

Lived Experiences of Novice Radiologic Technologists in handling ICU patients

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Abstract

Radiologic technologists play a critical role in supporting the care of intensive care unit (ICU) patients. However, novice radiologic technologists, who may lack the experience to handle these high-pressure conditions, may face several challenges in the complexity and urgency of ICU settings. Through descriptive phenomenology, themes related to their lived experiences, coping strategies and professional insights were identified through in-depth interviews. Novice Radiologic Technologists have revealed that the limitation in protocol-based preparedness, the delivery of radiographic procedures in the ICU and department and hurdling the challenges in the delivery of procedures as well as being empathetic in the practice of profession became a posed significant challenges. The study contributes coping strategies which include embracing the nobility of profession as well as having a positive mindset. These actions are necessary to enable radiologic technologists to overcome obstacles and improve patient care outcomes. The study further suggests valuable insights such as the realizations about the importance of the profession as well as building and maintaining a positive disposition despite the limitations. In order to guarantee the best possible patient care and assistance for newly qualified radiologic technologists, this study emphasizes the necessity of continuing professional growth and fostering a positive well-being.

Keywords: *Intensive Care Unit, Social Scicence, Descriptive-Phenomenology, General Santos City*

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Introduction

Radiologic Technologists play a vital role in the medical field, as imaging techniques contribute to the overall diagnosis of patients (Hussain et al., 2022). To support, radiographers must ensure the overall safety of their patients in performing radiographic procedures especially when handling critically ill patients. Novice Radiologic Technologists in Southwest Nigeria encounter numerous challenges when working with critically ill patients, these include the inability to independently conduct special exams, prioritize urgent cases, and take

corrective action for poor radiographs (Usoro et al., 2024). In addition, several challenges that Radiologic Technologists face is by positioning the patients for imaging exams managing critically ill patients, completing difficult procedures, and increasing physical demands by maneuvering heavy equipment and lifting patients which can cause injuries (Navigator C., 2024).

In Eswatini South Africa, Radiologic Technologists identified a variety of challenges in their working environment because of the lack of resources, shortage of radiographers, absence of radiologists, poor

renumeration and stagnant professional growth (Seyama et al., 2023). This amount and complexity of radiography issues at work is steadily rising, and there is a lack to fulfill the expanding demand; therefore, radiographers face a heavier burden and as a result, it may have a detrimental effect on their job experience (Mph & Davis, 2024). But still, during end-of-life care, the absence of policy and educational support has negatively impacted the radiology workforce, becoming a challenge for some staff (Spacey et al., 2023).

In Mindanao, specifically Davao City, the persistent challenges of those who directly work with critically ill patients, is due to overcrowding of healthcare facilities, lack of collaboration with other healthcare workers and inadequate mentorship programs (Valdez, 2024). This demand for critical care will increase across the continent as the population and comorbidity burden rises (Phua et al.,

Methods

This study utilized a qualitative research method specifically a descriptive phenomenology. One of the advantages of qualitative research is its capacity to elucidate human behavior patterns and processes that are difficult to quantify (Tenny et al., 2022). Using firsthand narratives to elucidate the fundamental meanings of described phenomena is the primary goal of descriptive phenomenology.

Following Husserl's (1965) approach, descriptive phenomenology seeks to synthesize experiences by reducing the individuals prejudice and emphasizing what participants have to share based on their daily encounters. This was employed by the researcher to extract fundamental meanings with their responses, identify essential themes, and characterized their statements which are

2021) and newly qualified radiographers and other recently qualified healthcare professionals have difficulty in workplace integration (Kasita et al., 2023). Given the circumstances mentioned, the researcher delved into exploring the lived experiences of novice Radiologic Technologists in handling ICU patients in General Santos City.

Recognizing the challenges that surfaced, there have been fewer studies describing Radiologic Technologists' experiences with intensive care unit patients (McMillan, 2020) because nurses predominantly presented major roles in looking after critically ill patients (Tajari et al., 2024). Therefore, by revealing these experiences, this study aims to fill this gap and intends that its insights will provide an adequate basis for aspiring and newly qualified radiologic technologists pursuing careers in this field.

useful according to the study. In this sense, the researcher delved deeply into participants narratives, uncovering meanings, coping methods and acquiring insights for the newly qualified Radiologic Technologists in handling procedures in the intensive care unit. The study comprised a sample of ten radiologic technologists from selected tertiary hospitals in General Santos City with a clinical experience of less than 2 years assigned specifically in the x-ray department.

The study utilized a purposive sampling method which is a non-probabilistic sampling technique used to select participants who can provide broad presentations of data which would give insights and information to the study (Stewart, 2024). The study employed an in-depth interview method to collect data from participants through face to face and via computer-assisted methods. Through employing qualitative

thematic analysis, the researcher extracted insights and understanding from the collected data and identified patterns, facilitating more detailed

research and analysis. To ensure a rigorous and reliable results, the researcher followed the seven steps outlined by Collaizi (1978).

Results and Discussion

Table 1: Profile of the Participants

PARTICIPANT NUMBER	PSEUDONYMS	GENDER	LENGTH OF SERVICE	STUDY GROUP
1	Nightingale	Female	Less than 2 years	IDI- Face to face
2	Peplau	Male	Less than 1 year	IDI- Face to face
3	Henderson	Male	Less than 1 year	IDI- Face to face
4	Abdella	Female	Less than 1 year	IDI- Face to face
5	Orlando	Male	Less than 1 year	IDI- Face to face
6	Johnson	Male	Less than 2 years	IDI- Face to face
7	Rogers	Male	Less than 2 years	IDI- Online
8	Orem	Female	Less than 2 years	IDI- Face to face
9	King	Female	Less than 2 years	IDI- Online
10	Neuman	Female	Less than 1 year	IDI- Online

The table 1 represents the profile of the participants that includes the pseudonyms, gender, length of service, and study group. Meanwhile, the researcher used pseudonyms for each participant, and were named after nursing philosophers to protect their identity and maintain confidentiality during the presentation of results. In this study, ten (10) participants voluntarily participated in a face-to-face and online in-depth interview, and responses were carefully gathered, reviewed, and analyzed, with notable statements highlighted for analysis.

Figure 2. Thematic Map of the Lived Experiences of Novice Radiologic Technologists in handling ICU patients

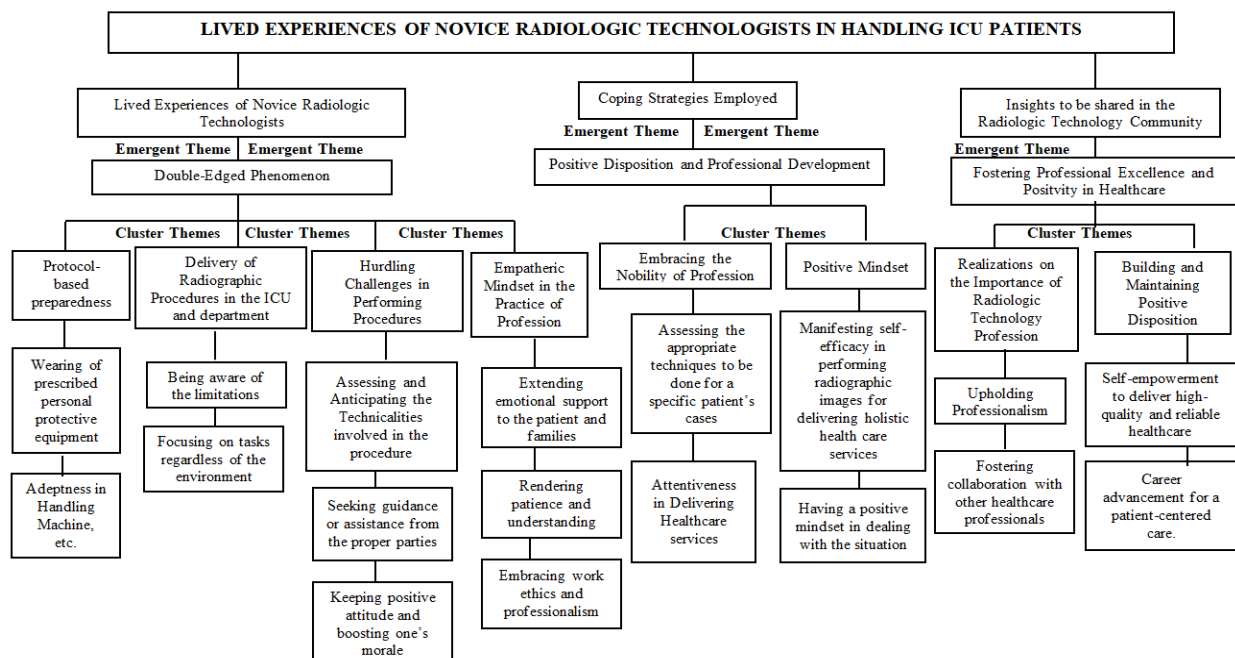


Figure 2 shows the themes in this study and the expressive parts of the participant's experiences that portrayed the understanding as a whole. Significantly, three emergent themes were discovered grounded on eight cluster themes with twenty formulated meanings. The first emergent theme focuses on a double-edged phenomenon, with cluster themes including protocol-based preparedness, delivery of radiographic procedures in the ICU and department, hurdling challenges in performing procedures and having an empathetic mindset in the practice of profession. The second emergent theme is about positive disposition and professional development, with cluster themes including embracing the nobility of profession and positive mindset. Meanwhile, the third emergent theme centers on fostering professional excellence and positivity in healthcare with cluster themes of realizations on the importance of Radiologic Technology profession and building and maintaining positive disposition. Each emergent theme was defined and discussed from the coded transcript of the participants' interviews and supported by the theoretical lens, and the vast findings from related literature.

Emergent Theme 1. Double-edged Phenomenon

The participants were asked about their lived experiences as Radiologic Technologists in handling ICU patients. This delves into the personal encounters and perspectives of Novice Radiologic Technologists as they handle critically ill patients in the intensive care unit. It emphasizes the subjective, firsthand encounters, challenges, successes, and reflections of day-to-day realities and experiences in the ICU, providing insights in support of their professional development and general well-being.

Cluster Theme 1. Protocol-based preparedness

In every hospital, individual departments may develop, adapt, or implement standard operating procedures (SOPs) that apply to their environment and resources to outline detailed steps for patient preparations, patient procedures, and verifying identity to maintain comprehensive and consistent quality services to the patients (Mahmudah et al., 2024). All of the participants adhere to the standard operating procedures of their respective departments and hospital policies in acquiring radiographic images of critically ill patients. Healthcare managers and providers believed that engaging patients in patient safety

is an effective component to improve and maintain one's condition (Sarkhosh et al., 2022). But the findings highlighted distress in wearing prescribe personal protective equipment before entering the ICU premises, this was described by participants 5 and 10:

... The ICU is the hardest, ma'am, once you get to the room, you don't get in right away, so you still need to wear their PPE- Participant 5 Orlando (Line 94)

...The patient in the ICU are not able to move or their movement is very restricted, then in the department, it's easy for us to change clothes, so it won't be difficult to wear PPE. Except if the patient is sick enough, we still need to wear PPE in the department- Participant 10 Neuman (Line 215).

In addition, some of them highlighted the physical strains of delivering the mobile x-ray machine on the ICU floor and there are certain difficulties noted in positioning the x-ray tube in the patients ICU bed as expressed by participants 6,7, and 8:

...We don't use digital mobile x-rays. It's hard for me to get the machine on the ICU floor, it can cause muscle pains especially

being alone doing a lot of procedures- Participant 6 Johnson (Line 114)

...Usually here in the main hospital, there is no elevator so we deliver the machine via ramp. The machine itself is heavy, we are still understaffed, luckily the procedures are done in the morning, there are interns who can help, unlike in the afternoon or evening, it is difficult because you will be the only one who will perform the requested procedures- Participant 7 Rogers (Line 136)

...I'm checking the machine to see if it's functional so that I won't delay the procedure upstairs, the only way to get to the machine in the ICU is via ramp, knowing that I'm a little in size, it's a struggle for me to deliver the machine upstairs- Participant 8 Orem (Line 162)

Consequently, healthcare professionals frequently suffer from musculoskeletal diseases (MSDs) as a result of the cumulative effects of regular tasks like lifting, moving, and repositioning patients (Shanbhag et al., 2024). The prevalence of radiographers having symptoms of musculoskeletal disorders is high due to persistent physical exertion.

Cluster Theme 2. Delivery of Radiographic Procedures in the ICU and Department

Burkett (2024), stated that the portable and mobile x-ray imaging is used when the patient cannot be transported to a designated imaging department which includes the Intensive care unit. Also, the range of exams that can be requested is restricted by portable and transportable x-ray devices, which may result in less patient care and is not regarded as best practice (Toppenberg et al., 2020). The awareness of participants limitations in the delivery of radiographic procedures in the ICU is evident due to lacked of adequate space, and there is a limitation when it comes to performing actions and techniques in the ICU as described by participants 3,4,and 5 :

...In the ICU ma'am, your space is limited, you can't move very well, you have to be careful with every move you make, unlike here in the x-ray room, here you have a lot of space, you can move comfortably- Participant 3 Henderson (Line 61)

...It's different in a way that the actions in the ICU are very limited because again patients are unconscious- Participant 4 Abdella (Line 81)

...They are crowded inside. If it's in the department, they mostly bring people to who are not LOC (Loss of Consciousness), and usually in the ICU, most patients are unconscious- Participant 5 Orlando (Line 94)

Furthermore, to support with the limitations, one of the problems in performing tasks in the ICU is that it requires more time (Choukalas & Vu, 2020), and the delivery of radiographic procedures in the ICU compared in the department was also noted. Based on the findings, ambulatory patients can be easily instructed and there is no need to provide extra cautions compared to non-ambulatory patients. This was emphasized by participants 1,2, and 3:

...Brain dead patients are those non-ambulatory, so just a little movement, they might get hurt, compared to those patients in the department, those ambulatory, the procedures can be done quickly- Participant 1 Nightingale (Line 10)

...The patients who are in the ICU, we are handling it with care especially since they are IN patients, and they are vulnerable. In the department, there are walk-ins and ambulatory patients, so it is easier for us to complete the procedures when the patients are ambulatory- Participant 2 Peplau (Line 36)

...Mostly, the patients I handled are heavy, and mostly they are uncooperative, so it's difficult to instruct them, because of they are

*unconscious already- Participant 3
Henderson (Line 61)*

In addition, spine x-rays are important in finding problems associated with pain in the back (Professional, 2024). However, participants 2 and 6 encountered specific hardships in acquiring radiographic examinations that involved the anatomy of the spine due to positioning restrictions and limitations thus it requires different techniques in acquiring images with different patient conditions:

...One of the most difficult request for me is doing a cervical xray, because the patient is not in the proper position, so we are looking for proper ways to handle this procedure so that our images will be acceptable- Participant 2 Peplau (Line 38)

...I have a patient in the ICU, his request was Lumbosacral APL because he complains of back pain, I have to go up and down several times because I repeatedly cut the image. He is really heavy, the patient has a large body habitus- Participant 6 Johnson (Line 116)

Cluster Theme 3. Hurdling the Challenges in Performing the Procedures

Delving deeper, technical limitations and poor patient positioning can result in low diagnostic value for portable x-ray imaging. Additionally, overlapping anatomy and devices like endotracheal tubes, lines, and catheters may obscure anomalies in the chest on the projection image (Gambato et al., 2023). Findings shows that the difficulty and cautiousness in acquiring radiographic images of critically ill patients in the ICU especially those with tubes and apparatuses. This was expressed by participants 1,5 and 7:

...I'm careful with those patients who have a lot of tubes attached. They cannot be moved freely, and I'm afraid that the tubes might get dislodged, so I'm very careful even though it's very heavy when I'm positioning them, knowing that I'm a woman, my strength is

*not that strong- Participant 1 Nightingale
(Line 12)*

...The ICU is the most difficult, ma'am, there are a lot of devices attached to the bodies of patients, and the doctor wants the chest to be clear, with no wiring or electrodes attached, so it's difficult- Participant 5 Orlando (Line 94)

...Positioning challenges is evident. Not one shot. Guilty but that's true. Their body habitus are different. Then when the other personnels are busy, the procedure also takes a bit longer. You really need to ask permission, especially if there are tubes attached, like I said- Participant 7 Rogers (Line 142)

Moreover, repetitive or rejected radiographic procedures were caused by body motions, artifacts, anatomical cutoff by inappropriate positioning of patients, and machine-related problems (Almojadah et al., 2023). Based on the findings, some participants' confidence as medical professionals became affected when the images they acquired are not ideal due to challenges encountered. This was expressed by participant 1,2, and 5:

...As a Radtech, when it's difficult to position the patient, I feel a little down because of course my goal is to acquire good images, but due to patients weight and the difficulty in positioning the patient, I can't achieve it right away- Participant 1 Nightingale (Line 14)

...If sometimes when the digital machine doesn't work, that's the time that my confidence is really affected because maybe later there will be many repeats, the part might be cut off, things like that- Participant 2 Peplau (Line 40)

...There were really times when my confidence became low, especially when I will be reprimanded by my senior. There were times when I had to repeat my images, "just straighten it a little or angle it a little,"

so I had to be brave enough to finish my tasks- Participant 5 Radon (Line 106)

These challenges often lead to participant's overwhelming emotions; thus, they seek guidance from proper parties to accomplish the requested tasks to fulfill the patient's procedures. Establishing rapport is necessary for all radiology personnel to get continuous education on radiology dangers and how to prevent them, to enhance system quality, and ensure patient and staff safety (Montazeran, M., et.al., 2020). Radiographers must know enough to perform these assessments to perform medical imaging examinations adequately (Reitan et al., 2024). This was emphasized by participants 1, 2 and 4:

...I'm overwhelmed by my emotions, but I ask my seniors for help, read books, ask for techniques from seniors, because what's in the book is very different from what's in reality, ask for guidance, ma'am, then calm down- Participant 1 Nightingale (Line 20)

...When maneuvering the machine, we just need to be careful. If its necessary, we look for help or ask seniors for techniques to overcome such scenarios. So as a Radtech, you really need confidence and trust in yourself, we are here to provide good quality images to contribute a better and accurate diagnosis- Participant 2 Peplau (Line 46) and;

...Just talk to your fellow radtechs, ask for their insights, because I know they've experienced it too, they can give right advises, and comfort will follow- Participant 4 Abdella (Line 86)

Cluster Theme 4. Empathetic Mindset in the Profession

Family-centered care in the ICU acknowledges the importance of the family in a patient's recovery, supports families in decision-making, caregiving, and grieving, and aims to decrease future suffering for family members following severe illness

(Secunda & Kruser, 2022). Positive attitudes and boosting one's morale can help patients get healthier through the care they receive, potentially improving their physical and emotional health (Lock et al., 2022). Extending patience and understanding to every patients conditions is necessary to maximize patient care outcomes. However, based on the findings, participants 1,2 and 5 experienced lack of competence and were disheartened when they entered and exited the ICU department due to patients' conditions:

...Sometimes, I get nervous, I feel sorry for them with the tubes attached to their bodies, you can see that they are still fighting for their lives- Participant 1 Nightingale (Line 16)

...We are in the medical field, showing empathy is really evident. As a radtech, we are not just providing quality images, but also the complete services. I leave my morale at home because as much as I feel sorry for them, I also need to help them so that I can contribute to their care and treatment- Participant 2 Peplau (Line 42)

...I feel sorry for them maam, when I'm still going upstairs, I'm already anticipating, what type of case I'll be handling, how I will arrange them, there was also one time, my last x-ray was in the ICU, and I had to go back there because there were so many wires in my images, so it's more challenging- Participant 5 Orlando (Line 100)

Subsequently, extending empathy to ICU patients' relatives can be demonstrated by acknowledging their feelings, offering support, and speaking effectively (Reifarh et al., 2023). Despite having conflicting emotions, some participants felt positive and readiness when entering the ICU room because they were able to fulfill their task in providing optimal quality images to aid for patients diagnosis and treatments. This was described by participants 3, 4 and 9:

...I can feel that kind of urgency that you really wanted to go back in the ICU because of course they are bedridden, mostly uncooperative, and if you can get the right images that can help with their diagnosis and treatment, you will really like the feeling because you'll be able to help them- Participant 3 Henderson (Line 67)

...I'm just having a positive vibes to avoid being toxic, and when I finish my work in the ICU, I'll be happy because I was able to help them, and I did my part as a Radtech- Participant 4 Abdella (Line 124) and;

...I feel ready when I do an x-ray in the ICU because you need a firm mindset and critical thinking so that you can immediately think of techniques to facilitate the requested procedure in the ICU--Participant 9 King (Line 196)

Emergent Theme 2. Positive Disposition and Professional Development

To further investigate the coping strategies of Novice Radiologic Technologists in dealing with their profession's particular difficulties, there are two cluster themes emerged. The study delves deeper into their daily experiences in handling ICU patients. By understanding the coping strategies utilized by the participants, we gain insight into their adaptability, persistence and dedication to maintaining the highest standards of patient care amidst adversity. This inquiry illuminates the personal strategies adopted by Novice Radiologic Technologists and underscores the importance of embracing the nobility of the profession and having a positive mindset within the medical community to foster well-being and professional growth.

Cluster Theme 1. Embracing the Nobility of Profession

Delving deeper into the variety of coping strategies, complicated and unstable conditions of critically ill patients usually need the use of diagnostic imaging,

particularly mobile X-rays and computed tomography (CT) scans, to aid rapid clinical decision-making (Shbeer, 2024). However, some participants also emphasized the importance of assessing the appropriate techniques to be done for a specific patient's case in the ICU requires critical thinking, patience, and special consideration and techniques (Bowen, 2024). This was described by participants 1, 2 and 3:

...If the request is chest, we do it on a semi upright or supine position, then I will ask for help to move the apparatus easily by holding it or placing it sideways so it doesn't cause artifacts on the image because our doctors doesn't want those images with electrodes, IV lines, and more, so as much as possible, we don't just block the area of interest. Then in positioning, I make sure that both sides are evenly spaced to avoid cutting off the image, then align the tube perpendicular to the IR so the image doesn't get distorted- Participant 1 Nightingale (Line 18)

...We ask for the nurse or orderly's help in the ICU, we only take radiographs of them in the supine or semi sitting position. As much as possible, we asked for guide to avoid risk to the patient- Participant 2 Peplau (Line 44)

...For Chest xray, we need a second full inhalation, so we just wait for the patient's breathing because they cannot be instructed anymore- Participant 3 Henderson (Line 69)

Most of the participants are aware of delivering standard quality healthcare services. Participants 5,7 and 8 exhibited decency in prioritizing the safety of handling patients in the ICU. Adapting proper techniques and practicing critical thinking skills are necessary to improve both clinical and research in radiology to avoid medical uncertainties and wrong assumptions (Martí-Bonmatí, 2023).

...First of all, my style is to first put the portable machine inside, open the laptop, because we used DR (Direct Radiography), I need to organize my equipments first then I

call the nurse saying "sir/ma'am, can I asked for help so that I can put the IR (Image Receptor) on the patient's back, then I position now the x-ray tube- Participant 5 Orlando (Line 104)

...It's hard at first, but were a tertiary hospital, we're dealing with different patients, so we're able to develop and adjust techniques right away because of everyday experiences, and they trained us to think under pressure because our doctor here is strict- Participant 7 Rogers (Line 144)

...Critical thinking skills can be practiced here, just like in a supine position, you need to secure the part so that it doesn't get cut. The techniques depend on the patient's condition. So you should just stay calm so you won't get panic. Because if you don't, you can't think of a solution right away-- Participant 8 Orem (Line 174)

Cluster Theme 2. Positive Mindset

Furthermore, self-efficacy in performing radiographic procedures is essential to deliver high-quality services and to establish competency and a continuous learning experience (Chaka et al., 2022). Despite feeling downhearted during radiographic procedures done in the ICU, participants 1, 3 and 5 also expressed positive outlook strategies before they entered and exited in the ICU.

... Anticipate it ahead, ma'am. Just have mind conditioning so you don't get shocked. Always ask for help if you think you can't do it- Participant 1 Nightingale (Line 22)

...I imagine in advance how can I take the necessary images so that it won't cut off, I imagine it ma'am before I do it. Then you must know how to communicate with the ICU personnel- Participant 3 Henderson (Line 73)

...I should just stay positive, ma'am, because if I don't finish my task, my senior will scold me, and they will say, "Oh, what's wrong,

you're going to put us up there again?!". Instead of just doing it by myself. They're really busy downstairs- Participant 5 Radon (Line 108)

Having a positive mindset helped the participants to cope with the challenges they encountered in the ICU, recognizing feelings, encouraging family involvement, and provide open discussions as participants 3,4 and 10 emphasized the importance of empathy, addressing spiritual needs and giving the best in everything we do.

...Before entering the ICU, we should have positive vibes because we know that most of our patients are in critical stage, they are very fragile, so we need to make them feel alive. Also, pray for them, then if the situation gets difficult and we became overwhelmed by our emotions, we should seek family support-Participant 3 Henderson (Line 75)

...Just think about what if the patient is your relative or family member, so you should do your best. It's not good to give mediocre performance, then you are well compensated in your work- Participant Abdella (Line 88)

...Sharing experiences to reduce the feeling of sadness for their situation. At the same time, I'm just thinking about it until it disappears from my mind. Just making myself busy- Participant 8 Orem (Line 180)

Emergent Theme 3. Fostering Professional Excellence and Positivity in Healthcare

The participants acknowledges the dynamic nature of healthcare and the significance of continuously improving their services to give their patients the best care possible as radiologic technology advances. In light of this, these professionals have come to several conclusions on the value of their line of work in raising the caliber of services provided by their department. These demonstrates their sincere desire to guarantee that each patient receives the best care possible in addition to their dedication

to excellence. The study takes a closer look into how they maintain a positive disposition despite the challenges they encounter in handling ICU patients. By addressing these insights, 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.

Cluster Theme 1. Realizations in the Importance of Radiologic Profession

In handling critically ill patients, it is crucial to deliver safe, effective and efficient, patient-centered, and timely equitable clinical care services as challenges and complexity of situations progress (Bhardwaj, 2022). So, it is important to encourage positive outcomes experiences and insights about the type of care to be delivered and to fulfill the aspect of patient-centered provisions (Kwame & Petrucka, 2021). Findings shows that participants 1, 2, and 4 highlighted the significance of the Radiologic Technology profession as expressed by:

...Be calm, ask your seniors about the techniques, ask the nurse or orderly about the apparatus attached, then be vigilant- Participant 1 Nightingale (Line 24)

...Just really think that we are here to help patients, so we need to provide the quality of care so they can say that they are well-taken care- Participant 2 Peplau (Line 48)

...I think we need to develop compassion, respect,, so we need to be extra careful since our patients are other people's love ones too, so we must be committed- Participant 4 Abdella (Line 90)

Moreover, fostering collaboration with other healthcare members are essential to maximize patient care outcomes as they work together to provide comprehensive treatment (Alderwick et al., 2021). Results of the study promotes interprofessional collaboration to gain confidence and competence, establishing readiness and

building new skills to provide a holistic healthcare as described by participants 5,8 and 9:

...You have to gain high confidence, don't be shy to ask the nurse for help, because if you're alone and introverted, it's difficult. That's why we have a term called "bayanihan", we have different professions, so let's just help each other- Participant 5 Orlando (Line 110)

...The patient's diagnosis depends on us, so we must have presence of mind and focus all the time. Don't let our emotions overwhelm us. Then ask for help if necessary, just continue to develop skills in everyday practice- Participant 8 Orem (Line 182)

...Just be ready and then ask for help if you can't. Be competent so that the patient can build trust in you and you can also trust yourself when dealing with ICU patients- Participant 9 King (Line 206).

Upholding the importance of the radiologic technology profession will create a positive working environment; in partnership with other healthcare professionals also plays a significant part because weakness in communication and inadequate understanding of professional responsibilities can impede team collaboration (Xyrichis & Rose, 2023).

Cluster Theme 2. Building/Maintaining Positive Disposition

Self-empowerment and career advancement are also necessary for maintaining a positive disposition toward being a radiologic technologist. Acceptance and learning from everyday experiences are the first steps in building self-connection that promotes a positive relationship to a person's well-being (Klussman et al., 2022). Based on the findings, participants 6,7 and 9 also highlighted the importance of having patience, and learning from mistakes for continuous improvement as they described:

... Patience is still a virtue then it's okay to make mistakes as long as we will learn from it- Participant 6 Johnson (Line 132)

... Then learn from your mistakes so you can apply the better techniques intended in every procedure- Participant 7 Rogers (Line 157) and;

... Just make yourself confident and competent, then ask for help and have courage. Its okay to make mistakes as long as you will have learning from it- Participant 9 King (Line 208)

Furthermore, career advancement specifically continuing professional development was also emphasized to uplift and enhance skills in the latest advancements in the radiologic technology profession (CPD Training for Radiographers, 2022). This was expressed by participants 1, 6 and 10:

... Attend CPD workshops and conferences for additional knowledge. That's all to acquire good radiographic images - Participant 1 Nightingale (Line 24)

... Attend continuing professional development so that we can acquire more techniques and advancements and pray always- Participant 6 Johnson (Line 132)

... Continuing education for more learnings too- Participant 10 Neuman (Line 231)

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 future researchers, conduct intervention plans on the coping strategies

employed by novice Radiologic Technologists in handling physical and mental difficulties to improved their overall well-being; to ensure patient and job satisfaction, and providing good quality of radiographic procedures. This can shed light on the sustainability of coping mechanisms applied by radiologic technologists.

Considering this is a qualitative study, the next researcher can take a mixed-methodologies approach, combining quantitative and qualitative research methods. This technique can provide a more thorough understanding of radiologic technologists' lived experiences, coping mechanisms, and insights, which they can share with the Radiologic Technology community.

The future researchers can broaden the scope of their research setting outside the selected tertiary hospitals in General Santos City. Future researchers can capture a greater range of perspectives, challenges, and coping techniques by incorporating technicians from diverse areas, which may differ depending on local circumstances, healthcare systems, and cultural influences.

Considering that the study only used in-depth interviews, the future researchers can use focus group talks to combine multiple data sources and gather a broader spectrum of perspectives. Incorporating focus group talks into the research technique would improve the study's validity and depth, allowing researchers to better understand radiologic technologists' lived experiences and requirements when dealing with critically ill patients.

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