

Medicine and Public Health Research Journal | *ISSN 1694-4593* Published by ACADEMIC INK REVIEW | *https://airjournal.org/mphrj* 16/18 Avenue des Longaniers, Quatre Bornes, Mauritius airjournals@gmail.com; enquiry@airjournal.org

Effect of Supportive Palliative Care Educational Intervention on Nurses' Knowledge and Attitude towards Palliative Care in Selected Tertiary Hospitals in South East Nigeria

Agunwah EU¹, Nworie A², Eze, CU³

¹Dept of Nursing Sciences, Ebonyi State University Abakaliki, Ebonyi State ²Dept of Medical Laboratory Services, Ebonyi State University Abakaliki, Ebonyi State ³Dept of Nursing Sciences, Evangel University, Abakaliki, Ebonyi State, Nigeria

Abstract

This study examines the effect of Supportive Palliative Care Educational Intervention on Nurses' Knowledge and Attitude towards Palliative Care in Selected Tertiary Hospitals in South East Nigeria. The specific objectives of the study aimed to assess and compare nurses' knowledge and attitudes towards palliative care before and after interventions among an experimental group that received educational interventions and a control group that did not. The experimental group, consisting of nurses who received the educational intervention, demonstrated a significant improvement in knowledge about palliative care principles, symptom management, communication skills, and psychosocial support. This improvement highlights the positive impact of educational interventions on enhancing nurses' knowledge in palliative care. Furthermore, the study examined the attitudes of nurses towards palliative care in both the experimental and control groups. The experimental group showed a notable improvement in attitudes, including increased empathy, compassion, and a patient-centred approach to end-of-life care. These findings suggest that attitude enhancement programs can positively influence nurses' attitudes towards palliative care. In contrast, the control group, which did not receive interventions, exhibited minimal improvement in knowledge and attitudes towards palliative care. This highlights the importance of targeted interventions and educational programs to enhance nurses' knowledge and attitudes in this specialized area of care. The findings of this study emphasize the significance of investing in educational interventions and attitude enhancement programs for nurses in palliative care. Improving nurses' knowledge and attitudes can lead to enhanced quality of care, better patient outcomes, and increased satisfaction among patients and their families during end-of-life situations. Future research should continue to explore the effectiveness of educational interventions, refine curriculum content, and evaluate the long-term impact of these interventions on nurses' knowledge and attitudes. By prioritizing education and attitude enhancement in palliative care, healthcare organizations can ensure that nurses are well-equipped to provide compassionate, patient-centred care to individuals and families facing end-of-life situations.

KeywordsSupportive Palliative Care; Educational Intervention; Nurses Knowledge and Attitude; Tertiary HospitalsCitationAgunwah EU, Nworie A, Eze, CU. Effect of Supportive Palliative Care Educational Intervention on Nurses' Knowledge
and Attitude towards Palliative Care in Selected Tertiary Hospitals in South East Nigeria. Medicine and Public Health
Research Journal, 2024, 14-31 https://doi.org/10.5281/zenodo.10843728



Background

Palliative care plays a crucial role in enhancing the quality of life for individuals facing serious or life-limiting illnesses. The World Health Organization (WHO 2002) defines palliative care as an approach aimed at enhancing the quality of life for patients and their families facing the challenges associated with life-threatening illness. This is achieved through the prevention and alleviation of suffering via early detection, accurate assessment, and comprehensive treatment of physical, psychological, and spiritual pain and other concerns. Palliative care prioritizes the individual over the disease, embraces the essence of life while acknowledging death as a natural progression, and does not seek to hasten or prolong the dying process. It is deemed suitable for individuals of any age and at any stage of serious illnesses (2, 3). In the context of healthcare delivery, nurses are at the forefront of providing palliative care to patients and their families. However, ensuring that nurses possess adequate knowledge and positive attitudes toward palliative care is essential for delivering effective and compassionate support to patients in need.

The progression of palliative care knowledge necessitates thorough measurement and evaluation to ensure equitable access to its benefits for all in need (4). However, the practical reality in Nigeria reveals a concerning trend where many nurses, lacking adequate understanding of palliative care, are assigned to care for patients who require such specialized services (5). This leaves these nurses feeling distressed, confused, and hopeless due to their inability to provide proper care to patients in need (6), thus infringing upon the patients' fundamental human right to access essential healthcare services. Consequently, patients endure significant pain and suffering, unaware of when relief might come.

In Nigeria, palliative care appears to be in its early stages, with no discernible national policy for palliative care education or integration into the healthcare system. Literature also highlights widespread knowledge gaps regarding palliative care, including in Nigeria (7, 8, 9, 10, 11). Additionally, studies indicate that unfavorable attitudes further hinder the practice of palliative care (5, 12, 13, 14).

Educational interventions have been shown to enhance nurses' knowledge, attitudes, and ability to provide palliative care where implemented (12, 15). While developed nations like the United States, the United Kingdom, and some African countries are advancing nursing education in palliative care as a subspecialty, the Nursing and Midwifery Council of Nigeria has yet to incorporate palliative care training as a nursing subspecialty.

Given this context, this study investigates the impact of supportive palliative care educational interventions on nurses' knowledge, attitudes, and practices regarding palliative care. It aims to assess the extent to which barriers related to knowledge and attitudes toward palliative care practice can be addressed, providing evidence to advocate for the adoption and integration of palliative care education and practice into Nigeria's healthcare system by policymakers and professional bodies.

Statement of the Problem

In an ideal scenario, nurses in tertiary hospitals in South East Nigeria would possess comprehensive knowledge and a positive attitude towards palliative care. They would be adequately equipped to provide holistic care to patients with life-limiting illnesses, ensuring optimal comfort and support for both patients and their families.

However, the reality presents a stark contrast. Many nurses lack sufficient knowledge and harbor negative attitudes towards palliative care in these hospitals. This deficiency hampers their ability to deliver effective palliative care services, resulting in suboptimal patient outcomes and diminished quality of life for patients with life-limiting illnesses.

If these issues persist without resolution, patients with life-limiting illnesses will continue to receive inadequate palliative care, leading to increased suffering, unmanaged symptoms, and heightened distress among patients and their families. Furthermore, the absence of supportive palliative care educational interventions for nurses may perpetuate misconceptions and negative attitudes towards palliative care, perpetuating a cycle of inadequate care provision and compromised patient well-being.

Objectives of the Study

The main objective of the study is to determine the effect of Supportive Palliative Care Educational Intervention on Nurses' Knowledge and Attitude towards Palliative Care in Selected Tertiary Hospitals in South East Nigeria. The specific objectives of the study are to:

- i. Assess and compare nurses' level of knowledge about palliative care before and after intervention among those who received the educational intervention (experimental group) and those who did not (control group).
- ii. Examine and compare nurses' level of attitude towards palliative care before and after intervention among the experimental group and control group.

Research Questions

The following research questions guided the study:

- i. How does the level of knowledge about palliative care among nurses in the experimental group compare to that of the control group before and after the educational intervention?
- ii. What are the differences in the level of attitude towards palliative care among nurses in the experimental group and control group before and after the intervention?

Statement of Hypotheses

The following hypotheses stated in null form (H₀) were formulated for this research:

- H₀: There is no significant difference in the level of knowledge about palliative care before and after the educational intervention between the experimental group and the control group of nurses.
 H₁: There is a significant difference in the level of knowledge about palliative care before and after the educational intervention between the experimental group and the control group of nurses.
- H₀: There is no significant difference in the level of attitude towards palliative care before and after the intervention between the experimental group and the control group of nurses.
 H₁: There is a significant difference in the level of attitude towards palliative care before and after the intervention between the experimental group and the control group of nurses.

Conceptual Review

Historical Background of Palliative Care

The origins of palliative care can be traced back to the United Kingdom in the 1960s, where it was closely associated with hospice care (17). Cecily Saunders, a nurse in the UK, is credited as the pioneer of palliative care, emphasizing real-time patient interactions focused on symptom management and holistic care rather than solely on the disease process or impending death. Palliative medicine was formally recognized as a specialized field within general medicine in the late 1980s in the UK, laying the groundwork for its establishment as a distinct specialty. Subsequently, palliative care gained traction in the United States during the 1990s, marked by a shift in differentiating between hospice and palliative care, with a growing emphasis on the unique aspects of the latter (16). Formal recognition of palliative medicine as a specialty in the United States followed a similar trajectory to that in the UK, culminating in 2008. The evolution of palliative care from hospice care underscores its applicability and importance across various stages of chronic illnesses and serious conditions (17). Additionally, the introduction of palliative care to Africa, particularly East Africa, in response to the HIV/AIDS pandemic in 1993 marked a significant milestone, demonstrating its global reach and adaptability.

Palliative Care Barriers Worldwide

Overcoming barriers to palliative care on a global scale is essential to address unmet needs in patient care. National health policies often overlook palliative care, while inadequate training for healthcare professionals and limited access to opioid pain relief further hinder progress. Misconceptions and cultural barriers contribute to a lack of understanding about palliative care's scope and benefits, perpetuating the notion that it is exclusively for cancer patients or end-of-life care. Despite efforts to improve access, disparities persist, with a significant portion of the world's population lacking access to essential pain relief medications. Bridging these gaps requires concerted efforts to integrate palliative care into healthcare systems, enhance training for healthcare professionals, and address policy and regulatory barriers to opioid access (18).

Strategies for Overcoming Barriers to Palliative Care

Effective strategies for overcoming barriers to palliative care encompass integration into the broader healthcare continuum, strengthening health system policies, expanding human resources, and ensuring equitable access to essential medicines. Early integration of palliative care into disease management improves patient outcomes and reduces healthcare utilization. Embracing palliative care as an ethical imperative underscore its importance in providing holistic support to patients and families. The World Health Organization (WHO) plays a crucial role in advocating for palliative care integration, setting global standards, and supporting member states in enhancing access and quality of care (7).

World Health Organization's Response to Palliative Care

The WHO's initiatives focus on integrating palliative care into global health agendas, standardizing care across disease categories, and addressing ethical challenges. Efforts include advocating for universal health coverage inclusive of palliative care, enhancing access to essential medicines, and promoting palliative care for vulnerable populations, including children and HIV-positive individuals. The WHO's guidelines and resolutions underscore its commitment to advancing palliative care as an essential component of comprehensive healthcare (19).

Benefits of Palliative Care

Palliative care offers a range of benefits, including symptom management, emotional and spiritual support, and improved quality of life for patients and families. Early integration of palliative care enhances treatment outcomes and reduces healthcare utilization. Its holistic approach addresses physical, psychosocial, and spiritual needs, affirming life while providing comfort and dignity to patients throughout their illness trajectory. Accessible across various settings, including hospitals, homes, and community programs, palliative care emphasizes patient-centered care and interdisciplinary collaboration to optimize outcomes and support individuals and families facing serious illness (13).

Role of Nursing in Palliative Care

Nursing assumes a pivotal role in ensuring that patients and their families actively participate in decisions regarding their care, thereby achieving complete satisfaction with their disease management (20). This role becomes increasingly significant in the context of evolving healthcare practices, where prioritizing the quality of life for chronically or terminally ill patients and their families has become a fundamental aspect of healthcare system reforms. Palliative care represents a paradigm shift in nursing care, emphasizing the enhancement of quality of life as a primary goal of effective care delivery (21). Nurses serve as key players in clinical interactions, with their approaches significantly influencing patient outcomes (20). Patients' perceptions of professionals' positive attitudes toward their self-management behaviors are strongly linked to higher levels of patient-nurse relationships in caregiving, emphasizing the crucial role of nurses in palliative care. Evidence from specialists supports the notion that nurses can enhance patients' quality of life by employing various strategies, including pain and symptom management, psycho-social-spiritual care, and empowering patients to actively engage in their treatment plans and decisions (19). As such, nurses are increasingly recognized as specialists capable of delivering tailored and flexible

care, which is indispensable in the context of palliative care (20, 22). However, realizing the innovative potential inherent in palliative care approaches hinges on physicians' ability to appreciate the value of data collected during patient care and effectively leverage such data in their clinical practice. Effective palliative care programs prioritize the delivery of high-quality treatments for pain relief, symptom management, and psychological and spiritual support to all members of the target population, including patients, family members, and caregivers, equitably and indefinitely.

Professional nurses in developing countries like Nigeria, with its substantial population exceeding 180 million, often lack exposure to palliative care education, resulting in a lack of self-confidence in initiating conversations about palliative care services with patients in need. Consequently, many patients endure unnecessary suffering and preventable painful deaths. A primary factor hindering the successful implementation of palliative care is clinicians' lack of knowledge, awareness, and positive attitudes toward effectively utilizing available data in clinical practice with their patients. Numerous studies have highlighted knowledge deficits among nurses regarding palliative care, underscoring the need for educational interventions to improve service quality. Educational initiatives aimed at advancing compassionate and holistic palliative/end-of-life care are essential for addressing these challenges. However, there is a paucity of data in Nigeria on the impact of education in improving the knowledge, attitudes, and practices of palliative care providers, particularly among nurses caring for terminally ill patients and their families in hospital settings.

The Knowledge of Nurses about Palliative Care

The knowledge of nurses about palliative care should be largely dependent on training at both undergraduate and postgraduate levels. Knowledge encompasses awareness and understanding of phenomena through facts, descriptions, or skills acquired via experience and/or education. Education, as a process of capacity building, involves transmitting one person's knowledge, talents, values, and skills to another, empowering individuals to confront life's challenges with confidence. Education fosters the development of personality and enables individuals to navigate life's challenges effectively, leading to positive outcomes and contributing to the well-being of society. Palliative care education, including learning programs and training for nurses in clinical practice, is crucial for enhancing patient quality of life in healthcare settings. However, there is a dearth of information regarding palliative care education in this context in the literature.

Attitudes towards Palliative Care

Attitudes toward palliative care provide insights into individuals' perspectives on topics and processes deemed essential, good, relevant, or suitable. Attitude, a psychological concept, pertains to an individual's mental and emotional inclinations toward or away from a subject area. It reflects a person's predisposition or state of mind regarding a value, often shaped by experiences and expressed in responses toward people, places, or objects. Attitudes drive actions and are influenced by past and present experiences. There is a gap in the literature regarding nurses' attitudes toward palliative care in the South East of Nigeria.

Practice of Palliative Care

Palliative care offers invaluable support for patients living with serious or life-limiting illnesses and their family caregivers. Nurses play a key role in initiating discussions about palliative care with patients and families early in the illness trajectory. In practice, the goal of palliative care is to alleviate pain and suffering, providing comfort to patients rather than focusing solely on curing their ailments (23). Palliative care can be provided concurrently with other therapies, focusing on pain and symptom management, dyspnea alleviation, and addressing concerns such as nausea, fatigue, depression, anxiety, and loss of appetite (Greater Manchester Medicines Management Group [GMMMG], 2022). Touch and presence are therapeutic elements of palliative care, with healthcare professionals offering comfort through physical contact and emotional support (24). Collaboration among healthcare workers, interdisciplinary teams, patients, and families is essential in navigating the complexities of palliative care, including addressing benefits and burdens, making informed decisions, and providing counseling and support throughout the illness trajectory. However, effective practice of palliative care is impeded in environments where there is a lack of

knowledge and positive attitudes toward palliative care among healthcare providers. Numerous studies have identified knowledge deficits among nurses regarding palliative care, highlighting the need for educational interventions to enhance service quality (5, 25). Such findings serve as a foundation for developing educational support for advancing compassionate and holistic palliative/end-of-life care. Nonetheless, there is a scarcity of data in Nigeria on the impact of education on improving the knowledge, attitudes, and practices of palliative care providers, particularly among nurses caring for terminally ill patients and their families in hospital settings.

Supportive Education for Advancing Palliative Care

Nurses who receive palliative nursing education are better equipped to understand the end-of-life experience, pain and symptom management, care objectives, and advance care planning. Six primary skill sets constitute total palliative care, including communication, decision-making, management of therapy and illness consequences, symptom control, psychosocial care of the patient and family, and care of the dying. Education and training programs aimed at enhancing these skills are critical for improving patient quality of life in healthcare settings. Cultural influences, personal values, and beliefs significantly influence individuals' comprehension of end-of-life situations. Under-recognition, under-diagnosis, and under-treatment of patients with considerable suffering remain significant concerns in palliative care, necessitating a concerted effort to address these challenges.

Theoretical Framework

This study is theoretically underpinned on The Adult Learning Theory.

The Adult Learning Theory

The primary aim of this study is to enhance nurses' capacity to identify and provide assistance to patients requiring palliative care. Utilizing educational interventions grounded in adult learning theories proves effective in promoting learning within clinical settings, thereby fostering shifts in nursing behavior. The underlying concept is rooted in the notion that learning occurs when students determine their learning needs, rather than instructors dictating what they should know. Assumptions of adult learning encompass several aspects: Adults prefer learner-centered approaches as they afford them greater control and autonomy over their learning process. Adult learning emphasizes the development of learning skills and the application of reflective processes, with experience serving as a cornerstone. Adults value learning that equips them to address real-world situations. Consequently, effective learning hinges on treating the learner as an independent and self-directed entity, considering healthcare professionals' educational requirements, establishing conducive learning environments, and involving learners in session planning (Schön, 1987 as cited in Ann-Charlotte, 2015). Therefore, this study aims to evaluate educational interventions grounded in integrated adult learning theory for enhancing wellbeing in critical care settings and their impact on the frequency of general assessments over time.

Application of Theories of Adult Learning and Restorative Wellbeing to the Present Study:

The independent variables, described as predictor variables, encompass knowledge of palliative care and attitudes toward palliative care. These, along with perceived self-efficacy in delivering palliative care, constitute components of the cognitive variable. The cognitive variable is derived from the Theory of Restorative Well-being developed by Lent (2010). As nurses engage with clients requiring palliative care, they engage in a series of cognitive evaluations. Educational interventions augment these independent variables, fostering cognitive problem-focused coping evaluations, which include assessing knowledge, attitudes, and efficacy toward palliative care. Enhanced self-efficacy is anticipated to lead to improved palliative care practice by nurses.

Intervening variables in the study modify or moderate the influence of independent variables on palliative care practice. These factors are drawn from various composite factors in the theory of Restorative Well-being and include demographic factors (age, occupation, education level, training, and years of work experience), psycho-behavioral variables (personality and affective traits), and social variables (social class, peer and reference group pressure, social support systems, and culture).

The outcome of the study, referred to as the dependent variable, is palliative care practice. It is anticipated that an interaction between knowledge, attitudes, and self-efficacy toward palliative care will influence the practice of palliative care. Adequate practice is expected when there is good knowledge, positive attitudes, and favorable self-efficacy. Conversely, inadequate practice is likely in cases of poor knowledge, negative attitudes, and unfavorable self-efficacy.

Empirical Review

Menekli et al. (12) studied the effect of educational intervention on nurses knowledge about palliative care using a quasi-experimental design in Turkey with a sample size of 136 nurses. There was a statistically significant difference between the mean scores of nurses before and after training (p < 0.001). It was found that educational intervention has a large effect (Cohen's *d* = 5.540) on nurses' knowledge about palliative care. The descriptive analyses of the demographic information revealed that the mean age of the nurses was 28.93 (SD 2.9) years and of the nurses, 77.2% were women and 55.8% had an undergraduate degree, 61.0% were employed for 6–11 years, and 58.1% evaluated their palliative care knowledge level as partially adequate It was determined that educational intervention was an effective way to improve nurses' knowledge about palliative care.

Noh, Lee and Won (30) examined the effectiveness of an educational intervention in enhancing palliative care knowledge among informal caregivers of cognitively impaired older individuals. A one-group, pre- and post-test intervention design was used, with 43 informal caregivers of chronically or seriously ill older adults (50+) with cognitive impairment recruited from communities in West Alabama receiving an individual, face-to-face educational intervention with an informational brochure. The Palliative Care Understanding Scale was used to assess their knowledge about palliative care (PaCKS). The Wilcoxon signed-ranks test was used to compare pre- and post-test results, and the Mann-Whitney U test was used to compare racial subgroups (Whites vs. Blacks). There was a statistically significant difference between the pre- and post-test scores (z = 5.38, p 0.001), showing that the educational intervention had a statistically significant effect on enhancing palliative care knowledge among participants.

In the pre-test, there was a significant difference (U = 143, p 0.05) between Whites and Blacks, which vanished in the post-test (U = 173.50, p > 0.05), implying that the amount of increased Packs scores for Blacks (Mdn = 9.50) was significantly greater than for Whites (Mdn = 4.00, U = 130.50, p 0.05). The study's findings showed that a single training intervention can increase palliative care knowledge among informal caregivers of chronically or critically sick older individuals with cognitive impairment, especially among Black caregivers. As a result, more educational initiatives to enhance palliative care understanding and eliminate racial inequalities in palliative care knowledge and usage can be made.

Dhegihan et.al (2020) investigated the effect of palliative care training on perceived self-efficacy of nurses involved in providing end-of-life care for end-stage individuals and their self-efficacy. The method used was a quasiexperimental study with a pretest-posttest design to determine the effect of palliative care on perceived self-efficacy of nurses. The sampling was done in a randomized fashion with a sample size of 40 people. The intervention consisted of four 45-minute sessions of palliative care instruction. Before and after the intervention, data was collected using demographic and perceived self-efficacy questionnaires. The data was then analyzed using descriptive and inferential statistics in SPSS 16 software. The participants' average age was 38.6, and their average work experience was 14.25 years, according to the findings. The bulks of the participants (85%) were female and had at least a bachelor's degree (92.5 percent). After intervention, "perceived self-efficacy," "psychosocial support," and "symptom management" all improved considerably (p 0.05). The researchers came to the conclusion that palliative care education has the potential to boost nurses' perceived self-efficacy. Nursing managers may take an effective step to enhance the capacity of nurses by organizing and supporting training in this area, as all members of the health care team, including nurses, play a vital role in delivering palliative.

In their study Birkholz and Haney (26), on using a dyspnea assessment tool to improve care at the end of life, compared practicing nurses' experiential practice in the assessment and management of dyspnea in patients unable to self-report to practice using of the Respiratory Distress Observation Scale (RDOS). This pre-experimental

pretest/posttest study evaluated nurse outcomes following a structured educational program aimed at preparing them to use the RDOS. Nurses (n = 39) who provide end-of-life care were recruited for the study. After receiving the educational program, there was not a significant difference in the nurse's ability to assess the patient's overall level of perceived comfort and determine a differential diagnosis. However, there was, improvement in the nurse's ability to correctly determine a patient's level of dyspnea (P = .021) and also in their ability to select appropriate treatment options. The study demonstrated applicability of the RDOS to the end-of-life population replacing experiential practice with an evidence-based tool for the assessment and treatment of dyspnea in patients who cannot selfreport

This quasi-experimental study was conducted by Çalık et al (27) at Turkey to determine the at a palliative care unit in Turkey between January and June 2019. The study, a quasi-experimental design included 35 hospitalized patients with cancer and 35 caregivers. Caregivers were provided with educational intervention three times, a week apart. The data were analyzed using descriptive statistics, Kolmogorov-Smirnov test, Friedman test, and iterative analysis of variance to determine the effect of educational intervention provided to caregivers of hospitalized patients with terminal cancer theoretically, practically, and visually on their own and patients' quality of life. After the educational intervention, there was an increase in cancer patients' emotional function sub-scale and global health and decrease in their fatigue and nausea-vomiting symptoms (p<0.05). The mean scores of caregivers from role difficulty, pain, vitality, social function, emotional, and mental health sub-scales were high (positively) (p<0.001). They concluded that educational intervention has a positive effect on caregiver burden and recovery in some quality-of-life subscales of both patients and caregivers.

In a study by Petursdottir (15) on the impact of implementing an educational intervention to enhance a familyoriented approach in specialized palliative home-care: a quasi-experimental study. The aim was to evaluate the impact of an advanced educational and coaching programme in a family system nursing approach for palliative care nurses in a home care setting. A quasi-experimental study; using qualitative data from open-ended questions to augment the quantitative outcome study that included a single-group, pre-post-test design. A total population sample of nurses was recruited from a specialized palliative home care unit at a university hospital. The study utilized two self-reported questionnaires. Results showed that there was a statistically significant increase in the nurses' critical appraisal of clinical nursing practice related to family nursing after participation in the educational programme than before. No statistical difference was found in items related to nurses' experience of the interaction and reciprocity in the nurse-family relationship after participation in the programme than compared to before or in nurses' cancer-related beliefs. However, there was an overall significant positive change found in attitudes towards families in the total score of the Family Practice Scale. Nurses were also more positive about the further development of their knowledge and skills in advanced family nursing evident in the qualitative data. Conclusion: An advanced educational intervention programme was successful in improving the nurses' knowledge, skills, satisfaction, and confidence in relation to applied family nursing approach within the context of caring for families affected by advanced/final stage cancer. However, further refinement of the implementation process is needed to enhance family care improvement further and the nurses' professional development in advanced family nursing in specialized palliative care.

Methodology

Research Design

This study utilized a quasi-experimental design known as a pretest-posttest/control group design. Such designs are commonly employed in situations where random assignment is challenging or not feasible, as is often the case in field research (28). The purpose of this quasi-experimental study was to assess the effectiveness of a therapy or educational intervention. The research design involved both a treatment/intervention group and a control group.

The pretest-posttest design was employed, wherein the experimental group received a pretest, followed by the intervention, and then a posttest. The control group, on the other hand, underwent a pretest, did not receive the intervention, and then completed a posttest. The main objective of this design was not simply to determine if

individuals who received the intervention improved, but rather to examine if they demonstrated greater improvement compared to those who did not receive the intervention (28).

Area of Study

This study was conducted in the Southeast geopolitical zone of Nigeria, which is one of the six geopolitical zones in the country. The Southeast geopolitical zone borders the South-South geopolitical zone to the east, west, and south, and the North central geopolitical zone to the north. The region is predominantly inhabited by the Igbo people, and the major language spoken is Igbo, although English is also widely spoken.

The Southeast geopolitical zone consists of five states: Abia, Anambra, Ebonyi, Enugu, and Imo. In Abia State, the capital is Umuahia, and it is home to the Federal Medical Center (FMC) Umuahia and Abia State Teaching Hospital (ABSUTH) Aba. Anambra State is bordered by Imo and River States, and it has Nnamdi Azikiwe University Teaching Hospital (NAUTH) in Nnewi and Anambra State University Teaching Hospital in Awka.

Ebonyi State, with its capital in Abakaliki, has Federal Teaching Hospital Abakaliki 1 and Federal Teaching Hospital Abakaliki 2 (FETHA & FETHA 2). Enugu State, with Enugu as its capital, is home to the historic University of Nigeria Teaching Hospital (UNTH) and Enugu State University Teaching Hospital (ESUTH). Imo State, with its capital in Owerri, has Federal Medical Centre (FMC) Owerri and Imo State Teaching Hospital (IMSUTH) Orlu.

Each of these five states in the Southeast geopolitical zone has two tertiary hospitals. Tertiary hospitals are specialized healthcare facilities that provide advanced medical care, often serving as referral centers for complex cases. They offer specialized treatment and expertise from specialists and provide intensive healthcare monitoring. Additionally, tertiary care centers may also have academic medical facilities where research and teaching are conducted.

Population of the study

The population of the study comprise of 3215 respondents from Abia, Anambra, Enugu, Ebonyi, and Imo.

Sampling Technique/Sample Size

The sample size for the study was 345. This was calculated using power analysis formula by Fox, Hunn and Marthers (29)

Sampling Technique

Multistage sampling technique was employed for the study.

Method of Data Analysis

The study employed simple frequency tables, percentages, mean and standard deviation.

Results

This section presents the findings of the study, which were derived from the analysis of the collected data. The results were presented using tables, simple percentages, and inferential statistics in accordance with the study's objectives. A total of 345 questionnaires were distributed to the respondents, and out of those, 325 questionnaires were completed accurately. This represents a response rate of 94%.

Research Questions One: How does the level of knowledge about palliative care among nurses in the experimental group compare to that of the control group before and after the educational intervention?

Table 1: Differences in the mean score of nurses' on knowledge of palliative care of the experimental group prior to intervention (AEFUTHA + FMC OWERRI).

inite v						
	· ,	Group	Mean	STD	t -test	P value
1.	Palliative care should only be provided for patients who	AEFUTHA	2,075	.884	27.060	.000
	have no curative treatment available	OWERRI	2.100	.885	13.001	.000
2.	Palliative care should not be provided along with anti-	AEFUTHA	2.045	.903	26.107	.000
	cancer treatment	OWERRI	2.067	.907	12.478	.000
3.	Morphine is the standard used to compare the analgesic	AEFUTHA	2.188	.931	27.116	.000
	effect of other opioids	OWERRI	2.100	.960	11.987	.000
4.	One of the goals of pain management is to get a good night	AEFUTHA	2.233	.912	28.240	.000
	sleep	OWERRI	2.267	.907	13.685	.000
5.	When cancer pain is mild, pentazocine should be used	AEFUTHA	2.241	.906	28.527	.000
	more often than an opioid like morphine	OWERRI	2.267	.907	13.685	.000
6.	When opioids like morphine are taken on a regular basis,	AEFUTHA	2.256	.893	29.124	.000
	non- steroidal anti-inflammatory drugs should not be used.	OWERRI	2.300	.877	14.366	.000
7.	Long-term use of opioids like morphine can often induce	AEFUTHA	2.376	.867	31.607	.000
	addiction	OWERRI	2.233	.935	13.079	.000
8.	Use of opioids does not influence survival time	AEFUTHA	2.429	.810	34.584	.000
		OWERRI	2.333	.844	15.139	.000
9.	Morphine should be used to relieve dyspnoea in cancer	AEFUTHA	2.414	.827	33.661	.000
	patients	OWERRI	2.233	.935	13.079	.000
10	When opioids are taken on a regular basis, respiratory	AEFUTHA	2.451	.821	34.439	.000
	depression will be common	OWERRI	2.300	.887	14.366	.000
11	oxygen saturation levels are correlated with dyspnoea	AEFUTHA	2.338	.878	30.712	.000
		OWERRI	1.667	.802	11.378	.000
12	Anticholinergic drugs or scopolamine hydrobromide	AEFUTHA	2.398	.816	33.901	.000
	(antisecretory, antiemetic) are effective for alleviating	OWERRI	1.767	.774	12.504	.000
	bronchial secretions of dying patients.					
13	During the last days of life, drowsiness associated with	AEFUTHA	2.241	.880	29.352	.000
	electrolyte imbalance should decrease patient discomfort	OWERRI	1.700	.794	11.721	.000
14	benzodiazepines should be effective for controlling	AEFUTHA	2.150	.925	26.804	.000
14	delirium	OWERRI	1.833	.925 .791	26.804 12.687	.000
	ucinium		1.000	./91	12.007	.000
15	Some dying patients will require continuous sedation to	AEFUTHA	2.143	.930	26.559	.000
	alleviate suffering	OWERRI	1.933	.944	11.212	.000
16	morphine is often a cause of delirium in terminally ill	AEFUTHA	2.211	.880	28.986	.000
10		OWERRI	2.211	.880 .915	13.762	.000
	cancer patients	OWERRI	2.500	.913	15.702	.000
17	At terminal stages of cancer, higher calorie intake is	AEFUTHA	1.985	.887	25.794	.000
	needed compared to early stages	OWERRI	2.033	.928	12.003	.000
18	Steroids should improve appetite among patients with	AEFUTHA	2.188	.906	27.857	.000
	advanced cancer	OWERRI	2.800	.484	31.671	.000
10			2 2 2 2	700	25.000	000
19	Intravenous infusion will not be effective for alleviating	AEFUTHA	2.383	.766	35.886	.000
	dry mouth in dying patients	OWERRI	2.333	.724	16.523	.000
ILCO	Field Survey 2024					

Source: Field Survey, 2024

Table 1 showed the distribution of the study participants according to their differences in the mean score of nurses' on knowledge s of palliative care of the experimental group prior to intervention. Both group had similar proportion of participants exhibiting similar nurses' on knowledge s of palliative care. However, the Experimental group had significantly higher proportion of participants who maintain that the Intravenous infusion will not be effective for alleviating dry mouth in dying patients, (t = 35.886, P = .000), Use of opioids does not influence survival time (t = 34.584, P = .000) and when opioids are taken on a regular basis, respiratory depression will be common (t = 34.439, P = .000).

For Control Group

Table 2: Differences in the mean score of nurses' on knowledges of palliative care of the Control group prior to intervention (NAUTHA & FMC UMUAHIA).

	$(\mathbf{N} \mathbf{A} \mathbf{U}) = \mathbf{N} \mathbf{A} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} U$					
		Group	Mean difference	STD	t -test	P value
1.	Palliative care should only be provided for patients who have no curative treatment available	NAUTHA UMUAHIA	2.34 2.593	.793 .636	34.284	.000
2.	Palliative care should not be provided along with anti- cancer treatment	NAUTHA UMUAHIA	2.25 24.81	.879 .802	29.780	.000
3.	Morphine is the standard used to compare the analgesic effect of other opioids	NAUTHA UMUAHIA	2.45 2.593	.808 .747	35.267	.000
4.	One of the goals of pain management is to get a good night sleep	NAUTHA UMUAHIA	2.19 2.704	.885 .609	28.780	.000
5.	When cancer pain is mild, pentazocine should be used more often than an opioid like morphine	NAUTHA UMUAHIA	2.20 2.630	.879 .688	29.071	.000
6.	When opioids like morphine are taken on a regular basis, non- steroidal anti-inflammatory drugs should not be used.	NAUTHA UMUAHIA	2.26 2.667	.864 .620	30.398	.000
7.	Long-term use of opioids like morphine can often induce addiction	NAUTHA UMUAHIA	2.26 2.593	.889 .747	29.525	.000
8.	Use of opioids does not influence survival time	NAUTHA UMUAHIA	2.32 2.667	.834 .620	32.283	.000
9.	Morphine should be used to relieve dyspnoea in cancer patients	NAUTHA UMUAHIA	2.24 2.593	.891 747	29.167	.000
10	When opioids are taken on a regular basis, respiratory depression will be common	NAUTHA UMUAHIA	2.27 2.593	.885 .694	29.869	.000
11.	oxygen saturation levels are correlated with dyspnoea	NAUTHA UMUAHIA	2.23 1.889	.889 .847	29.144	.000
12.	Anticholinergic drugs or scopolamine hydrobromide (antisecretory, antiemetic) are effective for alleviating bronchial secretions of dying patients.	NAUTHA UMUAHIA	2.19 2.037	.868 .808	29.345	.000
13.	During the last days of life, drowsiness associated with electrolyte imbalance should decrease patient discomfort	NAUTHA UMUAHIA	2.09 1.889	.893 .801	27.169	.000
14.	benzodiazepines should be effective for controlling delirium	NAUTHA UMUAHIA	2.04 2.185	.921 .736	25.784	.000
15.	Some dying patients will require continuous sedation to alleviate suffering	NAUTHA UMUAHIA	2.08 2.815	.931 483	25.982	.000
16.	morphine is often a cause of delirium in terminally ill cancer patients	NAUTHA UMUAHIA	2.14 2.259	.891 .712	27.923	.000
17.	At terminal stages of cancer, higher calorie intake is needed compared to early stages	NAUTHA UMUAHIA	1.91 2.148	.868 .770	25.585	.000
18	Steroids should improve appetite among patients with advanced cancer	NAUTHA UMUAHIA	2.01 2.370	.914 .688	25.610	.000

1	Intravenous inf	fusion will not be effective for alleviating dry	NAUTHA	2.42	.767	36.669	.000
	mouth in dying	patients	UMUAHIA	2.333	.734		
~							

Source: Field Survey, 2024

Table 2 showed the distribution of the study participants according to their differences in the mean score of nurses' on knowledge s of palliative care of the control group prior to intervention. Both group had similar proportion of participants exhibiting similar nurses' on knowledge s of palliative care. However, the control group had significantly higher proportion of participants who maintain that the Intravenous infusion will not be effective for alleviating dry mouth in dying patients, (t = 36.669, P = .000), Morphine is the standard used to compare the analgesic effect of other opioids (t = 35.267, P = .000), Palliative care should only be provided for patients who have no curative treatment available (t = 34.284, P = .000), Use of opioids does not influence survival time (t = 32.283, P = .000) and when opioids are taken on a regular basis, respiratory depression will be common (t = 34.439, P = .000)

Research Question Two

What are the differences in the level of attitude towards palliative care among nurses in the experimental group and control group before and after the intervention?

The differences in the mean score of nurses' on attitudes towards palliative care of the experimental group and the control group prior to intervention.

Mean score differences of Pretest for Comparisons:

For Experimental Group

Table 3: showing the Comparisons differences in the mean score of nurses' on attitudes towards palliative care of the experimental groups prior to intervention (AEFUTHA + FMC Owerri)

		Group	Mean	STD	Т	P value
1.	It is possible for us as nurses to help patients prepare for death	AEFUTHA FMC OWERRI	2.782 3.200	1.137 .961	28.215 18.232	.000
2.	Dying persons should be given honest answers about their condition	AEFUTHA FMC OWERRI	2.714 3.233	1.222 .971	25.614 18.231	.000
3.	I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying	AEFUTHA FMC OWERRI	2.827 3.033	1.034 1.033	31.543 16.078	.000
4.	Addiction to pain relieving medication should not be of concern to when dealing with a dying person	AEFUTHA FMC OWERRI	2.571 2.633	1.182 1.273	25.079 11.334	.000
5.	We as nurses should permit dying persons to have flexible visiting schedules	AEFUTHA FMC OWERRI	2.579 2.700	1.176 1.208	25.300 12.245	.000
6.	It is beneficial for the dying person to verbalise his/her feelings	AEFUTHA FMC OWERRI	2.662 2.767	1.173 1.252	26.158 12.116	.000
7.	The dying person should not be allowed to make decision about his/her physical care	AEFUTHA FMC OWERRI	2.662 2.700	1.180 1.317	26.015 11.229	.000
8.	As a patient nears death the nurse should withdraw his/her involvement with the patient	AEFUTHA FMC OWERRI	2.707 2.633	1.133 1.377	27.542 10.476	.000
9.	I would feel like running away when the person actually died	AEFUTHA FMC OWERRI	2.684 2.733	1.164 1.285	26.602 11.653	.000
10.	I am afraid to become friends with a dying person	AEFUTHA FMC OWERRI	3.045 3.067	1.051 .907	33.423 18.515	.000
11.	I would hope the person actually died	AEFUTHA FMC OWERRI	3.068 3.033	1.060 .999	33.367 16.624	.000

Medicine and Public Health Research Journal | MPHRJ Volume 5, Number 1 | 2024 | 14-31

https://airjournal.org/mphrj | https://doi.org/10.5281/zenodo.10843728

12.	When a patient ask "Nurse am I dying" I think it best to change the subject something cheerful	AEFUTHA FMC OWERRI	3.015 2.900	1.015 .845	34.260 18.801	.000
13.	There are times when death is welcomed by the dying person	AEFUTHA FMC OWERRI	2.865 2.367	1.236 1.245	26.735 10.410	.000
14.	I would be upset when the dying person l was caring for gave up hope of getting better	AEFUTHA FMC OWERRI	2.962 2.833	1.221 1.262	27.979 12.300	.000
15.	The length of time required to give nursing care to a dying person would frustrate me	AEFUTHA FMC OWERRI	3.015 2.867	1.181 1.224	29.453 12.825	.000
16.	I feel the nurse should not be the one talk about death with the dying person	AEFUTHA FMC OWERRI	3.015 2.867	1.187 1.224	29.294 12.825	.000
17.	I would not want to be assigned to care for dying person	AEFUTHA FMC OWERRI	2.797 2.833	1.140 1.262	28.298 12.300	.000
18.	I would be uncomfortable talking about impending death with the dying person	AEFUTHA FMC OWERRI	2.962 2.633	1.183 1.351	28.873 10.672	.000
19.	. Death is not the worst thing that can happen to a person	AEFUTHA FMC OWERRI	3.308 2.667	1.039 1.341	36.738 11.769	.000
20.	Giving nursing care to a dying person is a worthwhile learning experience	AEFUTHA FMC OWERRI	3.316 2.733	.972 1.202	39.337 12.460	.000
21.	. Family members who stay close to a dying person often interfere with our professional job with the patient	AEFUTHA FMC OWERRI	3.353 2.833	.955 1.206	40.495 12.870	.000
22.	I feel that educating families about death and dying is not a nursing responsibility	AEFUTHA FMC OWERRI	3.256 2.667	1.085 1.373	34.614 10.638	.000
23.	I feel the dying person and his/her family should be the in charge decision makers	AEFUTHA FMC OWERRI	3.263 2.600	1.079 1.354	34.865 10.514	.000
24.	We nurses should ensure that nursing care is extended to the family of the dying person.	AEFUTHA FMC OWERRI	3.293 2.667	1.057 1.295	35.921 11.275	.000
25.	I feel families should maintain as normal an environment as possible for their dying member	AEFUTHA FMC OWERRI	3.068 2.700	1.053 1.208	33.594 12.245	.000
26.	We should ensure that families get concerned about helping their dying member make the best of his/her remaining life	AEFUTHA FMC OWERRI	3.143 2.800	1.088 1.243	33.310 12.339	.000
27.	. I feel that families need emotional support to accept the behaviour changes of the dying person	AEFUTHA FMC OWERRI	3.053 2.733	1.176 1.311	29.929 11.417	.000
28.	. I should involve the family in the physical care of the dying person	AEFUTHA FMC OWERRI	3.173 2.833	1.034 1.206	35.402 12.870	.000*
29.	It is difficult for me to form a close relationship with the family of a dying person	AEFUTHA FMC OWERRI	3.143 3.267	1.074 1.081	33.745 16.557	.000*

Source: Field Survey, 2024

Table 3 showed the distribution of the study participants according to their differences in the mean score of nurses' on attitudes towards palliative care of the experimental groups prior to intervention (AEFUTHA + FMC Owerri). Both group had similar proportion of participants exhibiting similar nurses' on attitudes towards palliative care. However, the experimental group (AEFUTHA) had significantly higher proportion of participants than (FMC Owerri) as observed in Death is not the worst thing that can happen to a person with mean scores (3.308 ± 1.039 vs 2.667 ± 1.341 , P = .000), Family members who stay close to a dying person often interfere with our professional job with the patient ($3.353 \pm .955$ vs 2.833 ± 1.206 , P = .000), I feel the dying person and his/her family should be the in charge decision makers(3.263 ± 1.079 vs 2.600 ± 1.354 , P = .000), We nurses should ensure that nursing care is extended to the family of the dying person (3.293 ± 1.057 vs 2.667 ± 1.295 , P = .000), I would hope the person actually died(3.068 ± 1.060 vs $3.033 \pm .999$, P = .000) When a patient ask "Nurse am I dying" I think it best to change the subject something cheerful(3.015 ± 1.015 vs $2.800 \pm .845$, P = .000), I should involve the family in the physical care of the dying person (3.173 ± 1.034 vs 2.833 ± 1.206 , P = .000) while the experimental group (FMC

Medicine and Public Health Research Journal | MPHRJ Volume 5, Number 1 | 2024 | 14-31 https://airjournal.org/mphrj | https://doi.org/10.5281/zenodo.10843728

Owerri) had significantly higher proportion of participants than(AEFUTHA) as observed in : I would feel like running away when the person actually died(2.684 ± 1.164 vs 2.733 ± 1.2285 , P = .000), I am afraid to become friends with a dying person (3.045 ± 1.051 vs $3.067 \pm .907$, P = .000) and It is difficult for me to form a close relationship with the family of a dying person (3.293 ± 1.057 vs 2.667 ± 1.295 , P = .000).

For Control Groups

Table 4: showing the Comparisons Mean score differences of pretest for nurses' on attitudes towards palliative care of the Control groups prior to intervention (NAUTH +UMUAHIA)

ſ	are of the control groups phor to intervention (NAOTH +	Group	Mean	STD	т	P value
1.	It is possible for us as nurses to help patients prepare for death	NAUTH UMUAHIA	2.437 2.556	1.041 .934	27.200 14.222	.000
2.	Dying persons should be given honest answers about their condition	NAUTH UMUAHIA	2.222 2.370	1.137 1.275	22.702 9.657	.000
3.	I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying	NAUTH UMUAHIA	2.348 2.296	1.039 1.203	26.261 9.918	.000
4.	Addiction to pain relieving medication should not be of concern to me when dealing with a dying person	NAUTH UMUAHIA	2.304 2.704	1.053 1.171	25.422 12.001	.000
5.	We as nurses should permit dying persons to have flexible visiting schedules	NAUTH UMUAHIA	2.281 2.667	1.070 1.209	24.783 11.462	.000
6.	It is beneficial for the dying person to verbalise his/her feelings	NAUTH UMUAHIA	2.348 2.815	1.046 1.178	26.081 12.417	.000
7.	The dying person should not be allowed to make decision about his/her physical care	NAUTH UMUAHIA	2.296 2.741	1.079 1.259	24.716 11.315	.000
8.	As a patient nears death the nurse should withdraw his/her involvement with the patient	NAUTH UMUAHIA	2.533 3.111	1.050 1.086	28.046 14.885	.000
9.	I would feel like running away when the person actually died	NAUTH UMUAHIA	2.681 3.148	.975 .989	31.965 16.548	.000
10.	I am afraid to become friends with a dying person	NAUTH UMUAHIA	2.926 3.037	.990 .980	34.349 16.105	.000
11.	I would hope the person actually died	NAUTH UMUAHIA	2.807 3.296	.974 .912	33.507 18.779	.000
12.	When a patient ask "Nurse am I dying" I think it best to change the subject something cheerful	NAUTH UMUAHIA	2.837 3.481	1.024 .753	32.202 24.026	.000
13.	There are times when death is welcomed by the dying person	NAUTH UMUAHIA	2.437 3.000	1.176 1.271	24.085 12.265	.000
14.	I would be upset when the dying person I was caring for gave up hope of getting better	NAUTH UMUAHIA	2.504 3.148	1.209 1.199	24.069 13.638	.000
15.	The length of time required to give nursing care to a dying person would frustrate me	NAUTH UMUAHIA	2.481 3.333	1.177 1.109	24.492 15.612	.000
16.	I feel the nurse should not be the one talk about death with the dying person	NAUTH UMUAHIA	2.481 3.037	1.164 1.160	24.760 13.609	.000
17.	I would not want to be assigned to care for dying person	NAUTH UMUAHIA	2.348 2.667	1.128 1.387	24.177 9.992	.000
18.	I would be uncomfortable talking about impending death with the dying person	NAUTH UMUAHIA	2.526 2.630	1.177 1.418	24.933 9.634	.000
19.	. Death is not the worst thing that can happen to a person	NAUTH UMUAHIA	2.941 2.593	1.131 1.366	30.200 9.862	.000
20.	Giving nursing care to a dying person is a worthwhile learning experience	NAUTH UMUAHIA	2.904 2.259	1.119 1.228	30.154 9.563	.000

Medicine and Public Health Research Journal | MPHRJ Volume 5, Number 1 | 2024 | 14-31 https://airjournal.org/mphrj | https://doi.org/10.5281/zenodo.10843728

21Family members who stay close to a dying person often interfere with our professional job with the patientNAUTH UMUAHIA2.941 2.4071.070 1.11831.922 1.11822.I feel that educating families about death and dying is not a nursing responsibilityNAUTH UMUAHIA2.970 2.2961.190 1.20828.993 9.91823.I feel the dying person and his/her family should be the in charge decision makersNAUTH UMUAHIA3.133 2.7781.078 1.15533.785 12.50024.We nurses should ensure that nursing care is extended to the family of the dying person.NAUTH UMUAHIA3.200 3.1481.021 36.427 36.42725.I feel families should maintain as normal an environment as possible for their dying memberNAUTH UMUAHIA2.985 3.1481.015 34.18226.We should ensure that families get concerned about helping their dying member make the best of his/her remaining lifeNAUTH UMUAHIA3.052 3.2591.167 30.373 3.25927 I feel that families need emotional support to accept the behaviour changes of the dying personNAUTH 3.2593.052 1.0591.026 35.90028 I should involve the family in the physical care of the dyind personNAUTH 3.2221.121 1.16214.93729.It is difficult for me to form a close relationship with the family of personNAUTH UMUAHIA3.141 3.1411.066 3.422729.It is difficult for me to form a close relationship with the family of personNAUTH UMUAHIA3.141 3.1413.14							
nursing responsibilityUMUAHIA2.2961.2089.91823.I feel the dying person and his/her family should be the in charge decision makersNAUTH3.1331.07833.78524.We nurses should ensure that nursing care is extended to the family of the dying person.NAUTH3.2001.02136.42725.I feel families should maintain as normal an environment as possible for their dying memberNAUTH2.9851.01534.18226.We should ensure that families get concerned about helping their dying member make the best of his/her remaining lifeNAUTH3.178.99237.23927 I feel that families need emotional support to accept the behaviour changes of the dying personNAUTH3.0521.16730.37328 I should involve the family in the physical care of the dying personNAUTH3.1701.02635.90029.It is difficult for me to form a close relationship with the family of NAUTHNAUTH3.1411.06634.227	21.	, , , , ,					.000
decision makersUMUAHIA2.7781.15512.50024.We nurses should ensure that nursing care is extended to the family of the dying person.NAUTH3.2001.02136.42725.I feel families should maintain as normal an environment as possible for their dying memberNAUTH2.9851.01534.18226.We should ensure that families get concerned about helping their dying member make the best of his/her remaining lifeNAUTH3.178.99237.23927.I feel that families need emotional support to accept the behaviour changes of the dying personNAUTH3.0521.16730.37328 I should involve the family in the physical care of the dying personNAUTH3.1701.02635.90029.It is difficult for me to form a close relationship with the family of NAUTHNAUTH3.1411.06634.227	22.						.000
family of the dying person.UMUAHIA3.148.86418.93425.I feel families should maintain as normal an environment as possible for their dying memberNAUTH2.9851.01534.18226.We should ensure that families get concerned about helping their dying member make the best of his/her remaining lifeNAUTH3.178.99237.23927 I feel that families need emotional support to accept the behaviour changes of the dying personNAUTH3.0521.16730.37328 I should involve the family in the physical care of the dying personNAUTH3.1701.02635.90029.It is difficult for me to form a close relationship with the family of NAUTHNAUTH3.1411.06634.227	23.						.000
possible for their dying memberUMUAHIA3.148.86418.93426.We should ensure that families get concerned about helping their dying member make the best of his/her remaining lifeNAUTH3.178.99237.23927 I feel that families need emotional support to accept the behaviour changes of the dying personNAUTH3.0521.16730.37328 I should involve the family in the physical care of the dying personNAUTH3.1701.02635.90029.It is difficult for me to form a close relationship with the family of NAUTHNAUTH3.1411.06634.227	24.	0					.000
dying member make the best of his/her remaining lifeUMUAHIA3.370.62927.83027 I feel that families need emotional support to accept the behaviour changes of the dying personNAUTH3.0521.16730.37328 I should involve the family in the physical care of the dying personNAUTH3.1701.02635.90029.It is difficult for me to form a close relationship with the family of NAUTHNAUTH3.1411.06634.227	25.						.000
behaviour changes of the dying personUMUAHIA3.2591.05915.98528 I should involve the family in the physical care of the dying personNAUTH3.1701.02635.90029.It is difficult for me to form a close relationship with the family of NAUTHNAUTH3.1411.06634.227	26.						.000
personUMUAHIA3.2221.12114.93729.It is difficult for me to form a close relationship with the family ofNAUTH3.1411.06634.227	27.						.000
	28.						.000
	29.	It is difficult for me to form a close relationship with the family of a dying person	NAUTH UMUAHIA	3.141 3.185	1.066 1.111	34.227 14.901	.000

Source: Field Survey, 2024

Table 4 showed the distribution of the study participants according to their differences in the mean score of nurses' on attitudes towards palliative care of the Control groups prior to intervention (NAUTH +UMUAHIA). Both group had similar proportion of participants exhibiting similar nurses' on attitudes towards palliative care. However, the control group ((FMC UMUAHIA) had significantly higher proportion of participants than (NAUTH) as observed in : We should ensure that families get concerned about helping their dying member make the best of his/her remaining life with mean scores (3.370 ± .629 vs 3.178 ± .992, P = .000), The length of time required to give nursing care to a dying person would frustrate me with mean scores (3.333 ± 1.109 vs 2.481 ± 1.177, P = .000), I should involve the family in the physical care of the dying person with mean scores $(3.259 \pm 1.059 \text{ vs} 3.052 \pm 1.167, \text{P} = .000), \text{I}$ feel that families need emotional support to accept the behaviour changes of the dying person with mean scores (3.052 ± 1.167 vs 3.259 ± 1.059, P = .000), it is difficult for me to form a close relationship with the family of a dying person with mean scores $(3.222 \pm 1.121 \text{ vs } 3.170 \pm 1.026, \text{P} = .000)$, I would feel like running away when the person actually died with mean scores (3.148 ± .989 vs 2.681 ± .975, P = .000). I am afraid to become friends with a dying person with mean scores $(3.037 \pm .980 \text{ vs } 2.926 \pm .990, P = .000)$, I would hope the person actually died with mean scores (3.296 ± .912 vs 2.807 ± .974, P = .000), When a patient ask "Nurse am I dying" I think it best to change the subject something cheerful with mean scores $(3.481 \pm .753 \text{ vs } 2.837 \pm 1.024, \text{ P} = .000)$. There are times when death is welcomed by the dying person with mean scores $(3.000 \pm 1.271 \text{ vs } 2.437 \pm .1.176, \text{ P} = .000)$.

Summary of Findings

Findings arising from this research were summarized as follows:

- 1. The analysis examined the perspectives on palliative care within two distinct study cohorts: AEFUTHA and FMC Owerri. Initially, both cohorts demonstrated comparable proportions of participants with similar outlooks on palliative care. However, the AEFUTHA cohort displayed notably higher scores than the FMC Owerri cohort across various dimensions, including beliefs regarding death, involvement of family in care, and support for the autonomy of the dying individual. Conversely, the FMC Owerri cohort exhibited significantly higher scores than the AEFUTHA cohort in aspects such as apprehension towards befriending someone in their final days and difficulty in forming close bonds with the patient's family.
- 2. The analysis also investigated the perceptions regarding palliative care within two control cohorts: NAUTH and FMC Umuahia. Initially, both cohorts exhibited comparable proportions of participants with similar attitudes towards palliative care. However, the FMC Umuahia control cohort demonstrated notably higher scores than the NAUTH cohort across several dimensions, including the emphasis on family involvement, frustration with the time demands of care, and recognition of the necessity for emotional support for families. Conversely, the NAUTH cohort displayed slightly higher scores than the FMC Umuahia cohort in areas such as establishing close relationships with the family and feeling apprehensive about befriending a dying individual.

Conclusion

In conclusion, the analysis provides valuable insights into the attitudes towards palliative care among different groups of nurses. A section focused on the experimental groups, AEFUTHA and FMC Owerri. Initially, both groups had similar proportions of participants with similar attitudes towards palliative care. However, after the intervention, the AEFUTHA group exhibited significantly higher scores in various aspects, such as recognizing that death is not the worst outcome, involving the family in care, and supporting the dying person's decision-making. On the other hand, the FMC Owerri group had higher scores in areas related to fear of forming close relationships with the dying person and their family.

The other part examined the attitudes of the control groups, NAUTH and FMC Umuahia. Similar to the experimental groups, the control groups initially had similar proportions of participants with similar attitudes towards palliative care. However, the FMC Umuahia group had significantly higher scores in aspects highlighting the importance of family involvement, frustration with the time required for care, and the need for emotional support for families. The NAUTH group had slightly higher scores in areas such as forming close relationships with the family and feeling afraid to become friends with a dying person.

These findings suggest that the interventions implemented in AEFUTHA and FMC Umuahia were effective in positively influencing nurses' attitudes towards palliative care, particularly in terms of recognizing the significance of family involvement and addressing emotional needs. However, further efforts may be needed to address concerns regarding forming close relationships with the dying person and their family, as highlighted in the FMC Owerri and NAUTH groups.

Overall, these findings underscore the importance of targeted interventions and training programs to enhance nurses' attitudes towards palliative care, ensuring that they provide holistic and compassionate care to patients and their families during end-of-life situations.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

- i. Implement educational interventions targeted at improving nurses' knowledge about palliative care. These interventions should focus on providing comprehensive and up-to-date information on palliative care principles, symptom management, communication skills, and psychosocial support. By enhancing nurses' knowledge, they will be better equipped to provide high-quality palliative care to patients and their families. Assess the impact of these interventions by comparing the level of knowledge before and after the intervention among both the experimental and control groups.
- ii. Develop and implement programs that specifically target improving nurses' attitudes towards palliative care. These programs should aim to promote empathy, compassion, and a patient-centered approach in end-of-life care. Provide training on effective communication and emotional support for patients and their families. Evaluate the impact of these programs by comparing the level of attitude towards palliative care before and after the intervention among both the experimental and control groups.

References

- 1. World Health Organization. WHO (2002). World Health Organization.
- Anstey S, Powell T, Coles B, Hale R, Gould D. Education and training to enhance end-of-life care for nursing home staff: A systematic literature review. Omega-Journal of Death and Dying. 2020 [cited 2024 Mar 20]. Advance online publication. Available from: <u>https://doi.org/10.1111/opn.12347</u>
- 3. Ayed A, Sayej S, Harazneh L, Fashafsheh I, Eqtait F. The nurses' knowledge and attitudes towards the palliative care. Journal of Education and Practice. 2015;6(4):91–99.
- Koppel M, Onwuteaka-Philipsen BD, van der Steen JT, Kylänen M, Van den Block L, Smets T, et al. Care staff's self-efficacy regarding end-of-life communication in the long-term care setting: Results of the PACE cross-sectional study in six European countries. International Journal of Nursing Studies. 2019;92:135– 143. PMID: 30822706
- Fadare JO, Afolayan JM, Obimakinde AM, Popoola S, Aduloju I, Adegun P. Health care workers' knowledge and attitude toward palliative care in an emerging tertiary center in South-West Nigeria. Indian Journal of Palliative Care. 2014;20(1):1–5. <u>https://doi.org/10.4103/0973-1075.125547</u>
- Etafa W, Wakuma B, Fetensa G, Tsegaye B, Abdisa R, Oluma A, et al. Nurses' knowledge about palliative care and attitude towards end-of-life care in public hospitals in Wollega zones: A multicenter crosssectional study. PLOS ONE. 2020;15(8):e0238357. <u>https://doi.org/10.1371/journal.pone.0238357</u>
- Zeru T, Berihu H, Gerensea H, Teklay G, Teklu T, Gebrehiwot H, et al. Assessment of knowledge and attitude towards palliative care and associated factors among nurses working in selected Tigray hospitals, northern Ethiopia: A cross-sectional study. Pan African Medical Journal. 2020;35:121. <u>https://doi.org/10.11604/pamj.35.121.17820</u>
- Meegoda MKDL, Fernando DMS, Atulomah NOS, et al. Improvement of nurses' skills following a hybrid model educational intervention on cancer palliative care. International Journal of Health Sciences Research. 2018;8(5):196–203.
- Ziehm J, Farin E, Seibel K, Becker G, Köberich S. Health care professionals' attitudes regarding palliative care for patients with chronic heart failure: An interview study. BMC Palliative Care. 2016;15:67. <u>https://doi.org/10.1186/s12904-016-0149-9</u>
- Boon-Han K, Hyun-Sook K, Su-Jeong Y, Sung-Eun C, Yun J, So-Hi K. Evaluation of End-of-Life Nursing Education Consortium-Geriatric Train-the-Trainer Program in Korea. Korean Journal of Adult Nursing. 2012;24(4):390–397.
- 11. Weissman D. Palliative Care Knowledge Examination. MCW Research Foundation. Milwaukee, WI. 2005.
- Menekli T, Dogan R, Erce Ç, Toygar I. Effect of educational intervention on nurses' knowledge about palliative care: Quasi-experimental study. International Journal of Nursing Sciences. 2021. <u>https://doi.org/10.1016/j.ijnss.2021.03.003</u>
- Teklay Y, Alemayehu M, Abera G, Gidey K, Tesfay T, Alemayehu G, et al. Nurses' practice towards palliative care in Shire Endasilasie health facilities, Northern Ethiopia: A cross-sectional study. Pan African Medical Journal. 2020;35:110. <u>https://doi.org/10.11604/pamj.2020.35.110.18648</u>
- Prem V, Karvannan H, Kumar SP, Karthikbabu S, Syed N, Sisodia V, et al. Study of nurses' knowledge about palliative care: A quantitative cross-sectional survey. Indian Journal of Palliative Care. 2012;18(2):122– 127.
- 15. Petursdottir AB. The impact of implementing an educational intervention to enhance a family-oriented approach in specialized palliative home-care. BMC Palliative Care. 2019;18(1):15. https://doi.org/10.1186/s12904-018-0379-7
- 16. Clark D. From margins to centre: A review of the history of palliative care in cancer. Lancet Oncology. 2007;8(5):430–438. <u>https://doi.org/10.1016/S1470-2045(07)70138-9</u>
- Sauver JL, Boyd CM, Grossardt BR, Bobo WV, Rutten LJ, Roger VL, et al. Risk of developing multimorbidity across all ages in a historical cohort study: Differences by sex and ethnicity. BMJ Open. 2015;5(2):e006413. <u>https://doi.org/10.1136/bmjopen-2014-006413</u>
- 18. World Health Organization. Global Burden of HIV/AIDS: Global Health Observatory (GHO) Data. [Internet]. 2020 [cited 2024 Mar 20]. Retrieved from <u>https://www.who.int/gho/hiv/en/#:~:text=Globally%2C%2038.0%20million%20%5B31.6%E2%80%93,cons</u> <u>iderably%20between%20countries%20and%20regions</u>

- Sleeman KE, de Brito M, Etkind S, Nkhoma K, Guo P, Higginson IJ, et al. The escalating global burden of serious health-related suffering: Projections to 2060 by world regions, age groups, and health conditions. The Lancet Global Health. 2019;7(7):e883–e892. <u>https://doi.org/10.1016/S2214-109X(19)30015-2</u>
- 20. Hsu H, Chen Y. The correlates of nurses' self-efficacy for end-of-life care. The Journal of Nursing. 2019;66(5):32–43. PMID: 31549379
- 21. Kawamoto M, Takase M, Imai T. The relationship between learning activities and nursing competence: A comparison between nurses with different educational backgrounds. Nihon ShokugyoSaigailgakukai Kaishi. 2017;1:26–32. [Article in Japanese with English Abstract]
- Lewis C, Reid J, McLernon Z, Ingham R, Traynor M. The impact of a simulated intervention on attitudes of undergraduate nursing and medical students towards end of life care provision. BMC Palliative Care. 2016;15:67. <u>https://doi.org/10.1186/s12904-016-0149-9</u>
- 23. Cancer.Net. Types of palliative care. [Internet]. 2019 [cited 2024 Mar 20]. Retrieved from <u>https://www.cancer.net/coping-with-cancer/physical-emotional-and-social-effects-cancer/types-palliative-care</u>
- 24. ASCO Post. Reevaluating the delivery of palliative care in the era of Covid-19. [Internet]. 2020 [cited 2024 Mar 20]. Available from https://ascopost.com/issues/september-10-2020/reevaluating-the-delivery-of-palliative-care-in-the-era-of-covid-19/
- 25. CAPC. Center to Advance Palliative Care. Palliative care state-by-state report card released to Congress. [Internet]. [cited 2024 Mar 20]. Retrieved from www.capc.org/news-and-events/releases/10-05/11
- Birkholz L, Haney T. Using a dyspnea assessment tool to improve care at the end of life. Journal of Hospice & Palliative Nursing. 2018;20(3):219–227. <u>https://doi.org/10.1097/NJH.00000000000432</u>
- Çalık KY, Küçük E, Halimoğlu B. The effect of an educational palliative care intervention on the quality of life of patients with incurable cancer and their caregivers. Supportive Care in Cancer. 2022 [cited 2024 Mar 20]. Advance online publication. <u>https://doi.org/10.1007/s00520-021-06672-1</u>
- 28. Chiang CC, Jhagiani RS, Price PC. Research methods in psychology (2nd Canadian ed.). Open Text BC. 2015.
- Fox N, Hunn A, Mathers N. Sampling and sample size calculation. [Internet]. 2009 [cited 2024 Mar 20]. Retrieved from <u>https://www.scirp.org/reference/referencespapers.aspx?referenceid=2761054</u>
- Noh H, Lee LH, Won C. Educational intervention to improve palliative care knowledge among informal caregivers of cognitively impaired older adults. Palliative and Supportive Care. 2021;19(5):515–523. <u>https://doi.org/10.1017/S1478951520001200</u>