by the researcher, who also observed the participants' nonverbal measures, including facial emotions, hand gestures, and their overall temperament.

Creswell's (2018) rigorous six-step approach was employed in this exploration, It is specifically designed to identify, analyze, and report patterns in the qualitative data. This method places an intense focus on elucidating the essence of a specific lived experience for individuals or a particular group of individuals.

The researcher strictly adhered to the ethical guidelines throughout the study. Participants received comprehensive informed consent detailing the risks and benefits of their inclusion in the study. Participation was completely optional, with the right to withdraw at any time. The Data Privacy Act of 2012 (DPA 2012) was pursued by the researcher to maintain participants' privacy and confidentiality. Data was anonymized and eliminated any personally identifiable information. Pseudonyms were used when total anonymization was not achievable. After the study was complete, secure software was used to permanently remove all electronic files (transcripts, recordings, documents), and all physical documents were shredded.

Results and Discussion

This section delved into the lived experiences of Radiologic Technologist educators as they navigate their motivations, challenges, rewards, and coping mechanisms, within the profession. Through the data collected from the recorded one-on-one online in-depth interviews, the research revealed four (4) emergent themes, eight (8) cluster themes, eighteen (18)

formulated meanings, and 89 significant statements from ten (10) transcripts.

Moreover, the first core question guiding the research was, "What are the lived experiences of Radiologic Technologist educators as a career choice?" The participants were encouraged to share a comprehensive perspective of their professional journeys, highlighting their subjective experiences regarding motivations, challenges, and rewards. These experiences are further explained in the main themes: Sustaining a Professional Practice, Overcoming Difficulties in the Academic World, and Realizing the Nobility of Profession.

Emergent Theme 1. Sustaining a Professional Practice

Radiologic Technologists have a distinct career trajectory, frequently having to decide between clinical and academic practice. The main theme, "Sustaining a Professional Practice", aptly captures the motivations experienced by Radiologic Technologist educators who chose to be in the academic setting. The cluster themes "Adequate or Higher Compensation", and "As a Form of Crisis Management" described their experiences.

Cluster Theme 1. Adequate or Higher Compensation

Adequate or higher compensation plays a role in ensuring a sustainable practice for educators. Participants underlined that they were offered higher base pay compared to working in the hospital, which provided them with a sense of financial security and served as a major factor. Radiologic Technologist educators may experience reduced monetary burden and greater work satisfaction as a result of a higher base compensation in the academic setting (Hutchinson & Jang, 2018). Furthermore, the provision of competitive allowances and bonuses appeared as a means of appreciation for their work. Consequently, these incentives strengthened their sense of worth within the institution. Adequate salary and incentives help recruit and retain the most qualified educators, this guarantees that learners receive excellent education (Walker et. al, 2018).

The following statements resonated with the informant's experiences:

"*Yes, I believe that I have an advantage because of my clinical years' experience and the pay was also higher in the academe compared to working in a private hospital" – Magnesium, Transcript 6, Lines 479-481*

"The school is generous with allowances and bonuses" – Lithium, Transcript 2, Lines 134-135

Cluster Theme 1.2: As a Form of Crisis Management Response

This theme highlights how Radiologic Technologists were motivated to transition from the clinical setting to the academic world, potentially as a form of crisis management. Especially during the COVID-19 pandemic, some participants experienced extreme exhaustion and they felt that academia was a much safer option. They experienced exhaustion because of a heavy workload, fear of acquiring the virus, and lack of resources (Shah et al, 2020). Some participants transitioned to the academe as a strategy for addressing the psychological and physical effects of the pandemic. Apart from the COVID-19 pandemic, other factors such as a lighter workload affected the decision of Radiologic Technologists to shift to the academe. Compared to the hectic and fast-paced hospital setting, participants perceived that academia offers a more consistent routine and possibly less physical strain. This aligns with the study conducted by Jones et. al (2019), which indicates that the unique workload characteristics of the academic setting may be appealing to Radiologic Technologists.

The following statements encapsulated the meaning of this theme:

"I decided to give up my clinical experience and pursue teaching instead. One major factor was the lighter workload and I badly needed a new environment" - Oxygen, Transcript 4, Lines 346-347

"The COVID-19 pandemic happened and I experienced exhaustion working in the hospital. From managing the department to planning for COVID-19 protocols, and lack of proper sleep due to nightshifts and on-call procedures. Wearing of hazmats, where you can't even breathe properly, and almost a year without seeing my family, all led to burnout" – Magnesium, Transcript 6, Lines 471-475

Emergent Theme 2: Overcoming Difficulties in the Academic World

This theme presents a rich tapestry, illustrating the challenges faced by Radiologic Technologist educators as they navigate the academic world. The difficulties that Radiologic Technologist educators emphasized in this theme involve the intricate nature of thriving in a tech-driven world while juggling a demanding workload. These challenges reveal the interplay between managing teaching demands and keeping up with the latest trends. Furthermore, understanding these challenges is crucial due to the potential impact on educators' well-being and the quality of student learning.

Cluster Theme 2.1: Thriving a Tech-Driven World

This cluster theme unveils a complex web of difficulties faced by radiologic Technologist educators, emphasizing that they face the difficulty of keeping up with the technology and the advancement in the field and adapting to various teaching strategies to leverage the digital learning experiences of students. In addition,

Thriving a Tech-Driven World aptly captures the challenges faced by Radiologic Technologist educators among a student population spanning different generations. Educators had to deal with the unique needs and preferences of students in this modern learning environment.

With the emergence of new software programs, diagnostic methods, and imaging technologies, the field is continually changing. With these advancements, educators need continuous professional growth, and they stated they feel too much pressure to keep updated and incorporate current trends into their instruction (**Erdogan & Ozdilek, 2021)**. Furthermore, educators of the older generation should leverage the use of technology to make lessons more captivating to get the attention of Gen Z students, making it an effective culture of learning. An improved degree of student engagement and school performance was observed when traditional lessons were incorporated with technology (Aydin & Orhan, 2023). Given the rate at which trends are evolving, there is difficulty in maintaining curriculum relevance; thus, continuous curriculum development should be ensured for students to have access to the latest information and skills (**McAlpine & Morton, 2018).**

The following participants' transcripts elaborated on the challenges they experienced:

"As an educator, I have to adapt to the generation and innovate how I lecture in the classroom. Innovate through utilizing the technology and focused on interactive learning" - Magnesium, Transcript 6, Lines 550-553

"The evolving topics and emergent fields that you have to update because as an educator you should not be stagnant, your responsibility is to engage in various updates and new trends not just in teaching but most especially in the subjects or discipline you are handling" – Carbon, Transcript 3, Lines 221-224

Cluster Theme 2.2: Demanding Workload

Radiologic Technologist educators identified that a demanding workload poses a significant challenge. This theme delved into two major obstacles of their taxing workload: poor work-life balance and the constant juggling effort between teaching and other responsibilities. Moreover, Radiologic Technologist educators struggle to balance multiple tasks, including the demanding workload, teaching responsibilities, and ensuring students understand the lesson.

As a result, educators with heavy workloads frequently feel emotionally drained, worn out, and ultimately, burned out (**Awais & Sodergren, 2019). Burned-out educators might feel decreased passion and excitement about the job, which could lead to ineffective instruction. Consequently, the demands of the job possess an adverse outcome on their work-life balance, and they expressed that the numerous tasks may have caused them to work longer**

hours, making work and personal life indistinct. Hence, a long-term consequence of poor work-life balance is increased absenteeism and turnover among educators. Exhausted educators are more susceptible to suffering from both mental and physical health problems, which requires them to be absent (Moen & Laird, 2020).

The transcripts best explained this theme:

"The difference between hospital and academe is when you are home, you have no more work. However, as an educator, you bring your work home" – Carbon, Transcript 3, Lines 219-221

"Another challenge is balancing the demands of teaching with other responsibilities, such as administrative duties, research, and professional development" – Aluminum, Transcript 7, Lines 612-613

"Then on top of that, there's all the paperwork, curriculum development, and committee meeting" – Phosphorus, Transcript 9, Lines 794-795

Emergent Theme 3: Realizing the Nobility of the Profession

The inherent rewards experienced by Radiologic Technologist educators, despite the challenges they encountered, are best described in the theme, "Realizing the Nobility of the Profession". This theme emerges from the advantageous effect they have on molding the next generation of healthcare workers and the inspiring feedback that they receive from students and colleagues. These rewards balance the difficulties they experience, stimulating them to become resilient while tackling the difficulties of their jobs. To ensure Radiologic Technologist educators' success, understanding both sides of the equation is important.

Cluster Theme 3.1: Positive Impact on Future Healthcare Workers

This theme explored their profound feelings of contentment and satisfaction from seeing students succeed and grow. Additionally, it emphasizes the incomparable happiness derived from witnessing former learners become their colleagues in the profession. A study by **Hofkens &Van Petegem (2020),** suggests that witnessing students' success became their academic legacy by encouraging an overwhelming state of fulfillment. Consequently, there is improved self-assurance in their capabilities positive self-worth, and general well-being. Moreover, participants highlighted that working with former students is highly rewarding and they felt valued knowing that their influence on their students is a result of their long-term positive effect in the field. The positive mentor-mentee relationship can be advantageous because educators acquire new ideas from former students and, at the same time, mentees receive the

support they need (Gutiérrez & Mensah, 2022).

The following participants' statements reflect the intrinsic rewards of an educator:

"*The most rewarding moments in my work as a Radiologic Technologist educator is when I see my students grasp a difficult concept or apply their skills in real-world scenarios"* – Phosphorus, Transcript 9, Lines 802-804

"My former students became my whole team as a faculty, that is the reward that I was looking forward to" – Carbon, Transcript 3, Lines 258-260

Cluster 3.2: Inspiring Feedback

This cluster theme reinforces the idea of "Realizing the Nobility of the Profession," demonstrating the influence of inspiring feedback experienced by Radiologic Technologist educators. This section delves into the importance of student appreciation and positive reinforcement from peers and superiors, underscoring how these factors add to the sense of fulfillment and purpose that educators feel. Appreciation from students acts as a motivational tool that fuels the educators' drive for teaching. The intrinsic reward of positive validation from students creates an atmosphere of personal kinship that can help increase the educator's motivation and well-being (Goddard & Goddard, 2019). In addition, appreciation from colleagues and supervisors, for their exceptional classroom instruction, curriculum development efforts, and dedication to student mentoring can be truly inspiring for educators (Lasater, 2019). Educators' sense of purpose is further strengthened by their collaborative environment, where they feel supported and recognized by their peers. Overall, the blended impact of student appreciation and positive reinforcement from superiors amplified the educators' sense of value.

The participants' statements best encapsulated this theme:

"Also, when co-teachers or superiors appreciate you, just by saying"thank you for the help", makes me feel rewarded" – Sodium, Transcript 5, Lines 421-423

"Students tend to thank me if they have understood the topic after the class. Saying, "Sir! Thank you because you have taught us the solution, and we were able to answer the quiz" – Magnesium, Transcript 6, Lines 513-516

Emergent Theme 4: Maintaining a Professional Equilibrium

This theme addressed the research question: How do Radiologic Technologist educators cope with the challenges they experience? Exploring the coping mechanisms utilized by Radiologic

Technologist educators provided significant insights into their resilience and professional commitment. These experiences are further explored in the fundamental concept of Maintaining a Professional Equilibrium, with subthemes, Enhancing One's Capabilities, and Flourishing Through Self-care Practices.

Cluster Theme 4.1: Enhancing One's Capabilities

The apparent presence of new trends, advancements, and optimal techniques in the ever-changing field of Radiologic Technology was identified as a major challenge for Radiologic Technologist educators.

Moreover, to stay abreast with the advancements, Radiologic Technologist educators actively participated in training and seminars provided by industry leaders, educational institutions, and professional organizations. Educators' expertise and competencies were further enhanced through actively participating in Continuous Professional Development (CPD) training.

Effective educators can utilize this deeper knowledge to incorporate innovations into their lessons, ensuring students graduate with the latest abilities for patient care (Yi et al., 2020). Additionally, seeking the help of mentors and experts to improve their competencies emerged as a coping mechanism for the Radiologic Technologist educators in the study. As highlighted by Jung & Kim (2021), having a supportive workplace atmosphere through teamwork and avenues for improvement can result in higher work contentment, lowered stress levels, and ultimately, enhanced quality of instruction.

The following transcripts elaborated on the coping mechanisms employed by Radiologic Technologist educators:

"If I encounter challenges that I am unsure how to navigate, I seek support from colleagues, mentors, or training programs" – Aluminum, Transcript 7, Lines 689-690

"Of course, to cope with new trends, I attend seminars to keep up with the technological pace" - Sodium, Transcript 5, Lines 439-440

"It is a need to attend seminars and trainings to keep up with the technological advancements. I try my best to attend free seminars even online to at least keep us updated" – Phosphorus, Transcript 9, Lines 797-799

Cluster 4.2: Flourishing Through Self-care Practices

Radiologic Technologist educators equipped themselves with the necessary resources and approaches to guarantee a seamless professional career. This theme explored the coping strategies employed by educators through self-care practices to

maintain their well-being in difficult situations.

Educators employed self-care practices such as taking mental health breaks, promoting physical well-being, seeking professional support, and nurturing social connections to cope and build resilience. Participants expressed that they enhanced their lifestyles by getting enough sleep, eating healthy food, and doing physical activities. Furthermore, research by Opfer & Pedder (2020) highlights that engaging in self-care practices is a fundamental mechanism to reduce stress and significantly promote well-being. Additionally, educators who experienced extreme stress coped by taking mental health breaks, such as vacation leave or meditation, that allowed them to retreat a bit from the work challenges and return feeling happier and even more productive. Therefore, taking breaks and engaging in various activities led to lower stress levels and enhanced well-being among educators, overall promoting a higher-quality learning environment for students (Park et al., 2018).

Several participants in the study also highlighted that seeking help from mental health professionals was a key component of promoting overall wellness. Professional help, which involved counseling and support networks, helped in reducing emotional burnout, panic attacks, and depressive disorders. Individuals who underwent therapy were provided with adequate coping techniques, emotional support, and a secure environment to express their struggles (Schaufeli & Enzmann, 2018).

Furthermore, access to a supportive social network is fundamental for successfully navigating difficulties and dealing with the rigorous demands of the job. As stated by Chang & Lin (2021), an individual's social reinforcement, including family and friends, contributes to a positive atmosphere of stability and belonging, which in turn cultivates endurance in the face of adversity. The participants said that investing time talking to loved ones, engaging in leisure activities together, and simply enjoying their company as sources of renewal.

The participant's responses encapsulated the meaning of this cluster theme, Flourishing Through Self-care Practices:

"For my coping strategies, I exercise, fast, and eat the right type of food. Also, I take a leave, relax, have a massage, go biking, do something good, play sports or games, and spend time with loved ones" – Carbon, Transcript 3, Lines 287-289

" In those situations, I've sought support from trusted friends, and family members to gain new perspectives and explore additional strategies for handling stress" – Sulfur, Transcript 10, Lines 873-875

"I sought help from a mental health professional, like a counselor or therapist, to gain additional support and guidance in managing my stress" – Aluminum, Transcript 7, Lines 693-695

"Yes, when needed, I take a break. I take some time off or take a leave. This rejuvenates my mind and eliminates some stressors in my life" – Silicon, Transcript 8, Lines 767-768

Recommendations

This portion of the paper highlights alternative directions for additional investigation that will elaborate on the results of the current study and deal with areas that demand additional research. By pursuing this avenue of inquiry, researchers may play a role in the creation of more comprehensive resources for educators, which will hopefully result in a more encouraging and stimulating environment for learners.

For the next researcher, they can enhance the sample size and distribution of participants. This study acknowledges a limitation in the uneven distribution of participants across institutions because of the limited number of participants meeting the inclusion criteria. This can be discussed in future research by randomly recruiting a larger pool of participants and aiming for a more equal proportion of participants across different institutions. This will strengthen the findings' potential to be applied broadly and establish an extensive comprehension of the experiences of Radiologic Technologist educators from various backgrounds.

While this study employed in-depth interviews to collect data, future researchers can explore focus group discussions to obtain a more comprehensive understanding of this topic. Focus group discussion can generate new perspectives and concepts that might not arise in one-on-one interviews. Through focus group discussion, current opinions can be challenged, and participants can gain a deeper comprehension of the research area.

This exploration revealed multimodal strategies to help instructors navigate the challenges. Further research could examine the efficacy of particular interventions, such as continuing education programs, techniques for managing obligations, or support networks. Evaluating these interventions can reveal the most successful strategy for lowering stress, fostering work-life balance, and preventing burnout among Radiologic Technologist educators.

The next researcher can utilize a mixed-method strategy. Building on this qualitative study that investigated educator experiences, a quantitative approach may be used in future research. This kind of methodology would allow future researchers to measure Radiologic Technologist educators' motivations, challenges, rewards, and coping mechanisms through structured surveys and analysis of measurable data.

Future research can be done through longitudinal studies to track and follow the experiences of Radiologic Technologist educators across time. This may shed information on how educators deal with difficulties and how organizational backing influences their contentment at work and overall being. This study

investigated the lived experiences of Radiologic Technologist educators and the coping mechanisms they employed, showcasing a difficult yet fulfilling profession. To further comprehend educators' perspectives and promote their well-being, deeper research is needed, as the discipline in Radiologic Technology education is always evolving.

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Knowledge, Attitude, and Practices among Radiologic Technologists Towards COVID-19 Pandemic in Tertiary Hospitals in Davao City

JB James A. Lao, RRT

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

COVID-19 has been affecting countries globally. Following the health and safety protocols is essential to curb the incidence of cases. Several studies have been conducted to determine the factors influencing an individual to follow health and safety standards. This study was conducted to determine the influence of knowledge and attitudes on the extent of radiologic technologists' practice in Davao City. Moderating variables were also determined among 96 respondents. Results showed that in terms of knowledge, respondents, the highest percentage is reflected in terms of main clinical symptoms for transmission routes that COVID-19 spreads via respiratory droplets of infected individuals, and for prevention and control, it is reflected in the statement that avoiding crowds and isolation are necessary to avoid the spread of the virus. Respondents have a positive attitude in handling the COVID-19 pandemic. In terms of practice, most of them always follow health and safety protocols. Spearman rho confirmed that knowledge and practice are significantly related at a low magnitude, while their attitude was not found to be significantly associated. Ordinal logistic regression analysis shows that an increase in knowledge is an increase in the extent of practice. Demographic Profiles were not seen to moderate the relationship between knowledge and extent of practice significantly.

Keywords*: Knowledge, Attitude, and Practices toward COVID-19, Health, Descriptive-Predictive, Davao Region*

Corresponding email: jjlao@davaodoctors.edu.ph

Introduction

The whole world has been focusing on an outbreak of respiratory disease caused by the novel coronavirus that was first reported in Wuhan China December 31, 2019, and it is called COVID-19. COVID-19 poses an international threat to international health. Like in the flu, COVID-19 can

spread between two people who have contact with each other. Considering this infectious disease, healthcare workers who served as the "frontliners" are at high risk of infection by COVID-19 (Huang et al., 2019). Globally as of September 7, 2020, there have been 26,994,442 confirmed cases of COVID-19, including 880,994 deaths reported by the World Health Organization. There are millions of confirmed cases of COVID-19 in America the highest leading continent infected with COVID-19 with 60,000 health workers having been infected, and close to 300 have died from COVID-19 according to new data from the Centers for Disease Control and Prevention. More than 150,000 healthcare workers have been infected by the COVID-19 virus according to data from just nine countries – Germany, Denmark, Hungary, Ireland, Italy, Russia, Spain, Ukraine, and Turkey.

Based on the Philippines statistics of COVID-19 as of September 6, 2020, there have been 237,365 confirmed cases in the Country with 48,803 active cases, 3,3919 of them are asymptomatic, 43,228 of them are in mild condition, 663 are in severe condition, of them are in critical condition and 3,875 deaths. 184,687 patients are fully recovered and a total of 2,606 health workers in the Philippines have tested positive for COVID-19 1,402 healthcare workers were able to recover and the death toll remained at 32 as of June 1, 2020 (Esquerra, 2020). Locally, in the Davao region, there are 2,338 confirmed cases of COVID-19 reported by the Department of Health with 1,778 patients' recovers and 60 deaths (Joaquin, 2020) with a total of 635 healthcare workers currently in Davao Region tested positive for COVID-19 (DOH, 2020).

According to the study by Lau (2020) entitled "Knowledge, Attitudes, and Practices of COVID-19 among Income-Poor Households in the Philippines: A Cross-sectional Study." It states that among 2,428 participants there are only 1,879 (89.9%) responses about handwashing as a preventive practice towards COVID-19. While 1,314 (62.9%) respondents reported that they now avoided crowded places because of COVID-19, only 849 (40.6%) selected avoiding large crowds as a preventive measure against the virus. Similarly, there are 1,378 (65.9%) respondents said that they currently keep their distance from people with influenza-like symptoms, but when framed as a potential preventive measure, only 677 (32.4%) of respondents selected social distancing as an option. Finally, there are only 585 (28.0%) reported wearing face masks as a response to the virus. The mentioned study focuses on the community and less has been done on the healthcare practitioner, particularly in Radiologic Technologist.

It is in light of the above situation that the researcher is interested in determining the level of knowledge, attitude, and practices of radiologic technologists towards COVID-19 in Davao City. The outcome of this research is directed at authorities to help recognize such factors that affect the performance of radiologic technologists and develop some programs that can be used to inspire and enable radiologic technologists comfortable in handling pandemics like the novel coronavirus COVID-19. The results of this study are beneficial for the hospitals, policymakers, the Department of Health and radiologic technologists as this study suggested techniques to help improve job performance amid the pandemic.

Methods

A non-experimental descriptive research design was utilized in the study. Non-experimental lacks the manipulation of the independent variables. Researchers doing a non-experimental study simply measure the independent variables as these are naturally inherent (Chiang et al., 2015). The purpose of descriptive design is to describe individuals. The researcher does not manipulate the variables but rather only describes the sample or the variables (Siedlecki, 2020). Contextually, the respondents'

socio-demographic profile specifically gender, age, marital status, educational attainment, years in service, employment status, and frontline status will be determined. This described the level of knowledge, attitude, and practices of radiologic technologists towards COVID-19.

Moreover, the research was also predictive. This study also attempts to determine if knowledge and attitudes significantly predict the respondents' practices toward COVID-19. Predictive study aims to learn something about the future using information from the present (Orthop, 2020).

The study was conducted in selected tertiary hospitals in Davao City. The tertiary hospital of Davao City has a 300-1200 bed capacity. The choice of hospital settings was based on the list of the licensed hospitals of the Department of Health-Center for Health Development in the Davao Region. Davao City is the premier city in Region XI, Philippines which has an area of 2,444 sq. km. and is located in the Southeastern portion of Mindanao.

The respondents of the study were the radiologic technologists in selected Hospitals in Davao City. The purposive sampling technique was employed in selecting the respondents. This technique is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research (Oliver, 2013). Using Yamane's (1967) formula, originally the study desired 114 respondents but unfortunately, 96 of the respondents were able to answer the questionnaire.

The instrument that was used in the study is adopted from the study of Zhong et al. (2020) entitled "Knowledge, Attitude, Practices towards COVID-19 among Chinese Residents during the Rapid-rise Period of the COVID-19 Outbreak: A Quick Online Cross-sectional Survey". This study also adopts the instrument of Zhang et al. (2020) entitled "Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China". The first part of the questionnaire determined the socio-demographic profile of the respondents specifically sex, age, civil status, educational attainment, years in service, employment status, and frontline status. The second part obtained the respondent's level of knowledge, attitudes, and practices towards COVID-19.

The questionnaire was also tested for reliability analysis or consistency. The result of the reliability analysis using Cronbach Alpha revealed that all the reliability indices exceeded .70. Lee Cronbach presented a range where an alpha value of .5 and below is considered to be unacceptable, .51 to .60 is poor, .61 to .70 is questionable, .71 to .80 is acceptable, .81 to .90 is good and .90 and above is considered to be excellent (Lavrakas, 2008). The reliability index of the questionnaire is .943 and is considered to be highly reliable.

Before the conduct of the study, the researcher strictly observes the following ethical standards. The informed consent is accomplished by the researcher to ensure that participants are voluntarily participating in the study. This was accomplished during the actual conduct of the survey which is reflected in the Google form. Those participants who were directed to the online questionnaire page signified their consent to participate in the study. In the online consent form, the elements that are included and explained include the purpose of the study, procedure and activities, and the expected duration. Moreover, the participant's right to refuse/ withdraw and any prospective research benefits is included in the consent form and will be clearly explained in the online form. The ethics of confidentiality was reflected in the Google form. The researchers explained and assured the participants of the confidentiality of information that was obtained from

them. Other ethical parameters including risks and benefits are clearly explained in the form.

The conceptualization of the research study was done through the following steps: (1) identification of research topic. Selecting the topic included secondary and primary sources and various kinds of concept or literature mapping techniques, and (2) formulating research problems. The identified topic was transformed into a research problem that is worthy of scholarly investigation, and (3) developing research design. The topic was transformed into a researchable research question and the best method for answering it was identified. The study is immediately commencing after the approval from the program head.

To gain access to the identified respondents, the following steps were strictly accomplished: Seeking permission from the Hospital's Research Director. A request letter is sent to the respective research director in each identified hospital requesting approval to conduct the study to survey the selected radiologic technologists. Administration of the Survey Questionnaire. The survey instrument was administered fully online using Google Forms. The first page asked for their consent. Those who signify participation will be directed to the actual online questionnaire.

Descriptive statistics specifically frequency and percentage were used to reflect the socio-demographic profile of the respondents. Specifically, for sex, age, marital status, highest educational attainment, years in service, employment status, and frontline status. This was used to describe the level of Knowledge, attitude, and practices towards COVID-19. A Spearman Rank Correlation was used to determine the relationship between knowledge and attitude on the extent of practices regarding COVID-19. Ordinal Logistic Regression was used to test the influence of knowledge on the extent of practice. Hierarchical Regression Analysis was used to determine if demographic profiles will significantly moderate the relationship knowledge and attitude on their extent of practices regarding COVID-19.

This study was limited in determining the knowledge, attitude, and practices of radiologic technologists towards COVID-19. A non-experimental descriptive research design is utilized in this study. The approach of the study was through a survey. The respondents' socio-demographic profile specifically the sex, age, marital status, educational attainment, years in service, employment status, and frontline status will be determined.

This research is also predictive. This study also attempts to determine if knowledge and attitudes significantly predict the respondents' practices toward COVID-19. The study was conducted in selected tertiary hospitals in Davao City. The inclusion of this research was a radiologic technologist who worked in private or government tertiary hospitals while the exclusion were radiologic technologists in higher positions. Healthcare professionals other than radiologic technologists were not included in the study.

The purposive sampling technique was employed in selecting the respondents. This study also uses Yamane`s formula. Furthermore, the study was accomplished in the whole month of November 2020. This study is purely quantitative, thus reasons behind the dynamics of the figure will not be captured in the study.

Results and Discussion

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Table 1. Demographic Profile of the Respondents

Profile	Frequency	Percentage
Sex		
Female	44	45.83
Male	52	54.17
Total	96	100.0
Educational Attainment		
Bachelor	87	90.63
Master's Degree	1	1.04
Master's Level	8	8.33
Total	96	100.0
Employment Status		
Contractual	23	23.96
Regular	73	76.04
Total	96	100.0
Marital Status		
Married	10	10.42
Single	86	89.58
Total	96	100.0
Years in Service		
3 years and below	65	67.71
Above 3 Years	31	29.29
Total	96	100.0
Frontline Status		
Frontline	91	94.79
Non-Frontline	5	5.21
Total	96	100.0

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The first objective of the study was to determine the demographic profile of the respondents. As presented in Table number 1, there are 96 respondents were able to answer the survey questionnaire and it represents the demographic profile of the respondents in terms of sex, educational attainment, employment status, marital status, years in service, and frontline status. Most of the respondents were male. Most of them hold bachelor's degrees and others are pursuing higher education. Moreover, respondents are holding regular positions while they are still on contractual status. Most of the respondents were single and fewer were married. Most of them had three years and below work experience and there were only 31 had above 3 years of work experience. Most of the respondents were in frontline status and fewer were in non-frontline status.

Table 2. Level of Knowledge of Radiologic Technologists Towards COVID-19

	Correct		Incorrect	
	F	%	F	%
Clinical Presentations				
The main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and myalgia.	91	94.79	5	5.21
Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus.	66	68.75	30	31.25
There are currently is no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection.	90	93.75	6	6.25
Not all persons with COVID-19 will develop severe cases. Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases.	86	89.58	10	10.42
Transmission Routes				
Eating or contacting wild animals would result in infection by the COVID-19 virus.	69	71.88	27	28.13
Persons with COVID-19 cannot infect the virus to others when a fever is not present.	86	89.58	10	10.42
The COVID-19 virus spreads via respiratory droplets of infected individuals.	93	96.88	3	3.13
Prevention and Control				
Ordinary residents can wear general medical masks to prevent infection by the COVID-19 virus.	87	90.63	9	9.38
Children and young adults don't need to take measures to prevent infection by the COVID-19 virus.	84	87.50	12	12.50
To prevent infection by COVID-19, individuals should avoid going to crowded places such as train stations and avoid taking public transportation.	94	97.92	2	2.08

Isolation and treatment of people who are infected with the COVID-19 virus are effective ways to reduce the spread of the virus.	94	97.92	2	2.08
People who have contact with someone infected with the COVID-19 virus should be immediately isolated in a proper place. In general, the observation period is 14 days.	93	96.88	3	3.13

Table 2 presents the level of knowledge of radiologic technologists towards COVID-19. The indicators used for this variable are clinical presentations, transmission routes, and prevention and control.

In terms of clinical presentations, the item with the highest score that the respondents got correct is the first question which is *"The main clinical symptoms of COVID-19 are fever, fatigue, dry cough and myalgia."* 5.21% of them are incorrect. This is supported by the study of Utko et al., 2020 their study conducted with 297 participants, 143 participants tested positive for COVID-19 and 154 were negative for COVID-19. 143 positive patients had common symptoms cough, weakness of the muscle, taste disorder, and fever. The item with the lowest score is the question *"Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the COVID-19 virus."* Experts note that the novel coronavirus, allergies, and the flu have different symptoms. The main clinical symptoms of COVID-19 are tiredness, fever, shortness of breath, and cough. While allergies have chronic symptoms and include wheezing sneezing and coughing. A runny nose, facial pain, and itchy eyes are common symptoms of allergies or the common cold (Curley, 2020). The most common symptoms of COVID-19 are fever, tiredness, and dry cough (WHO, 2020).

In terms of transmission routes, the third question *"COVID-19 cannot infect the virus to others when a fever is not present."* got the highest score of correct answer. One study has reported that the viral load that was detected in the asymptomatic patients was like the patients that have COVID-19 symptoms, which theoretically suggests the potential transmission of asymptomatic patients (Zou et al., 2020).

In terms of prevention and control, most of the respondents got it correct with fewer incorrect answers in the third question *"To prevent the infection by COVID-19, individuals should avoid going to crowded places such as train stations and avoid taking public transportation."* with 97.92% of correct answers and it has 2.08% incorrect answers. According to Lunn et al., 2020, maintaining social distancing during the COVID-19 pandemic can save lives. Lunn et al., 2020 promote social distancing to prevent the transmission of COVID-19.

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Table 3. Level of Attitude of Radiologic Technologists Towards COVID-19 Pandemic

	F (%)	
COVID-19 will finally be successfully controlled	Agree	Disagree
	88 (91.67)	8 (8.33)
Have confidence that the Philippines can win the battle against COVID-19 virus	Yes	No
	89 (92.71)	7 (7.29)

Table 3 represents the level of attitude of radiologic technologists towards the COVID-19 pandemic. Items were as follows: Respondents agreed 91.67% that COVID-19 will finally be successfully controlled and 8.33% disagreed. Respondents 89.71% that the Philippines have the confidence to win the battle against the COVID-19 virus and there are 7.29%. Lalu 2020, states that 44% of Filipinos believe that the worst COVID-19 pandemic is already over according to a survey conducted by the Social Weather Stations (SWS). Pessimism or belief that the worst has not yet arrived was also observed among respondents who believed that their quality of life had worsened. It is also manifested that higher degrees of education believed that the COVID-19 pandemic was already over, and other lower degrees of education did not believe that the Philippines was already over with the COVID-19 pandemic.

Lu et al., 2020, extracted the takeaways from five Asian countries' experiences on how they successfully controlled the COVID-19 pandemic. Not knowing when the COVID-19 pandemic will be over it is probably premature to declare victory for any five Asian countries. But they all have kept the new infection numbers low. Five countries including South Korea, China, Japan, Singapore, and Taiwan learned from the SARS outbreak back in 2003, that`s why they were well prepared to respond to COVID-19 quickly, aggressively, and proactively from its outset. Furthermore, South Korea learned from the MERS outbreak back in 2015, that they implemented, it is well-planned and well-organized widespread testing to isolate infected cases effectively.

Table 4. Radiologic Technologist's Extent of Practice Towards COVID-19

	Never	Sometimes	Oftentimes	Always	Median	IQR
Removed personal protective equipment carefully	6 (6.3)	12 (12.5)	16 (16.7)	62 (64.6)	4	4
Washed and disinfected hands after contact with each patient	0 (0.0)	3 (3.1)	7 (7.3)	86 (89.6)	4	4
Kept distance during contact with a patient	1 (1.0)	8 (8.3)	28 (29.2)	59 (61.5)	4	4

Worn a mask when leaving home	0 (0.0)	1 (1.0)	2 (2.1)	93 (96.9)	4	4
Worn a face shield when leaving home	0 (0.0)	5 (5.2)	19 (19.8)	72 (75.0)	4	4
Gone to any crowded place in recent days	0 (0.0)	10 (10.4)	39 (40.6)	47 (49.0)	3	4

Table 4 demonstrates that most of the radiologic technologists removed personal equipment carefully all the time 64.6%. This study finds that a large proportion of radiologic technologists were removing carefully their protective equipment. This is supported by a previous study that allied healthcare workers have a higher knowledge of preventive practices against infectious diseases. (ejeh et al., 2020). They also washed and disinfected hands after contact with each patient all the time with 89.6%. Previous studies have confirmed the effect of handwashing on the prevalence of respiratory illness, claiming that an appropriate hand-washing intervention could break the transmission cycle and reduce the risk (Chen,2020). All of the time, radiologic technologists kept their distance during contact with patients with 61.5%. Experts and health authorities enforce how to maintain physical distance from others and avoiding crowds is crucial for mitigating the speed of COVID-19 spread. Social distancing is a key factor for reducing the excessive demands on intensive health care services and thus, for ensuring the effective treatment of all who become infected. Radiologic technologists were wearing a mask when leaving home all the time with 96.9% and they were wearing a face shield when leaving home all the time with 75%. Most of the respondents have frequently gone to crowded places in recent days with 40.6%. This is supported by the study of Talidong 2020, that most Filipino teachers are not confident about going to crowded places because of the anxiety or psychological stress brought on by COVID-19 and they do not feel secure taking public transportation and they are conscious to touch any surfaces in public areas and are conscious to touch their face without washing their hands, they have the fear to eat in restaurants. Filipino teachers' lifestyles changed because of the pandemic COVID-19 and are afraid that their family members might be infected with the virus.

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Table 5. Test of Relationship between Knowledge and Practice

Knowledge		Practice				
rho		0.297				
Sig. (2-tailed)		0.003				
N		96				
0.0.2 Very Low; 0.21-0.40 Low; 0.41-0.60 Moderate; 0-.61-0.80 High; 0.81-1.00 Very High						
Test of Relationship between Attitude and Practice		Sometimes	Oftentimes	Always	Chi-square	p-value
COVID-19 will finally be successfully controlled	Disagree	0	2	6	0.204	0.903
	Agree	2	23	62		
Have confidence that the Philippines can win the battle against the COVID-19 virus	Disagree	0	0	61	3.001	0.223
	Agree	2	25	68		
Influence of Knowledge on Practice (Adjusted for Significant Variables)		Estimate	Std. Error	Wald	df	Sig.
Threshold	[Practice = 2.00]	3.01	2.23	1.822	1	0.177
	[Practice = 3.00]	6.246	2.238	7.788	1	0.005
Location	Knowledge	0.674	0.212	10.111	1	0.001

Table 5 shows that there is a significant relationship between knowledge and practice. However, the magnitude of the relationship is low. This data is supported by the study of Nasser et al., their data results state that most of their respondents had good knowledge while half of them had bad practices. This means that there is low relationship between knowledge and practice. According to Malli et al., 2020 one of the most disturbing findings of their study was that 1 in 4 healthcare workers washed their hands after touching patient surroundings, even though most of their respondents knew that COVID-19 transmission could be reduced with hand washing.

This table also shows the test of the relationship between attitude and practice. Using chi-square test statistics with continuity correction, the table shows that the association of the variables

is not statistically significant for these two attitudes (Chi-square=.204; p=.903; Chi-square=3.001; p=.223). This table is supported by the study of Saadeh et al., 2020 that most nurses declared that they were afraid of getting infected with COVID-19 and always feared for their family members due to occupational exposure yet more than half of the nurses did not use protective equipment such as goggles when performing aerosol-generating procedures in patients while the majority of nurses follow the infection prevention control when being contact with patients.

Moreover, the table shows the influence of knowledge on practice. Ordinal logistic regression analysis shows that an increase in knowledge is an increase in the extent of practice (Wald=10.111; p=.001). This is supported by the study of Alahdal et al., 2020 that people with higher knowledge, are also correlated with better practice and awareness. In agreement with this study, other studies found similar findings that knowledge of COVID-19 is significantly lower among less educated participants in Saudi Arabia.

Table 6. Moderating the Effect of Sex in the Relationship Between Knowledge and Practice

	B	se	t-value	p-value
Constant	4.576	1.39	3.293	0.001
Knowledge	0.291	0.128	3.8155	0
Sex	1.7941	0.94	0.783	0.595
Interaction	0.1818	0.087	1.092	0.654
R=.4166; R2=.1736; MSE=.2212; F=6.4406; df1=3; df2=92; p=.0005				

Moderating Effect of Years in Service in the Relationship Between Knowledge and Practice	B	se	t-value	p-value
Constant	0.8301	1.521	0.5495	0.5864
Knowledge	0.2935	0.14	2.1035	0.0382
Service	0.96	0.942	1.0188	0.311
Interaction	-0.111	0.088	-1.271	0.207
R=.4070; R2=.1657; MSE=.2233; F=6.091; df1=3; df2=92; p=.0008				

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Moderating Effect of Employment Status in the Relationship Between Knowledge and Practice	B	se	t-value	p-value
Constant	0.8301	1.521	0.5495	0.5864
Knowledge	0.287	0.224	2.4519	0.003
Employment	1.0633	1.324	0.8033	0.4239
Interaction	-0.097	0.12	-0.812	0.4191
R=.3389; R2=.1149; MSE=.2369; F=3.9798; df1=3; df2=92; p=.0103				

Table 6 shows the result of the moderating effect of years in service on the relationship between knowledge and practice. It shows that years in service do not influence the relationship of the variables. Meaning, the magnitude and direction of the relationship between knowledge and practice cannot be dictated by years in service. This table is supported by the study by Zheng et al., which states that years in service as a healthcare worker do not affect the level of knowledge and practice of healthcare workers. However, it states that their study demonstrated that >10 years of working had a significant adverse reaction to stress which might be explained by the fact that healthcare workers with longer working experience were routinely assigned to care for and treat more severe COVID-19 patients in hospitals of China.

It also shows the result of the moderating effect of employment status on the relationship between knowledge and practice. It shows that employment status does not influence the relationship of the variables. Meaning, that the magnitude and direction of the relationship between knowledge and practice cannot be dictated by employment status. This table is supported by the study of Abrar et al., 2020 this study states that employee status does not affect the relationship between knowledge and practice. This study states that knowledge and practice are influenced by work stress whether what is the employment status of the employee.

Conclusion and Recommendations

Based on the findings, the following conclusions were drawn: The respondents are mostly male and hold bachelor's degrees. Majority of the respondents are on regular employment status and most of them are in single status. Most of them also have three years of working experience, and a majority of them are in frontline status. The level of knowledge of radiologics in terms of transmission routes is interpreted as high, the same as the level of knowledge of radiologic technologists with prevention and control. Moreover, a higher percentage of positive attitudes resulted in the study. Radiologic technologist extent of the practice is commendable; on average, they reflect the practices all the time. The relationship between knowledge and practice is significant but their magnitude is low. Furthermore, demographic profiles do not significantly moderate the relationship between knowledge and the extent of the practice.

This study suggests the following: There is a need to develop intervention programs that will increase the knowledge of the respondents on

domains related to COVID-19 specifically on clinical presentations, transmission routes, and in terms of prevention and control. The need to conduct a similar study in a wider scope is also essential to increase the reliability of findings. Considering that only knowledge influences the extent of practice, other variables might also be considered. Furthermore, other moderating variables can also be considered. The same study targeting other healthcare professionals is also recommended. It is recommended to build training programs that can improve the level of knowledge, attitude, and practices. Not only in radiologic technologists but also in other healthcare professionals. For the institution, it is highly recommendable to conduct refresher exams for their employees to keep the knowledge on the pandemic and on how to avoid negative attitudes towards the pandemic situation. Not only in radiologic technologists but also in other health care professionals.

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Awareness and Practices in Mammography Screening Among Women in Mandaluyong City: A Community-Based Study

Aljean R. Mahilom, RRT

Davao Doctors College, Inc.
Davao City Philippines

Abstract

This study assessed women's mammography screening knowledge, attitudes, and practices in Mandaluyong City, Philippines. The descriptive-correlational study design used multi-stage sampling to survey 385 individuals. Mammography screening awareness and attitudes were high among responders. Only 54.81% of participants practiced mammography. Attitude and practice were correlated as well (Rbp =.114; p = 0.025). The study also demonstrated that civil status, employment, age, and education did not moderate knowledge and practice. Hierarchical analysis showed that attitudes increased mammography screening. Education and employment predicted mammography screening. The likelihood of receiving mammograms was 12.930 times higher among individuals who were employed, compared to 6.09 times higher among those with higher education. The results of this study underline the need for health education initiatives that emphasize the early detection and prevention of breast cancer, particularly among individuals with lower levels of education and employment. This study sheds light on women's mammography screening decisions and can impact Mandaluyong City's breast cancer prevention and management policies.

Keywords: *Awareness and Practices in Mammography Screening, Correlational, Mandaluyong City*

Corresponding email: aljeanmahilom23@gmail.com

Introduction

Mammography is a standard procedure for breast screening and diagnosis (Reeves & Kaufman, 2023). There have been objections raised about this method because of cost, false positives, procedure pain, and radiation exposure (Expo et al., 2018). A small fraction of women know about and receive mammograms. According to the study by Wu & Lee (2018) titled Increasing Awareness of Breast Cancer and Screening Procedures for Early Detection in

Organizations with Limited Resources, Cities like Tacloban and Calasciao and a more rural region called Sogood were all a part of it. In communities with limited resources, they encouraged breast cancer screening. They discovered that the Philippines does not have a comprehensive breast screening program., especially in resource-poor areas. According to the findings of their research, breast cancer is diagnosed in two to three percent of women living in low-resource settings in the Philippines early, whereas 53% are diagnosed late. Due to budgetary constraints and the absence of a breast screening program, individuals are unable to undergo breast mammograms. (Wu & Lee, 2018). In other countries, the study conducted by Shadap (2022) found that 30% of respondents were aware of mammography screening, 70% were not, and 100% had never utilized it. Salama (2022) affirmed that Egypt is low and Saudi Arabia is 40%.

The utilization and awareness of breast screening are moderately low in other countries, but the study done by Udoh et al. (2020) looked at how women understand, believe about, and do breast self-examinations. According to Udoh et al. (2020), Four studies demonstrated that a greater number of 50% of participants, and A smaller proportion of individuals underwent BSE, as demonstrated by fifteen studies. A total of 19 out of the 21 research indicated that breast self-examination was being done. In the Philippines, the research study by Wu and Lee (2018) in Calasciao and Tacloban City, these two urban areas, and one rural area Sogood reported that more than 50% of Filipino women surveyed were unaware of self-examination of the breasts, mammography, and clinical breast assessment. As was to be expected, few of these subjects underwent mammography, clinical breast assessment, and self-examination of the breasts. Only 51% had heard of the BSE; in any case, fewer reported CBE 33%, and Mammogram screening 29%. Concerning mammogram screening, as it were, a small rate, or 8% of participants, remarked that they had experienced one at a certain stage in their life.

Wu and Lee's (2018) study fills a gap in the research by focusing on how Filipino women know about, use, and think about mammography screening methods. This study looked at how many people in six barangays in Mandaluyong City knew about mammography, their thoughts about it, and what they did to obtain a mammogram. It also looked at how each variable was related to the others. This research can be utilized to develop an intervention for training and a proposed enhancement program that informs women of the advantages of breast screening, as well as the enhancement of their understanding and use of mammography screening to prevent breast diseases and detect potential problems at an earlier stage.

Methods

The women forty years of age or older in the selected barangays in Mandaluyong City were the respondents of this study. The multi-stage sampling was utilized to collect the data for this research. The study employed clustering and systematic random sampling. Cluster sampling was based on small, medium, and large barangay populations. Clusters randomly picked two barangays. Each barangay's households with women were systematically and randomly sampled. The Cochran calculation for an unknown sample size picked 385 respondents (95% confidence level,.05 margin of error). This study split 385 women into three groups. A large barangay has the most women, followed by a medium and a small barangay.

The questionnaire used in the study was adapted from the attitude toward mammography questionnaire psychometric properties Sharif et.al, (2018). Questionnaires from several authors were used to develop the items. Following the standards of psychometric measures, the questionnaire was subjected to validity and reliability analysis.

The tool was validated by professionals in the field. After the validation phase, it was pilot-tested. Cronbach alpha was employed to

examine the result of the reliability index. In this context, an index of 0.70 and above was considered. A Cronbach alpha of 0.7 was considered before the instrument was used for the final data gathering.

There were four sections to the questionnaire. The first section included respondents' demographic information provided by the participants encompasses their age, couple status, academic achievement, and work position.

The second section of the questionnaire consisted of questions designed to determine respondents' level of knowledge of mammograms. The third section of the questionnaire comprises the attitude self-assessment instrument. In the final section of the questionnaire, participants were requested to specify their frequency of mammography screening in response to questions about the extent of their practice with mammography screening.

The study utilized frequency and percentage to characterize data concerning factors such as age, marital situation, academic achievement, and employment status. In addition, the mean and the standard deviation were utilized to assess the amount of respondent knowledge regarding mammogram screening and practices. On the other hand, inferential statistics, namely the Pearson product-moment correlation, were employed to examine the correlation between screening and their practices. Additionally, multiple linear regression with a hierarchical structure

was used to determine whether a woman's demographic profile significantly influenced the association between her mammography awareness and her screening practices. The analysis followed the guidelines and assumptions for using inferential statistics.

Result and Discussion

Table 1. Profile of the Respondents' Demographic Characteristics

Location	Frequency	Percentage
Addition Hills	80	20.779
Barangka Ibaba	60	15.584
Burol	55	14.286
Hagdang Bato	60	15.584
Hi-way Hills	80	20.779
San Jose	50	12.987
Civil Status		
Married	224	58.182
Separated	21	5.455
Single	69	17.922
Widow	46	11.948
Live-in	25	6.494
Employment Status		
Employed	182	47.273
Unemployed	118	30.649
Self-Employed	85	22.078
Education		
College Level/Graduate	237	61.558
HS Level/Graduate/Elem Level/Graduate	148	38.442
Age		
50 and below	169	43.896
Above 50	216	56.104

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This report provides the population characteristics of the study population based on survey information. The survey categorized respondents by setting, civil status, employment status, education, and age. Barangays Addition Hills, Hi-way Hills, Barangka Ibaba, and Hagdang Bato had 80, 60, and 60 respondents, respectively. San Jose had 50 responses, and Burol had 55. In this table, 58.18% were married, 17.92% were single, and 11.95% were widowed. Separated and live-in responses were the smallest at 5.455% and 6.49%, respectively. 47.273% were employed, 30.649% were unemployed, and 22.078% were self-employed. Knowing respondents' work conditions aid policymaking. 38.442% were high school, elementary, or secondary graduates, while 61.558% were college graduates. Respondents' educational levels assist in building educational intervention programs. 216 (56.10%) Participants were over the age of 50, whereas 169 (43.89%) were under 50.

Table 2. Awareness of Respondents on Mammogram

	Correct		Incorrect	
	F	%	F	%
A mammogram is a safe X-ray Radiation	315	81.82	70	18.18
A Mammogram is the best way to test for Breast Cancer	343	89.09	42	10.91
A Mammogram is recommended for women ages 60 onwards.	228	59.22	157	40.78
A Mammogram cannot detect breast cancer before its manifestation	221	57.40	164	42.60
A Mammogram should not be done regularly especially when a woman is in good health.	196	50.91	189	49.09
An annual mammogram is recommended for women with a family predisposition to breast cancer.	353	91.69	32	8.31
A mammogram lowers the risk of breast cancer-related death.	330	85.71	55	14.29
Mammography is essential for early detection of breast cancer.	362	94.03	23	5.97
It is essential to have an annual mammogram.	334	86.75	51	13.25
Overall Level of Knowledge	**7±1.0**			

Mammography awareness was higher among respondents, with an average knowledge score of 7. Most participants believed in mammography. 94.03% said that mammography is necessary for the early detection of breast cancer; 91.69% believed Breast cancer screenings should be performed annually for those who have a history of the disease in their family; and 85.71% agreed mammograms reduce breast cancer death rate. 59.22% said women over 60 should receive mammograms, but 40.78% knew better. 50.91% knew healthy women required frequent mammograms, whereas 49.09% did not. 14.29% stated mammograms don't prevent breast cancer, and 18.18% said X-ray radiation makes them dangerous. 13,25% believed that annual mammography should not be performed, and 10,91% believed that it is not a screening method that is optimal for breast cancer method. Respondents' mammography knowledge

was better. Many survey participants held false beliefs. This highlights the need for mammography education campaigns to raise awareness and correct myths about their safety, efficacy, and age. Respondent awareness is 7 and is relatively higher.

Table 3. Attitude on Mammography

	Mean	Sd	Verbal Description
I believe that the Radiation I will receive when I have a Mammogram is not harmful to me.	3.60	0.95	Strongly Agree
I will not fear the Mammogram	3.70	0.87	Strongly Agree
I feel that Mammogram will be more painful than I ever imagined.	3.50	0.86	Strongly Agree
The pain I will feel during this Mammogram will not stop me from having another mammogram.	3.76	0.82	Strongly Agree
The information I have heard or read will not deter me from undergoing a mammogram.	3.75	0.85	Strongly Agree
I will not experience feelings of embarrassment when my breast is examined by physicians	3.85	0.93	Strongly Agree
Attitude	**3.69**	**0.67**	**Very High**

Legend 1.00-1.75 Strongly Disagree/Low; 1.76-2.50 Disagree/Moderate; 2.5 1.3.25 Agree/High. 3.26-4.00 Strongly Agree/Very High

Wu and Lee (2018) discovered that local women have erroneous perceptions of mammography screening owing to the absence of an education campaign. They taught mammography screening, clinical breast exams, and breast self-examinations with community and government support. Table 3 displays respondents' opinions regarding mammography. All attitudes measure an average of 3.69 with a standard deviation of 0.67, indicating strong mammography attitudes. Most respondents believe that mammography radiation is not dangerous (mean = 3.60, SD = 0.95), they will not fear it, and they will not be hindered from having another one (mean = 3.76, SD = 0.82). Respondents won't be embarrassed by doctors examining their breasts (mean = 3.85, SD = 0.93). Most respondents like mammograms. This shows respondents are willing to undergo mammography without fear or embarrassment. Mammography promotes breast cancer detection at an early stage. Taqi et al. (2021) Participants were found to have positive sentiments concerning mammography screening that was discovered. Many participants held the belief that mammography screening detected breast cancer early.

Table 4 Practices on Mammography

	Frequency	Percentage
Never	174	45.19
Once a Year	119	30.9
Once Every Two Years	56	14.54
Once Every Three Years	18	4.67
Once Every Four Years	6	1.55
Once Every Five Years	11	2.85

Table 4 displays respondent mammography frequency and percentage. 45.19% never had a mammogram, while 30.9% did annually. 14.54% of respondents had mammograms every two years, while 4.67% had mammograms every three years. 1.55% and 2.85% had four- and five-year mammograms, respectively. Many respondents were found to have never had a mammogram, highlighting the importance of raising awareness about breast cancer and education. Less than half of respondents obtained annual mammograms, which are suggested for women who are over the age of 50. This recommendation indicates that routine mammograms are recommended for the detection of breast cancer and treatment. In conclusion, women over 50 require more awareness and education to increase mammography rates. Mammograms improve breast cancer detection and treatment. According to Salama (2020), 14% of women had a mammogram screening. Sweden (92%), Denmark (79%), and this conclusion are far lower.

Table 5. Relationship between Awareness, Attitude, and Practices

		R_{bp}-value	Magnitude	p-value	Remarks
Knowledge	Practice	0.078	Very Low	0.129	Not Sig.
Attitude	Practice	0.175	Very Low	< .001	Significant
Knowledge	Attitude	0.114	Very Low	0.025	Significant

This table examined mammography awareness, attitudes, and practices. Knowledge, attitude, and practice correlations and p-values are shown. Mammography knowledge does not predict mammogram utilization (R = 0.078, p = 0.129). A point-by-point correlation connects attitude and practice. Despite the low association (R = 0.175), the p-value was 001. High attitudes may encourage mammography screening. Finally, knowledge and attitude exhibit a weak but significant correlation (0.114, p = 0.025), suggesting that understanding mammography may improve attitudes toward it. Mulhim (2021) found that respondents were positive about mammography screening. To prevent and diagnose breast cancer, she wanted a mammogram.

Table 5A Moderating Effect of Civil Status in the Correlation between Attitude and Practice

	Estimate	Z-value	OR	Wald	p-value
Intercept	-5.690	-1.820	0.091	3.314	0.069
Attitude	1.435	1.770	1.997	6.132	0<.001
Civil Stat	2.125	1.280	3.085	1.639	0.200
Interaction	-0.490	-1.133	0.746	1.284	0.257

Legend: *Cox and Snell=.036; Nagelkerke =.048*

Table 5A shows how civil status moderates attitude-behavior correlations. This study dichotomizes variable practice as never or not less frequently than once every year, once every two years, once every three years, once every four years, or once every five years. An

analysis of the data was performed using hierarchical regression with interaction effects. Attitude and civic status affect mammography screening by 3.6 to 4.8 percent. Attitude also increases the likelihood of mammography screening by 1.997 times (Wald = 1.639; p.001). Civil status and attitude do not interact much. Civil status doesn't moderate According to Ravi and Ishmael (2021), When compared to women who are not married, it has been discovered that married women are more likely to have breast cancer screening than unmarried women. This is probably because It's more common for married women to be the primary caregivers for their families.

Table B. Moderating Effect of Employment in the Correlation between Attitude and Practice

	Estimate	Z-value	OR	Wald	p-value
Intercept	-3.463	-3.104	0.031	9.633	0.002
Attitude	0.861	2.892	2.364	8.365	0.004
Employment (1-employed; 0-Unemployed)	2.560	1.933	12.930	3.735	0.050
Interaction	-0.504	-1.429	0.604	2.042	0.153

Legend: Cox *and Snell=.059; Nagelkerke=.079*

Table 5B indicates the moderating influence of civil employment on attitude and practice. Attitude and employment affect mammography screening by 5.9 to 7.9%. Attitude increases mammography screening desire by 2.364 times (Wald = 8.365; p = 0.000). Employment (including self-employment) is associated with 12.930 times the likelihood of breast screening (Wald = 3.735; p = 0.050). The interaction's impact is insignificant. According to Wu and Lee (2018), only 14% of respondents reported annual incomes of at least 100,000 Philippine pesos. Among the participants, fifty percent did not disclose their annual salary. They might have experienced a sense of unease sharing this information. Most self-employed people couldn't afford annual breast screenings. Mammograms' costly price was another obstacle. Moreover, in the study by George et al. (2019), most respondents were either self-employed or relied on trade for most of their income, and they reported feeling uneasy about enduring breast screening. Additionally, the unemployed demonstrated an optimistic outlook for the screening for breast cancer. The study discovered that more advertising and education initiatives are needed to encourage all women to get breast cancer screenings, this is especially true for people who are occupied with their work or their commitments at home.

Table 5C Moderating Effect of Employment Age in the Correlation between Attitude and Practice.

	Estimate	Z-value	OR	Wald	p-value
Intercept	-2.393	-2.643	0.091	6.984	0.008
Attitude	0.692	2.905	1.997	8.441	0.004

Age	1.126	0.940	3.085	0.884	0.347
Interaction	-0.293	-0.917	0.746	0.841	0.359

Legend: *Cox and Snell=.032; Nagelkerke=.043*

Table 5C shows how age influences attitude and activity. Attitude and employment affect mammography screening by 3.2 to 4.3%. Attitude increases mammography screening desire by 1.997 times (Wald = 8.441; p = 0.004). The interaction's impact is insignificant. According to the results of the study, by Mohammdifard et al. (2021), age has been demonstrated to be among the most important risk variables for breast cancer screening. The American College of Surgeons (ACS) recommends mammograms for women over 40, and medical practices and healthcare systems encourage this. Both age and attitude were important factors that might accurately predict the likelihood of undergoing breast cancer screening in a Korean health promotion knowledge, attitude, and practice survey of 7,802 people (Lee, 2020). Unlike Shat et al. (2018) in British Columbia, which suggested that women of more advanced age were less likely to get mammograms, Doung et al. (2020) observed that screening age did not predict women's health.

Table 5D. Moderating Effect of Employment Education in the Correlation between Attitude and Practice.

	Estimate	Z-value	OR	Wald	p-value
Intercept	-2.132	-2.223	0.119	4.941	0.026
Attitude	1.504	1.951	4.499	3.805	0.050
Age	1.808	0.657	6.09	4.432	0.049
Interaction	-0.011	-0.033	0.989	0.001	0.974

Legend: *Cox and Snell=.062; Nagelkerke=.082*

Table 5D shows education's moderating effect on attitude and practice. Attitude and education influence the 3,2–4,3 percent likelihood of mammography screening. Attitude increases mammography screening desire by 4.499 (Wald = 3.804; p = 0.050). College graduates are 6.09 times significantly more likely to be screened than high school and primary school graduates. Interaction effects are not significant. According to Ravi and Ismail (2021), university-educated women have increased awareness of breast cancer than elementary and secondary-educated women. This reveals that breast cancer knowledge increases with education and low levels of education significantly predict breast cancer ignorance. Lower socioeconomic groups tend to include low-income, low-educated people. Thus, educated people support mammography screening and practice it more. Breast cancer. Therefore, those who have completed a higher degree of education are more likely to have a favorable attitude regarding mammography screening and practices.

Conclusions and Recommendations

The present study revealed the extent of women's awareness regarding mammography screening was high and a respondent had a positive outlook on mammograms, which encourages regular screening. The correlation was not very strong between mammography knowledge and actual screening practices. However, an optimistic outlook was linked to a greater probability of undergoing mammography, underscoring the significance of attitude and information in supporting screening. The characteristics of the population of the study do not significantly moderate the relationship between knowledge and practice. However, there were misconceptions regarding age recommendations, safety, and efficacy of mammography, indicating a need for educational activities that are specifically focused and collaborative sessions should be implemented. These efforts aim to increase awareness, address concerns, and enhance accessibility, affordability, and trust in mammography screening.

Future research should aim to increase the number of participants in a comparable study and the settings. Employ qualitative research methods, conduct longitudinal studies, analyze cost, and access barriers, explore cultural and social factors, conduct follow-up assessments, and compare findings with other regions or countries. These recommendations will enhance understanding and guide the development of effective interventions to increase mammography screening rates.

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Quality of Life and Resilience Among Breast Cancer Patients Undergoing Radiation Therapy in Quezon City, Philippines

Jonna Leah G. Oraca, RRT

Davao Doctors College, Inc.

Davao City, Philippines

ABSTRACT

This study aims to investigate the relationship between Quality of Life (QoL), Resilience, and the demographic profile of Breast Cancer patients undergoing Radiation Therapy in Quezon City, Philippines using a Quantitative Descriptive-predictive design on a descriptive-predictive approach. The research focuses on understanding the factors that influence QoL and Resilience and how they are interconnected. It utilized the World Health Organization Quality of Life Brief questionnaire and the Connor-Davidson Resilience scale to assess the QoL and Resilience levels of the participants. Breast Cancer is a prevalent disease globally, and its impact on patients' psychological well-being and QoL is significant. The research conducted in Quezon City, Philippines indicates that less than one-third of Breast Cancer patients have good QoL, emphasizing the need for interventions to improve their well-being. The study investigated the relationship between QoL, Resilience, and the demographic profile of Breast Cancer patients undergoing Radiation Therapy. Its findings contributed to the existing knowledge by focusing on the experiences of patients undergoing Radiation Therapy, which is an understudied area compared to other treatments, thus providing insights into the factors affecting QoL and Resilience during this specific treatment phase. The result shows a significant relationship between the three factors mentioned with a positive perception of their QoL and their Resilience with participants whose ages are between 51-60 years old.

Keywords: *Quality of Life, Radiation Therapy, Descriptive, Quezon City*

Corresponding email: jonnaleah@outlook.com

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Introduction

Quality of Life and resilience are crucial for the treatment success and survival prognosis of breast cancer patients. Factors such as physical, emotional, and financial aspects influence life quality, while socio-demographic characteristics impact resilience development. The interconnectedness of quality of life, resilience, and demographic profile underscores their significance in patient well-being. It is the strongest predictor for the Treatment success, not only for the treatment success but also in terms of the survival prognosis. This is the reason for the Quality of Life to be included in the routine assessment by Haraldstad & Andenaes (2019). In the Mediterranean region, less than one-third of Breast Cancer patients have a good Quality of patients have elevated results over the last decade with interventions on physical and psychosocial.

However, pain management and other symptoms need to be considered to fully understand what matters most to the patients based on the study by Mokhatri-Hesari & Montazeri (2020)

Breast Cancer Patients' resilience has affected factors such as Life Satisfaction, Self-esteem, Attention, Positive affect, Negative Affect, Attention, Clarity, and Repair. It shows that Resilience is high in patients with high Emotional Intelligence, Life satisfaction, Physical and Mental Health, Optimism, and Quality of Life as mentioned in the study by Alarcón & Cerezo (2020). The gaps in the previous research are the general focus of the reviews for Quality of Life provided by the respondents with different objectives on the research about their experiences after the surgery, chemotherapy, and physical treatment. No research was done that focuses on the Quality of Life of Breast Cancer patients undergoing Radiation Therapy. There is also research about Resilience and Quality of Life for Breast Cancer patients after they undergo Mastectomy, Radiation therapy, Chemotherapy, and Physical therapy, assessing the whole treatment and relationship of demographics. Life, and they see it necessary to integrate ways of improving the study of Hashemi & Balouchi, (2019) Low level of Life quality causes success the treatments specifically on Radiation Therapy, which resulted cease of this method. The purpose of this study is to determine the relationship between Life quality, Resilience, and Demographic profile of Breast Cancer patients located in Quezon City Philippines.

The affecting factors of Quality of Life are Physical, Psychological, Level of Independence, Social Relationships, and Environment to the study by Marinkovic & Djordjevic (2021). The findings overviewing the Quality of life of Breast Cancer

Methods

Quantitative Descriptive-predictive design is the method that uses accuracy in the form of numbers, it uses measurement to examine particular phenomena based on the study of Dannels (2018). Quantitative descriptive-predictive design is a research approach that combines elements of descriptive and predictive research methods within a quantitative framework. This design aims to provide a comprehensive description of a particular phenomenon or set of variables while also seeking to make predictions or draw inferences about future outcomes. By combining descriptive and predictive elements, the quantitative descriptive-predictive design provides a comprehensive understanding of a phenomenon by describing its current state and making predictions about its future behavior. This design is commonly used in various fields, such as social sciences, business, and healthcare, where researchers seek to gain insights into current trends and make informed predictions based on available data.

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Results and Discussion

Table 1: Distribution of Respondents' Demographic Profile

istribution of Respondents' Demographic Profile		D
Age Profile	Frequency	Percentage
21 – 30 years old	1	1.39
31 – 40 years old	10	13.89
41 – 50 years old	13	18.06
51 – 60 years old	42	58.33
61 – 70 years old	6	8.33
Total	72	100
Bachelor's Graduate	48	66.67
High School Graduate	24	33.33
Total	72	100
Marital Status	Frequency	Percentage
Annulled / Separated	4	5.56
Married	28	38.89
Single	26	36.11
Widow	14	19.44
Total	72	100
Monthly Income	Frequency	Percentage
PHP 0 - –0,000	38	52.78
PHP 10,001 - –0,000	15	20.83
PHP 30,001 - –0,000	11	15.28
PHP 50,001 and above	8	11.11
Total	72	100

As shown in the table above, the distribution of respondents' demographic profile in terms of Monthly Income, out of 72 respondents, the majority of respondents were PHP 0 - –0,000 having the highest frequency of 38 or 52.78% followed by PHP 10,001 - –0,000 having a frequency of 15 or 20.83%. The lowest frequency of 8 or 11.11% was PHP 50,001 and above. This result suggests that the majority of respondents have PHP 0 - –0,000.

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Table 2: The Level of Respondent's Quality of Life

The Level of Respondent's Quality of Life			
Physical Health			
Statement	Mean	SD	Interpretation
Pain and discomfort	3.38	0.96	Moderately
Medical Treatments	3.31	1.02	Moderately
Energy	3.64	0.76	Mostly
Discomfort	3.24	1.14	Moderately
Sleep	3.6	1.12	Mostly
Ability to perform daily living activities	3.53	0.77	Mostly
Capacity for work	3.67	0.89	Mostly
Mean	3.48	0.6	Mostly
Psychological Health			
Statement	Mean	SD	Interpretation
Positive Feelings	3.67	1.16	Mostly
Self-Esteem	3.72	1.28	Mostly
Thinking, learning, memory and concentration	3.79	1.14	Mostly
Bodily image and appearance	3.63	0.88	Mostly
Satisfy with you	3.82	1.04	Mostly
Negative Feelings	2.97	0.98	Moderately
Mean	3.6	0.63	Mostly
Social Relationships			
Statement	Mean	SD	Interpretation
Personal Relationships	3.47	1.23	Mostly
Social Support	2.83	1.3	Moderately
Sexual Activity	3.82	0.88	Mostly
Mean	3.38	0.65	Moderately
Environmental Health			
Statement	Mean	SD	Interpretation
Freedom, Physical Safety and Security	3.94	0.77	Mostly
Physical Environment	3.61	0.9	Mostly
Financial Resources	3.26	0.92	Moderately
Opportunities for acquiring new information and skills	3.15	1.16	Moderately

Participation in and opportunities for recreation/leisure	3.18	0.89	Moderately
Home Environment	3.86	0.97	Mostly
Health and social care: accessibility and quality	3.54	0.98	Mostly
Transport	3.58	0.92	Mostly
Mean	3.52	0.53	Mostly

Legend: *5.00 – 4.21 Completely; 4.20 – 3.41 Mostly 3.40 – 2.6; Moderately 2.60 – 1.81; A little1.80 – 1.00 Not at all*

A study conducted (Tamri and Parsa, 2022) says that the environmental health of Breast Cancer patients after they are discharged from the hospital after surgery is declining because of insufficient knowledge of healthcare. Follow-up with multi-faceted processes is needed involving evaluation and educating not only the patients but also their families.

Overall results suggest that the respondents have a mostly response on the level of respondent's quality of life in terms of environmental health. It also suggests that the respondents' quality of life in terms of environmental health is mostly positive. They reported a high level of satisfaction with freedom, physical safety, and security while perceiving a moderately positive level of opportunities for acquiring new information and skills in their environment. Overall results suggest that the respondents have a moderate response on the overall level of the respondent's quality of life and general health.

Table 3: The Level of Respondent's Resilience

The Level of Respondent's Resilience

Positive Acceptance			
Statement	Mean	SD	Interpretation
I can adapt to change	3.6	1.16	Mostly
I have a close, secure relationship.	3.68	1.05	Mostly
No matter what happens I can cope with it.	4.24	0.68	Completely
Success in the past gives me the confidence to face challenges	4.03	0.89	Mostly
After experiencing difficulty or illness, I tend to recover quickly	4.29	0.67	Completely
Mean	3.96	0.62	Mostly
Trust in Instinct			
Statement	Mean	SD	Interpretation
I can see the humorous side of things.	3.85	1.02	Mostly
Coping with pressure makes me feel powerful.	3.89	1.11	Mostly
Under pressure, I can focus and think clearly.	4	0.63	Mostly
I like to take the lead in solving problems.	4.1	0.73	Mostly
I can make unusual or difficult decisions.	4.14	0.66	Mostly
I can handle unhappiness.	3.97	0.89	Mostly

I have to act on my hunch.	3.89	0.97	Mostly
Mean	3.98	0.57	Mostly

Personal Competence

Statement	Mean	SD	Interpretation
No matter what the result is, I will try my best.	4.21	0.69	Completely
I can achieve my goal.	4.33	0.71	Completely
When things get hopeless, I don't give up easily.	4.08	0.58	Mostly
I will not be discouraged by failure.	4.36	0.7	Completely
I think I am a strong woman.	4	1.05	Mostly
I work hard to achieve my goal.	4.13	0.75	Mostly
I like challenges.	4.18	0.81	Mostly
I am proud of my achievements.	4.49	0.82	Completely
Mean	4.23	0.48	Completely

Control

Statement	Mean	SD	Interpretation
I know where to go for help.	3.93	0.74	Mostly
I have a strong sense of purpose.	3.89	1.27	Mostly
I feel in control of my life.	4.11	0.85	Mostly
Composite Mean	3.98	0.72	Mostly

Spiritual Influence

Statement	Mean	SD	Interpretation
To what extent do you feel that physical pain prevents you from doing what you need to do?	4.67	0.73	Completely
There is always a reason why things happen.	4.32	1.06	Completely
Mean	4.49	0.71	Completely

Legend: *5.00 – 4.21 Always; 4.20 – 3.41 Often*; *3.40 – 2.61 Sometimes; 2.60 – 1.81 Rarely; 1.80 – 1.00 Never*

As shown in the table above, the level of respondent's resilience in terms of spiritual influence resulted in a composite mean of 4.49 suggesting an Always response. The statements above are all interpreted as Always responses as confirmed by their weighted mean range of 4.67-4.32 and presented from highest to lowest weighted mean. The highest mean of 4.67, interpreted as Always response, was statement 1 "To what extent do you feel that physical pain prevents you from doing what you need to do?" while the lowest mean of 4.32 interpreted as Always response fell understatement 2 "There is always a reason why things happen.".

Although in the study conducted by (Asgari-Mobarake and Arefian, 2023), the result suggests that pain has no significant relationship with spirituality, the respondents in this study have a Spiritual Influence on the physical pain they are

experiencing. Overall results suggest that the respondents have an Always response on the level of respondent's resilience in terms of spiritual influence. The results imply that the respondents have a high level of resilience in terms of spiritual influence. They reported completely positive responses regarding the impact of physical pain on their activities and the belief that there is always a reason behind events.

Table 4. Significant Relationship between the Breast Cancer Patients' Quality of Life and Resilience in Quezon City, Philippines

Significant Relationship between the Breast Cancer Patients' Quality of Life and Resilience in Quezon City, Philippines

Correlations	Spearman's Results	Positive Acceptance	Trust in Instinct	Personal Competence	Control	Spiritual Influence
Physical Health	Correlation Coefficient	0.327	0.269	0.155	0.295	-0.214
	P value	0.005	0.022	0.193	0.012	0.071
	Remarks	Significant	Significant	Not significant	Significant	Not significant
Psychological Health	Correlation Coefficient	0.349	0.242	0.323	0.378	0.184
	P value	0.003	0.04	0.006	0.001	0.121
	Remarks	Significant	Significant	Significant	Significant	Not significant
Social Relationships	Correlation Coefficient	0.137	0.094	0.173	0.307	-0.131
	P value	0.251	0.431	0.147	0.009	0.272
	Remarks	Not significant	Not significant	Not significant	Significant	Not significant
Environmental Health	Correlation Coefficient	0.327	0.094	0.04	0.219	-0.151
	P value	0.005	0.434	0.736	0.064	0.206
	Remarks	Significant	Not significant	Not significant	Not significant	Not significant
Overall	Correlation Coefficient	0.117	0.004	-0.064	0.183	-0.096
	P value	0.328	0.976	0.593	0.124	0.421
	Remarks	Not significant	Not significant	Not significant	Not significant	Not significant

If P-value > 0.05 Level of Significance: Accept Ho: Not Significant

As shown in the table above, a significant relationship between the breast cancer patient's quality of life and resilience in Quezon City, Philippines using Spearman rho resulted in a negligible to low positive correlation strength and a highlighted significant relationship between Psychological Health correlated Positive Acceptance, Trust in Instinct, Personal Competence and Control as confirmed by a significant p-value of less than 0.05 level of significance. This result shows some domains of the breast cancer patient's quality of life significantly influence respondents' resilience.

This suggests that there is some degree of association between the patient's quality of life and their resilience, although the correlation is not very strong. However, within the domains of quality of life, a significant relationship was highlighted between Psychological Health and several factors, namely Positive Acceptance, Trust in Instinct, Personal Competence, and Control. This significant relationship was confirmed by a p-value of less than 0.05, indicating that it is statistically significant at a 95% confidence level.

Table 5: Significant Relationship of Respondents Demographic Profile on the Breast Cancer Patients' Quality of Life and Resilience

Significant Relationship of Respondents Demographic Profile on the Breast Cancer Patients' Quality of Life and Resilience

Demographic Profile in terms of Age				
Domain	Category	Chi value	P value	Remarks
Respondent's Quality of Life	Physical Health	95.801a	0	Significant
	Psychological Health	83.260a	0	Significant
	Social Relationships	30.424a	0.016	Significant
	Environmental Health	105.702a	0	Significant
	Overall	88.416a	0	Significant
Respondent's Resilience	Positive Acceptance	99.286a	0	Significant

	Trust in Instinct	166.958a	0	Significant
	Personal Competence	93.967a	0	Significant
	Control	59.805a	0	Significant
	Spiritual Influence	88.414a	0	Significant

Demographic Profile in terms of Highest Educational Attainment

Domain	Category	Chi value	P value	Remarks
Respondent's Quality of Life	Physical Health	67.130a	0	Significant
	Psychological Health	58.048a	0	Significant
	Social Relationships	9.647a	0.047	Significant
	Environmental Health	67.113a	0	Significant
	Overall	17.464a	0.002	Significant
Respondent's Resilience	Positive Acceptance	81.973a	0	Significant
	Trust in Instinct	43.845a	0	Significant
	Personal Competence	13.549a	0.009	Significant
	Control	49.477a	0	Significant
	Spiritual Influence	36.703a	0	Significant

Demographic Profile in terms of Marital Status

Domain	Category	Chi value	P value	Remarks
Respondent's Quality of Life	Physical Health	125.972a	0	Significant
	Psychological Health	69.887a	0	Significant
	Social Relationships	34.800a	0.001	Significant
	Environmental Health	112.826a	0	Significant
	Overall	38.931a	0	Significant
Respondent's Resilience	Positive Acceptance	103.770a	0	Significant
	Trust in Instinct	57.952a	0	Significant
	Personal Competence	37.894a	0	Significant
	Control	70.777a	0	Significant
	Spiritual Influence	45.191a	0	Significant

Demographic Profile in terms of Monthly Income

Domain	Category	Chi value	P value	Remarks
Respondent's Quality of Life	Physical Health	61.373a	0	Significant
	Psychological Health	61.663a	0	Significant
	Social Relationships	36.483a	0	Significant
	Environmental Health	86.723a	0	Significant
	Overall	40.635a	0	Significant

Respondent's Resilience	Positive Acceptance	28.878a	0.004	Significant
	Trust in Instinct	74.859a	0	Significant
	Personal Competence	22.115a	0.036	Significant
	Control	39.766a	0	Significant
	Spiritual Influence	59.103a	0	Significant

If P-value > 0.05 Level of Significance: Accept Ho: Not Significant

Overall results imply that there is a significant relationship between the respondent's demographic profile in terms of marital status on the breast cancer patients' quality of life and resilience. As shown in the table above, the significant relationship of respondent's demographic profile in terms of monthly income on the breast cancer patient's quality of life and resilience using Chi-square for independence test resulted in a significant relationship as confirmed by the p – p-value of 0.000 – 0.036 < 0.05 level of significance. It suggests that there is a statistically significant relationship between the monthly income of the respondents and the quality of life and resilience of breast cancer patients. Since p values are less than 0.05 level of significance, therefore, reject the null hypothesis and accept the alternative hypothesis. Overall results imply that there is a significant relationship between the respondent's demographic profile in terms of monthly income to the breast cancer patient's quality of life and resilience.

Recommendations

Widen the scope with a larger population. Expanding the study's scope and increasing the number of respondents to improve generalizability, minimize confounding variables, and enhance statistical power for more reliable findings.

Using different methods. Using different methods in the Life Quality and Resilience study for patients that have breast cancer, a variety of methods to evaluate the standard of living by using various methods to assess the Life quality is essential, as many methods need to be revised. Future studies may combine quantitative and qualitative techniques to gain a deeper comprehension of how breast cancer affects Life quality.

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Assessment of the Knowledge, Attitude, and Practices (KAP) among Radiologic Technologists in the Utilization of Radiation Protection Apparel

Gelvi Jan M. Pelpinosas, RRT

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

Radiologic technologists regularly face exposure to ionizing radiation and rely on radiation protection apparel like lead aprons and thyroid shields to safeguard against the potential harm caused by scattered radiation. This study was conducted to determine the level of knowledge, attitude, and practices of radiologic technologists regarding the utilization of radiation protection apparel. Sixty-two respondents from selected hospitals in General Santos City participated, using a stratified random sampling technique and a comparative research design. Results showed that the level of knowledge of the respondents on radiation protection apparel is high, accompanied by very good levels of attitude and practices. The data also indicate a significant relationship between the respondents' level of knowledge and their practices. Additionally, females demonstrated significantly higher levels of practice compared to males. Furthermore, level 1 hospitals exhibited a high level of practice in radiation protection apparel utilization. The findings suggest a need to enhance the level of practice among male respondents and other hospital entities concerning radiation protection apparel usage, as well as to reassess the attitudes of Radiologic Technologists towards the use of this apparel. For future researchers intending to use this study, the questionnaire must undergo a Content Validity Index (CVI) assessment to ensure the reliability and validity of the instrument used in measuring the knowledge, attitudes, and practices of Radiologic Technologists.

Keywords: *Radiation Protection Apparel, Social Science, Correlational, General Santos City*

Corresponding email: gelvijanp@gmail.com

Introduction

Radiologic Technologists, exposed regularly to ionizing radiation, rely on protective gear like lead aprons and thyroid shields to mitigate scattered radiation risks (Belavgenis, 2020). However, studies highlight inconsistent utilization and upkeep of these safeguards during radiographic procedures (Abuzaid et al., 2019). Several studies (Ridzwan et al., 2019; Yusuf et al., 2020; Ridzwan et al., 2023; Singh, 2023) reveal inadequate use of radiation protection apparel due to factors such as limited availability, unappealing designs, impracticality in certain procedures, restricted movement hindering workflow, worker attitudes, and organizational influences. Addressing these issues is critical for enhancing the well-being of radiology personnel.

Globally, the use of Radiation Protection Apparel among radiographers is inconsistent. In South Africa, Radiologic Technologists have adequate radiation protection knowledge, but compliance is often left to personal choice (Lewis et al., 2022). In Indonesia, compliance with Radiation Protection Apparel usage is notably low, with 8 out of 10 hospitals failing to ensure consistent use among Radiologic Technologists. Despite the availability of Radiation Protection Apparel,

enforcement of regulations mandating their use is not prioritized (Ismanto et al., 2019).

In the UAE, only 45.7% of Radiologic Technologists adhere to personal protection practices, and 60.3% consistently use lead aprons for co-patients and staff (Abuzaid, 2019). In Iran, gonad shielding protocols were not implemented across randomly selected hospitals (Hamzian et al., 2022). Similarly, in Nigeria, many Radiologic Technologists do not use thyroid shields or monitoring devices, and exposure records are often not maintained (Dauda et al., 2020).

In the Philippines, there are notable challenges regarding the consistent utilization of radiation protection apparel among Radiologic Technologists. A study across 13 healthcare facilities revealed that only three implement proper shielding techniques in radiology, and merely one has an operational Radiation Safety Committee, highlighting insufficient protection for Radiologic Technologists (Quizon, 2015). In North Cotabato, while Radiologic Technologists exhibit satisfactory knowledge and generally positive attitudes towards radiation protection apparel, they frequently overlook using crucial protective gear such as lead rubber gloves (Melaño, 2023).

Previous studies (Melaño, 2023; Cantomayor, 2023) have extensively examined the knowledge, attitudes, and practices (KAP) of Radiologic Technologists regarding radiation protection. However, there is a significant research gap concerning the specific utilization of radiation protection apparel. While existing research provides insights into broader radiation protection measures, such as shielding and protocols, there is a lack of literature focusing on how Radiologic Technologists use radiation protection apparel in their daily practices. This study aims to address this gap by comprehensively examining the KAP related to the utilization of radiation protection apparel among Radiologic Technologists, offering insights that complement and expand existing research focused solely on general radiation protection measures.

Methods

This research utilized a quantitative, descriptive, correlational design. A correlational research design was implemented to explore the interplay between knowledge, attitudes, and practices in using radiation protection apparel among Radiologic Technologists (Melaño, 2023). This approach sought to evaluate the strength and direction of the association between these variables without intervening or manipulating them. Surveys or questionnaires were utilized, and data were gathered from a sample of Radiologic Technologists in General Santos City's level one, level two, and level three hospitals, focusing on their knowledge levels regarding radiation protection protocols, attitudes toward safety measures, and actual practices when utilizing radiation protection apparel in diverse radiological procedures. Generally, the study aimed to uncover whether heightened knowledge and attitude levels correlated with their practices regarding radiation protection apparel.

The non-probabilistic sampling technique was used in KAP (Knowledge, Attitudes, and Practices). However, a stratification technique was used. The basis of the stratum was the level of the hospital facility. Radiologic technologists in one (1) level 3 hospital from General Santos City were selected and all from levels 2 and 1 were also recruited. For level 3, a rough estimate of 18 respondents and an average of 5 for each level 2 and 1 hospital were considered, giving a total of 62 respondents. Using Yamane Formula, the actual number of estimates among hospital entities tallied 86, subtracting 15 for pilot testing, the number of Radiologic Technologists is 71. Using the Yamane formula for sample size computation, where N, represents the population, n for the sample size and e is the set margin of error, the required sample size should be 62.

The researcher used a self-made questionnaire to measure the knowledge, attitude, and practices of Radiologic Technologists regarding radiation protection apparel. The survey's content was validated by three experts, confirming its suitability for the study. Additionally, a reliability test was conducted with 15 Radiologic Technologists outside the chosen hospitals, showing the instrument's reliability. The multiple-choice test's discriminant index and the Cronbach alpha for the Likert scale were 0.03, 0.798, and 0.741, respectively.

The questionnaire consisted of four parts. The first part gathered demographic information, including sex, highest educational attainment, years of experience, and specialization. The second part assessed the integration of knowledge, attitudes, and practices (KAP) of Radiologic Technologists. It included 15 true/false items for knowledge, 5 agreement-level items for attitude, and 10 practice-level items rated from "all the time" to "never." The scoring was interpreted using specified criteria.

This study adhered to ethical principles prioritizing participant well-being, research integrity, and positive contributions to the community and field. It provided insights into Radiologic Technologists' use of Radiation Protection Apparel (RPA), aiming to enhance occupational safety and health practices. The questionnaire explored participants' experiences, ensuring confidentiality and voluntary participation. Information gathered was used solely for research, with potential benefits guiding intervention strategies to address challenges faced by Radiologic Technologists. The study followed the Data Privacy Act of 2012, ensuring transparency, legitimate purpose, and confidentiality. Participants' data was anonymized, handled confidentially, and securely disposed of after the study, with results available upon request.

Before data collection, the researcher followed several steps: obtaining an endorsement from the department chair, getting approval from the hospital director, and contacting respondents with a detailed request letter to secure informed consent. Respondents could withdraw at any time. Surveys were distributed via Google Forms or printed copies, allowing completion over 2-3 days. Data was collected and tallied in Excel, with analysis done in collaboration with an adviser and statistician. Respondents were assured of data privacy and confidentiality, with all responses securely deleted once no longer needed.

The study utilized various statistical methods. Frequency and percentage determined respondents' distribution by sex, experience, specialization, and education. Mean and standard deviation assessed the average level and variability of knowledge, attitudes, and practices regarding Radiation Protection Apparel (RPA) among Radiologic Technologists. Pearson Product Moment Correlation examined the relationships between these variables. ANOVA explored differences in apparel utilization across demographic groups, while T-tests compared differences between two groups, such as sex.

Results and Discussion

Table 1. Demographic Profile of the Respondents

	Frequency	Percentage
Sex		
Female	26	41.96
Male	36	58.07
Educational Attainment		
Bachelor's Degree	59	95.16
Master’s Degree	3	4.84
Years in Service		
1-3 years	35	56.45

12-15 years	1	1.61
16 years above	3	4.84
4-7 years	16	25.81
8-11 years	7	11.29
Area of Assignment		
CT-Scan	13	20.97
CT/MRI	1	1.61
Fluoroscopy	1	1.61
MRI	1	1.61
Mammography	3	4.84
Radiation Therapy.	1	1.61
Stationary/ Portable X-ray	40	64.52
Ultrasound	2	3.21
Hospital Entity		
Level 1	14	22.58
Level 2	18	29.03
Level 3	30	48.39

The demographic breakdown of Radiologic Technologists reveals that males account for the majority at 58.07%, while females comprise 41.96% of the sample. Educational attainment shows that 95.16% hold Bachelor's degrees, with 4.84% holding Master's degrees. In terms of years in service, 1-3 years is the most common category at 56.45%, followed by 4-7 years (25.81%), and 8-11 years (11.29%). Fewer radiographers have served for longer periods, with only 1.61% having 12-15 years of service and another 1.61% serving for 16 years or more. Stationary/Portable X-ray units are the primary areas of assignment, with 64.52% of radiographers stationed there, followed by CT-Scan (20.97%), Mammography (4.84%), and Ultrasound (3.21%), among others, each representing smaller percentages. Regarding hospital entities, Level 3 entities have the highest representation at 48.39%, followed by Level 2 entities at 29.03%, and Level 1 entities at 22.58%, providing insight into the distribution of radiographers across different sectors and positions within the healthcare system.

Table 2. Level of Knowledge on Radiation Protection Apparel Utilization

	Correct		**Incorrect**	
	F	%	F	%
Pregnant Radiologic Technologists are required to wear two lead aprons.	31	50.00	31	50.0
Inspection of radiation protection apparel is done every two years.	39	62.90	23	37.1
It's acceptable to share radiation protection apparel among staff members of different sizes.	42	67.7	20	32.26
Lead glasses are essential for all staff performing fluoroscopic procedures, regardless of their distance from the patient.	56	90.32	6	9.7
Thyroid collars are only necessary for procedures involving the head and neck region	42	67.74	20	32.3
Lead aprons should always be worn when standing outside the fluoroscopy room during a procedure.	43	69.35	19	30.6
Wearing a lead apron guarantees complete protection from radiation exposure.	38	61.29	24	38.7
Modern radiation protection apparel is generally lighter and more flexible than older models.	57	91.94	5	8.1
The effectiveness of radiation protection apparel is measured in its lead equivalency (PbEq).	56	90.32	6	9.7
Radiation protection apparel is only necessary for radiologists and technicians directly operating X-ray equipment.	38	61.29	24	38.7

All types of ionizing radiation require the same type of protective apparel	15	24.19	47	75.8
Barium and tungsten can be used to replace lead in radiation protection apparel	28	45.16	34	54.8
The outer cover can usually be wiped clean with water and mild detergent	48	77.42	14	22.6
Folding or creasing causes cracks or wear in the shielding.	57	91.94	5	8.1
Aprons should not be stored flat or on rounded hangers.	23	37.10	39	62.9
Average		**9.50±2.30 (High)**		

Table 2 presents a series of statements regarding knowledge in radiation protection apparel utilization. The overall results indicate a high level of knowledge among radiologic technologists regarding radiation protection apparel utilization. Most respondents correctly identified key practices, such as the necessity of lead glasses for fluoroscopic procedures (90.32%), the importance of thyroid collars for head and neck procedures (67.74%), and the need for lead aprons when standing outside, the fluoroscopy room during a procedure (69.35%). However, there were misconceptions, with a significant number of respondents incorrectly believing that sharing radiation protection apparel among staff members of different sizes is acceptable (32.26%) and that lead aprons provide complete protection from radiation exposure (38.7%). Overall, the average knowledge score was high at 9.50±2.30, indicating a solid understanding of radiation protection practices among the surveyed technologists.

This finding aligns with the study by Fiagbedzi et al. (2022), which suggests that Radiologic Technologists generally exhibit good adherence to radiation protection practices and possess a solid understanding of these practices. However, it also corroborates with numerous other studies, including those by Partap et al. (2019) and Yıldız & Pekey (2019), which indicate that many technologists require more comprehensive training in radiation safety. These studies highlight the persistent need for enhanced education and training programs to address gaps in both knowledge and practice among Radiologic Technologists.

Table 3. Level of Attitude Towards Radiation Protection Apparel Utilization

	Mean	Sd	Description
A strong sense of individual responsibility for one's health and well-being motivates RTs to actively participate in self-protection measures, including wearing the necessary apparel.	4.82	0.43	Strongly Agree
A culture of complacency or negligence might lead to inconsistent behaviors.	4.57	0.56	Strongly Agree
I am committed to employing appropriate protective equipment during all procedures.	4.73	0.52	Strongly Agree
I prioritize my well-being and shield myself from harmful exposure.	4.73	0.55	Strongly Agree
As part of our shared commitment to workplace safety, I routinely encourage my colleagues to adhere to proper radiation protection protocols.	4.81	0.57	Strongly Agree
Attitude	**4.73**	**0.38**	**Very Good**

The overall results from Table 3 demonstrate a notably positive attitude among radiologic technologists towards utilizing radiation protection apparel. Participants strongly agreed with statements emphasizing their responsibility for health and well-being (mean = 4.82) and commitment to using appropriate protective equipment during procedures (mean = 4.73). They also expressed dedication to prioritizing personal well-being and encouraging colleagues to adhere to radiation protection protocols (mean = 4.73 and 4.81, respectively). However, there was acknowledgment that a culture of complacency or negligence could result in inconsistent behaviors (mean = 4.57). Overall, the average attitude score was very good at 4.73, reflecting a high level of commitment and adherence to radiation protection measures among the surveyed technologists.

This contrasts with Maina's (2020) study, which underscored the difficulty Radiologic Technologists encounter in ensuring universal compliance with wearing radiation protection apparel, especially in environments with authority imbalances. Additionally, Lewis et al. (2022) found that incomplete internalization of safety knowledge led adherence to safety rules to become a personal choice. Many Radiologic Technologists admitted to negligent attitudes and noted similar behavior among colleagues, highlighting the need to address knowledge gaps and foster a culture of accountability and compliance in radiation protection practices.

Table 4. Level of Practice on Radiation Protection Apparel Utilization

	Mean	Sd	Description
I remove the lead apron when briefly stepping out of the exposure room.	4.10	1.00	Oftentimes
I need to wear a lead apron when standing behind the control panel during fluoroscopy.	2.79	1.40	Sometimes
I do not share many lead glasses among staff with different prescriptions.	3.03	1.39	Sometimes
I do not leave the lead apron on the doorknob after use.	4.58	0.90	Always
I do not wear radiation protection apparel that has been repaired with tape and adhesive.	4.10	1.33	Oftentimes
I do not clean the lead apron using bleach for disinfection	3.77	1.29	Oftentimes
I regularly check the integrity of the seams and closures on radiation protection apparel since it is unnecessary.	3.61	1.16	Oftentimes
I check for radiation leaks in the radiation protection apparel after each use.	2.84	1.36	Sometimes
I do not share my lead glasses among staff with different prescriptions.	3.32	1.39	Sometimes
I immediately report the folds and tears in the lead aprons.	4.13	1.06	Oftentimes

Practices	**3.63**	**0.57**	**High**

Table 4 demonstrates a generally high level of adherence among radiologic technologists to utilizing radiation protection apparel. Technologists frequently reported practices such as promptly removing lead aprons when briefly leaving the exposure room and consistently avoiding leaving them on doorknobs after use. However, there were instances of less consistent practices, such as wearing lead aprons when standing behind the control panel during fluoroscopy and not promptly reporting folds and tears in them. Despite these variations, the overall average practice score was high, indicating robust adherence to radiation protection protocols.

This finding aligns with previous studies showing that many radiologic technologists inconsistently use protective equipment due to time constraints or forgetfulness (Ridzwan, 2019; Abuzaid et al., 2019; Singh, 2023). Nevertheless, these results underscore the critical importance of regular analysis to identify and remove defective aprons, ensuring strict compliance with radiation protection regulations. Similarly, regular monitoring of protective apparel remains paramount, as some items may require more frequent replacement due to identified defects (Belavgenis, 2020).

Table 5. Test of Relationship between Level of Knowledge, Attitude, and Practices on Radiation Protection Apparel

	r-value	**Magnitude**	**p-value**	**Remarks**	**Decision to Ho**
Knowledge and Practices	0.405	Moderate	0.001	Significant	Reject

Table 5 illustrates the relationship between knowledge, attitude, and practices regarding radiation protection apparel. A significant positive correlation exists between knowledge and practices ($r = 0.405$, $p = 0.001$), indicating that as knowledge increases, practices also tend to improve. However, no significant correlation is observed between knowledge and attitude ($r = -0.009$, $p = 0.947$) or attitude and practices ($r = 0.073$, $p = 0.571$), suggesting minimal associations. Thus, while knowledge significantly influences practices, there's no substantial relationship between knowledge and attitude or attitude and practices.

This aligns with the findings that radiographers in Ghana's central region demonstrate fairly satisfactory adherence to radiation protection practices due to their high level of knowledge (Fiagbedzi et al., 2022). Nonetheless, despite their adherence to legislated guidelines, the incomplete internalization of this knowledge results in compliance becoming a matter of personal choice (Lewis et al., 2022) Continuous staff training is vital to emphasize minimizing radiation exposure, improving the work environment, and bolstering Radiologic Technologists confidence and security.

Table 6. Test of Difference in the Level of Knowledge, Attitude, and Practices Analyzed Across Profile

	Profile	**Mean**	**t-value**	**p-value**	**Remarks**	**Decision to Ho**
Practices	Female	3.885	3.284	0.002	**Sig.**	**Reject**
	Male	3.442				
Practices	Level 1	3.943	3.350	0.042	**Sig.**	**Reject**
	Level 2	3.456				
	Level 3	3.583				

Table 6 shows the test of difference in the level of knowledge, attitude, and practices across different profiles. There is no significant difference in knowledge between genders ($p = 0.926$) or educational attainment levels ($p = 0.090$). Similarly, there is no significant difference in attitude across these profiles ($p > 0.05$). However, there is a significant difference in practices between genders ($p = 0.002$), with females exhibiting higher levels of practice compared to males. Additionally, there is a significant difference in practices across different levels of experience ($p = 0.042$), with Level 1 facilities showing higher levels of practice compared to Levels 2 and 3. Overall, while there are some differences in practices based on gender and facility level, knowledge and attitude do not significantly vary across these profiles.

This correlates with the data, showing that there is a significant difference in the level of practices of the respondents on radiation protection apparel by sex, where females have significantly higher levels than males. Gender variations were confirmed in the findings (Khamtuikrua & Suksompong, 2020), where the majority of female participants recognized the risks of daily radiation exposure and consistently utilized protective gear. However, the data negates the findings of (Masoumi et al., 2018), which found no significant gender differences but highlighted the influence of factors such as work experience and type of hospital on radiation protection practices.

Conclusions and Recommendations

The study findings indicate that radiologic technologists possess a high level of knowledge (average rating 9.50±2.30) regarding the use of radiation protection apparel, reflecting their strong understanding of its importance and application. Similarly, respondents exhibit a positive attitude toward these protective measures (average rating 4.729±2.30). In terms of practice, technologists demonstrate a high level of adherence (average rating 3.627±05.65). However, there is no significant correlation between knowledge and attitude ($r=-0.009$; $p=0.947$) or between attitude and practices ($r=0.073$; $p=0.571$). Conversely, a significant positive correlation exists between knowledge and practices ($r=0.405$; $p=0.001$), suggesting that greater knowledge contributes to better adherence. Additionally, female technologists show higher practice scores compared to males (3.885 vs. 3.442), and those in level 1 hospitals exhibit better practices (3.943) than other levels (3.456 vs. 3.583). These findings underscore the influence of knowledge, gender, and workplace on adherence to safety protocols.

Recommendations are categorized into methodological and policy/practice domains. Methodologically, enhancing the study's reliability through larger sample sizes and broader geographical representation beyond General Santos City is advised. Incorporating qualitative methods or adopting a mixed-method approach could offer deeper insights into the factors influencing practices. Future studies should also encompass diverse radiography modalities to expand the investigation's scope. Lastly, conducting a content validity index for the questionnaire would bolster the rigor of future research.
In terms of policy and practice, implementing quality control and assurance training on radiation protection apparel is recommended to maintain and improve technologists' knowledge and practice levels. There is also a need to recalibrate measures for assessing attitudes toward the utilization of these protective measures among radiologic technologists.

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The Mediating Effect of Job Satisfaction in the Relationship between Psychological Well-being, Work Environment, and Work Performance among Radiologic Technologists

Allyza Joyce A. Rodrigo, RRT

Davao Doctors College, Inc.

Davao City, Philippines

Abstract

This study aimed to investigate how job satisfaction mediates the relationship between work environment, psychological well-being, and work performance. The researchers used a descriptive-correlational design for their study. The study was completed with the participation of one hundred radiologic technologists employed at various public and private hospitals in Davao City. The results indicated that psychological well-being was moderate, the work environment was also mild, work performance was high, and job satisfaction was moderate among radiologic technologists in selected hospitals in Davao City. Further results showed that radiologic technologists' psychological well-being was positively correlated with their work performance. Additionally, a positive correlation was found between job performance and the work environment. Moderate correlations were observed between job satisfaction and both psychological well-being and the work environment, with a significant correlation noted between job satisfaction and the work environment. The mediation analysis results indicate that job satisfaction plays a partial mediating role in linking psychological well-being to work performance. This is indicated by a decrease in the beta value from 0.615 to 0.445. Similarly, job satisfaction partially mediates the relationship between work environment and work performance, as evidenced by a reduction of the beta value from 0.686 to 0.304. The study investigates the correlation between work performance and psychological well-being, work environment, and job satisfaction among radiologic technologists employed in hospitals located in Davao City while also examining the moderating role of job satisfaction.

Keywords: *Job Satisfaction, Social Science, Correlational, Davao City*

Corresponding email: allyza.anajao97@gmail.com

Introduction

The job satisfaction of healthcare professionals, particularly radiologic technologists, is crucial in ensuring high-quality patient care and overall healthcare system efficacy (Alfuraih et al., 2022). However, recent studies highlight significant challenges affecting radiologic technologists' work performance and well-

being, contributing to a decline in overall effectiveness within healthcare settings (Caminiti, 2022). Burnout, psychological discomfort, and unfavorable work environments impact job satisfaction and hinder optimal care delivery (Horner et al., 2022). Addressing these challenges requires a comprehensive understanding of the interplay between psychological well-being, work environment factors, and job satisfaction among radiologic technologists. The desire to investigate the effects of mental health problems on job satisfaction and performance is urgent given the prevalence of these conditions among healthcare workers (Ponte, 2019).

Research has shown that a significant percentage of radiologic technologists struggle with anxiety and depression, which has a detrimental effect on how well they perform at work (Sackett et al., 2023). Moreover, research from diverse global contexts, including Bahrain, the United Kingdom, South Africa, and the Philippines, reveals common work-related challenges such as equipment malfunctions, staffing issues, and inadequate training (Obrenovic, 2020; Seyama et al., 2023; Castro et al., 2022). This study explores how job satisfaction mediates the connections among psychological well-being, work environment factors, and work performance among radiologic technologists in Davao City, Philippines. By focusing on this specific geographic context, the research seeks to provide insights into the unique challenges radiologic technologists face in this setting. The results have important impacts on healthcare organizations, department heads, human resource managers, and other stakeholders, offering valuable insights for improving job satisfaction and overall work performance in the healthcare industry.

Methods

This research study utilized a descriptive-correlational design. According to a survey (Siedlecki, 2020), A descriptive study design was employed to gather data to characterize a phenomenon or population. In addition, to ascertain the strength and nature of the association between two or more variables, a correlational design was also utilized. It was incorporated with the mediating variable as an intermediary within the causal sequence connecting an independent variable to a dependent variable.

On this, job satisfaction's mediating influence on the relationship between psychological well-being, work environment, and work performance was determined. The study comprised a sample of radiologic technologists from selected private and public hospitals in Davao City with one hundred respondents.

Davao City was the largest city on the island of Mindanao. It was a prominent urban center characterized by its substantial size and population. Its facilities had state-of-the-art medical services and radiologic technology departments staffed by highly trained radiologic technologists. The primary research location for this investigation was the selected private and public hospitals and clinics in Davao City.

Results and Discussion

Table 1. Categorial Mean Average of Level of Psychological Well-being among Radiologic Technologists

Psychological Well-being	Mean	Std. Deviation	Description
Autonomy	3.097	0.465	Moderate
Environmental Mastery	3.134	0.465	Moderate
Personal Growth	3.397	0.602	Moderate
Positive Relation	3.264	0.579	Moderate
Purpose In Life	3.223	0.570	Moderate
Self-Acceptance	3.266	0.523	Moderate
Overall	**3.230**	**0.358**	**Moderate**

Legend: 1.00-1.80 Very Low; 1.81-2.60 Low; 2.61-3.40 Moderate; 3.41-4.20 High; 4.21-5.00 Very High

The autonomy among radiologic technologists is moderate, allowing for independent decision-making within established protocols and guidelines (Racine, 2021). Encouraging autonomy could promote innovation and individual expression within the profession, which supports previous research emphasizing the importance of independence for organizational change and innovation (Lee, 2021). Environmental mastery neutralizes psychological health among technologists, with a feeling of authority over their situation positively influencing adaptive performance and well-being (De Juanas, 2020; Park, 2019). Challenges in adapting to daily demands highlight the need to develop adaptable performance alongside task performance (Sabuhari, 2020). Personal growth demonstrates a neutral impact on psychological health, with a proactive approach to self-improvement and adaptability (Woerkom, 2018).

However, discomfort in new situations suggests individual differences in adapting to change that may require targeted support (Guo, 2021). Positive relations among technologists contribute to job satisfaction and motivation, fostering a supportive atmosphere through personal conversations and time-sharing (Quiao, 2021). Difficulties in maintaining close relationships may impact cognitive processes beyond the workplace (Enns, 2021).

Overall, the psychological well-being of radiologic technologists is crucial despite challenges like workload pressure and high job expectations (Sutton, 2019). Recognizing mental health within the profession is essential, with interventions such as career development resources and positive work environments enhancing technologists' well-being (Wahyhuddin, 2022).

Table 2. Categorial Mean Average of Level of Work Environment among Radiologic Technologists

Work Environment	Mean	Std. Deviation	Description
Supervision Support	3.320	0.664	Moderate
Peer Support	3.414	0.656	High
Workload	3.331	0.613	Moderate
Technological Support	3.326	0.521	Moderate
Overall	**3.348**	**0.534**	**Moderate**

Legend: 1.00-1.80 Very Low; 1.81-2.60 Low; 2.61-3.40 Moderate; 3.41-4.20 High; 4.21-5.00 Very High

The work environment for radiologic technologists involves moderate supervision and technological support. Supervisors offer occasional guidance and motivation, particularly in practical training program application, but are less involved in adapting job roles to acquired skills (Afzal, 2019 & Talukder, 2021). Peer support among technologists is high, with colleagues frequently assisting each other in challenging situations and applying learned skills (Agarwal, 2019). Although coworkers have slightly lower curiosity in using new skills, the overall high peer support contributes to a constructive group atmosphere, promoting professional development (Webber, 2021).

The moderate workload provides enough time for skill development during regular hours, with rare overtime needs indicating manageable job stress levels (Sarojini, 2020). Technological support is also moderate, with occasional assistance in integrating technology into daily tasks. A positive work environment is crucial for radiologic technologists' well-being, job satisfaction, and productivity, with collaborative and supportive leadership correlating with higher job satisfaction and lower burnout rates among healthcare professionals (Alamri et al., 2020).

Table 3. Categorial Mean Average of Level of Work Performance among Radiologic Technologists

Work Performance	Mean	Std. Deviation	Description
Task Performance in the Past 3 Months	3.526	0.730	Moderate
Contextual Performance in the Past 3 Months	3.346	0.659	Moderate
Productive Work Behavior in the Past 3 Months	3.499	0.728	High

Overall	**3.457**	**0.595**	**High**

Legend: 1.00-1.80 Very Low; 1.81-2.60 Low; 2.61-3.40 Moderate; 3.41-4.20 High; 4.21-5.00 Very High

Radiologic technologists have demonstrated moderate task performance over the past three months, emphasizing dedication to precise diagnostic procedures and patient care while efficiently establishing appropriate priorities (Obrenovic, 2020). Although there is slightly lower efficiency in executing tasks with limited time and effort, overall task completion is satisfactory, aligning with assessments of task performance's impact on broader well-being and engagement (Casu,2021).

Contextual performance is also moderate, showcasing adaptability and responsiveness to workplace circumstances with effective resolution of challenges (Ingusci, 2019). While there is a slight decrease in assuming additional responsibility and seeking demanding work assignments, the overall moderate level emphasizes the importance of understanding contextual behavior in organizational settings (Pakenham, 2020).

Productive work behavior among radiologic technologists is notably high, characterized by consistent and efficient execution of responsibilities and positive interpersonal interactions (Giorgi, 2019). They prioritize respectful work environments, contributing to workplace satisfaction and productivity despite a slightly lower inclination toward purposely working slowly (Morganstein, 2020). Radiologic technologists exhibit high work performance, proficiently operating imaging equipment, maintaining image quality, and delivering excellent work standards (Widyanty, 2023). Their efficient use of time, resources, and expertise meets employment obligations and organizational expectations, highlighting their critical role in maintaining productivity and organizational success (Irfansyah, 2020).

Table 4. Categorial Mean Average of Level of Job Satisfaction among Radiologic Technologists

Job Satisfaction	Mean	Std. Deviation	Description
Pay	3.289	0.689	Moderate
Supervision	3.233	0.697	Moderate
Fringe Benefits	3.289	0.670	Moderate
Nature of Work	3.600	0.735	High
Overall	**3.353**	**0.594**	**Moderate**

Legend: 1.00-1.80 Very Low; 1.81-2.60 Low; 2.61-3.40 Moderate; 3.41-4.20 High; 4.21-5.00 Very High

Radiologic technologists generally exhibit moderate satisfaction levels in various aspects of their work environment. Pay satisfaction is moderate, indicating overall contentment with their compensation but slightly lower satisfaction with opportunities for salary increases (Elsahoryi, 2022). Supervision satisfaction varies among

technologists, with higher satisfaction when supervisors show concern for subordinates' feelings despite slightly lower satisfaction with supervisors' perceived competence (Peltokorpi, 2021 & Kalliath, 2020). Fringe benefits satisfaction is also moderate, with room for improvement in specific benefit areas. Satisfaction with received benefits positively impacts employee fulfillment and loyalty, suggesting potential enhancements in perceived equity (Zirra, 2019).

On the other hand, satisfaction with the nature of work is notably high among radiologic technologists. They express contentment in diagnostic tasks, collaborations, and patient care, with pride in their job positively influencing overall satisfaction (Dhamija, 2019; Davidescu, 2020; Dodanwala, 2022).

Overall, job satisfaction among radiologic technologists is moderate, playing a significant role in organizational outcomes, quality of life, and employee well-being. Addressing specific satisfaction areas such as pay, supervision, fringe benefits, and social relationships could contribute to overall job satisfaction and organizational success (Alamri et al., 2020 & Herrity, 2022). Continued efforts in these areas can help enhance the work environment for radiologic technologists and encourage favorable results for people as well as organizations.

Table 5. Relationship Between the Variables

Job Satisfaction	**R**	**Magnitude**	**p-value**	**Remarks**
Psychological Well-Being & Work Performance	0.615	High	<.001	Significant
Work Environment & Work Performance	0.686	High	<.001	Significant
Psychological Well-Being & Job Satisfaction	0.597	Moderate	<.001	Significant
Work Environment & Job Satisfaction	0.736	High	<.001	Significant

Legend 0-0.20 Very Low; 0.21-0.40 Low; 0.41-0.60 Moderate; 0.61-0.80 High; 0.81-1.00 Very High

The results of the investigation showed that there are significant positive correlations between radiologic technologists' psychological well-being, work performance, and job satisfaction. Increased psychological well-being is linked to better work performance, which is bolstered by increased emotional regulation and cognitive function.

(Yao et al., 2022 & Gutiérrez et al., 2020).

An effective work environment characterized by support, clear responsibilities, and resources positively influences job performance and satisfaction (Cohen et al., 2023 & Molina-Hernández et al., 2021). Job satisfaction and psychological well-being are correlated moderately; better psychological well-being is correlated with higher job satisfaction (Park et al., 2020 & Lu et al., 2022). Work environment and job satisfaction showed the strongest link, highlighting the significance of a supportive workplace in raising satisfaction and well-being in general (Parker, 2023). These results emphasize how important it is to promote well-being and provide positive work environments to improve radiologic technologists' job happiness and productivity.

In healthcare contexts, addressing these issues can benefit organizations and employees alike.

Table 6. Influence of Psychological Well-being on Work Performance

Model		Unstandardized	Standard Error	Standardized	t	p
H_1	(Intercept)	0.152	0.430		0.352	0.725
	Psyc	1.023	0.132	0.615	7.730	< .001

R=0.615; R2=0.379; F=59.748; p<.001

Table 6 presents the regression analysis of psychological well-being on work performance, demonstrating a significant influence (t=7.730; p<.001). Psychological well-being is associated with a 1.023 increase in work performance, highlighting the substantial impact of psychological factors on job productivity. The study emphasizes how closely psychological well-being and work performance are related it also emphasizes the critical role of psychological well-being in overall job productivity, particularly in healthcare services where efficient performance is crucial (De Oliveira et al., 2022 & Hosgor, 2021).

Organizational support for employees' psychological security and well-being is essential for enhancing work performance and fostering commitment to the organization (Kundi et al., 2018 & Wang et al., 2018). Recognizing and addressing psychological well-being factors can improve work performance and organizational success.

Table 7. Influence of Work Environment on Work Performance

Model		Unstandardized	Standard Error	Standardized	t	p
H_1	(Intercept)	0.895	0.278		3.220	0.002
	Envi_76	0.765	0.082	0.686	9.324	< .001

R=0.686; R^2=0.470; F=86.945; p<.001

Table 7 demonstrates a significant influence of the work environment on work performance (t=9.324; p<.001). An increase in the work environment dimension is associated with a 0.765 increase in work performance, explaining 47.0% of the variation in work performance. Research emphasizes the critical significance of the

work environment in shaping employee performance and well-being. A study (Herrity, 2021) highlights the importance of a safe and encouraging work environment in helping people grow personally and feel secure enough to reach their full potential. A study (Vanesa, 2019) demonstrates whether having a supportive work environment may improve employee performance, job satisfaction, and general well-being.

Conversely, (Bashir et al.,2020) a study caution against the negative impact of adverse or toxic work environments, which can significantly undermine employee motivation and performance. A study (Eliyana, 2019) illustrates the positive relationship that exists between performance and employee satisfaction, highlighting how crucial employee satisfaction is to boosting organizational stability and efficiency. Understanding and cultivating a positive work environment is essential for optimizing employee performance and organizational success, highlighting the need for interventions that promote a supportive and conducive workplace atmosphere.

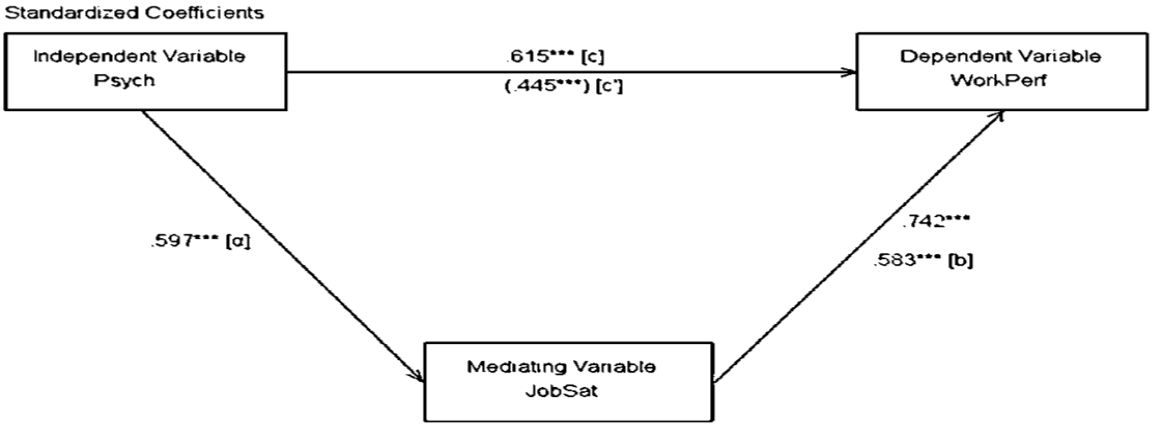

Figure 3. Mediation Model of Job Satisfaction in the Relationship of Psychological Well-being and Work Performance

Figure 3 depicts partial mediation by job satisfaction between psychological well-being and work performance among radiologic technologists. The direct effect of psychological well-being on work performance decreases (from 0.615 to 0.445) when job satisfaction is included as a mediator (Sobel's test: $z = 5.145947$, $p < .0000001$). The indirect effect (beta = 0.348) signifies the influence of psychological well-being on work performance through job satisfaction. The total effect value of 0.615 represents the combined direct and indirect effects. The R2 value of the indirect to total ratio index effect is 0.927, indicating that 92.7% of work performance variation is explained by psychological well-being mediated by job satisfaction, with a 7.3% coefficient of alienation suggesting other unaccounted variables. This investigation shows that although psychological well-being and work performance are mediated by job satisfaction, psychological well-being still has a direct impact on performance.

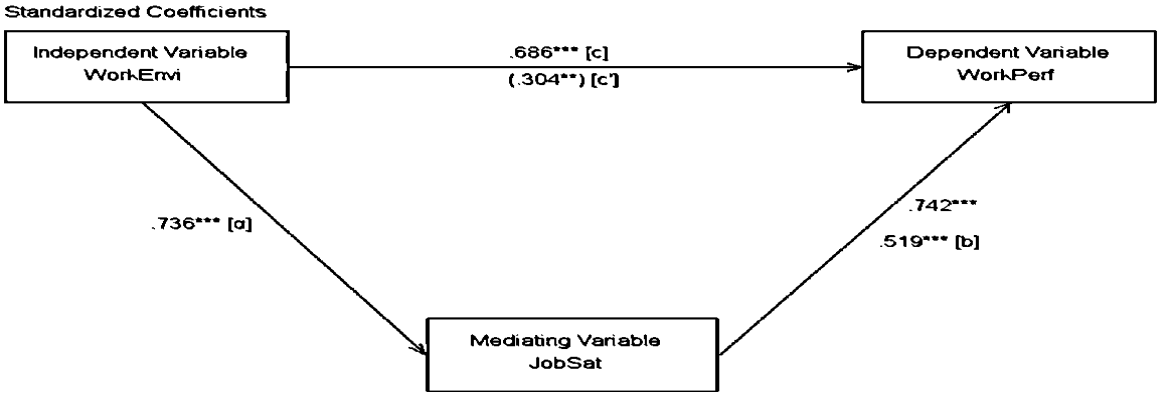

Figure 4. Mediation Model of Job Satisfaction in the Relationship of Work Environment and Work Performance

Figure 4 demonstrates partial mediation by job satisfaction between the work environment and work performance among radiologic technologists. The direct effect of the work environment on work performance decreases when job satisfaction is included as a mediator (Sobel's test: $z = 4.829128$, $p < .01$). This finding underscores the importance of job satisfaction in translating the positive influence of the work environment into enhanced performance. The studies discussed highlight job satisfaction as a crucial mediator in this relationship, emphasizing the need for interventions targeting both work environment and job satisfaction to optimize performance in this profession.

Conclusion and Recommendation

The study's findings shed light on the psychological well-being, work environment, work performance, and job satisfaction of radiologic technologists in hospital settings. First, the study found that radiologic technicians have moderate levels of psychological well-being, indicating a need for improved mental health care customized to their specific problems and stressors.

Furthermore, the work environment for these professionals is rated as moderate, indicating chances to create a more supportive and pleasant setting favorable to their efficient and successful work.

Nevertheless, the research emphasizes radiologic technologists' commendable work performance, which is scored highly. This demonstrates their consistent focus on providing high-quality services in healthcare settings. Despite this, the survey found that job satisfaction among radiologic technicians remains modest, indicating possible areas for development to improve overall fulfillment and productivity in their jobs.

Significant correlations between these factors are shown by the data. It is noteworthy that both work performance and workplace quality are positively correlated with psychological well-being.

Moreover, there is a positive correlation between job satisfaction and psychological well-being as well as the work environment, indicating the significance of these factors in determining the overall job satisfaction and performance of radiologic technicians.

Based on these findings, the study makes several specific recommendations to improve radiologic technologists' well-being, work environment, job satisfaction, and work performance.

These recommendations include implementing tailored support strategies such as relaxation programs and psychological health assessments to improve well-being, emphasizing open communication and continuous training to enhance the work environment, providing career advancement opportunities, and promoting a positive work culture to increase job satisfaction. Furthermore, actions targeted at creating a supportive organizational culture and guaranteeing employee health and safety are recommended to improve job satisfaction and, as a result, work performance. By addressing the study's findings, healthcare facilities can better assist and empower radiologic technologists in their positions, allowing them to contribute successfully to patient care in their contexts.

Future research should prioritize identifying effective interventions to improve psychological well-being, work environment, job satisfaction, and work performance among radiologic technologists.

Researchers should also consider and investigate limitations such as limited sample numbers, dependence on self-reported data, cross-sectional designs, and contextual factors to ensure more reliable and widely applicable findings.

By addressing these issues and looking into particular solutions, future research can improve the overall quality of work life and job outcomes for radiologic technologists in hospital settings.

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The Influence of Technological Support and Digital Self-efficacy on Organizational Performance in Digital Radiography

Mohamad Ali M. Sagandingan, RRT

Davao Doctors College, Inc.
Davao City, Philippines

Abstract

This research examined the influence of technological support and digital self-efficacy on organizational performance in Digital Radiography. It investigated how the level of technological support provided in Digital Radiography and the digital self-efficacy of staff members impact overall organizational performance. To achieve this, a quantitative methods approach was employed. The quantitative phase involved distributing structured surveys to radiologic technologist professionals in the BARMM Region, Philippines. This quantitative study utilized the descriptive predictive research method, limiting the selection of respondents to full-time employees working as radiologic technologists in 2nd or 3rd-level hospitals within BARMM. Sets of standardized questionnaires were used as instruments to gather information from the respondents. Statistical methods such as mean, Pearson Product-Moment Correlation, and Multiple Regression Analysis were employed. The findings indicated very high levels of technological support, digital self-efficacy, and organizational performance. Moreover, the results suggested a positive correlational relationship between technological support, digital self-efficacy, and organizational performance. Specifically, the increase in technological support and digital self-efficacy was likely to increase organizational performance in Digital Radiography. Furthermore, the results of regression analysis revealed that technological support significantly predicted organizational performance in Digital Radiography, while digital self-efficacy was not a significant predictor. This study unearthed new information that could aid researchers and healthcare systems in enhancing organizational performance.

Keywords: *Digital Self-Efficacy, Radiologic Technology, Descriptive-Predictive, BARMM*

Introduction

The rise of technology in medicine, particularly Radiology, is becoming increasingly important, with digital radiography transforming medical imaging (James, 2021). However, globally, issues with technological support and digital self-efficacy impact organizational

performance in radiography. Many departments struggle to fully utilize new technologies due to inadequate training, varying levels of digital self-efficacy among staff, and insufficient technological infrastructure (Cherry *et al*., 2019). These challenges hinder patient care, diagnostic accuracy, and overall efficiency (Najjar, 2023).

Research shows that effective use of digital systems depends on both skills and beliefs in one's competence (Peiffer *et al*., 2020). In the U.S., technological support in radiography includes infrastructure, equipment, PACS, AI algorithms, and 3D imaging (Weiner, 2021). Digital self-efficacy is crucial for Radiologic Technologists and Radiologists to effectively use these tools for accurate diagnoses and quality patient care.

In the Philippines, maximizing digital radiography's potential is vital for improving organizational performance, though challenges in workflow efficiency and staffing persist. There is a gap in understanding how technological support and digital self-efficacy together influence outcomes in radiography. Comprehensive research integrating these factors is needed to enhance performance in digital radiography (Lee, 2021). This study aims to fill that gap, providing insights for hospital administrators, medical personnel, and other stakeholders to optimize technological support and digital self-efficacy for better organizational performance. Based on this framework, this paper will examine the gaps that are essential for a comprehensive understanding of optimizing technological support and digital self-efficacy to enhance organizational performance in digital radiography. This study aims to provide knowledge that can guide decision-making, strategies, and the adoption of best practices. The findings are expected to be valuable for hospital administrators, medical personnel, developers, training managers, human-machine roles and responsibilities specialists, and medical professionals.

Technological Support

Recent advancements in Radiology and medical imaging, driven by technology, have significantly improved disease identification and treatment (Sogani, 2019). This rapid adoption has enhanced the accuracy, efficiency, and accessibility of radiological procedures, benefiting patients by reducing medication errors, and harmful drug reactions, and improving compliance with medical procedures (Recht, 2020). While health information technology is crucial for better healthcare quality and safety, careful selection is necessary as some technologies may not improve patient safety outcomes. Implementing technology in hospitals involves many stakeholders, complex procedures, and adherence to legal standards (Strohm, 2020). Ultimately, technological support in digital radiography not only enhances patient outcomes but also optimizes resources, reduces errors, and fosters innovation, thereby improving organizational performance.

Digital Self-efficacy

According to Kekäläinen (2023), self-efficacy is an individual's belief in their capability to plan and execute necessary steps to achieve specific goals. This belief influences emotions, thoughts, motivation, and subsequent behaviors and actions. Jacobs (2019) highlights the fundamental role of efficacy beliefs in human agency, as individuals who doubt their

ability to attain outcomes are unlikely to exert effort toward those goals. Moro *et al*. (2021) emphasize that high confidence in efficacy inspires commitment to achieve desired outcomes, with individuals viewing difficult tasks as challenges to develop their skills. In contrast, individuals with low self-efficacy, as described by Jisc (2019), tend to avoid challenging tasks due to perceived threats, dwell on personal deficiencies, and quickly give up when faced with difficulties. Aslan (2021) notes that this can lead to susceptibility to stress and depression.

Self-reported Digital Competence

In recent years, a growing body of medical research and discussion has highlighted the imperative of cultivating individuals with digital competence, literacy, and proficiency in an ever-evolving technological and online landscape. Current definitions and perspectives in this domain extend beyond the mere use of technological tools or media, emphasizing the creation of a digital literacy mindset that evolves throughout one's life (Martzoukou, 2020). Moreover, Self-reported digital competence is a subjective evaluation where individuals assess and express their proficiency, knowledge, and skills in using digital technologies. This form of assessment relies on individuals' self-perception of their abilities across various aspects of digital literacy and technology usage. Mueller (2019) underscores that digital competence entails effectively utilizing evolving digital tools and media for learning, executing digital tasks, exhibiting digital behaviors (such as online communication, collaboration, and ethical information sharing), and fostering digital mindsets that prioritize continuous digital learning and development. Wang (2019) examines the impact of technological advancements on Digital Radiography, highlighting that a significant proportion of (13%-23%) of Digital Radiography-related roles in Australia are currently automated,

with expectations of further digital transformations, including the integration of Artificial Intelligence (AI) for automating legal processes and extracting comprehensive legal insights from big data. Overall, investing in the development of self-reported digital competence among healthcare professionals is essential for optimizing organizational performance and ensuring the delivery of high-quality care in the digital era of radiology.

Problem-Solving Abilities

Problem-solving is a vital skill across academic, personal, professional, and social contexts, requiring strong analytical abilities to break down complex issues and understand their underlying components and relationships. Problem solvers excel in recognizing patterns, identifying crucial factors, and acquiring pertinent information. Scholars advocate for integrating science and technology into education to enhance students' creativity, problem-solving capabilities, and interest in scientific disciplines (Buonincontro, 2019). In radiologic technology, innovative teaching aims to shape a new generation of professionals by nurturing talents and refining skills (Brown *et al*., 2019). The educational landscape has diversified over time, incorporating teaching innovations that effectively foster students' creativity, problem-solving skills, and active participation in learning (Chen, 2019). This shift prioritizes critical thinking and problem-solving abilities for Radiologic Technologists, challenging traditional teaching methods focused on memorization.

Organizational performance

Organizational development involves planned interventions aimed at enhancing organizational performance and fostering the

well-being of its members. A key element in achieving performance is the emphasis on enhancing organizational learning across various departments (Randy, 2019). Devonish (2019) stresses the importance of having a clearly defined organizational strategy and plan, which involves processes aimed at accomplishing goals and objectives, influenced by feedback from various functions and factors. These strategies determine the organization's ability to allocate resources and achieve outcomes contributing to overall goals, often reflecting the perspectives of its leaders and stemming from its unique organizational culture. According to Paul & Anantharaman (2020), the critical aspect of organizational performance lies in achieving heightened performance and maximizing wealth for shareholders. Performance, in this context, refers to the ability of an entity to produce results aligned with predetermined targets or goals (Laitinen, 2019). Organizational performance encompasses strategic planning, operational efficiency, financial management, legal considerations, and organizational development.

Workflow Efficiency

According to Zheng *et al*. (2020), workflow is described as a series of tasks arranged sequentially into processes, along with the individuals or resources needed to carry out those tasks, all aimed at achieving a specific objective. In anticipation of upcoming healthcare reforms in the U.S., Many clinical radiology departments are embracing lean principles derived from automobile manufacturing to enhance performance, efficiency, safety, and employee commitment. However, achieving sustainable change necessitates a lean transformation involving a shift in workplace philosophy and culture (Kruskal, 2019). In recent years, there has been considerable focus on modeling and characterizing workflows associated with clinical practices. Urbanization, the growing demand for healthcare services, and improvements in construction materials and medical equipment are some of the reasons contributing to the growing complexity of healthcare facilities. Gomez *et al*. (2019) emphasize that hospitals are now mandated to provide a broader spectrum of healthcare services to a growing patient population. Healthcare facilities tend to experience a faster rate of deterioration compared to other buildings, exacerbated by their continuous operation and provision of essential services 24/7 throughout the year (Yousefli *et al*., 2020). Efficient workflows enable organizations to allocate resources, including personnel, equipment, and materials, in a

manner that maximizes productivity. This entails ensuring that the right resources are available at the right time and in the right quantities.

Compliance with Standards

Establishing comprehensive governance and policy frameworks for public health is vital, aligning with global and national guidelines on physical activity set by the World Health Organization (WHO). The WHO stresses the importance of national physical activity policies and objectives, advocating for suitable policies and programs at all levels to promote healthy levels of physical activity in communities (Bull *et al*., 2020). These efforts aim to encourage physical activity across all age groups and abilities, ultimately improving overall health. Additionally, Singh *et al*. (2019) emphasize that health is a primary concern for healthcare team members globally. Furthermore, ensuring the well-being of patients is paramount, with measures needed to prevent deterioration and further infection risks. Giguère *et al*. (2020) underscore the critical role of nurses in infection prevention, implementing essential practices to mitigate additional illnesses.

Patient Satisfaction

Over the past decade, there has been a significant surge in interest regarding the perspective of patients on healthcare delivery, with patient satisfaction becoming a focal point in numerous scientific studies globally. While patient satisfaction surveys are widely implemented in healthcare organizations worldwide, the precise relationship between patient satisfaction and healthcare quality remains unclear (You *et al*., 2019). However, patient satisfaction is recognized as a critical health outcome and serves as a key measure of care quality (Cooke *et al*., 2019). Renzi *et al*., (2019) emphasize that patient satisfaction, being a perception and attitude toward the overall healthcare experience, is a multidimensional aspect and an important indicator of healthcare delivery quality. Karaca and Durna (2019) suggest that assessing the quality and sufficiency of healthcare services can be done by considering the opinions and satisfaction levels of patients and their families, as patient satisfaction is the principal measure of care quality and a result of healthcare services. Thus, improving the quality-of-service delivery is crucial for ensuring overall patient satisfaction with hospitals, with both medical and non-medical staff, including physicians, urged to prioritize enhancing service quality.

Technological Support and Organizational Performance

Rapid technological advances are profoundly impacting the service industry by providing more diverse service channels and altering various service-assisting methods (Biegelmeyer *et al*., 2019). The relationship between technological support and organizational performance is symbiotic and intricate, with technology shaping the efficiency, effectiveness, and adaptability of modern organizations (Heine *et al*., 2003). Technological support fosters innovation and adaptability, enabling organizations to stay ahead of the curve in a rapidly evolving landscape. By investing in cutting-edge technologies and promoting a culture of digital literacy and innovation, organizations can more readily adapt to changes in their industry, regulatory environment, and market demands. In fields like digital radiography, embracing emerging technologies such as AI and machine learning can lead to improved diagnostic accuracy, reduced costs, and enhanced patient care. As organizations continue to embrace technological advancements and leverage them to their advantage, the relationship between technological support and organizational

performance remains pivotal for success in the digital age.

Digital Self-efficacy and Organizational Performance

The relationship between digital self-efficacy and organizational performance is crucial in today's digital landscape, particularly in sectors like healthcare, where technological proficiency directly affects service delivery and efficiency (Shahzad *et al*., 2022). Digital self-efficacy refers to an individual's belief in their ability to effectively use digital tools and technologies to accomplish tasks and goals. In organizations, individuals with high digital self-efficacy are better equipped to navigate digital environments, adapt to technological advancements, and leverage digital tools to enhance performance and productivity.

Organizational performance is significantly influenced by the digital self-efficacy of its members (Busse *et al*., 2022). Employees with strong digital self-efficacy are more likely to embrace new technologies, quickly learn to use them effectively and integrate them into their daily work routines. This adaptability and willingness to embrace digital innovation can lead to increased efficiency, streamlined processes, and improved overall performance within the organization.

Methods

This study utilized the descriptive predictive research design, where descriptive research aims to portray and summarize a phenomenon, while predictive research is concerned with forecasting or predicting future outcomes based on identified patterns or relationships in data. Additionally, quantitative research deals with numerical data, logical analysis, and an objective perspective. It emphasizes precise, convergent reasoning and the generation of diverse ideas about a research issue. Its key features include gathering data through structured research instruments, results based on large, representative sample sizes, potential for replication due to high reliability, and the use of tools like questionnaires or computer software for collecting numeric data (Babbie *et al*., 2010).

The correlational design is a method for figuring out and quantifying the degree of association between two or more variables or sets of data (Creswell, 2002). It includes looking at how independent and dependent variables relate to one another and uses methods including surveys, categorization, data reduction techniques, and analyses of the relationships between variables. The purpose of this study is to determine how digital self-efficacy and technology support affect organizational performance. It also seeks to determine the more general influence of organizational performance on digital radiography.

The respondents were asked to evaluate statements by answering a numeric response on the indicators. In this study, a 5-point Likert scale anchored by (5) Strongly Agree, (4) Agree, (3) Moderately Agree, (2) Disagree, and (1) Strongly Disagree.

The researcher dedicated time, effort, and cooperation to construct the questionnaire aimed at serving the target respondents. An approval letter

was first requested from the President and Head of Research, addressed to the hospital and research adviser, and duly noted by the Program Chair of the Master of Science in Radiologic Technology to facilitate the data collection process. Subsequently, survey questionnaires were developed and distributed to the respondents, Registered Radiologic Technologists, via face-to-face interviews to gather relevant and reliable data. This approach aimed to save time for the researcher and to gather the respondents in one location to complete the survey. Each respondent was individually invited to participate by filling out the survey forms, and they were asked to complete the form once they agreed. The researcher expressed gratitude to the respondents for their participation and for allowing the study to be conducted. Throughout the survey process, ethical considerations were carefully observed, including obtaining the respondents' voluntary agreement and ensuring the confidentiality of the data collected. This method prioritized efficiency while maintaining ethical standards in data collection.

In the analysis of data, the following statistical tool was employed: Mean and Standard Deviation were used to determine the levels of Technological support, Digital Self-Efficacy, and Organizational Performance, Pearson Product Moment Correlation was used to determine the relationships of Technological support, Digital Self-efficacy and Organizational performance. , Multiple Regression Analysis was used to determine the impact of Technological support and Digital self-efficacy on organizational performance as determinants of the turnover intention of the Radiologic

Results and Discussion

Table 1. Level of Technological Support

Technological support	Mean Rating	Std. Deviation	Descriptive Level
PACS	4.74	.441	Very High
AI algorithm	4.46	.642	High
3D Imaging	4.67	.473	Very High
OVERALL Mean & SD	**4.69**	**.465**	**Very High**

Legend: 4.50 – 5.00 Very High,3.50 – 4.49 High,2.50 – 3.49 Moderate,1.50 – 2.49 Low,1.00 – 1.49 Very Low

Table 1 shows the level of Technological support in Digital Radiography. The technological support contains three indicators, namely: PACS, AI algorithm, and 3D Imaging. It garnered an overall mean of 4.69 and a standard deviation of .465. This means that, on average, respondents perceive a high level of technological support in digital radiography, with minimal variability around the mean score.

Radiologic Technologists scored highest in Picture Archiving and Communication System (PACS) efficiency, with a mean of 4.88, indicating "Very high" efficiency enhancement in Digital Radiography. Conversely, the lowest mean score, 4.58, suggests a "Very high" reduction in physical film usage for imaging. The overall mean for Technological support is 4.74, indicating a "Very high" level of

agreement on its benefits. These findings align with Reiner *et al*., (2021) study, showing strong agreement among Radiologic Technologists regarding PACS benefits, including film elimination and convenient access to various imaging modalities.

In the AI algorithm category, Radiologic Technologists scored highest in the accuracy of diagnosing problems, with a mean of 4.66, indicating a "Very high" level of accuracy. Conversely, the lowest mean, at 4.30, suggests a "High" level of accuracy in addressing technical problems. The overall category mean is 4.46, described as "High." These findings are consistent with Esteva *et al*., (2021) study, which demonstrated high diagnostic accuracy of AI algorithms in Radiology, supporting the respondents' agreement on the benefits of AI algorithms.

In the 3D Imaging, the highest mean is I would recommend the use of 3D imaging in technical support to others having a mean of 4.70 described as Very high. The lowest mean is 4.52 still described as Very high in the aspects of I feel more confident in troubleshooting with the assistance of 3D imaging. Nevertheless, the category mean is 4.67 which is described as very high. This means that the respondents strongly agree about the benefit of 3D imaging in Digital Radiography. This further suggests that healthcare realized its role in producing ideas that can be helpful in the hospital.

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Table 2. Level of Digital Self-efficacy

Digital Self-efficacy	Mean Rating	Std. Deviation	Descriptive Level
Technology	4.57	.555	Very High
Self-reported Digital Competence	4.66	.517	Very High
Problem-solving abilities	4.53	.559	Very High
OVERALL Mean & SD	**4.65**	**.479**	**Very High**

Legend: 4.50 – 5.00 Very High,3.50 – 4.49 High,2.50 – 3.49 Moderate,1.50 – 2.49 Low,1.00 – 1.49 Very Low

Table 2 Reveals the digital self-efficacy levels of Radiologic Technologists, measured across three indicators: technology, self-reported digital competence, and problem-solving skills. The overall mean score is 4.65 with a standard deviation of 0.479, indicating that respondents generally perceive a high level of digital self-efficacy. The relatively low standard deviation suggests that respondents' perceptions are consistent. This aligns with the findings of Venkatesh and Davis (2000), who extended the technology acceptance model (TAM) to include self-efficacy as a key determinant of individuals' intentions to use technology, highlighting the significant role of self-efficacy beliefs in shaping attitudes and behaviors towards technology adoption.

In terms of the Technology aspect of digital self-efficacy, it indicates that hospital staff exhibit a high level of confidence in utilizing technology for continuous learning and skill development, as evidenced by the highest mean score of 4.71. Still, they express relatively lower confidence in learning to use new software or apps, as reflected in the lowest mean score of 4.26. Despite this variation, the overall category mean of 4.57 suggests a very high level of digital self-efficacy among hospital staff. The study by Lai, J. Y., & Lam, M. C. (2020) highlights the importance of self-efficacy beliefs in shaping individuals' attitudes and behaviors toward technology use.

Self-reported digital Competence reveals that radiographers demonstrate a high level of confidence in learning and using new digital skills as needed, as evidenced by the highest mean score of 4.82. However, they express relatively lower confidence in troubleshooting common issues with digital devices, reflected in the lowest mean score of 4.47. Despite this variation, the overall category mean of 4.66 indicates a very high level of digital competence among radiographers.

The difference in mean scores suggests that while radiographers feel proficient in acquiring and utilizing new digital skills, they may encounter challenges when troubleshooting common issues with digital devices. The study of Margaryan *et al*., (2011) underscores the importance of self-reported digital competence in understanding individuals' proficiency and engagement with digital technologies.

The study reveals that radiographers are highly confident in independently resolving issues on digital platforms, as indicated by a mean score of 4.71, but show relatively lower confidence in troubleshooting technical issues, with a mean score of 4.33. Despite this variation, the overall mean score of 4.53 suggests that radiographers possess very high problem-

solving abilities. This indicates that while radiographers are proficient in handling digital platform issues, they may face challenges with technical troubleshooting. Nevertheless, their overall high problem-solving abilities reflect a strong belief in their capability to effectively address challenges, ensuring smooth operations and high-quality work. These findings align with Kim *et al*., (2019), which underscores the importance of self-efficacy beliefs in shaping confidence in dealing with technical challenges.

Table 3 Organizational Performance

Organizational Performance	Mean Rating	Std. Deviation	Descriptive Level
Workflow Efficiency	4.68	.469	Very High
Compliance with Standards	4.66	.476	Very High
Patient Satisfaction	4.77	.423	Very High
OVERALL Mean & SD	**4.69**	**.261**	**Very High**

Legend: 4.50 – 5.00 Very High,3.50 – 4.49 High,2.50 – 3.49 Moderate,1.50 – 2.49 Low,1.00 – 1.49 Very Low

Table 3 presents the result of the level of organizational performance of employees among Radiologic hospitals in BARMM. There are three indicators of organizational performance namely workflow efficiency, Compliance with standards, and Patient satisfaction. The overall mean is 4.69 while the standard deviation is .261. The study demonstrates that radiographic organizations excel in workflow efficiency, with high collaboration among team members and clear delegation of responsibilities, both scoring very high. This suggests that structures promoting collaboration and teamwork optimize radiographic processes, as reflected in the overall category mean of 4.68.

Additionally, the study highlights a strong commitment to maintaining quality and safety in patient care, with a focus on adequate training and compliance with industry standards, all rated very high. In terms of patient satisfaction, the organization prioritizes timely service delivery and a welcoming environment, underscoring its dedication to meeting patient needs and fostering trust.

Overall, the findings underscore the importance of collaborative workflows, adherence to standards, and patient-centric practices in optimizing radiographic services.

Table 4. Relationship of Technological Support and Digital Self-efficacy with Organizational Performance in Digital radiography

	Organizational performance		
	r	p-value	Remarks
Technological Support	.641	.000	Significant
Digital elf -efficacy	.528	.000	Significant

Correlation is significant at the 0.01 level (2-tailed).

Table 4 displays the correlation analysis of Technological Support, Digital Self-efficacy, and Organizational Performance in Digital Radiography. The results indicate a significant relationship between the independent variables (Technological Support and Digital Self-efficacy) and organizational performance ($p<.05$). Specifically, there's a notable positive correlation between Technological Support and organizational performance ($r=.641$, $p<.05$), suggesting that an increase in technological support corresponds to higher organizational performance.

This finding aligns with Alvarez *et al*., (2019), who found a positive

association between technological support and organizational performance in similar settings. Similarly, there's a significant and positive correlation between Digital Self-efficacy and organizational performance in Digital Radiography ($r=.528$, $p<.05$), implying that enhanced digital self-efficacy leads to improved organizational performance. This result supports Pauleen's (2018) findings, highlighting the role of digital self-efficacy in enhancing employee engagement and organizational performance in digital Radiography.

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Table 5. Influence of Technological Support and Digital Self-efficacy on Organizational Performance in Digital Radiography

Independent Variables		Unstandardized Coefficients		Standardized Coefficients	t	p-value	Remarks
		B	Std. Error	Beta			
1	(Constant)	2.883	.217		13.266	.000	
	Technological support	.295	.059	.525	4.960	.000	Significant
	Digital Self-efficacy	.091	.058	.168	1.583	.000	Significant

R=.652, R-square=.425, F=35.863, p=.000

Influence of Technological Support and Digital Self-efficacy on Organizational Performance in Digital Table 5 presents the results of regression analysis whose purpose is to show the influence of Technological Support and Digital Self-efficacy on organizational performance in Digital Radiography. In particular, Technological support significantly predicts the organizational performance in Digital Radiography (β=.525, p<.05).

This means that the regression weight for Technological support in the prediction of organizational performance is significantly different from zero at the 0.05 level (two-tailed). In other words, when the Technological support is increased by 1, the organizational performance of Radiologic Technologist in the Digital Radiography area would increase by .525. This further suggests that Technological support contributes well to strengthening the organizational performance in Digital Radiography. This conforms to the findings of Saleem (2021) that technological support has a direct effect on the organizational performance of employees in Digital Radiography.

On the other hand, Digital self-efficacy significantly predicts the organizational performance in Digital Radiography (β=.168, p<.000). According to our analysis (Müller *et al*., 2020), digital self-efficacy significantly predicts the organizational performance in Digital Radiography (β=.168, p<.000). This indicates a notable effect of digital self-efficacy on organizational performance, as evidenced by its statistically significant p-value (p = .000). Consequently, fluctuations in digital self-efficacy are reliably associated with changes in organizational performance. Moreover, our findings suggest that both technological support and digital self-efficacy play significant roles in predicting organizational performance. Thus, enhancing technological support and fostering digital self-efficacy among personnel could potentially yield a greater impact on organizational performance.

Conclusion and Recommendations

Based on the findings, Radiologic technologists benefit from advanced technological support, including PACS, AI algorithms, and 3D imaging, which enhances diagnostic accuracy and efficiency. Additionally, these

technologists exhibit high digital self-efficacy, demonstrating confidence and competence in using digital tools and solving problems, further boosting the effectiveness of radiographic services.

Furthermore, the organizational performance of digital radiography employees is rated very high, with improved workflow efficiency, adherence to standards, and patient satisfaction.

This high-performance results from the combined effects of advanced technological support and high digital self-efficacy, ensuring prompt and accurate diagnostic services, maintaining quality and reliability, and delivering high-quality care and accurate diagnoses that lead to high patient satisfaction.

A significant relationship exists between technological support, digital self-efficacy, and organizational performance in digital radiography. Technological support and digital self-efficacy are significant predictors of organizational performance, indicating that enhancing these factors can improve performance in this field. Therefore, investing in advanced technologies and fostering digital self-efficacy among radiologic technologists are crucial strategies for healthcare organizations to optimize radiographic services and achieve superior outcomes.

Since technological support strongly predicts organizational performance, it is recommended that the healthcare system continue investing in research, innovation, and technological development for better and faster diagnosis. Advancements in PACS, AI algorithms, and 3D imaging will enhance diagnostic capabilities and service quality. Fostering a culture of technological empowerment and support is crucial, which can be achieved by providing ongoing training and resources to enhance radiologic technologists' skills and confidence in using digital technologies. Regular training sessions will keep staff updated with the latest advancements and medical protocols, ensuring sustained excellence in performance. Encouraging a culture of continuous improvement, where feedback is valued and acted upon, can further enhance organizational performance. By creating an environment where radiologic technologists feel supported and are provided with opportunities for professional growth, organizations can foster innovation and efficiency.

Organizations should prioritize robust technological support and comprehensive training programs to boost employees' digital self-efficacy, which correlates with improved workflow efficiency, adherence to standards, and patient satisfaction, contributing to superior organizational performance. Finally, further studies are needed to identify other factors that can improve organizational performance in digital radiography. While this study highlights the significance of technological support and digital self-efficacy, it does not fully explain all aspects of organizational performance. Future research should explore additional variables and interventions to further enhance performance in this field. By implementing these recommendations, healthcare organizations can optimize their radiographic services, ensure high standards of care, and achieve better organizational outcomes.

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