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Increasing Nurses' Knowledge of Cultural Preferences Influencing Diabetes Self-Management Among Sierra Leoneans

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2024

Abstract

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MS, Walden University, 2012

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The practice problem identified at the project site was the lack of nurses' knowledge of how cultural preferences influence diabetes self-management practices among African Americans with diabetes mellitus. An educational program focused on the cultural preferences of Sierra Leoneans that influence diabetes self-management practices was provided for 48 nurses who worked in the agency. The doctoral project included concepts from nursing education and cultural competence theories to inform the approach. The project followed the ADDIE model process steps to develop and implement the educational program. The sources of evidence included pre- and posteducation surveys administered to participating nurses to assess changes in self-reported knowledge levels and comfort levels in caring for Sierra Leone patients with diabetes mellitus. Analytical strategies included descriptive statistics to summarize survey responses and inferential statistics to examine the significance of any observed changes. Pre- and posttest scores completed by 22 participants revealed an increase in nurses' self-reported knowledge levels regarding the influence of cultural preferences on diabetes self-management practices. Additionally, there was an improvement in nurses' comfort levels in caring for Sierra Leonean patients with diabetes mellitus. The implications of the project suggest that targeted educational interventions can enhance nursing staff's cultural competence and improve care delivery for patients from diverse cultural backgrounds. This underscores the importance of integrating cultural considerations into diabetes management practices to better meet the needs of diverse patient populations.

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Dedication

This project is dedicated to my dear brother Dauda Koroma, who always believed in me and believed I can and will accomplish anything I put my mind into. "For I can do everything through Christ, who gives me strength" (Philippians 4:13, NLT). Though you are no longer with us in body, your spirit remains a guiding light in my life. Your unwavering presence, support, and love have shaped me into the person I am today.

As I embark on this journey towards my Doctor of Nursing Practice degree, I carry your memory with me every step of the way. Your absence is deeply felt, yet I find solace in knowing that you continue to watch over me from above. Through every challenge and triumph, your memory serves as a constant source of strength and inspiration.

I am eternally grateful for the bond we shared and for the impact you had on my life. Until we are reunited once again, know that you will always hold a special place in my heart.

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Section 1: Nature of the Project

Diabetes mellitus is a major global health issue with debilitating consequences including morbidity and mortality. The condition is associated with devastating complications such as blindness, kidney failure, heart attacks, stroke, and lower limb amputation (World Health Organization [WHO], 2022). According to the Centers for Disease Control and Prevention (CDC, 2020), a total of 37.3 million adult people in the United States have diabetes mellitus, which is approximately 11.3% of the population. In addition, 96 million people above the age of 18 years have prediabetes, a condition that is characterized by elevated blood glucose levels, but not enough to be diagnosed as Type 2 diabetes (CDC, 2022). According to the WHO (2022), the prevalence of diabetes mellitus has been increasing, especially in low- and middle-income countries, and this prevalence is expected to double within the next decades.

The CDC (2020) indicated that prevalence among the non-Hispanic Black population stands at 11.7%, making Blacks the third largest group in America behind American Indian/Alaska Native and Hispanic populations. In 2018, non-Hispanic Blacks were 60% more likely to be diagnosed with diabetes and had double the mortality rate compared to non-Hispanic Whites (U.S. Department of Health and Human Services Office of Minority Health, 2018). These statistics support the claim that diabetes is a significant health issue for Blacks. According to Gurmu et al. (2018), this condition requires continuous self-care practices for the prevention of acute and long-term complications. Self-care involves activities such as healthy eating, adherence to

prescribed therapy, regular blood glucose monitoring, healthy coping, and physical activity.

Optimum self-care has been associated with health benefits such as enhanced glycemic control, reduction of risk factors for cardiovascular disorders, reduction in health care utilization, and improved diabetes-specific quality of life. Despite these benefits of self-care, many diabetic patients continue to experience challenges with implementing self-care practices. A common influencing factor is culture, which is known to impact diabetes self-management by influencing health beliefs, customs, and diet (CDC, 2022; Idriss et al., 2020). Gurmu et al. (2018) suggested that these challenges may be linked to personal and environmental issues; as a result, there is a need to increase the knowledge, self-efficacy, and support for the patients and health care providers to enhance the outcomes. The aim of the current project was to determine whether an education program would improve nursing staff knowledge of how cultural preferences influence diabetes self-management practices among Sierra Leoneans with diabetes mellitus.

Problem Statement

The focus of this project was inadequate nursing staff knowledge at one home care agency regarding how cultural preferences influence diabetes self-management practices and nurses' self-reported discomfort with caring for Sierra Leoneans with diabetes mellitus. Cultural practices and beliefs influence the barriers and risk factors contributing to the high prevalence of diabetes among Blacks, including Sierra Leoneans, and this has had an impact on diabetes self-management practices (Bhattacharya, 2012).

Sierra Leoneans, like other immigrant groups, may face cultural barriers that affect their diabetes self-management practices. At the project site, leadership stated that a significant percentage of this population have cultural preferences for certain foods or traditional healing practices that are incompatible with diabetes management. These practices can lead to high rates of diabetes among this population (Chatterjee et al., 2015). As a result, nursing staff must be aware of these cultural practices to provide diabetes care to Sierra Leonean immigrants in the United States. However, the project site leadership expressed concern regarding nursing staff's knowledge and comfort in providing culturally competent diabetes care to Sierra Leonean immigrants with diabetes mellitus after carrying out a learning needs assessment of their staff.

The current project was significant for the field of nursing practice because it addressed a gap in nursing staff knowledge and skills in providing culturally competent diabetes care to Sierra Leonean immigrants in the United States. The project may promote more effective diabetes care for this population by increasing nursing staff's understanding of how cultural preferences influence diabetes self-management practices. Additionally, the project may be used to develop evidence-based nursing practices that are culturally sensitive and responsive to the needs of diverse populations.

Purpose Statement

Culture is known to impact diabetes self-management by influencing health beliefs, customs, and diet (CDC, 2022; Idriss et al., 2020). However, Bhattacharya (2012) indicated that culture, such as that of Sierra Leoneans, hinders the ability of these diabetes management practices. The cultural influences for Sierra Leoneans can stimulate

negative attitudes toward insulin use, nihilistic beliefs about diabetes, using spirituality to advocate for diabetes self-management activities, and favoring traditional remedies to treat and manage diabetes (Shahin et al., 2019). Shahin et al. (2019) stated that some Sierra Leoneans believe an evil spirit is the reason for illness and will turn to a spiritual leader before seeking advice from a medical provider. Other Black patients might refuse to use insulin injection to regulate blood sugar levels if their culture believes insulin use causes organ damage and severe complications among diabetic patients (Rebolledo & Arellano, 2016). The practice gap identified at the project site was the lack of nurses' knowledge of the Sierra Leonean culture and its impact on patients' ability to self-manage their diabetes. Based on this practice gap, the guiding project question was the following: Will an education module increase nurses' self-reported knowledge levels on the influence of cultural preferences on diabetes self-management practices and comfort with caring for Sierra Leonean patients with diabetes mellitus? The education session provided nurses with knowledge on the Sierra Leone culture and influences it can have on diabetes management. This knowledge will allow nurses to incorporate their patients' cultural traditions in their patients' care plans to promote greater patient adherence to medical recommendations (Bhattacharya, 2012).

Nurse education was the appropriate intervention because nurses play an important role in diabetes management and care. Nurses are frequently the first point of contact for patients and are in charge of providing diabetes education and support. Improved knowledge and skills in diabetes self-management practices may help nurses provide better care to diabetic patients, resulting in better health outcomes. Furthermore,

education can be a low-cost intervention that is simple to implement in health care settings, making it an ideal way to close gaps in diabetes care.

Nature of the Doctoral Project

An education program focused on the cultural preferences of Sierra Leoneans that influence diabetes self-management practices was provided for nurses who work in the agency. At the time of the project, there were 48 nurses at the project site who care for Sierra Leonean patients with diabetes. These include nurses who work in inpatient units, outpatient clinics, and community outreach programs. All nurses were invited to participate in the project via email notification. The invitation included information about the project, its goals, and the expected time commitment for participation. I created a survey adapted from the Cultural Competence Assessment Tool to measure self-reported knowledge and comfort. Additionally, for the education intervention, I followed the Walden University Doctor of Nursing Practice (DNP) Manual for Staff Education (Walden University, 2021). The educational content was based on best practices outlined by the American Diabetes Association, the CDC, and other published literature. Before conducting the education session, I asked the nurse manager and other stakeholders in the staffing company to review the educational content to ensure alignment with the organization's needs, values, and practices.

Significance

The project contributed to Walden University's mission to promote positive social change: "A positive social change leads to improvement in social and human conditions, and makes the community better" (Walden University, 2021, para 1). One of the social

changes brought by the project was improving the quality of life for Sierra Leonean patients with diabetes who receive medical services from a medical home health nursing agency in the eastern United States. The project aimed to increase the knowledge of nurses who worked at the medical home health staffing agency and cared for Sierra Leonean patients in the community. This knowledge may help the nurses encourage their patients to be active partners in the care of their diabetes by working with patients to create diabetic self-management care plans that align with the patients' cultural preferences.

Summary

Diabetes mellitus is a major public health concern with serious risks including morbidity and mortality. Although the prevalence of the condition has been increasing, it is more prevalent among African Americans living in the United States. Culture remains an important limiting factor to self-management, which is one of the most effective strategies in management of diabetes mellitus. The practice-focused question for this project was the following: Will an education module increase nurses' self-reported knowledge levels on the influence of cultural preferences on diabetes self-management practices and comfort with caring for Sierra Leonean patients with diabetes mellitus? The project was significant because it was expected to elicit positive social change among the diabetic patients from Sierra Leone.

Section 2: Background and Context

According to Bhattacharya (2012), self-management is the most effective way of handling diabetes through engagement in physical exercise and dietary management. However, Bhattacharya indicated that culture, such as that of Sierra Leoneans, hinders the ability of these diabetes management practices. The DNP project was designed to explore the project site nurses' self-reported knowledge of culture on diabetes self-care and comfort with taking care Sierra Leonean diabetic patients. It was necessary to educate nurses on the cultural issues that impact self-management to ensure that nurses offer comprehensive and personalized care and information based on the issues identified, such as cultural barriers and influencers. The question that guided this project was the following: Will an education module increase nurses' self-reported knowledge levels on the influence of cultural preferences on diabetes self-management practices and comfort with caring for Sierra Leonean patients with diabetes mellitus? This section of the DNP project discusses the concepts, models, and theories; the relevance of the project to nursing practice; the local background and context; and the role of the DNP student and team.

Concepts, Models, and Theories

This project was informed by the theory of diabetes self-care management, a psychological theory that focuses on how individuals with diabetes can effectively manage their condition through self-care behaviors (Zare et al., 2020). The theory proposes that individuals with diabetes need to develop a number of self-care behaviors to effectively manage their condition, including regular blood sugar monitoring,

medication adherence, healthy eating, and physical activity. Additionally, the theory emphasizes the importance of factors such as self-efficacy, self-regulation, and social support in promoting successful diabetes self-care. The theory of diabetes self-care management provides a framework for understanding how individuals can effectively manage their diabetes through self-care behaviors. This framework was created using concepts derived from Orem's self-care theory, which suggests that individuals have an inherent ability to engage in self-care behaviors but may require support and guidance from others to do so effectively (Khademian et al., 2020).

Concepts

Self-Management

Self-management is a crucial aspect of diabetes care because it involves individuals taking an active role in managing their condition. Karthik et al. (2020) concluded that the following seven self-care practices help patients with diabetes avoid hospital visits and serious health complications: healthy eating, being physically active, monitoring blood sugar levels, complying with medications, using problem-solving skills, developing healthy coping skills, and practicing risk-reduction behaviors.

Culture

Culture refers to the collective beliefs, behaviors, customs, values, and institutions that shape and define a particular society or group. Culture can influence a wide range of aspects of human behavior, including language, communication, social norms, values, and behaviors. Culture has a significant impact on health because cultural beliefs and practices influence an individual's health behaviors such as their diet, exercise, and use of

health care services. Culture can also affect an individual's mental and emotional well-being because it can influence their attitudes and beliefs about mental health and illness (Gopalkrishnan, 2018).

ADDIE Model

The ADDIE model is a commonly used instructional design framework that stands for analysis, design, development, implementation, and evaluation. This model provides a systematic approach to designing and developing effective training and education programs (de Leeuw et al., 2019). For the current project, the ADDIE model was used to develop the education program for nurses that focused on the cultural preferences of Sierra Leoneans that influence diabetes self-management practices.

The first step was analysis. This entailed carrying out an assessment to determine the cultural preferences of Sierra Leoneans related to diabetes self-management. Key activities involved researching the cultural beliefs, attitudes, and practices related to diabetes care and self-management in Sierra Leone, and consulting with community leaders and health experts. The second step was the design, which involved using the information gathered to come up with an education program (see de Leeuw et al., 2019). This also involved development of culturally appropriate educational materials, which included brochures, videos, and interactive training sessions that incorporated culturally relevant case studies and scenarios.

The third step was development, which involved creating the educational and training materials and sessions while incorporating the feedback from specialists such as nurses (see Aydin et al., 2023). This ensured that the program and materials addressed

knowledge gaps related to cultural competence and diabetes self-management. Implementation was the next step that involved emailing the education program to the nurses employed at the site with instructions for the participants to volunteer to take part in the project. The last step was evaluation, which involved assessing the effectiveness of the intervention.

Definitions

Cultural competence: The ability of individuals or organizations to effectively interact and communicate with people from different cultural backgrounds. Cultural competence involves understanding and respecting the beliefs, values, customs, and practices of diverse groups, and being able to adapt one's behavior and approach to accommodate cultural differences appropriately. In the context of health care, cultural competence also encompasses the ability to deliver care that is sensitive to the cultural needs and preferences of patients, leading to improved health outcomes and patient satisfaction.

Education module: A structured and organized unit of teaching and learning designed to help the nurses acquire knowledge, skills, and competencies with regard to cultural beliefs, values, and practices related to diabetes management, communication strategies for effective patient education, and cultural sensitivity in diabetes care (Beverly & Miller, 2007).

Self-reported comfort levels: Self-reported comfort levels refer to the subjective assessment made by healthcare professionals, such as nurses, regarding their level of ease, confidence, or proficiency in delivering a specific aspect of patient care, often

within a culturally sensitive context (Anderson & Fitzgerald, 2001). In the context provided, it pertains specifically to the nurses' confidence in providing diabetes self-management education tailored to meet the cultural needs of Sierra Leonean patients.

Self-reported knowledge levels: Self-reported knowledge levels entail the nurse's perceived level of comprehension and understanding regarding the cultural preferences of a specific population, such as Sierra Leoneans, in relation to practices associated with managing diabetes (Epstein & Schull, 2019). This perception is based on the nurse's own assessment of their knowledge and understanding, typically obtained through self-reporting techniques like surveys or interviews, which may or may not align with objective measures of knowledge.

Relevance to Nursing Practice

Education on self-care management practices among diabetic patients has been regarded as a cornerstone in nursing care (Awang-Ahmad et al., 2020). Diabetic patients necessitate daily understanding of crucial self-care components such as nutrition, exercise, medication adherence, and consistent monitoring of blood glucose levels to achieve their self-care objectives on a daily basis. Research indicates that diabetic patients who possess knowledge about self-care tend to exhibit enhanced confidence in managing their condition, leading to improved management and outcomes. Heightened awareness of self-care practices correlates with better alignment of lifestyle adjustments and blood glucose levels, thereby enhancing overall quality of life. On the other hand, inadequate knowledge hinders self-care performance, which causes poor blood glucose

control and the development of diabetes complications that include lower limb amputation, blindness, and renal failure (WHO, 2022).

Nurses play an important role in enhancing self-care practices. According to Awang-Ahmad et al. (2020), nurse educators' main role is to equip patients with the knowledge and confidence to achieve the goals of self-care for metabolic control as established by the national standards for diabetes self-management education and support. The effectiveness of nurses educating their patients on self-care is dependent on sociodemographic factors including the education level of the patients. There is also a need to consider the education delivery strategies that are used to teach patients about self-care because they influence the rate at which the approaches are adopted. According to Awang-Ahmad et al., strategies that can enhance patient education on self-care management include the teach-back technique and the use of visual aids, especially when working with a patient with low literacy levels.

Furthermore, one-to-one consultation is considered to be more effective than group-based consultations because it allows for customized goals and strategies based on the unique needs of the diabetic patient. The current project was intended to advance nursing practice by providing nursing professionals with knowledge of the Sierra Leonean culture and the influences it can have on diabetes management. This knowledge may allow nurses to incorporate their patients' cultural traditions in their patients' care plans to promote greater patient adherence to medical recommendations. The findings of this project may advance nursing practice because they may be used to strengthen the existing education programs for diabetes care management among the target populations.

Also, the findings may provide an opportunity for nursing practitioners to think about the current practices through constant knowledge updates and may promote active participation of patients and their families in self-care.

Local Background and Context

The main stakeholders in this project were the nurses who participated in the education program, the patients with diabetes who receive care from these nurses, and the health care facility that employs the nurses. The education program was designed to benefit the nurses who participated by increasing their knowledge and understanding of how cultural preferences influence diabetes self-management practices, by increasing nurses' confidence in providing culturally appropriate care, and by providing opportunities for professional development and continuing education. The project site problem indicated that there was a need for health care providers to have an increased awareness of how culture negatively influences self-care management in diabetic patients among the target population, and this informed the development of approaches to address the challenge and improve health outcomes among diabetic patients. Diabetes patients who receive care from these nurses may also benefit from culturally appropriate care that is tailored to their needs and preferences, resulting in improved knowledge and understanding of diabetes self-management practices, better health outcomes, increased trust and satisfaction with care, and lower health care costs. Healthcare institutions need to have increased awareness of the barriers to effective implementation of the core self-management strategies, which include healthy eating, being physically active, monitoring

blood sugar levels, complying with medications, using problem-solving skills, developing healthy coping skills, and practicing risk-reduction behaviors.

Role of the DNP Student

My main role as the DNP student was to provide education to improve nursing staff knowledge of how cultural preferences influence diabetes self-management practices among Sierra Leoneans with diabetes mellitus. Three major areas of focus included the factors for effective teaching strategies, the barriers to effective patient education, and the strategies to overcome cultural barriers. The main motivation for this project was the need to enhance health outcomes among diabetic patients in the target population because diabetes, despite its negative consequences, is a condition that if well managed using appropriate techniques and self-care is associated with better health outcomes for the patient. However, several issues including culture, which is part of everyday life of people, inhibit patients' ability to take care of themselves, and this leads to poorer outcomes. Health care provider need to understand these barriers to address the challenges and ensure better health outcomes. A possible limitation in this project was my understanding of the differences in religious and cultural beliefs, which have the potential of affecting the behaviors of Sierra Leonean diabetic patients. However, the skills and training that I received on cultural competence and its importance in health was a guiding tool to ensure that this did not become an issue.

Role of the Project Team

The site leaders, such as nursing managers and administrators, were critical to the project's success. They were in charge of providing project support and resources such as

scheduling nurses to attend the education program and ensuring that all necessary materials and equipment were available. The site leaders were also in charge of communicating the importance of the project to the nurses and encouraging their participation. The involvement of the site leadership was critical in creating a culture of learning and improvement in the health care facility.

Summary

Self-care is an important aspect of managing diabetes because it helps individuals effectively control their blood sugar levels and prevent complications. Self-care behaviors for diabetes include regular blood sugar monitoring, medication adherence, healthy eating, and physical activity. However, the involvement in diabetes self-care management is influenced by several factors including culture. Among the Sierra Leonean population, different cultural beliefs influence their involvement in diabetes management techniques, including the belief in spirits as a cause of illnesses, which promotes the need for alternative and traditional medicine. This project was designed to determine whether an education program would improve nursing staff knowledge of how cultural preferences influence diabetes self-management practices among Sierra Leoneans with diabetes mellitus.

Section 3: Collection and Analysis of Evidence

This DNP project was designed to assess the impact of an educational module on nurses' knowledge of cultural preferences affecting diabetes self-management and their comfort levels in caring for patients with diabetes mellitus from Sierra Leone. Diabetes mellitus is a growing public health concern, particularly among African Americans, and cultural factors play a significant role in self-management, making it crucial to address this aspect in nursing education. This section outlines how the evidence for the project was analyzed and synthesized to develop the education module. This section also includes a description of participant eligibility and the recruitment strategy. Lastly, this section addresses the analysis methods of participant data in answering the project question.

Practice-Focused Question

The practice problem identified at the project site was the lack of nurses' knowledge of how cultural preferences influence diabetes self-management practices of among African Americans from Sierra Leone. The practice-focused question for this project was the following: Will an education module increase nurses' self-reported knowledge levels on the influence of cultural preferences on diabetes self-management practices and comfort with caring for Sierra Leonean patients with diabetes mellitus? This DNP project was conducted to determine whether an education module would increase nurses' self-reported knowledge levels on the influence of cultural preferences on diabetes self-management practices and comfort with caring for Sierra Leonean patients with diabetes mellitus.

Sources of Evidence

The sources of evidence for the project included research studies, clinical guidelines, and data such as reports from the nursing department on the occurrence and impact of diabetes. These sources served as the foundation for addressing the practice-focused question and supporting the module development. Research studies obtained from reputable databases such as PubMed, Cochrane Library, and CINAHL were used, focusing on cultural competency, diabetes self-management, and nurse education. These studies provided valuable insights into effective strategies for addressing cultural barriers in diabetes self-care. Additionally, clinical guidelines were used to identify evidence-based recommendations for diabetes management, emphasizing cultural implications. National organizations and their published materials also served as sources of evidence.

To develop the educational content for the PowerPoint presentation I used keywords and phrases to conduct targeted searches in the databases. Keywords included *cultural competency*, *diabetes self-management*, *nurse education*, and *cultural barriers*. Search limits, such as publication date ranges, language preferences, and study types (e.g., systematic reviews, randomized controlled trials), were applied to ensure the retrieval of relevant and recent evidence.

To further refine the search strategy and ensure comprehensive coverage of the literature, I collaborated with a librarian who possessed expertise in conducting evidence searches. The librarian assisted in formulating effective search strategies, selecting appropriate databases, and identifying additional relevant sources of evidence. The

librarian's guidance enhanced the rigor and comprehensiveness of the evidence collection process, contributing to the overall quality and validity of the project.

The collection and analysis of various sources of evidence provided the necessary foundation to address the practice-focused question. Valuable insights were gained regarding effective strategies to overcome cultural barriers in diabetes self-care through the examination of research studies on cultural competency, diabetes self-management, and nurse education. Clinical guidelines contributed evidence-based recommendations for diabetes management while an analysis of the data, such as reports from the nursing department on the occurrence of diabetes and its impact, provided a real-world perspective on the challenges faced by nurses in caring for Sierra Leonean patients with diabetes mellitus. The collection and analysis of diverse evidence contributed to a comprehensive understanding of the influence of cultural preferences on diabetes self-management practices and the impact of an education module on nurses' knowledge levels and comfort in providing care for Sierra Leonean patients.

Evidence Generated for the Doctoral Project

In this project, the evidence that was generated included surveys completed by participants before and after they viewed the educational module to capture participants' self-reported levels of knowledge of and comfort with caring for Sierra Leonean patients with diabetes.

Participants

The participants in this project were nurses employed by the project site who provided care for Sierra Leonean patients diagnosed with diabetes. The project was

carried out at the same facility, which was estimated to serve a high number of Sierra Leonean patients.

Procedures

Participants were recruited via email. The project site's nurse leader authorized me to receive a list of the employed nurses' email addresses. Through the recruitment email, the nurses were informed about the project and that participation was voluntary. The inclusion criteria, such as nurses' involvement in caring for patients with diabetes and willingness to complete the education module and surveys, were communicated.

The education surveys (see Appendix A and B) were created to assess nurses' knowledge levels and comfort in caring for Sierra Leonean patients with diabetes. The survey questions were derived from the objectives of the educational module and covered topics such as cultural considerations, self-management practices, and comfort levels. The recruitment email included directions to complete the surveys before and after viewing the module. Participants created a unique participant ID number when completing the preeducation survey, and used the same ID number when completing the posteducation survey to maintain anonymity and facilitate matching of pre- and posteducation survey responses.

Survey data were analyzed using descriptive and inferential statistics. Descriptive statistics were employed to summarize the demographic information of the participants and the survey responses. Inferential statistics were used to analyze the impact of the educational module on nurses' self-reported knowledge levels and comfort with caring for Sierra Leonean patients with diabetes. Data analysis was conducted using Excel.

Protections

Before initiating the project, I sought site leadership approval to ensure that the research aligned with the site's policies and ethical standards. As required by the site, I also submitted the project proposal to the site's institutional review board (IRB) for review and approval. The IRB played a vital role in safeguarding the rights and welfare of participants by assessing the project design, informed consent process, data collection methods, and participant confidentiality measures.

Additionally, the doctoral project conducted at Walden University was also subject to the oversight of the Walden University IRB. The Walden University IRB (01-24-24-0233499) served as an independent body responsible for reviewing and approving research conducted by its students and faculty. The IRB's role was to ensure compliance with ethical principles and regulatory requirements, promote participant well-being, and uphold the integrity of the research process.

Analysis and Synthesis

All participant data were transcribed from the paper surveys into an Excel spreadsheet. Inferential statistics were used to determine whether there was a difference in self-reported knowledge and comfort levels among the nursing staff before and after the educational module. The data were analyzed to answer the practice-focused question about the effectiveness of the education module in increasing nurses' knowledge levels on the influence of cultural preferences on diabetes self-management practices and comfort with caring for Sierra Leonean patients with diabetes mellitus. All results were presented to key stakeholders at the institution.

Summary

This section outlined the procedures for collection and analysis of evidence that was used in this project. The survey-based data were analyzed using descriptive and inferential statistics, and were synthesized and interpreted to answer the practice-focused question. Measures were taken to protect participants' privacy and confidentiality.

Section 4: Findings and Recommendations

Cultural competence in health care delivery is crucial for ensuring the provision of effective and patient-centered care, particularly in managing chronic conditions such as diabetes. This project was conducted to assess the impact of an educational intervention on increasing one home care agency's nursing staff's knowledge of cultural preferences on diabetes self-management practices and comfort in caring for Sierra Leonean patients. Considering the significant influence of cultural beliefs and practices on diabetes self-management (Chatterjee et al., 2015), understanding and addressing cultural preferences are essential for optimizing patient outcomes and reducing health care disparities among immigrant populations.

This project examined the baseline knowledge and comfort levels of nursing staff prior to the educational intervention and assessed the changes following the intervention with the aim of evaluating the effectiveness of the educational module in enhancing cultural competence. The survey methodology employed in this project involved administering pre- and post-educational module surveys to nursing staff working with Sierra Leonean patients with diabetes. The surveys comprised statements with Likert-scale and true-or-false responses designed to assess participants' comfort levels and knowledge regarding cultural preferences on self-care practices in diabetes care. Additionally, participants provided demographic information such as gender and years working as a nurse to contextualize the survey findings.

Demographic Findings

Of the 48 staff at the project site who were invited to participate, 22 completed the online education module and the pre- and posteducation surveys. The demographic data were the number of years that the nurses had been in the nursing profession and their gender. The findings revealed that there were four men and 18 women, and there were no transgender or nonbinary participants (see Figure 1). The range of nursing work experience was 2 to 15 years (see Figure 2).

Figure 1

Research Participants' Gender

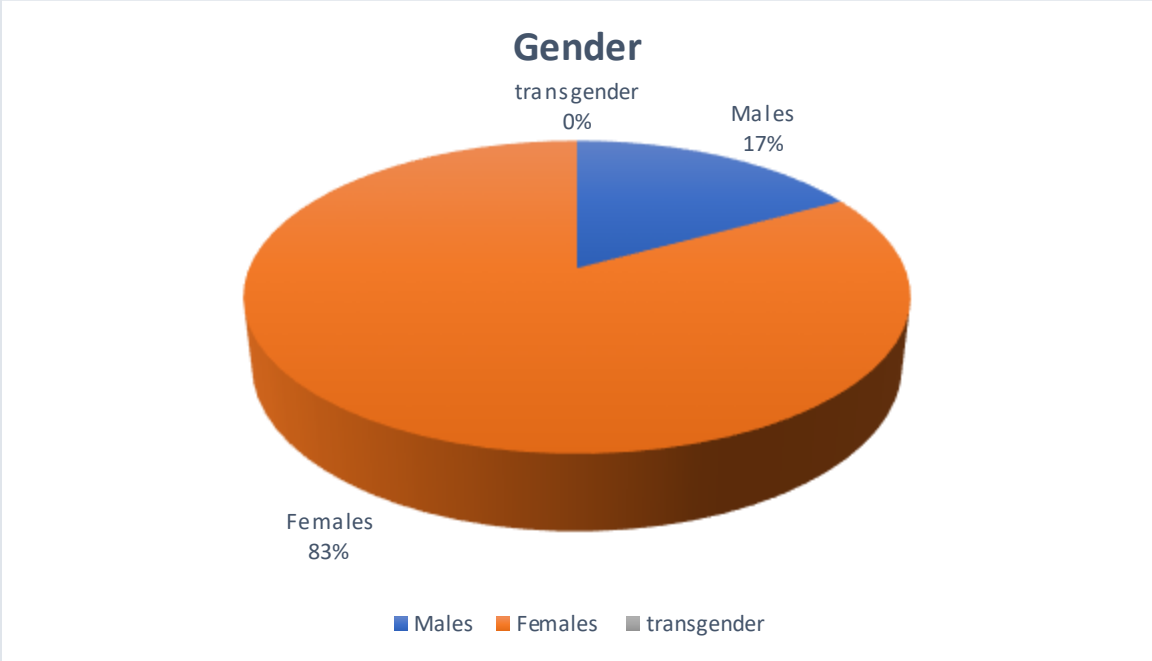
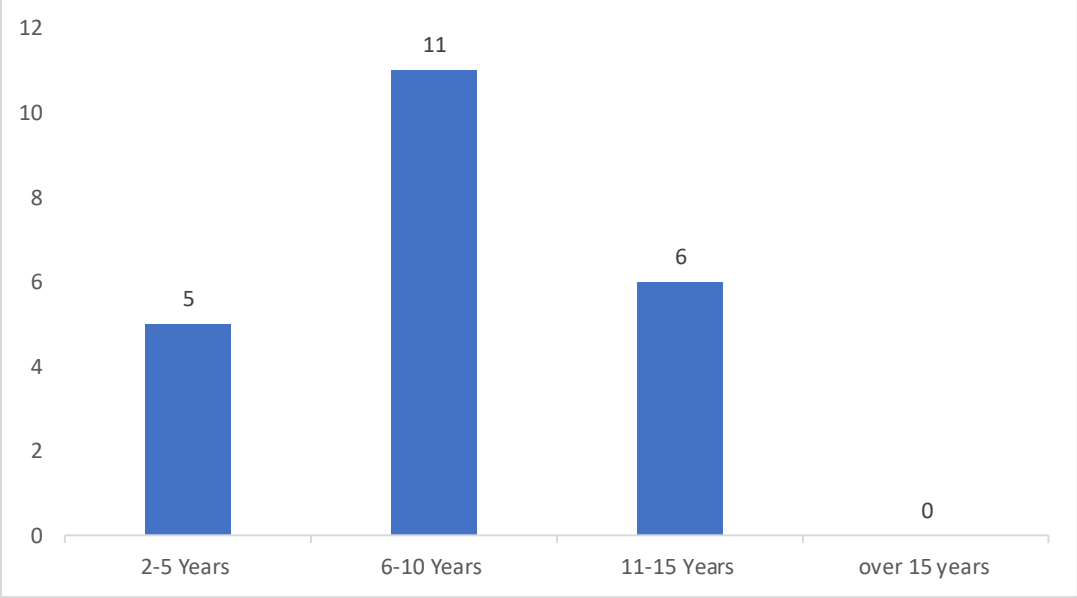


Figure 2

Participants' Years of Nursing Experience



Presurvey Findings

For the preeducation survey, most of the respondents (59.1%) agreed that they were comfortable caring for patients from different cultures, and about 4.6% indicated that they strongly agreed. However, 36.4% of the respondents disagreed and strongly disagreed with this statement, indicating that a substantial percentage of the respondents were uncomfortable when caring for patients from diverse cultural backgrounds. Another important finding was that most (68.18%) agreed that they were knowledgeable about how certain beliefs of Sierra Leonean culture may impact diabetes self-care practices. This presurvey also showed that some (18.18%) of the participants disagreed when it came to knowledge about how certain beliefs of Sierra Leonean culture may impact diabetes self-care practices. These findings supported the need to provide training for these staff to increase their knowledge with the intent of improving their comfort level in understanding the cultural diversity in this population (see Table 1).

Table 1

Preeducation Survey Results

Statement	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I am comfortable caring for patients who have a different culture than mine.	0 (0%)	0 (0%)	8 (36.36%)	13 (59.09%)	1 (4.55%)
I am comfortable asking my patients about their cultural beliefs.	0 (0%)	0 (0%)	7 (31.82%)	13 (59.09%)	2 (9.09%)
I am knowledgeable of how certain beliefs of the Sierra Leone Culture may impact diabetes self-care practices.	0 (0%)	4 (18.18%)	15 (68.18%)	3 (13.64%)	0 (0%)
I am comfortable incorporating my patient's Sierra Leone cultural beliefs and traditions into their medical care plan.	0 (0%)	2 (9.09%)	11 (50%)	9 (40.91%)	0 (0%)
I am knowledgeable of ways to be more culturally competent.	0 (0%)	0 (0%)	9 (40.91%)	13 (59.09%)	0 (0%)
Effective communication is a key strategy in learning about my patient's cultural beliefs.	0 (0%)	0 (0%)	3 (13.64%)	16 (72.73%)	3 (13.64%)

Responses to the true-or-false statements also provided insights about the respondents. A major finding was that all participants selected *false* when answering the statement regarding no benefit of being culturally competent. This indicated a unanimous recognition among the participants of the benefits associated with cultural competence and may have demonstrated the participants' willingness to participate in this project and test their knowledge of key beliefs held by Sierra Leoneans about diabetes self-care practices. This is in line with Sari et al (2022), who argued that knowledge of how cultural beliefs impact diabetes self-care practices can lead to improved patient outcomes. Also noted in responses to the true-and-false statements was a low number of participants who responded correctly to two main beliefs held by Sierra Leoneans. Only three participants (13.63%) responded correctly by selecting *true* when answering that Sierra Leonean patients may believe insulin will damage their major organs. Also, only six participants (27.27%) were knowledgeable that Sierra Leonean patients will often seek advice from a spiritual leader when not feeling well (see Table 2). This confirmed the staff at this health care agency could benefit from additional information on the self-care practices of Sierra Leonean patients. Health care providers who are aware of these cultural factors can better educate and empower their patients to adhere to recommended self-care routines, leading to better management of their condition and potentially reducing the risk of complications.

Table 2

Preeducation True-or-False Responses

Statement	True	False
There really is no benefit of being culturally competent.	0 (0%)	22 (100%)
Some Sierra Leone patients may fear that insulin will damage their internal organs.	3 (13.63%)	19 (86.36%)
Sierra Leone patients may first seek help from a spiritual leader when not feeling well.	6 (27.27%)	17(72.72%)
Care providers play a pivotal role in patient education and support to bridge cultural influences with positive patient outcomes.	22 (100%)	0 (0%)

Postsurvey Findings

A posteducation survey was administered to assess the impact of the cultural competence training program on health care providers' knowledge of and comfort with caring for Sierra Leonean patients with diabetes receiving care from the home care agency. In the posteducation survey, there was an increase in the comfort in caring for patients from 59% who agreed presurvey to 77.28% who strongly agreed after the training. There was also an increase in the number of respondents who strongly agreed with comfort in asking their patients about their cultural beliefs, from 8.09% presurvey to 45.45% after the training. In addition, there was also a notable increase in the percentage of respondents who strongly agreed with the knowledge of Sierra Leonean culture and its relationship with diabetes care, indicating that there was a higher level of knowledge gained by the respondents. Finally, there was an increase in the percentage of respondents who strongly agreed with incorporating cultural beliefs into medical care when developing treatment plans for their patients (see Table 3).

Table 3

Posteducation Survey Results

Statement	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I am comfortable caring for patients who have a different culture than mine.	0 (0%)	0 (0%)	0 (0%)	5 (22.72%)	17 (77.28%)
I am comfortable asking my patients about their cultural beliefs.	0 (0%)	0 (0%)	0 (0%)	12 (54.54%)	10 (45.45%)
I am knowledgeable of how certain beliefs of the Sierra Leone Culture may impact diabetes self-care practices.	0 (0%)	0 (0%)	0 (0%)	4 (18.18%)	18 (81.82)
I am comfortable incorporating my patient's Sierra Leone cultural beliefs and traditions into their medical care plan.	0 (0%)	0 (0%)	0 (0%)	7 (31.81%)	15 (68.18%)
I am knowledgeable of ways to be more culturally competent.	0 (0%)	0 (0%)	0 (0%)	4 (18.18%)	18 (81.82)
Effective communication is a key strategy in learning about my patient's cultural beliefs.	0 (0%)	0 (0%)	0 (0%)	4 (18.18%)	18 (81.82)

In the true-and-false statements from the postsurvey results (see Table 4), a consistent recognition of the benefits of cultural competence among participants suggested the training did not impact the participants' overall impression of the importance to consider cultural traditions in patients' self-care. In addition, all participants (100%) correctly identified the two main beliefs of Sierra Leonean patients when it comes to diabetes care: fear that insulin may damage internal organs (increase from 13.63% presurvey) and the desire to first seek medical advice from a spiritual healer (increase from 27.27% presurvey).

Table 4

Posteducation True-or-False Responses

Statement	True	False
There really is no benefit of being culturally competent.	0 (0%)	22 (100%)
Some Sierra Leone patients may fear that insulin will damage their internal organs.	22 (100%)	0 (0%)
Sierra Leone patients may first seek help from a spiritual leader when not feeling well.	22 (100%)	0 (0%)
Care providers play a pivotal role in patient education and support to bridge cultural influences with positive patient outcomes.	22 (100%)	0 (0%)

Implications for Clinical Practice and Social Change

This project provided valuable insights into the effectiveness of a cultural competence training program for health care staff at one home care agency when caring for patients from the Sierra Leonean community. The training program demonstrated an impact on participants' knowledge and comfort regarding culturally competent health care. There were increases in the percentage of respondents who strongly agreed with statements related to knowledge of Sierra Leonean culture, incorporating cultural beliefs

into medical care, and cultural competence. These changes suggest that the education program positively influenced participants' knowledge of and comfort with providing culturally competent patient care. Additionally, the project highlighted the importance of ongoing education and training in cultural competence for health care providers. Although the training program was effective in certain areas, there may be a need for continuous reinforcement and refinement of cultural competence initiatives to address evolving patient needs and cultural dynamics in health care settings. Improved cultural competence among health care providers may contribute to reduced health care disparities experienced by racial minority populations, such as Sierra Leonean patients with diabetes. When health care providers understand and respect cultural beliefs and practices, they can deliver more tailored and effective care, leading to better health outcomes for these communities.

Strengths and Limitations of the Project

The study was relevant because it addressed a pertinent issue in health care, which is cultural competence in diabetes care management among nurses. The recruitment strategy that was employed in this study allowed for efficient and targeted recruitment of participants at one home care agency. However, the findings from a single site with a small sample size affects the generalizability of the findings. The project incorporated both survey and true-or-false statements to gather comprehensive data on nurses' knowledge levels and comfort in caring for Sierra Leonean patients with diabetes. A notable limitation to surveys is the potential for response bias, which may occur from self-reported data from participants.

Recommendations

Based on the findings of the project, several recommendations can be made to enhance cultural competence among healthcare providers:

1. There should be continued cultural competence training programs for health care providers aimed at reinforcing existing knowledge, addressing gaps, and ensuring that they stay updated on the best practices in culturally sensitive care.
2. It is also important to offer targeted training programs or modules that focus on cultural practices and health care preferences of cultural groups encountered in the health care setting, such as the Sierra Leonean community in the current project.
3. Facilitating interdisciplinary collaboration and communication among health care providers to share insights, strategies, and resources for delivering culturally competent care effectively is recommended.
4. Another recommendation for health care facilities is to develop and implement tools for assessing health care providers' cultural competence levels before and after training interventions to evaluate the effectiveness of education programs and identify areas for improvement.
5. To achieve success, it is important to establish cultural liaison services or cultural competency committees within health care organizations to provide guidance, support, and resources for addressing cultural issues and promoting diversity and inclusion initiatives.

Summary

In Section 4, the findings and recommendations were detailed, stemming from a project that focused on enhancing cultural competence among nursing staff at a home care agency, specifically in the context of caring for Sierra Leonean patients with diabetes. Through demographic data and data from pre- and posteducation survey containing Likert-scale and true-or-false statements, I assessed shifts in knowledge, attitudes, and behaviors among participants. The findings indicated an increase in comfort and confidence in caring for patients from diverse cultural backgrounds, and heightened awareness of cultural beliefs and practices related to diabetes care among Sierra Leonean patients. Recommendations included the continuation of cultural competence training programs, targeted education modules, interdisciplinary collaboration, and the establishment of cultural liaison services to enhance cultural competence among health care providers and promote better health outcomes for racial minority populations.

Section 5: Dissemination Plan

Disseminating the findings of this project to the institution experiencing the problem in practice is important for implementing changes and making improvements in cultural competence training as well as healthcare delivery (see Melvin et al., 2022). Dissemination of findings will be to stakeholders within the health care facility who are responsible for health care training and policy development to ensure buy-in for implementing the changes. A major plan is to have one-on-one discussions with key decision makers or influential leaders within the institution to present the project findings and discuss potential strategies for incorporating recommendations into practice. Building personal relationships and garnering individual support can be instrumental in driving organizational change (Metz et al., 2022). The main form of dissemination will be presentations or workshops in the facility, which will allow for the presentation of the findings to the different departmental teams in the institution. A major consideration is to tailor the content to address the cultural competence of nursing staff regarding Sierra Leonean patients with diabetes mellitus.

Analysis of Self

In my role as a practitioner, this project has equipped me with practical skills and knowledge essential for delivering culturally competent care to diverse patient populations, particularly those with diabetes. Through the implementation of an educational intervention aimed at enhancing nurses' cultural competence in diabetes care management for Sierra Leonean patients, I gained firsthand experience regarding the

importance of patient-centered care, effective communication, and sensitivity to cultural factors in promoting positive health outcomes.

In my role as a scholar, this project has deepened my understanding of theoretical frameworks, research methodologies, and evidence-based practices in health care. I developed a comprehensive understanding of the factors influencing health care disparities and the role of cultural competency in addressing them. In my role as a project manager, this project allowed me to demonstrate leadership and communication skills, which are essential for driving successful health care initiatives. This was seen in the different roles that I undertook from conceptualizing the project to securing institutional approvals, coordinating data collection, and analyzing findings. This project influenced my present and long-term professional goals by shaping my identity as a competent and compassionate health care professional committed to excellence in patient care.

Throughout the journey, various challenges were encountered, but each presented an opportunity for growth and learning. One of the initial challenges was recruiting an adequate number of participants for the project. Despite having access to email addresses from the project site's nurse leader, I experienced participant recruitment challenges. To address these challenges, I improved communication strategies by sending personalized emails to potential participants, highlighting the importance of their involvement and offering incentives for participation, such as continuing education.

A second challenge was how to balance the demands of the doctoral program, including coursework, research, and clinical responsibilities. I experienced some time constraints that in some instances led to delays in project milestones and increased

pressure to meet deadlines. To address this challenge, I implemented effective time management strategies such as prioritizing tasks and breaking down larger goals into smaller, achievable milestones. In addition, I developed a detailed project timeline, which helped ensure steady progress.

Summary

This project addressed the impact of an educational module on nurses' knowledge and comfort levels in caring for Sierra Leonean patients with diabetes mellitus, focusing on cultural preferences affecting diabetes self-management. Pre- and posteducation surveys were administered to assess changes in participants' cultural competence, revealing improvements in knowledge and comfort levels after completing the education.

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Appendix A: Preeducational Model Survey

Unique Identifier: *(free text)* _____ (e.g., animal + street number = dog815)

Background Information – (select one)

Years working as a nurse: ____ *0-2 years* ____*2-5 years* ____*6-10 years* ____*11-15 years* ____*more than 15 years*

Gender: _____Male _____Female _____ Transgender _____Other _____ prefer not to answer

Please indicate your level of agreement with the statements below by circling the number to the right of the statement that best fits your opinion. All responses are anonymous.

Statement	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I am comfortable caring for patients who have a different culture than mine.	1	2	3	4	5
I am comfortable asking my patients about their cultural beliefs.	1	2	3	4	5
I am knowledgeable of how certain beliefs of the Sierra Leone Culture may impact diabetes self-care practices.	1	2	3	4	5
I am comfortable incorporating my patient's Sierra Leone cultural beliefs and traditions into their medical care plan.	1	2	3	4	5
I am knowledgeable of ways to be more culturally competent.	1	2	3	4	5
Effective communication is a key strategy in learning about my patient's cultural beliefs.	1	2	3	4	5

Please respond true or false to each statement below.

1) There really is no benefit of being culturally competent True False
2) Some Sierra Leone patients may fear that insulin will damage their internal organs. True False
3) Sierra Leone patients may first seek help from a spiritual leader when not feeling well. True False
4) Care providers play a pivotal role in patient education and support to bridge cultural influences with positive patient outcomes. True False

Appendix B: Posteducational Model Survey

Unique Identifier: *(free text)* _____ (e.g., animal + street number = dog815)

Please indicate your level of agreement with the statements below by circling the number to the right of the statement that best fits your opinion. All responses are anonymous.

Statement	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I am comfortable caring for patients who have a different culture than mine.	1	2	3	4	5
I am comfortable asking my patients about their cultural beliefs.	1	2	3	4	5
I am knowledgeable of how certain beliefs of the Sierra Leone Culture may impact diabetes self-care practices.	1	2	3	4	5
I am comfortable incorporating my patient's Sierra Leone cultural beliefs and traditions into their medical care plan.	1	2	3	4	5
I am knowledgeable of ways to be more culturally competent.	1	2	3	4	5
Effective communication is a key strategy in learning about my patient's cultural beliefs.	1	2	3	4	5

Please respond true or false to each statement below.

1) There really is no benefit of being culturally competent True False
2) Some Sierra Leone patients may fear that insulin will damage their internal organs. True False
3) Sierra Leone patients may first seek help from a spiritual leader when not feeling well. True False
4) Care providers play a pivotal role in patient education and support to bridge cultural influences with positive patient outcomes. True False