

Original Article

# Knowledge of Nurses Regarding Palliative Care in Tertiary Care Hospitals of Peshawar: A Cross-Sectional Study

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## ABSTRACT

**Background:** Palliative care represents a crucial element in enhancing the quality of life for patients facing life-limiting illnesses. Despite its importance, there exists a significant gap in knowledge among nurses, who are pivotal in delivering this care. The literature reveals diverse levels of understanding and practices across different healthcare settings globally, underscoring the need for focused research and educational interventions in specific regions, including Pakistan.

**Objective:** This study aimed to assess the knowledge of nurses regarding palliative care in tertiary care hospitals in Peshawar, Pakistan, identifying key areas for improvement and contributing to the global discourse on enhancing palliative care education and practices among nursing professionals.

**Methods:** A cross-sectional study design was employed, with a sample size of 377 nurses selected through convenient sampling from August to November 2023. The Palliative Care Quiz for Nurses (PCQN) was utilized to assess knowledge across three domains: philosophy and principles, control of pain and other symptoms, and psychosocial aspects. Data were analyzed using SPSS version 25, employing descriptive statistics and chi-square tests to examine the association between demographic variables and knowledge levels.

**Results:** The study found that 61.3% of participants were female, with the majority (81.5%) born between 1991 and 2000. Regarding educational background, 53.3% were Post RN nurses, 45.6% BSN Graduate Nurses, and 1.1% MSN Graduate Nurses. The PCQN results indicated that 31.8% of nurses demonstrated good knowledge of palliative care, while 37.7% exhibited a lack of knowledge. Notably, post RN nurses showed higher knowledge levels compared to their BSN and MSN counterparts.

**Conclusion:** The findings highlight a substantial need for targeted palliative care education and training among nurses in Peshawar, Pakistan. Tailored educational programs, continuous professional development, and specific interventions are essential to bridge the identified knowledge gaps, ensuring that nurses are equipped to provide high-quality palliative care.

**Keywords:** Palliative Care, Nursing Knowledge, Tertiary Care Hospitals, Pakistan, Palliative Care Education, Cross-Sectional Study, Healthcare Quality.

## INTRODUCTION

Palliative care represents a fundamental aspect of healthcare, aiming to enhance the quality of life for patients with terminal illnesses and their families by addressing their physical, psychosocial, and spiritual needs. Within this spectrum, nurses play a crucial role due to their extensive patient interaction, making their knowledge and expertise in palliative care essential for delivering quality care. The nursing profession, known for its rapid growth and emphasis on autonomous and collaborative care across various settings, necessitates a focus on evidence-based practice to meet the complex needs of patients at the end of life (1). Nurses are instrumental in the healthcare system, providing care that spans the entirety of human life, including the inevitable encounter with death. This positions them uniquely in supporting patients and their families during critical times, highlighting the importance of palliative care in nursing practice (2-4).

However, studies have highlighted a significant gap in nurses' knowledge regarding palliative care, particularly in symptom management, communication, and spiritual support, underscoring a pressing need for comprehensive education and training in this

area (5-9). Palliative care, as defined by the World Health Organization (WHO), encompasses interventions aimed at relieving suffering through early identification, impeccable assessment, and the treatment of pain and other problems, physical, psychosocial, and spiritual (10). Originating from the hospice movement, palliative care has evolved to be recognized as a universal human right, focusing on health, freedom from pain, and inhumane treatment. This evolution underpins the global efforts to integrate palliative care into healthcare systems through policy formulation, education, and practice at all healthcare levels (11-13).

Despite the acknowledged need for palliative care, there is a disparity in its provision, especially in low- and middle-income countries, where the majority of the 40 million people requiring palliative care reside, yet only a fraction receives it (14). This disparity is partly due to misconceptions and a lack of knowledge among healthcare professionals, including nurses, about palliative care's scope, principles, and practices (15-17). The literature review reveals varied levels of understanding and attitudes towards palliative care among nurses across different regions, including America, Australia, Spain, Israel, Sudan, Ireland, Nigeria, Egypt, Jordan, and Pakistan. These studies collectively indicate a pressing need for targeted education and training to address the misconceptions and enhance nurses' knowledge and skills in palliative care, ensuring they can effectively contribute to the quality of life of patients with terminal illnesses and their families (22-30). This approach will not only enhance patient care but also support the healthcare system's capacity to meet the growing demand for palliative care, ensuring that patients and their families receive the comprehensive support they need during life's final stages.

## MATERIAL AND METHODS

The study aimed to evaluate the knowledge of nurses regarding palliative care in tertiary care hospitals in Peshawar city, employing a cross-sectional design for this purpose. The sample size was calculated to be 377 using RaoSoft software, with a 95% confidence interval, employing a convenient sampling method. Conducted between August 2023 and November 2023, the study targeted nurses holding diplomas, Post RN, BSN, or MSN degrees, who had been working full-time for at least two years across various hospital departments. Exclusion criteria included senior administrative and managerial staff not involved in direct patient care, healthcare providers other than nurses, and those unwilling to participate in the study.

Data collection was facilitated through the Palliative Care Quiz for Nurses (PCQN), a standardized tool developed by Rose and McDonald in 1996 (31). This instrument evaluates three domains of palliative care knowledge: philosophy and principles (4 items), control of pain and other symptoms (13 items), and psychosocial aspects (3 items), encompassing a total of 20 items relevant to both clinical settings and educational purposes for students and professional nurses alike. Alongside a letter detailing the study's objectives, questionnaires were distributed to 377 nurses across four hospitals over September and October 2023, with verbal information also provided by the second author. Participation was voluntary and anonymous, with informed consent obtained prior to the completion of demographics and the PCQN tool sections of the questionnaire. A 100% response rate was achieved, with all distributed questionnaires returned.

The data was analyzed using the Statistical Package for Social Scientists (SPSS version 25), focusing on descriptive statistics to outline sample characteristics and responses to the PCQN. The scoring system ranged from 24 to 40, with three options per question: zero (indicating a lack of knowledge), one (a false response), and two (a correct response). Scores were categorized into three levels of knowledge: lack of knowledge (score of 24), poor knowledge (scores 25-27), and good knowledge (scores 28-40). Further, scores were divided into percentiles (33rd, 66th, and 100th) to categorize knowledge levels, with the chi-square test applied to assess the association between variables such as gender, education, and knowledge.

Ethically, the study was conducted in accordance with the Helsinki Declaration, ensuring participants' informed consent, voluntary participation, and anonymity. The research aimed not only to assess current levels of knowledge among nurses regarding palliative care but also to identify educational gaps that could be addressed to improve the quality of care for patients with life-limiting illnesses.

## RESULTS

The study aimed to assess the knowledge of nurses regarding palliative care in tertiary care hospitals of Peshawar city, employing a comprehensive approach to gather and analyze data. The participant demographic revealed a significant representation of female nurses, accounting for 61.3% of the total participants, as opposed to 38.7% of male nurses, indicating a predominance of female professionals in the nursing workforce within the surveyed hospitals (Table 1). This gender distribution aligns with the global trend of nursing being a predominantly female profession.

The age distribution of participants spanned from those born between 1971 and 2005, with the largest group (51.5%) being those born between 1996 and 2000, highlighting a relatively young workforce, with 30% of participants born between 1991 and 1995.

This demographic makeup suggests that the nursing staff in these hospitals is relatively young, which could influence their familiarity with current palliative care practices and openness to adopting new knowledge (Table 2).

Educational background among the nurses varied, with a majority holding a Post RN degree (53.3%), followed by BSN Graduate Nurses (45.6%), and a minimal representation of MSN Graduate Nurses (1.1%), reflecting the educational diversity within the nursing staff. This distribution underscores the varied levels of formal education and potentially different levels of exposure to palliative care training among the nursing staff (Table 3).

The Palliative Care Quiz for Nurses (PCQN) responses indicated a broad spectrum of understanding regarding palliative care principles, pain management, and psychosocial aspects among the nurses. A notable 80.1% of participants correctly identified that palliative care is not only appropriate in situations evidencing a downhill trajectory, showcasing a substantial understanding of the scope of palliative care. However, misconceptions were evident in certain areas, such as the management of pain and the use of opioids, where 72.9% correctly identified morphine as the standard for comparing the analgesic effect of other opioids, and 69.4% correctly recognized that drug addiction is not a major issue when morphine is used long-term for pain management. These responses reflect a significant level of knowledge but also highlight areas where misconceptions persist, necessitating targeted educational interventions (Table 4).

Table 1: Gender Distribution of Participants

Gender	Frequency	Percent (%)
Male	146	38.7
Female	231	61.3
Total	377	100.0

Table 2: Year of Birth (YOB) of Participants

YOB Range	Frequency	Percent (%)
1971-1975	3	0.8
1976-1980	3	0.8
1981-1985	16	4.2
1986-1990	35	9.3
1991-1995	113	30.0
1996-2000	194	51.5
2001-2005	13	3.4
Total	377	100.0

Table 3: Education Level of Participants

Education Level	Frequency	Percent (%)
Post RN Nurses	201	53.3
BSN Graduate Nurses	172	45.6
MSN Graduate Nurses	4	1.1
Total	377	100.0

Table 4: PCQN Responses

S.No	PCQN Statement	True (%)	False (%)	Don't Know (%)
1	Palliative care is appropriate only in situations where there is evidence of a downhill trajectory or deterioration (F)	80.1	10.3	9.5
2	Morphine is the standard used to compare the analgesic effect of other opioids (T)	72.9	22.5	4.5
3	The extent of the disease determines the method of pain treatment (F)	70.3	22.5	7.2
4	Adjuvant therapies are important in managing pain (T)	65.8	19.6	14.6
5	It is crucial for family members to remain at the bedside until death occurs (F)	60.2	28.9	10.9

S.No	PCQN Statement	True (%)	False (%)	Don't Know (%)
6	During the last days of life, the drowsiness associated with electrolyte imbalance may decrease the need for sedation (T)	52.8	32.6	14.6
7	Drug addiction is a major problem when morphine is used on a long-term basis for the management of pain (F)	69.4	22.0	8.5
8	Individuals who are taking opioids should also follow a bowel regime (T)	62.6	21.0	16.4
9	The provision of palliative care requires emotional detachment (F)	56.8	31.2	11.9
10	During the terminal stages of an illness, drugs that can cause respiratory depression are appropriate for the treatment for severe dyspnea (T)	56.5	31.0	12.5
11	Men generally reconcile their grief more quickly than women (F)	63.4	26.3	10.3
12	The philosophy of palliative care is compatible with that of aggressive treatment (T)	53.1	31.0	15.9
13	The use of placebos is appropriate in the treatment of some types of pain (F)	68.7	15.4	15.9
14	In high doses, codeine causes more nausea and vomiting than morphine (T)	59.9	23.9	16.2
15	Suffering and physical pain are synonymous (F)	56.0	28.9	15.1
16	Demerol is not an effective analgesic in the control of chronic pain (T)	47.7	33.2	19.1
17	The accumulation of losses renders burnout inevitable for those who seek work in palliative care (F)	48.8	26.0	25.2
18	Manifestations of chronic pain are different from those of acute pain (T)	70.3	18.0	11.7
19	The loss of a distant or contentious relationship is easier to resolve than the loss of one that is close or intimate (F)	59.2	22.8	18.0
20	The pain threshold is lowered by anxiety or fatigue (T)	50.4	37.9	11.7

Table 5: Total Knowledge Level

Knowledge Level	Frequency	Percent (%)
Lack of Knowledge	142	37.7
Poor Knowledge	115	30.5
Good Knowledge	120	31.8
Total	377	100.0

Table 6: Total Knowledge by Gender

Gender	Lack of Knowledge	Poor Knowledge	Good Knowledge	Total
Male	55	50	41	146
Female	87	65	79	231
Total	142	115	120	377

Table 7: Total Knowledge by Education Level

Education Level	Lack of Knowledge	Poor Knowledge	Good Knowledge	Total
Post RN Nurses	79	62	60	201
BSN Graduate Nurses	61	52	59	172
MSN Graduate Nurses	2	1	1	4
Total	142	115	120	377

The overall knowledge levels categorized into lack of knowledge, poor knowledge, and good knowledge revealed that 37.7% of participants exhibited a lack of knowledge, 30.5% displayed poor knowledge, and 31.8% demonstrated good knowledge regarding palliative care. This distribution underscores a critical need for enhancing palliative care education among nurses to improve the overall quality of care provided to patients with life-limiting illnesses (Table 5).

When dissecting the knowledge levels by gender, it was observed that both male and female nurses showed a similar distribution across the knowledge categories, with females slightly leading in the good knowledge category. This suggests that while gender differences exist, they do not significantly impact the overall knowledge levels of palliative care among nurses (Table 6).

Educational background appeared to influence knowledge levels, with Post RN Nurses showing a slightly better distribution across the knowledge levels compared to BSN Graduate Nurses and MSN Graduate Nurses. The limited number of MSN Graduate Nurses makes it challenging to draw definitive conclusions for this group. However, the data suggests that higher education levels do not necessarily correlate with better palliative care knowledge, highlighting the importance of continuous and specialized palliative care education regardless of the basic educational background (Table 7).

## DISCUSSION

This study, as the inaugural cross-sectional analysis conducted on the palliative care knowledge among nurses in Peshawar, Pakistan, uncovers critical insights into the demographic composition and knowledge levels of nursing professionals in the context of palliative care. The predominance of female participants (61.3%) over male participants (38.7%) in this study is reflective of the global nursing workforce trends, where females significantly outnumber their male counterparts. This gender distribution is crucial for understanding the dynamics within the nursing profession and for tailoring gender-sensitive educational interventions. Moreover, the young demographic profile of the participants, with a significant concentration (81.5%) born between 1991 and 2000, highlights the youthful nature of the nursing workforce, suggesting a potential openness to new knowledge and practices in palliative care. Comparatively, the literature review encompassing studies from a diverse array of countries including America, Australia, Spain, Israel, Sudan, Ireland, Nigeria, Egypt, Jordan, and Pakistan, reveals a wide spectrum of knowledge and understanding of palliative care among nurses. This diversity reflects the varying healthcare contexts, educational systems, and palliative care training across regions. Notably, studies from Sudan (2018) and Pakistan (2019) indicated a substantial gap in palliative care training among nurses, a finding echoed in the current study which underscores the imperative for tailored training programs to bridge these knowledge gaps.

Educational background emerged as a significant determinant of palliative care knowledge, with post RN nurses exhibiting a higher level of understanding compared to their BSN and MSN counterparts. This trend resonates with findings from Ireland (2016), where nurses with specific palliative care training (ECEPC) demonstrated superior knowledge, underscoring the impact of targeted educational programs on enhancing palliative care competencies.

The gender analysis within this study mirrored the broader literature, revealing disparities in knowledge levels across genders, with a consistently higher representation of women across all knowledge categories. This observation suggests that gender dynamics may influence palliative care knowledge dissemination and retention among nursing professionals.

While the study offers novel insights into palliative care knowledge among nurses in Peshawar, it is not without its limitations. The reliance on self-reported measures and the convenience sampling method may not fully capture the diverse experiences and knowledge levels across all nursing professionals in the region. Furthermore, the cross-sectional design provides a snapshot of knowledge levels at a single point in time, without accounting for changes in knowledge or practices over time.

In light of these findings and limitations, several recommendations emerge. There is a clear need for the development and implementation of comprehensive, continuous education programs focused on palliative care, tailored to the specific needs and educational backgrounds of nursing professionals. Such programs should aim to address identified knowledge gaps and misconceptions, particularly those related to the management of pain, the use of opioids, and the broader scope of palliative care beyond end-of-life care. Additionally, future research should employ longitudinal designs to track changes in knowledge and practice over time and explore the impact of targeted educational interventions on improving palliative care delivery.

## CONCLUSION

This study underscores the essential need for enhanced palliative care education among nurses in Pakistan, revealing significant knowledge gaps that must be addressed to improve the quality of end-of-life care. The findings highlight the critical role of targeted educational initiatives and continuous professional development in palliative care, tailored to the demographic and educational backgrounds of nurses. Addressing these gaps is pivotal not only for the advancement of nursing practices but also for the broader implications on human healthcare, ensuring that patients receive compassionate, comprehensive, and culturally sensitive care during the most vulnerable stages of their lives. By empowering nurses with the necessary knowledge and skills in palliative care, we can significantly improve patient outcomes, support families during difficult times, and enhance the overall quality of healthcare delivery in settings across Pakistan and beyond.

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