

## ASSESSMENT OF KNOWLEDGE AND ATTITUDES OF NURSES REGARDING PAIN MANAGEMENT AT LIAQUAT UNIVERSITY HOSPITAL, HYDERABAD

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### ABSTRACT

**Background:** Pain management is a critical component of patient care, and nurses play a central role in its assessment and management. Inadequate knowledge and suboptimal attitudes among nurses can negatively affect patient outcomes. Therefore, assessing nurses' knowledge and attitudes regarding pain management is essential to improve quality care.

**Objective:** This study aimed to assess the knowledge and attitudes of nurses regarding pain management at Liaquat University Hospital, Hyderabad.

**Methodology:** A descriptive cross-sectional study was conducted from September to December 2025. A total of 53 registered nurses were selected using non-probability convenience sampling. Data were collected using a structured questionnaire consisting of demographic variables, knowledge, and attitude domains. Data were analyzed using SPSS version 27, applying descriptive statistics including frequency, percentage, mean, and standard deviation.

**Results:** The study showed that most participants were aged 18–22 years (67.9%), female (52.8%), and BS Nursing graduates (96.2%). The majority (98.1%) had 1–5 years of experience. The mean knowledge score was  $1.27 \pm 0.151$ , while the mean attitude score was  $1.24 \pm 0.176$ . Overall, 45% of participants had high knowledge, 40% moderate, and 15% low knowledge levels. Approximately 77% of participants demonstrated a positive attitude toward pain management.

**Conclusion:** The study concluded that nurses demonstrated a moderate level of knowledge and a generally positive attitude toward pain management. However, gaps in knowledge remain, highlighting the need for continuous professional development, structured training programs, and regular in-service education to strengthen evidence-based pain management practices.

**Keywords:** Pain management, Nurses, Knowledge, Attitude, Cross-sectional study, Pakistan

### INTRODUCTION

Pain is defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage. It is one of the most common reasons for seeking healthcare services and remains the most frequently reported

symptom among hospitalized patients, particularly in surgical and medical wards(1). Pain is broadly classified into acute and chronic types. Acute pain is usually temporary and related to tissue injury, whereas chronic pain persists beyond normal healing and is associated with psychological, social,

and functional impairment(2). Globally, pain remains a major public health concern, with many patients experiencing inadequate pain management despite advances in healthcare services (3, 4). Poorly managed pain can delay recovery, increase morbidity, reduce quality of life, and contribute to psychological distress such as anxiety and depression (5). Evidence suggests that poorly managed acute pain significantly increases long-term morbidity and negatively impacts patient outcomes(6). Chronic pain affects approximately 20% of adults globally and is a leading cause of disability, reduced productivity, and poor quality of life (7). It is associated with psychological distress, including anxiety and depression, and places a substantial economic burden on healthcare systems due to prolonged treatment needs, repeated hospital visits, and loss of working capacity (8). Nurses play a vital role in pain assessment and management because of their continuous interaction with patients. Effective pain management largely depends on nurses' knowledge and attitudes toward pain assessment, pharmacological interventions, and non-pharmacological strategies (9, 10). However, studies conducted worldwide have reported inadequate knowledge and negative attitudes among nurses regarding pain management. A systematic review found that nurses' knowledge about pain management remains below recommended standards, particularly in opioid use and pain assessment practices (11, 12). Similarly, studies from Pakistan reported that only 22.5% of nurses demonstrate adequate knowledge regarding pain management, while the majority possess moderate or poor knowledge levels (13). Inadequate pain management is considered not only a clinical problem but also an ethical concern, as effective pain relief is recognized as a fundamental human right. Therefore, assessing nurses' knowledge and attitudes regarding pain management is essential to identify existing gaps and improve the quality of patient care,

particularly in tertiary care hospitals such as Liaquat University Hospital.

## MATERIAL AND METHODS

A descriptive cross-sectional study was conducted at Liaquat University Hospital from September to December 2025. The study population comprised registered nurses working in different inpatient departments of the hospital. A non-probability convenience sampling technique was used to recruit participants. The sample size was calculated using the Raosoft sample size calculator with a 95% confidence level and a 5% margin of error. Based on the accessible population of 60 nurses, the required sample size was 53 participants. Nurses working in inpatient care units with at least six months of clinical experience and willingness to participate were included, whereas nurses working in administrative positions, newly hired nurses, nurses with less than six months of clinical experience, and student nurses were excluded. Data were collected using an adopted structured questionnaire consisting of three sections: demographic characteristics, knowledge regarding pain management, and attitudes toward pain management. Informed consent was obtained from all participants before data collection after explaining the purpose of the study. Data were collected through self-administered questionnaires during participants' break times. Confidentiality and anonymity were maintained throughout the study, and all collected information was stored securely. Data were analyzed using SPSS version 27. Descriptive statistics, including frequencies, percentages, mean, and standard deviation, were used to summarize demographic characteristics and overall knowledge and attitude scores. Approval for the study was obtained from the Global Institute of Medical & Health Sciences, while permission for data collection was granted by the Medical Superintendent of Liaquat University Hospital. Participation in the study was voluntary, and participants had the right to withdraw at any stage without any consequences.

## RESULTS

**Table No. 1: Demographic Characteristics of Participants (n = 53)**

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	18-22	36	67.9
	23-30	17	32.1
Gender	Male	25	47.2
	Female	28	52.8
Level of Education	Diploma	1	1.9
	BS Nursing	51	96.2
	Post RN	1	1.9
Clinical Experience	1-5 years	52	98.1
	11-15 years	1	1.9

Table No. 1 shows the demographic characteristics of the participants (n = 53). Most participants were aged 18-22 years (67.9%) and female (52.8%).

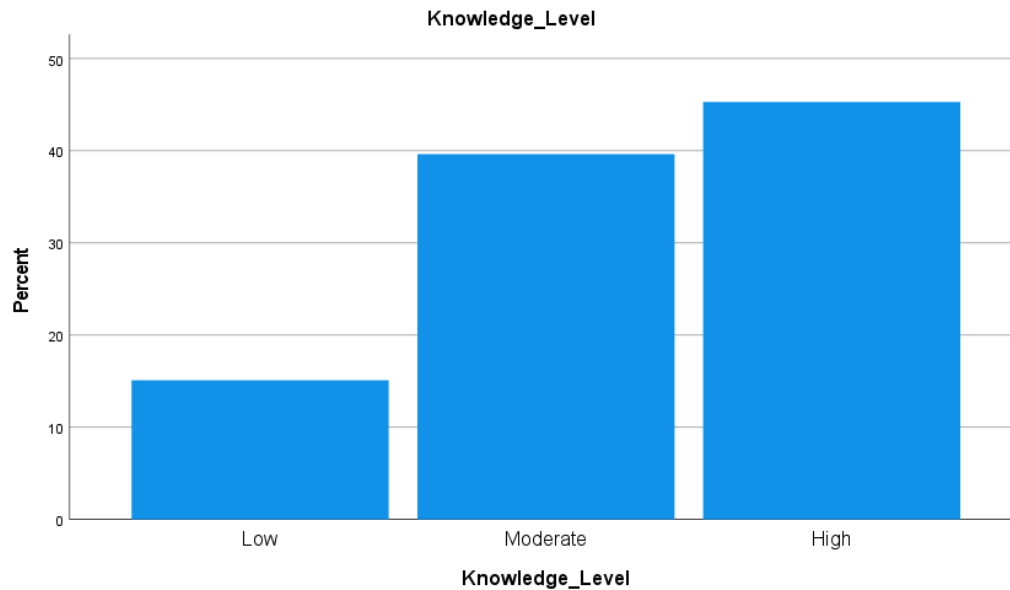
The majority had a BS Nursing qualification (96.2%), while most participants (98.1%) had 1-5 years of clinical experience.

**Table No. 2: Distribution of Participants' Knowledge Regarding Pain Management (n = 53)**

S. No	Knowledge Statements	Yes n (%)	No n (%)
1.	Regular drug administration is better for chronic pain management than PRN scheduling.	44 (83.0)	9 (17.0)
2.	Giving a placebo can determine whether a patient is truly experiencing pain.	38 (71.7)	15 (28.3)
3.	Pain perception can be reduced through distraction techniques.	40 (75.5)	13 (24.5)
4.	A health professional's estimation of pain is as reliable as patient's self-report.	42 (79.2)	11 (20.8)
5.	Severe chronic pain often requires higher analgesic doses than acute pain.	34 (64.2)	19 (35.8)
6.	Increased need for analgesics indicates narcotic addiction.	42 (79.2)	11 (20.8)
7.	Analgesic dosage should be reduced if opioids cause euphoria.	36 (67.9)	17 (32.1)
8.	Continuous opioid use carries a risk of addiction.	41 (77.4)	12 (22.6)
9.	IM injection is the recommended route for narcotic analgesics.	32 (60.4)	21 (39.6)
10.	Pain-free conditions can be maintained for patients.	45 (84.9)	8 (15.1)
11.	Chronic pain patients should take medication regularly, even without discomfort.	30 (56.6)	23 (43.4)
12.	Staff can always recognize signs of pain in patients.	39 (73.6)	14 (26.4)

Table No. 2 presents participants' knowledge regarding pain management. Most participants agreed that regular drug administration is better than PRN scheduling for chronic pain management (83.0%) and that pain-free

conditions can be maintained (84.9%). A majority also believed that distraction techniques can reduce pain perception (75.5%). Overall, the findings indicate moderate to high knowledge regarding pain management among participants.



**Figure No. 1: Knowledge Level of Participants**

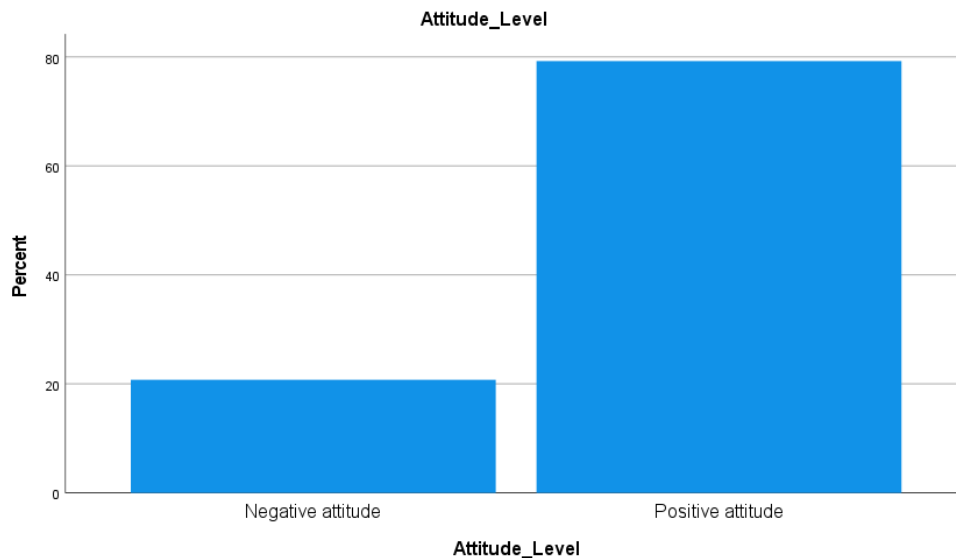
Figure No. 1 shows that 45% of participants had a high level of knowledge, 40% had moderate knowledge, and 15% had low knowledge regarding pain management.

**Table No. 3: Distribution of Participants' Attitude Regarding Pain Management (n = 53)**

S. No	Attitude Statements	Yes n (%)	No n (%)
1.	Absence of pain expression does not indicate absence of pain.	35 (66.0)	18 (34.0)
2.	Regular drug administration is preferable to PRN scheduling for ongoing pain.	41 (77.4)	12 (22.6)
3.	Increasing analgesic need indicates psychological dependence.	41 (77.4)	12 (22.6)
4.	Patients should experience pain before receiving the next analgesic dose.	35 (66.0)	18 (34.0)
5.	PRN opioid administration may lead to clock-watching behavior.	40 (75.5)	13 (24.5)
6.	The patient is the best judge of pain intensity.	44 (83.0)	9 (17.0)
7.	Patients may request PRN medication before pain returns.	44 (83.0)	9 (17.0)
8.	Distraction is preferable to analgesics for constantly crying children.	32 (60.4)	21 (39.6)
9.	Regular pain assessment is essential for effective pain management.	49 (92.5)	4 (7.5)
10.	Patients have the right to expect complete pain relief.	43 (81.1)	10 (18.9)

Table No. 3 demonstrates participants' attitudes toward pain management. Most participants agreed that regular pain assessment is essential for effective pain management (92.5%), while 83.0%

considered the patient the best judge of pain. Overall, the majority of participants showed a positive attitude toward pain management.



**Figure No. 2: Attitude Level of Participants**

Figure No. 2 indicates that approximately 77% of participants demonstrated a positive attitude,

whereas 23% showed a negative attitude toward pain management.

**Table No. 4: Nurses' Knowledge and Attitude Regarding Pain Management**

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Total Knowledge Score	53	1	2	1.27	0.151
Total Attitude Score	53	1	2	1.24	0.176

Table No. 4 presents the descriptive statistics of nurses' knowledge and attitude regarding pain management (n = 53). The mean knowledge score was  $1.27 \pm 0.151$ , while the mean attitude score was  $1.24 \pm 0.176$ .

## DISCUSSION

The present study was conducted to assess nurses' knowledge and attitudes regarding pain management at Liaquat University Hospital using a descriptive cross-sectional design. The findings revealed that nurses had an overall moderate level of knowledge and a generally positive attitude toward pain management. The mean knowledge score was  $1.27 \pm 0.151$ , while the mean attitude score was  $1.24 \pm 0.176$ , with most participants falling in moderate to high knowledge categories and approximately three-quarters demonstrating a positive attitude. These findings are partially consistent with international literature, although variations exist across different settings. A meta-

analysis by McCabe et al. reported that only 45.6% of nurses demonstrated adequate knowledge regarding pain management, and just 25.7% had a positive attitude toward pain management practices, indicating generally poor to moderate performance globally (14). Compared to these findings, the present study shows relatively better attitude scores, suggesting improved awareness among nurses in the current setting. Similarly, Ahmadi et al. reported that 84.8% of nurses had insufficient knowledge regarding pain management, with a low mean knowledge score. Their study also found that attitude was significantly associated with work experience, although increasing experience was sometimes linked with more negative attitudes (15). In contrast, the present study demonstrates comparatively better knowledge distribution, with most nurses falling in the moderate to high category. Evidence from broader literature also supports persistent knowledge gaps among nurses

globally. A scoping review reported that while some studies identified moderate knowledge levels, a considerable proportion still demonstrated insufficient understanding of pain assessment and management practices (16). Likewise, studies from Pakistan have shown moderate knowledge and generally positive attitudes among nurses, although deficiencies remain in pharmacological and assessment domains (17). The relatively better attitude observed in the present study may be attributed to increased clinical exposure and the growing emphasis on patient-centered care. However, the moderate knowledge level highlights the need for structured training programs, continuous professional development, and reinforcement of evidence-based pain management guidelines. Overall, the findings suggest that although nurses demonstrate acceptable attitudes toward pain management, gaps in knowledge still exist, which may affect optimal pain control in clinical practice. Strengthening educational interventions and in-service training programs is essential to improve both knowledge and its clinical application.

## CONCLUSION

The present study concluded that nurses demonstrated moderate knowledge and generally positive attitudes regarding pain management at Liaquat University Hospital, Hyderabad. Despite favorable attitudes, deficiencies in knowledge related to pain assessment and pharmacological management were identified. These findings emphasize the importance of continuous professional education, evidence-based training programs, and regular in-service workshops to improve nurses' competency and ensure effective pain management practices in clinical settings.

## AUTHORS' CONTRIBUTIONS

**TL:** Concept and study design.

**NH:** Supervision of the research work.

**ZL, MUQ, MAJ, WRK, AAR:** Data acquisition, analysis, and interpretation.

**TL, ZL:** Drafting of the manuscript.

**NH, SNS:** Critical revision of the manuscript.

**Conflict of interest:** None.

**Funding disclosure:** None.

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