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Assessment of the Nurse's Knowledge and Attitude Regarding Pain Management

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ABSTRACT

Nurses are vital in ensuring effective pain management within the healthcare team, necessitating a profound grasp of pain and a heightened sensitivity in their caregiving approach. **Objectives:** To evaluate the knowledge and attitudes of nurses toward pain management. **Methods:** The cross-sectional design was conducted in two private and public sectors in central Karachi from November, 2023 to Feburary 2024 using a purposive sampling technique among 90 participants. **Results:** The study reveals that 62.8% of participants were aged 24-30, 30% identified as male, 61.1% were post-registered nurse educated, and 73.3% had 1-5 years of experience. Participant knowledge varied, with 34.4% agreeing on giving narcotics regularly, and attitudes showed diverse perspectives, such as 27.8% strongly agreeing that the absence of pain expression does not indicate the lack of pain. **Conclusions:** It was concluded that the study highlights significant deficiencies in nurses' knowledge and attitudes regarding pain management, necessitating urgent, evidence-based educational interventions for a more compassionate approach to nursing care.

INTRODUCTION

Nurses play a crucial role in effective pain management as an essential component of the healthcare team, requiring a deep understanding of pain and a high level of sensitivity in their care approach [1]. Pain, as defined by the International Association for the Study of Pain (IASP) and the American Pain Society (APS), is an unpleasant sensory and emotional experience linked to actual or potential tissue damage, with individuals' varied experiences shaped by factors like culture, beliefs, coping mechanisms, and past encounters with pain [2]. Pain, a nursing-sensitive indicator, is commonly insufficiently addressed in hospital and outpatient sectors, emphasizing the potential for enhanced patient outcomes through improved nurse knowledge and attitudes regarding pain management [3]. Nursing professionals caring for older individuals must possess the knowledge and skills necessary for thorough pain management [4]. As nursing educators, nursing students must be comprehensively prepared with proficiency in effective pain management strategies before their professional entry into the field [5]. Nurses, who spend a significant amount of time with patients, are crucial in assisting them in determining the optimal

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approach for pain management [6]. Inadequate understanding and negative attitudes toward the care component among nurses have been noted as major obstacles to attaining successful pain management [7]. Inadequate pain management and the presence of pain are linked to worsening pre-existing medical conditions, functional impairment, falls, depression, decreased appetite, sleep disturbances, social isolation, and a lower quality of life, especially in the elderly [4]. The skills, knowledge, and attitude of nurses who administer pain management dictate the standard of care [8]. In Saudi Arabian hospitals, patients continue to experience unnecessary suffering despite increased knowledge about pain management, negatively affecting their physical, mental, and spiritual well-being, as well as their standard of living [9]. Recognized as a worldwide health issue, pain poses a distressing phenomenon, and research indicates that a notable proportion of hospitalized individuals, ranging from 55% to 78.6%, experience moderate to severe pain [10]. In Saudi Arabia, nursing professionals exhibit a knowledge deficit in pain management, with around 50% reporting insufficient understanding of pain assessment and treatment [7]. Despite various interventions, persistent issues in pain treatment involve nurses as primary implementers of doctors' recommendations and pivotal individuals aware of patients' suffering, highlighting the need to address gaps in understanding pain assessment, patient communication, and patient-provider interactions for improved outcomes [11]. Pain, when inadequately managed, not only increases mortality rates but also causes excessive suffering, diminishes the quality of life, and leads to prolonged hospital stays, impacting individuals, families, and society at large [12]. Enhancing knowledge through education offers a potential solution to the common barrier of insufficient understanding of pain, enabling healthcare professionals to shift attitudes and improve their ability to change clinical practices with more effective instructional approaches[11].

This study aims to explore nurses' attitudes and knowledge regarding pain management.

METHODS

The current study adopted a descriptive, cross-sectional study design. The present study took place in both private and public sectors in Central Karachi. The present study's target population consisted of registered nurses. The sample size was calculated through Open Epi with a 95% confidence interval with a population of 140 and the calculated sample size was 90. The Inclusion criteria were: All registered nurses with valid Pakistan Nursing Council (PNC) licenses, Both male and female,18 years and above, and Both diploma and degree holders. The Exclusion criteria were the invitation to participate was extended only to nurses who work in nursing administration, not in operation theatres. Moreover, purposive sampling was used in the current study to select participants from the study population. The study duration was four months from November, 2023 to Feburary 2024. Once permission to collect data was granted, the participants' consent was taken. Explained the purpose, goals, methods, and importance of the study to the participants. After that, the questionnaire was filled out by the participants. To gather information, permission was obtained from an authorized representative of the study sectors. Subsequently, every participant was invited to sign a form indicating their informed consent. Dedicated to ensuring the privacy and confidentiality of the participants, and there was no obligation for anyone to take part in the process of collecting data. The questionnaire employed in the ongoing study was adapted and adjusted from previous research, with permission obtained from the original authors. It comprises three distinct sections, each designed to investigate various aspects of nurses' demographic characteristics, knowledge, and attitudes related to pain management. On a five-point Likert scale, with 5 representing "strongly agree" and 1 representing "strongly disagree," responses to each of the 23 questions on the scale are recorded. These answers yielded a total mean score that spans from 23 to 115, where a higher number denotes a higher degree of knowledge and more positive attitudes among nurses about pain treatment. On the other hand, a lower score denotes inadequate or unfavorable attitudes and knowledge of nurses toward pain management. The demographic data were analyzed using "SPSS" version 26.0, with frequency and percentage being utilized. For information on knowledge and attitude, frequency and percentage are also employed.

RESULTS

Out of the 90 participants, 62.8% (n=62) were in the 24-30 age range. In terms of gender, 30% (n=27) identified as male, while 70% (n=63) identified as female. Regarding education, 61.1% (n=55) were post-RN nurses. About experience, 73.3% (n=66) had 1-5 years of experience. The results of demographic variables like age, gender, level of education, and nurse experience are shown in table 1.

Table 1: Study Participants' Demographic Characteristics

Variables	Frequency (%)
Age	
24-30	62 (62.8%)
31-36	28 (31.1%)
Gender	
Male	27 (30%)
Female	63 (70%)
Level of Education	
Diploma	25 (27.8%)

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BS Nursing	9 (10.0%)
Post RN	55 (61.1%)
MS Nursing	1 (1.1%)
Nurses Experience	
1-5	66 (73.3%)
6-10	21 (23.3%)
11-15	2 (2.2%)
16-20	1 (1.1%)

35.6% (n=32) of participants agreed that a nurse's understanding of the practice may frequently help determine whether a patient receiving a placebo is experiencing pain. 45.6% (n=41) of participants agreed with the nurse's assessment of distraction techniques, such as how using music or relaxation techniques can lessen the perception of pain. 42.1% (n=37) of participants agreed that the nurse's understanding of how a health professional can estimate a patient's pain is a valid indicator of pain in addition to the patient's self-report. 32.2% (n=29) participants strongly agreed and 33.3% (n=30) participants agreed with the nurse's knowledge that patients with severe chronic pain frequently require higher dosages of pain medication than patients with acute pain. 41.1% (n=37) of the participants felt that the nurse's awareness of the patient's growing need for analgesics is an indication that the patient is addicted to the drug. Regarding a nurse's knowledge, 34.4% of participants strongly agreed, and 26.7% agreed that if a patient and their family report euphoria from a narcotic, the nurse should administer a lower dose of the analgesic. The knowledge that approximately one-fourth of patients receiving continuous narcotics become addicted, 44.4% of participants agreed. On the topic of the preferred route of administration for narcotic pain relievers (IM), 25.6% strongly disagreed, and 28.9% agreed. Furthermore, 45.6% strongly agreed, and 30% agreed that a nurse's knowledge can maintain patients in a pain-free state. Regarding the belief that patients with chronic pain should receive pain medication regularly, regardless of discomfort, 24.4% strongly disagreed, and 27.8% agreed. Lastly, 32.2% strongly agreed, and 44.4% agreed that staff can consistently pick up cues from patients indicating they are in pain. The result of knowledge for ongoing pain management, a "PRN" schedule is not as optimal as a nurse's regular knowledge of administering narcotics 34.4% (n=31) of participants agreed are shown in Table 2.

Table 2: Knowledge of Nurses Regarding Pain Management

Statements	Strongly Disagree Frequency (%)	Disagree Frequency (%)	Neutral Frequency (%)	Strongly Agree Frequency (%)	Agree Frequency (%)
Regular drug administration is better for chronic pain management than "PRN" scheduling.	17.8 (16%)	20.0 (18%)	10.0 (9%)	17.8 (16%)	34.4 (31%)
Giving a patient a placebo can often be an effective way to determine whether the patient is truly experiencing pain.	12.2 (11%)	22.2 (20%)	11.1 (10%)	18.9 (17%)	35.6 (32%)
Pain perception can be reduced by distraction, such as listening to music or practicing relaxation.	13.3 (12%)	15.6 (14%)	13.3 (12%)	12.2 (11%)	45.6 (41%)
As reliable as a patient's self-report of pain is a health professional's estimation of that pain.	5.6 (5%)	23.3 (21%)	20.0 (18%)	10.0 (9%)	41.1 (37%)
Higher dosages of painkillers are frequently required for patients with severe chronic pain than for those with acute pain	11.1 (10%)	11.1 (10%)	12.2 (11%)	32.2 (29%)	33.3 (30%)
The patient is showing signs of narcotic addiction when their need for analgesics increases.	5.6 (5%)	15.6 (14%)	17.8 (16%)	20.0 (18%)	41.1 (37%)
A patient should receive a reduced dosage of an analgesic if they or a member of their family reports that the opioid is making them feel euphoric.	5.6 (5%)	11.1 (10%)	22.2 (20%)	34.4 (31%)	26.7 (24%)
Patients who are given opioids continuously have a 25% chance of developing an addiction.	10.0 (9%)	16.7 (15%)	11.1 (10%)	17.8 (16%)	44.4 (40%)
Injection (IM) is the recommended method for giving narcotic painkillers to individuals experiencing discomfort.	25.6 (23%)	15.6 (14%)	17.8 (16%)	12.2 (11%)	28.9 (26%)
Pain-free conditions can be maintained for patients	3.3 (3%)	6.7 (6%)	14.4 (13%)	45.6 (41%)	30.0 (27%)
Patients with chronic pain should take their pain medicine regularly, even if they are not experiencing any discomfort	24.4 (22%)	17.8 (16%)	16.7 (15%)	13.3 (12%)	27.8 (25%)

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When a patient exhibits signs of pain, staff can always recognize them.	4.4 (4%)	7.8 (7%)	11.1 (10%)	32.2 (29%)	44.4 (40%)

Strong agreement, at 27.8% (n=25), was observed regarding the belief that the absence of pain expression doesn't necessarily indicate the absence of pain. Additionally, 30% (n=27) agreed that administering narcotics on a regular schedule is preferable for sustained pain management compared to a PRN schedule. Concerning patients requesting increased analgesics, 34.4% (n=31) strongly agreed, and 31.1% (n=28) agreed that this often suggests psychological dependence. Regarding the belief that patients should experience discomfort before the next dose of pain medication, 32.2% (n=29) agreed. Lastly, regarding the attitude that patients receiving narcotics on a PRN basis may develop clock-watching behaviours, 47.8% (n=43) of participants agreed. Nurses' attitudes toward the patient as the most accurate judge of pain intensity garnered agreement from 48.9% (n=44) of participants. Regarding patients on PRN analgesics requesting medication before pain recurrence, 30% (n=27) strongly disagreed, while 35.6% (n=32) agreed. Regarding the notion that children crying may signal a need for diversional activities rather than pain medications, 41.1% (n=37) of participants agreed. Concerning the appropriate dose of morphine for pain control without a maximum limit, 28.9% (n=26) strongly disagreed, and 32.2% (n=29) agreed. Regarding effective pain treatment, involving continuous pain and therapy assessment, 34.4% (n=31) strongly agreed, and 37.8% (n=34) agreed. Lastly, the belief that patients have the right to expect total pain relief as a result of treatment received strong agreement from 38.9% (n=35) and agreement from 34.4% (n=31) of participants. The outlines of the attitudes of nurses toward pain management are shown in Table 3.

Table3: Attitudes of Nurses Toward Pain Management

Statements	Strongly Disagree Frequency (%)	Disagree Frequency (%)	Neutral Frequency (%)	Strongly Agree Frequency (%)	Agree Frequency (%)
It is not a sign of absence of pain to not express it.	21.1 (19%)	23.3 (21%)	6.7 (6%)	27.8 (25%)	21.1 (19%)
For ongoing pain, a regular schedule of drug administration is preferable to a PRN schedule.	15.6 (14%)	20.0 (18%)	22.2 (20%)	12.2 (11%)	30.0 (27%)
A patient is typically psychologically dependent when they need more and more analgesics to manage their pain.	6.7 (6%)	16.7 (15%)	11.1 (10%)	34.4 (31%)	31.1 (28%)
Before administering the subsequent dose of painkillers, the patient ought to be in pain	18.9 (17%)	15.6 (14%)	22.2 (20%)	11.1 (10%)	32.2 (29%)
Clock-watching behaviours may develop in patients who are given opioids on a PRN basis.	8.9 (8%)	17.8 (16%)	18.9 (17%)	6.7 (6%)	47.8 (43%)
The patient is the best judge of how much pain they are experiencing.	5.6 (5%)	13.3 (12%)	13.3 (12%)	18.9 (17%)	48.9 (44%)
When analgesic medication is being administered on a PRN basis, it is appropriate for a patient to request pain medication before their pain returns.	30.0 (27%)	12.2 (11%)	16.7 (15%)	5.6 (5%)	35.6 (32%)
When a child cries all the time, distraction exercises are recommended instead of taking real painkillers.	8.9 (8%)	8.9 (8%)	17.8 (16%)	23.3 (21%)	41.1 (37%)
It is essential to regularly evaluate the level of pain and the effectiveness of therapy to treat pain effectively.	1.1 (1%)	18.9 (17%)	7.8 (7%)	34.4 (31%)	37.8 (34%)
The patient has the right to anticipate that receiving treatment will result in complete pain relief.	8.9 (8%)	8.9 (8%)	8.9 (8%)	38.9 (35%)	34.4 (31%)

The cut-off value indicates that the mean score is 75 + 11.34, with 115 being higher and 23 being lower. This demonstrates the inadequate understanding and unsatisfactory attitude of nurses toward the management of pain. The global knowledge and attitude scores are displayed in Table 4.

Table 4: Descriptive statistics of nurses Knowledge and Pain Management

Descriptive Statistics	n	Minimum	Maximum	Mean + SD
Age	90	46	102	75 ± 11.34

DISCUSSION

There is a general acknowledgement that the knowledge significantly influences the efficiency of pain control during treatment, and the attitudes of the healthcare team, with a particular emphasis on nurses . In the current study, the total number of participants was 90. 62% of the

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participant's age were between 24-30 years, and 70% of participants were females. In contrast, in another study total number of participants was 183. the average age of the participants was 31 years, and 68% of them were 31 years old or younger. The majority of the participants, 94.5%, were female . In the present study, 70% of participants' professional experience was from one year to five years. In contrast, another study conducted in Gambia revealed a range of professional work experience varying from 1 to 26 years . The current study's findings demonstrate nurses' poor attitudes and insufficient knowledge of pain management. 75 + 11.34 is the study's mean score. In a similar vein, data from another study indicates that 60.9% of nurses had negative attitudes and insufficient knowledge of pain management . Alternatively, a different study carried out in Ireland in 2023 found that low levels of positive attitude (25.76%, 95% CI: 11.01 to 44.12) and less than half (45.9%, 95% CI: 20.46 to 71.97) of participants had sufficient or higher levels of knowledge regarding pain management . A moderate pain knowledge score of 10.75 ± 2.11 and a pain attitude score of 12.65 ± 2.33 were found in another study conducted in Turkey . The results of the current study indicated that nurses' understanding of pain management is lacking. On the other hand, an investigation carried out in China found that the average mean percentage score on the KASRP instrument was 40.3%, which is significantly lower than the 80% mark that denotes a sufficient understanding of pain management '. Another study found that 60.9% of nurses lacked adequate knowledge about managing pain . According to the results of the current study, the majority of participants believe that giving a patient a placebo can frequently help determine whether or not he is truly experiencing pain. In a similar vein, a different study carried out in Turkey found that most participants thought that giving sterile saline or water (i.e., a placebo) was an efficient way to determine whether or not patients' complaints of pain were genuine . The majority of study participants say that for ongoing pain, a regular schedule for administering narcotics is preferable to a PRN schedule. Another study, however, revealed that most participants do not agree that the PRN schedule is better than a regular schedule for administering narcotics to treat ongoing pain. In the current study, the majority of participants (48.9%) concurred that the patient is the best arbiter of their level of pain. Similarly, in another study, the majority of participants (69.6%) agreed that the patient is the best person to determine how much pain they are experiencing '. According to the results of the current study, the majority of participants (42.2%) felt that the best dose of morphine for a patient experiencing pain is the one that best manages their symptoms. Similarly, a different study found that 73% of nurses were aware that morphine was the most effective medication for managing pain . In this regard to address these challenges, healthcare institutions must prioritize pain management education for nurses .

CONCLUSIONS

It was concluded that the research identifies a notable deficiency in nurses' knowledge and attitudes towards management. Issues include a lack of understanding about narcotics administration, a preference for PRN schedules, and misconceptions about euphoria and analgesic doses. Attitudes such as patient endurance and concerns about clock-watching indicate a need for a shift towards patient-centric and evidence-based approaches. The overall low mean score underscores the urgency for targeted educational interventions to address these shortcomings and promote compassionate, evidence-based pain care in nursing.

Authors Contribution

Conceptualization: YK, SF
Methodology: HN, MY, S, A, MHS
Formal analysis: AB, RA
Writing review and editing: MY, S, A, SH, MHS

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

All the authors declare no conflict of interest.

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