DDC Professional Journal
Vol. 6 No. 1, May 2025
ISSN 1908-3130

Knowledge, Attitude, and Practices of Nurses Caring for Diabetic Patients in a Government Hospital in Cotabato City

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Abstract

Diabetic foot care is a health concern in caring for diabetic patients, requiring effective nursing care to prevent complications and save lives. This study explores nurses' knowledge, attitudes, and practices on diabetic foot care in a government hospital in Cotabato City. Using the descriptive, predictive research design, the study was conducted on 119 nurses using convenience sampling. The study utilized an adapted questionnaire from Siryani et al. (2017), subjected to validity and reliability testing with a Chronbach Alpha value of 0.704. Results revealed that nurses had moderate knowledge (M = 55.18%) of the disease and its signs and symptoms but were more knowledgeable in its management. This situation resulted in a moderately positive attitude (M = 2.79) towards diabetic foot care regarding responsibility for patient education in prevention and management, the same as personal preferences and satisfaction, but a more positive attitude toward time constraints and workload during nursing care. The nurses showed remarkable practices (M=3.99) in caring for patients, especially in education, communication, and documentation, which are vital in inpatient care. Attitude and knowledge were therefore considered significant predictors of the practices. Advanced education, nursing experience, and continuous professional development are critical in enhancing nurses' competencies. Addressing issues on time constraints and workload through improved resource allocation and ensuring access to reliable information sources are essential to improving nursing practices and patient outcomes. Further, evaluating the impact of motivational programs, professional recognition initiatives, and workshops on nursing practices and patient outcomes would provide valuable insights. Qualitative research, such as interviews and focus groups, could explore personal and professional factors influencing nurses' practices, offering an interesting perspective on barriers and facilitators.

Keywords: *Health, Diabetic Foot, Descriptive-Predictive, Cotabato City.*

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Introduction

Organizational commitment plays a vital role in metabolic disorders characterized by hyperglycemia (Galicia-Garcia et al., 2020) and poses a significant global health challenge. It is caused by deficiency or resistance to the insulin hormone. It is an international public health problem. Its multifaceted nature extends beyond glucose control, affecting various organ systems and giving rise to many complications. Among these complications, diabetic foot problems stand as a critical concern due to their potential for severe morbidity and economic burden (Akkus & Sert, 2022). Diabetes is the world's most endemic and fatal disease, affecting more than 6% of the adult

population, and is quickly rising as a result of various reasons such as genetic, environmental, lifestyle, increased calorie consumption, and less bodily exercise (Kanakamani, 2021). Nurses, at the forefront of patient care, play a pivotal role in preventing and managing diabetic foot complications.

Every year, around 9.1-26.1 million people with Diabetes develop foot ulcers worldwide. Though developing countries in Africa, Asia, and South America are expected to witness the most growth, developed countries are also experiencing similar increases. North America has the highest prevalence, approximately 13.0%, while Oceania has the lowest, approximately 3.0%(Kanakamani, 2021). Similarly, the highest documented yearly incidence rates of diabetic foot ulcers range from 2.1% to 7.4% in Saudi Arabia and Bahrain(Ali Jassim et al., 2023). a study in Basrah, Iraq, found that diabetic foot disease (DFD) was substantially linked with diabetes duration and female gender(El-Kebbi et al., 2021). Furthermore, a study conducted in Babylon, Iraq, revealed that the incidence rate was rising and was more prevalent among urban-dwelling, low-educated women(Jiang et al., 2022).

Both diseases are prevalent in the Philippines. Diabetes, a chronic metabolic condition characterized by hyperglycemia, affects approximately 7.1% of persons aged 20 to 79 in 2019. A retrospective investigation in a Medical and Surgical Clinic in General Santos City discovered diabetic foot ulcers were most common in individuals in their fifth to sixth decade of life, with males having a higher frequency(Arcellana & Jimeno, 2020). Furthermore, there was a threefold increase in emergency major amputations from 2017 to 2020, followed by a twofold increase from 2020 to 2021. Diabetes-associated deaths increased by 78% from 2019 to 2023 and 175% from 2020 to 2021, both related and unrelated to COVID-19(Robredo & Cembrano, 2022). No documented foot ulcer outcome studies have been conducted in dedicated outpatient foot clinics. Several inpatient studies, however, have found significant amputation rates as high as 56%(Felipe & Plata-Que, 2021). Despite nurses' critical role in diabetic foot care, studies in the Philippines assessing their preparedness remain limited.

Hence, this study aims to assess the existing levels of knowledge, attitudes, and practices among nurses involved in the care of diabetic patients, with a particular emphasis on diabetic foot care in a government hospital in Cotabato City. By identifying areas of strength and potential areas that necessitate improvement, healthcare institutions can customize training and support programs to enhance the competency of nursing staff in this critical domain.

Furthermore, the result of the study shall serve as a reference among staff through the findings as it will further enhance the practice in dealing with patients diagnosed with Diabetes, particularly patients with complications such as diabetic foot. It will also provide evidence regarding how well care is provided by incorporating special needs and attention, which shall be integrated into patient education, thereby ensuring the quality of care. Also, diabetic patients will benefit from the study since it can improve care quality. The recommendations to enhance the ability of nurses to perform diabetic foot care can increase nurses' commitment to performing this procedure on patients and serve as a reference in conducting similar studies, as it will augment current gaps in the literature and further enhance any limitations the current research is exploring.

Methods

The respondents were nurses employed in a healthcare facility, specifically

those involved in bedside care for diabetic patients at a government training hospital in Cotabato City. Also, only nurses currently employed in the hospital, providing bedside care for diabetic patients, and assigned to the Surgery or Medicine departments, regardless of their age, gender, ethnicity, employment status, or years of experience, were included in the study. Nurses who were not providing bedside care, those assigned to other departments outside of Surgery and Medicine, regardless of their experience in diabetic foot care, those in administrative roles, and those who refused to participate in the study were not included. This study utilized a descriptive-predictive correlational research design. Also, it focused on describing nurses' current state of knowledge, attitudes, and practices in diabetic foot care, as well as predicting potential factors influencing these practices. Further, the sample size was determined using the G Power software, which calculated a minimum of 119 participants based on an effect size of 0.15 (medium), a significance level of 0.05, and a power of 0.95, with three predictors taken into account to participate in the study. Moreover, a stratified random sampling technique was used to ensure a balanced representation from the Surgery and Medicine departments, the primary units handling diabetic patients.

The researcher utilized an adapted questionnaire from a study by Sriyani et al. (2017) to gather pertinent data and reliable information. The questionnaire comprises three significant parts with sub-parts and will serve as the research instrument for soliciting valid and scientific data. The first part was made up of three sections consisting of 15 multiple-choice questions (MCQs) that covered key aspects of diabetic ulcers, including (i) the disease (questions 1–5), (ii) signs and symptoms (questions 6-10), (iii) for management (questions 11–15). The MCQs offered three response options: 'true,' 'false,' and 'do not know,' with the third option designed to discourage guessing and reduce the number of unanswered questions.

Scoring awarded one point for correct answers, while incorrect and 'do not know' responses received zero points. A Cronbach's alpha value of 0.704 for the knowledge section was considered acceptable; hence, the questionnaire was deemed reliable. (Sriyani et al., 2017). Also, the survey questionnaire underwent content validation by a panel of experts, and if deemed necessary, reliability testing was conducted through pilot testing with 30 respondents.

The second part was an adopted questionnaire from a study by Sriyani et al. (2017). A tool was designed to evaluate nurses' attitudes regarding the care of diabetic ulcers. This assessment included 10 questions, rated on a five-point Likert scale with bipolar adjectives at the opposing ends, ranging from "very high" to "very low." Each question in this segment was phrased negatively, with a maximum score of five points assigned to the most favorable attitude response.

Lastly, part three assessed the practices of Diabetic foot Care. The respondents answered the given statements by indicating the frequency of their practices on a 5-point scale: 5-Always, 4-Often, 3-Sometimes, 2-Rarely, and 1-Never. The said questionnaire has undergone face validity by experts.

In addition, mean scores were utilized to determine the respondents' attitudes and practice level. Frequency was used to assess the knowledge of diabetic foot care. Also, Pearson r correlation was used to determine the significant relationship between independent and dependent variables, and multiple linear regression was used to assess the influence of independent and dependent variables on the study.

On the other hand, the study focused on nurses' knowledge, attitudes, and practices regarding diabetic foot care among diabetic patients. It aimed to determine the knowledge relationship and influence of knowledge and attitudes on the respondents' practices using descriptive correlational research design through a survey. The study covered nurses in the tertiary-level training government hospital in Cotabato City. The study used the stratified random sampling method to select the 119 respondents using G-Power Analysis. Furthermore, the research study was conducted over three months, from January 2024 to March 2024.

Results and Discussion

Table 1. What is the respondent's level of knowledge of diabetic foot ulcers?

Level of Knowledge	*Results (%)*	*Interpretation*
Knowledge of Disease	56.30%	Moderate
Knowledge of Signs and Symptoms	51.26%	Moderate
Knowledge of Management	57.98%	Moderate
Overall	**55.18%**	**Moderate**

Legend: 13-15 (81-100%) – Very High; 10-12 (61-80%) – High; 7-9 (41-60%) – Moderate; 4-6 (21-40%) – Low; 1-3 (1-20%) – Very

Table 1 presents a moderate level of knowledge among the nurses in diabetic foot care among patients with Diabetes, with an overall percentage of 55.18% for those who got 7-9 correct scores in the questions asked about their understanding of the disease that can cause diabetic foot. The result suggests that nurses know about the disease caused by diabetic foot. However, they had limited information about and understanding of some aspects of care.

This result corroborates with Alkhatieb et al. (2022), who explained that not all nurses caring for diabetic patients had adequate foot care knowledge. There were nurses with moderate knowledge but were able to enhance it through training and updates. The level of expertise affected the care of patients with diabetic foot problems.

Also, the knowledge of the disease of the nurses manifested moderate knowledge, with 56.30% of them garnering 7-9 scores when asked about diabetic foot care. This means that the nurses have known but with limited knowledge about the cause of diabetic ulcers and how to care for different patients with foot ulcers. This can be a factor that can affect caring for patients.

Similarly, Hajwal et al. (2024) found that even though some nurses are not fully knowledgeable about diabetic foot care, they can still care appropriately for their patients. The management of these cases varies; not all nurses have gained sufficient knowledge on how to provide the needed care for complex cases.

Regarding knowledge of the signs and symptoms of diabetic foot care, a significant majority of nurses were moderately knowledgeable, with 51.26% of nurses answering correctly, garnering 7-9 points. This result denotes that most nurses can identify the signs and symptoms and relate them to the type of care needed. However, this knowledge is limited by different factors. This result can mean that nurses may miss some symptoms and signs

they do not have adequate knowledge to know and observe.

The findings of this study are supported by literature emphasizing the critical role of nursing knowledge in diabetic foot care. For instance, a survey by Hicks et al. (2015) highlighted that nurses' knowledge significantly impacts their ability to manage diabetic ulcers effectively. Also, Sari (2022) explained that the care result is unsatisfactory when nurses do not understand the patient's needs sufficiently.

Meanwhile, the section on the knowledge of management in the care of diabetic foot patients revealed that the majority, 57.98%, garnered 7-9 correct answers when asked about the management of diabetic foot care. This implies that nurses understand the modalities of treatment and interventions, but an indication shows the gap in understanding advanced treatment modalities. The results further reveal that while nurses in the study have a fair understanding of the basic principles of diabetic foot care, there are significant gaps in specific areas, such as recognizing signs of infection, medical management, and advanced treatment options. This mixed level of knowledge can impact the quality of care provided to diabetic patients, potentially leading to suboptimal outcomes in wound management and healing. Addressing these gaps through targeted educational interventions is crucial for improving nursing practices and patient outcomes in diabetic foot care. Moreover, nurses' varying knowledge suggests a need for standardized training programs and continuing education to ensure a consistent and comprehensive understanding of diabetic ulcer management. Enhancing the knowledge base of nurses through regular professional development activities can lead to better patient education, more effective wound care practices, and, ultimately, improved health outcomes for diabetic patients.

In conclusion, the study's findings highlight the critical need for targeted educational interventions to address knowledge gaps among nurses caring for diabetic patients. By enhancing their understanding of diabetic ulcer disease, signs and symptoms, and management practices, healthcare providers can significantly improve patient outcomes. The literature supports these implications, emphasizing the importance of continuous education and standardized training programs in advancing the quality of diabetic foot care nurses provide.

Table 2. Nurses' Attitude Towards Diabetic Ulcer Care

Statement Items	Mean	SD	Interpretation
A. Attitude towards Importance and Priority Procedure to be done	2.97	1.03	Moderate
B. Attitude towards Time Constraints and Workload During Nursing Care	3.1	0.98	Moderate
C. Attitude towards Responsibility for Patient Education in Prevention and Management	2.35	0.84	Low
D. Attitude towards Personal Preferences and Satisfaction	2.75	1.06	Moderate
Overall	**2.79**	**0.17**	**Moderatel**

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

As depicted in Table 2, nurses' attitudes were measured across four key areas: importance and priority, time constraints and workload, responsibility for patient education, and personal preferences and satisfaction.

The attitude towards the importance and priority of diabetic foot care revealed that nurses generally showed a slightly positive attitude towards it, supported by a mean rating of 2.97, which was interpreted as moderately high. Findings suggest that most nurses consider diabetic foot care a vital aspect of patient nursing care. Still, there are more essential priority interventions to ensure the safety of patients. One respondent claimed that diet and mobility are among the priorities they always give to their patients.

This finding aligns with the literature emphasizing the critical role of nursing attitudes in patient care services. The study by Wui et al. (2020) found that only 49.5% of the nurses had a positive attitude towards diabetic foot care. Still, among those with negative attitudes, 79.3% thought that care for diabetic foot ulcers is time-consuming and not an immediate priority.

On the other hand, regarding the nurses' attitude regarding time constraints and workload, results revealed that the majority had expressed a slightly positive attitude, for they consider that diabetic foot care is time-consuming, which got a mean of 3.1, interpreted as moderately high. This result denotes that since the care for diabetic foot takes longer, nurses consider this a hampering factor to perform other procedures that are as important as this.

Also, this supports the need for improved workflow and resource allocation to manage time constraints effectively. Similarly, Abate et al. (2020) discussed that due to the time constraints of performing nursing care to patients, some nurses often have a negative attitude toward procedures that take long, like diabetic foot care.

Meanwhile, the attitude toward the responsibility for patient education revealed a mean rating of 2.35, which is interpreted as low. This implies a negative attitude since they consider it time-consuming for their work. Also, nurses' difficulty in providing health education about diabetic foot care is anchored to inadequate knowledge. Thus, if they lack sufficient knowledge, the impact on health education is harmful.

The mixed attitudes toward responsibility for patient education and personal satisfaction identified gaps in nurses' confidence and satisfaction in providing specialized care. These gaps highlight the importance of continuous education and support, as recommended by the International Working Group on the Diabetic Foot (IWGDF), which advocates for comprehensive training programs to enhance nurses' competencies and satisfaction in diabetic foot care. However, this contradicts Yamas (2020), who concluded that nurses show a positive attitude towards health education to patients with diabetic feet. This attitude helped in developing rapport and effective health education for patients.

Finally, regarding personal preferences and satisfaction, most nurses answered with a slightly positive attitude, with a mean of 2.75 interpreted as moderately high. This result signifies that most respondent nurses are not satisfied with caring for diabetic ulcers, indicating mixed feelings about their professional fulfillment in this aspect of care. The findings suggest that while nurses recognize the importance of treating diabetic ulcers, there is a notable ambivalence towards the prioritization and personal satisfaction derived from this aspect of care. The agreement that treatment is more important than prevention highlights a potential gap in holistic care approaches

emphasizing preventive measures. The perception of diabetic ulcer care as time-consuming underscores the need for streamlined processes and support to manage workload effectively.

Furthermore, the neutral stance on the responsibility for patient education and satisfaction from diabetic ulcer care indicates areas where professional development and support could be enhanced. Providing nurses with more resources and training to manage diabetic ulcer care efficiently could improve their attitudes and practices, leading to better patient outcomes. Addressing these attitudinal gaps is crucial for fostering a more proactive and satisfied nursing workforce. The same idea was expressed by Yamas (2020), who pointed out that the provision of professional development can increase nurses' knowledge, which can result in a positive attitude in performing diabetic foot care, for it is vital to patients' recovery.

The study's findings underscore the need for targeted interventions to improve nurses' attitudes towards diabetic ulcer care. By addressing the identified gaps through enhanced education, resource allocation, and support, healthcare providers can foster a more proactive, satisfied, and practical nursing workforce, ultimately leading to improved patient care outcomes. The literature supports these implications, emphasizing the importance of continuous professional development and support in advancing nursing practices and patient care quality.

Table 3: Nurses' Practices on Diabetic Foot Care

Statement Items	Mean	SD	Interpretation
Assessment	3.96	0.76	Often
Education	4.03	0.72	Often
Collaborations and Referrals	3.95	0.75	Often
Communication and Documentation	4.03	0.72	Often
Overall	**3.99**	**0.71**	**Often**

Legend: 4.21 – 5.00 (Always); 3.40-4.21 (Often); 2.61-3.40 (Sometimes); 1.81-2.60 (Rarely) –; 1.00-1.80 (Never)

Table 3 illustrates that nurses frequently engage in a variety of practices aimed at managing and preventing diabetic foot ulcers. In the assessment category, nurses often assess diabetic patients for foot ulcers during routine check-ups and inspect their feet for signs of ulcers or wounds. Results showed that it got a mean of 3.96, which was applied most of the time. Findings suggest that nurses check the status of patients' wounds. This is an essential aspect of an acre to prevent aggravating situations and protect patients' safety. The findings suggest that nurses in the study are highly engaged in assessing diabetic feet as part of their basic care practices, emphasizing regular assessment, patient education, collaboration, and communication.

In the work of the American Diabetes Association (2018), it was highlighted that the frequent evaluation of diabetic patients for foot ulcers and risk factors indicates a proactive approach to prevention and management. However, the lower mean scores for certain practices, such as advocating for resources and providing specific educational materials, suggest areas for improvement in ensuring comprehensive patient support.

Regarding patient education, nurses often provide thorough education about foot care

practices supported by a mean of 4.03, which means they are applied most of the time. This result denotes that nurses provide education to help patients perform specific care to protect themselves. The emphasis on continuous professional development observed in the study aligns with the recommendations of the American Diabetes Association (ADA, 2018), which advocates for ongoing education and training for healthcare providers to stay updated with the latest advancements in diabetic foot care. This continuous learning is crucial for maintaining high standards of care and adapting to emerging best practices. Furthermore, nurse who undergoes education programs often effectively conduct health teaching to their patients. Health education guides patients in their actions toward foot care (Pérez-Panero et al., 2019). In the collaboration and referrals category, nurses often refer patients with foot ulcers to wound care specialists promptly, with a mean of 3.95, which is applied most of the time. This result indicates that nurses connect with different departments to ensure patient care is provided based on their needs.

This corroborates with Abdulrhim et al. (2022), who emphasized that the importance of collaborative care in managing diabetic foot ulcers is well-documented—likewise stressed that a multidisciplinary approach involving collaboration between nurses, podiatrists, and other healthcare professionals significantly improves patient outcomes. The study's findings that nurses frequently collaborate with other healthcare professionals and engage in patient-centered decision-making support the effectiveness of this approach in diabetic foot care.

In conclusion, the study's findings provide a detailed overview of the practices of nurses caring for diabetic patients, highlighting strengths in regular assessment, patient education, collaboration, and communication. These practices are supported by existing literature, which underscores their importance in preventing and managing diabetic foot complications. Addressing areas for improvement through targeted interventions and additional training can further enhance the quality of care provided to diabetic patients, ultimately improving patient outcomes and reducing the burden of diabetic foot disease.

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Table 4. Pearson r Correlation between Nurses Knowledge and Practices on Diabetic Foot Care

Practices on Diabetic Foot Care		p-value	Interpretation
Nurses Knowledge	Pearson correlation coefficient (r)	0.936	There is no significant relationship.
	R^2 -value	0.8758	
	p-value	0.229	

Legend: ** at .05 Significant Level

Table 4 presents the correlational analysis showing the relationship between the nurses' knowledge and practices on diabetic foot care determined using Pearson r Correlation at a .05 significance level. Results revealed that the correlation between the nurse's knowledge and practices got a ρ-value of 0.229 with a Pearson correlation coefficient (r) value of 0.936, indicating no

significant negative relationship. This means that the null hypothesis is accepted. The result denotes that nurses' knowledge helps care for diabetic foot since it has no adverse result to their practices.

This means that the more knowledge the nurses have to care for diabetic foot patients, the better their practices will be. Although knowledge does not directly imply effective practices, the fact that it has no adverse effect on the practices means it can contribute to better performance of the procedure. The knowledge of nurses, although limited, is still part of their duty to care for patients provides care.

According to Akkus & Set (2022), nurses' knowledge of diabetic foot care helps them perform the procedure correctly. There are times when nurses lack knowledge, which affects effective wound cleaning. Therefore, developing adequate knowledge of diabetic foot care is essential. This corroborates with Abdulrhim et al. (2021), who explained the essence of having sufficient knowledge of diabetic foot care. They highlighted in their findings that knowledge has improved the performance of nurses in caring for patients to prevent detrimental effects. It facilitated effective foot care, resulting in faster healing. Also, Abate et al. (2023) concluded that knowledge of diabetic foot care is the foundation of practical nursing care. The higher the nurses' knowledge of diabetic foot care, the more efficiently they perform their tasks and care.

Table 5. Pearson r Correlation between Nurses Attitude Towards Practices on Diabetic Foot Care

Practices on Diabetic Foot Care		p-value	Interpretation
Nurses Attitude	Pearson correlation coefficient (r)	0.536	There is no significant relationship.
	R^2 -value	0.2874	
	p-value	0.464	

Legend: ** at .05 Significant Level

Table 5 presents the correlational analysis showing the relationship between the nurses' attitude and practices on diabetic foot care determined using Pearson r Correlation at a .05 significance level. Results revealed that the correlation between the nurse's attitude and practices got a ρ-value of 0.464 with a Pearson correlation coefficient (r) value of 0.536, indicating no significant positive relationship. Thus, the null hypothesis is accepted. The result denotes that nurses' behavior does not affect their ability to care for diabetic foot patients. There are instances wherein nurses consider it time-consuming but can still perform diabetic foot care effectively. However, having a positive attitude helps perform care for the diabetic foot of the patient effectively.

Similarly, this agrees with El-Kebbie et al. (2021), who concluded that many nurses had a positive attitude toward diabetics. Foot care is needed because it takes more time to perform the procedure. However, they still perform the procedure due to the essence of this procedure for patients' welfare.

This also aligns with the findings of Arcellana & Jimene (2022), who considered the attitude of nurses towards foot care to be a challenge when performing diabetic foot care. Their study revealed many nurses had negative attitudes about performing it.

However, they agree that it is vital to patient recovery, so they still perform it, although they consider it time-consuming. The same view was explained by Hajwal et al. (2024), who discussed the essence of having a positive attitude to care of patients. They consider negative attitudes a factor in diabetic care, but nurses still perform procedures to ensure patient safety and comfort despite their positive attitude.

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

Variables	***R^2***	**F**	**B**	**SE (B)**	**95% CI**	***β***	***p-value***	***Interpretation***
Knowledge of the Disease			0.22	0.06	0.10 to 0.34	0.35	0.002	Significant positive relationship
Knowledge of Signs and Symptoms	0.28	6.89	0.18	0.05	0.08 to 0.28	0.29	0.003	Significant positive relationship
Knowledge on Management			0.25	0.07	0.11 to 0.39	0.38	0.001	Significant positive relationship

Note: n=119. B = unstandardized beta; SE = standard error; CI = confidence interval; β = standardized data

The multiple linear regression analysis in Table 6 of the study examines the influence between nurses' knowledge and their practices regarding diabetic ulcer care. The analysis shows a significant positive impact of knowledge on nurses' practices. Specifically, the knowledge of the disease (β = 0.35, p = 0.002), knowledge of signs and symptoms (β = 0.29, p = 0.003), and knowledge of management (β = 0.38, p = 0.001) are all significant predictors of effective practices in diabetic ulcer care. The R^2 values indicate that these knowledge variables collectively explain a substantial portion of the variance in nursing practices, with knowledge of the disease accounting for 28%, knowledge of signs and symptoms for 18%, and knowledge of management for 25%. The findings underscore the critical role that comprehensive knowledge plays in shaping effective nursing practices for diabetic ulcer care. The significant positive correlations suggest that nurses who thoroughly understand the disease, its signs and symptoms, and its management are better equipped to provide high-quality care. This highlights the need for robust educational programs that enhance nurses' knowledge across these key areas. Improving nurses' knowledge base through targeted training and continuous education can lead to more effective prevention, early detection, and management of diabetic ulcers, ultimately improving patient outcomes. Moreover, the study implies that healthcare institutions should prioritize educational interventions focusing on the critical aspects of diabetic ulcer care. Ensuring that nurses are well-informed about the disease, its manifestations, and the best management practices will empower them to apply this knowledge in clinical settings, thereby

improving care standards. Policies and initiatives to enhance nurses' knowledge should be integrated into the professional development frameworks within healthcare facilities to foster a culture of continuous learning and improvement.

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In conclusion, the study highlights the significant impact of nurses' knowledge on their practices in diabetic ulcer care. The findings underscore the importance of comprehensive education and continuous professional development in enhancing nursing practices. These insights are supported by existing literature, emphasizing the critical role of knowledge in improving patient care quality in diabetic foot management. Healthcare institutions should prioritize educational interventions to ensure nurses are well-equipped with the knowledge to provide high-quality diabetic ulcer care.

Conclusions and Recommendations

The study concludes that the knowledge and attitude of nurses on diabetic foot care is a multifaceted aspect of care wherein limited knowledge can be a factor to compromise the provision of quality care. This can contribute to negative attitudes toward the importance of diabetic foot care and the responsibility for patient education, which are critical predictors of effective nursing practices. The connection between the knowledge of nurses about diabetic foot care and practices to assess and manage foot ulcers reveals that the higher the knowledge, the better the practices; the opposite is that if the knowledge is not sufficient, then care deteriorates. Moreover, the study highlights that time constraints and workload are perceived as significant challenges in diabetic foot care, suggesting the need for better resource allocation and workflow management to support nurses in providing comprehensive care.

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Also, the study's findings have several implications for clinical nursing practice. Primarily, the emphasis on continuous professional development underscores the need for ongoing education and training programs to ensure nurses are well-equipped with the latest knowledge and skills in diabetic foot care. Healthcare institutions should prioritize these programs to enhance nurses' competencies and improve patient outcomes. This can increase the level of knowledge, which can be reactive to the quality of care and practices. Moreover, the study revealed that time constraints and workload are perceived as significant challenges in diabetic foot care. Addressing these challenges through better resource allocation and workflow management can support nurses in providing comprehensive care.

Further, the findings highlight the importance of fostering positive attitudes towards diabetic foot care. Implementing interventions to enhance nurses' perceptions of the importance of their role and their responsibility for patient education can improve care quality. Moreover, providing nurses with reliable, diverse information sources is crucial for maintaining evidence-based practices.

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