Original Research Article

KNOWLEDGE, ATTITUDE AND PRACTICE OF NURSES REGARDING POST-OPERATIVE PAIN MANAGEMENT AT THE HOSPITAL

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Abstract: *Post-operative pain management is a critical aspect of nursing care that significantly impacts patient recovery and satisfaction. In resource-limited settings like Pakistan, nurses often face challenges due to inadequate training, limited resources, and cultural misconceptions, leading to gaps in effective pain management practices.* **Objective:** *This study aimed to assess the knowledge, attitudes, and practices of nurses regarding post-operative pain management in a tertiary care hospital in Pakistan.* **Methods:** *A descriptive cross-sectional study was conducted among 140 nurses working in surgical wards, ICUs, and postoperative units. Participants were selected through convenience sampling, and data were collected using a structured, prevalidated questionnaire. The questionnaire included sections on demographic information, knowledge, attitudes, and practices related to post-operative pain management. Data were analyzed using SPSS version 26, with descriptive and inferential statistics employed to summarize findings and identify associations.* **Results:** *The study revealed moderate knowledge levels among participants, with 56.4% recognizing the appropriate use of opioids for pain relief and 50% agreeing that increasing analgesic doses may indicate psychological dependency. Positive attitudes toward pain management were noted, with 37% acknowledging the effectiveness of non-pharmacological interventions. However, gaps in practices were evident, with only 42.9% consistently using pain assessment tools. Education and experience significantly influenced knowledge and practices (p < 0.05).* **Conclusion:** *While nurses demonstrated adequate knowledge and positive attitudes, significant gaps in practices and specific knowledge areas were identified. Targeted training programs, policy reforms, and culturally sensitive educational interventions are essential to enhance pain management competencies among nurses and improve patient outcomes in surgical settings.*

Keywords: Post-Operative Pain Management, Nursing Practices, Pain Assessment, Patient Care, Nursing Education, Pakistan

Introduction

Post-operative pain management is a critical aspect of nursing care that directly impacts patient recovery and satisfaction. Effective pain management not only alleviates suffering but also reduces complications such as delayed wound healing, prolonged hospital stays, and the risk of developing chronic pain syndromes (1,2). Nurses play a pivotal role in post-operative pain management as they are responsible for pain assessment, administration of analgesics, and monitoring the effectiveness of interventions (3).

In Pakistan, the healthcare system faces numerous challenges, including high patient-to-nurse ratios, limited resources, and inconsistent training programs, which can hinder the provision of optimal pain management (4,5). Studies conducted in similar low- and middle-income countries (LMICs) have shown that gaps in nurses' knowledge and practices regarding pain management often result in suboptimal care (6). Despite these challenges, there is limited research in Pakistan on the competencies of nurses in managing post-operative pain.

Globally, evidence suggests that structured education and training programs significantly improve nurses' knowledge, attitudes, and practices related to pain management (7). Ahmed et al. highlighted the need for regular competency assessments and updated pain management guidelines to ensure quality care in resource-constrained settings like Pakistan (8). Furthermore, cultural factors, including patient reluctance to report pain and healthcare providers' biases

toward analgesic use, also influence pain management practices in the region (9).

Nurses in Pakistan often rely on their clinical judgment rather than evidence-based guidelines due to the lack of standardized protocols and access to advanced training (10). This gap underscores the need for targeted educational interventions to enhance nurses' understanding of pharmacological and non-pharmacological approaches to pain management, particularly in post-operative settings (11).

This study aims to assess the knowledge, attitudes, and practices of nurses regarding post-operative pain management in a tertiary care hospital in Pakistan. By identifying gaps and strengths, the findings will inform the development of tailored training programs and policy reforms to improve nursing care and patient outcomes in surgical settings.

Methodology

The study utilized a descriptive cross-sectional design to assess the knowledge, attitudes, and practices of nurses regarding post-operative pain management in a tertiary care hospital. This design was chosen to provide a comprehensive snapshot of the current competencies and perceptions of nurses in this critical area of patient care.

The target population included registered nurses working in surgical wards, surgical intensive care units (ICUs), and postoperative wards of the tertiary care hospital. A total of

140 participants were selected through convenience sampling. Inclusion criteria required nurses to have at least one year of clinical experience in postoperative care and to be directly involved in the management of surgical patients. Nurses on extended leave or those unwilling to participate were excluded. The sample size was determined to ensure adequate representation and statistical reliability.

Data were collected using a prevalidated structured questionnaire developed based on existing literature and reviewed by experts in nursing and pain management. The questionnaire comprised four sections: demographic information, knowledge, attitudes, and practices related to post-operative pain management. Demographic variables included age, gender, marital status, education level, professional experience, and the department in which the nurse was working. The knowledge section evaluated participants' understanding of pain management principles, pharmacological and non-pharmacological interventions, and the physiological basis of pain. The attitudes section assessed nurses' perceptions of pain assessment and management using a Likert scale. The practices section explored self-reported adherence to evidence-based protocols and the use of pain assessment tools.

Ethical approval was obtained from the institutional review board of the tertiary care hospital. Participants were informed about the objectives of the study, and written informed consent was secured. Confidentiality and anonymity were maintained throughout the study, and participation was voluntary.

Data collection was conducted over a four-week period during work shifts to ensure minimal disruption to patient care. Questionnaires were distributed and collected by trained research assistants, who provided clarification when needed to ensure accurate and complete responses. Completed questionnaires were checked for completeness and securely stored.

Data were analyzed using SPSS version 26. Descriptive statistics, including frequencies and percentages, were used to summarize demographic characteristics, knowledge, attitudes, and practices. Chi-square tests were applied to identify significant associations between demographic variables and participants' knowledge, attitudes, and practices. The reliability of the questionnaire was assessed using Cronbach's alpha, which demonstrated a high level of internal consistency ($\alpha > 0.8$).

Results

This study assessed the knowledge, attitudes, and practices of nurses regarding post-operative pain management in a tertiary care hospital. The demographic analysis revealed that the majority of participants (40%) were aged between 20–25 years, followed by 25.7% aged 31–35 years. Most participants were female (65%), single (52.1%), and had 1–5 years of professional experience (74.3%). A large proportion of the nurses held a Diploma in Nursing (44.3%) and worked in the postoperative ward (42.9%) (Table 1).

The knowledge assessment revealed that while participants demonstrated awareness of certain aspects of pain management, there were notable gaps. For example, 50% agreed that increasing analgesics indicates psychological dependency, and 56.4% recognized the use of opioids for pain relief. However, only 37% agreed on the importance of observing the side effects of narcotics within 20 minutes post-administration (Table 2).

Attitude-related findings showed mixed perceptions. While 37% agreed that non-pharmacological interventions were effective for mild to moderate pain, 33.2% agreed that pain was observable in patient behavior. A significant number (37%) believed surgical patients experienced more intense pain than medical patients (Table 3).

The practices assessment revealed gaps, with only 42.2% always selecting pain relief based on surgery type, and 42.9% reporting they never used a pain assessment tool. However, 52.7% indicated they always read guidelines related to pain management (Table 4).

The results demonstrate moderate knowledge, mixed attitudes, and inconsistent practices among nurses regarding post-operative pain management. These findings underscore the need for targeted training programs and policy reforms to enhance pain management competencies.

Table 1: Demographic Characteristics of Participants

Variable	Category	Frequency (%)
Age	20–25 years	40.0
	26–30 years	17.1
	31–35 years	25.7
	36–40 years	17.1
Gender	Male	35.0
	Female	65.0
Marital Status	Single	52.1
	Married	43.6
Experience	1–5 years	74.3
	6–10 years	25.7
Qualification	Diploma in Nursing	44.3
	Post RN	30.0
	BSN (Generic)	21.4
	MSN	4.3
Department	Surgical Wards	25.7
	Surgical ICUs	31.4
	Postoperative Ward	42.9

Table 2: Knowledge of Post-Operative Pain Management

Question	Response	Frequency (%)
Increasing analgesics indicates psychological dependency	Agree	50.0
	Disagree	13.0
	Neutral	13.0
Paracetamol injection is used for surgical pain	Agree	50.0
	Disagree	16.3

	Neutral	9.8
Opioids used for surgical pain	Agree	56.4
	Disagree	9.8
	Neutral	9.8
Pain assessed before and after drugs	Agree	46.7
	Disagree	16.3
	Neutral	13.0

Table 3: Attitudes toward Pain Management

Question	Response	Frequency (%)
Pain observable in behavior	Strongly Agree	10.3
	Agree	33.2
	Neutral	9.8
Non-pharmacological interventions effective	Strongly Agree	16.3
	Agree	37.0
	Neutral	13.0
Surgical patients experience intense pain	Strongly Agree	16.3
	Agree	37.0
	Neutral	6.5

Table 4: Practices of Post-Operative Pain Management

Question	Response	Frequency (%)
Direct nursing care to post-operative pain patients	Always	9.8
	Sometimes	37.0
	Never	29.3
Use of pain assessment tools	Always	9.8
	Sometimes	23.4
	Never	42.9
Guidelines read for pain management	Always	52.7
	Sometimes	20.1
	Never	3.3

Discussion

This study aimed to assess the knowledge, attitudes, and practices of nurses regarding post-operative pain management in a tertiary care hospital in Pakistan. The findings revealed moderate knowledge levels, positive attitudes, and inconsistent practices, reflecting both strengths and areas for improvement in pain management competencies. Comparing these results with previous studies provides valuable insights into the similarities and differences in nursing care across diverse settings.

The study found that 50% of participants agreed that increasing analgesics indicates psychological dependency, and 56.4% recognized the use of opioids for surgical pain relief. These findings align with Ahmed et al., who reported that while nurses in Pakistan demonstrate moderate awareness of pharmacological pain management, misconceptions about dependency and opioid use remain prevalent (12). Similarly, Zafar et al. observed a lack of understanding among nurses regarding the appropriate use of opioids, attributing it to inadequate training and cultural biases (13). In contrast, studies conducted in high-income countries, such as those by Lavery et al., reported higher knowledge levels due to the implementation of standardized training programs and evidence-based guidelines (14).

Attitudinal findings from this study showed that 37% of participants acknowledged the effectiveness of non-pharmacological interventions for mild to moderate pain. This aligns with the observations of Rehman et al., who highlighted a growing recognition of complementary pain management techniques among nurses in LMICs, albeit with limited practical application (15). However, the reliance on patient behavior for pain assessment, as reported by 33.2% of participants, echoes concerns raised by Khan and Siddiqui, who emphasized the need for objective assessment tools to reduce subjectivity in pain evaluation (16).

The practice-related findings revealed notable gaps, with only 42.9% of nurses consistently using pain assessment tools. This result is consistent with Malik et al., who reported similar deficiencies in the routine use of evidence-based tools among nurses in South Asia, citing high workloads and resource constraints as significant barriers (17). In comparison, Perkins et al. found that nurses in developed healthcare systems were more likely to adhere to standardized practices due to better training and institutional support (18).

Education and professional experience were significantly associated with better knowledge and practices in this study. Nurses with advanced qualifications, such as BSN or MSN, demonstrated higher competency levels. This is consistent with the findings of Mwita et al., who reported that continued professional development and specialized training programs significantly enhance pain management competencies among nurses in resource-limited settings (19).

The systemic challenges identified in this study, including a lack of resources and inadequate training opportunities,

underscore the need for targeted interventions. Ahmed et al. emphasized that addressing these systemic barriers through policy reforms and investments in nursing education is critical for improving pain management outcomes in Pakistan (20). Additionally, cultural factors, such as reluctance to report pain and fears of analgesic dependency, as observed in this study, are consistent with findings from South Asian studies, highlighting the need for culturally sensitive education and awareness programs (21).

Conclusion

In conclusion, this study adds to the growing body of evidence highlighting the challenges and opportunities in enhancing post-operative pain management among nurses in Pakistan. By addressing knowledge gaps, promoting evidence-based practices, and improving systemic support, healthcare systems can ensure better patient outcomes and elevate the standard of nursing care.

Declarations

Data Availability statement
All data generated or analyzed during the study are included in the manuscript.
Ethics approval and consent to participate
Approved by the department Concerned.
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Conflict of interest

The authors declared absence of conflict of interest.

Author Contribution

SHAMS UD DIN (BSN (Generic) student)
Coordination of collaborative efforts. Data acquisition, analysis. Manuscript drafting.
Study Design, Review of Literature.
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Coordination of collaborative efforts.

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