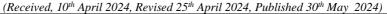# AWARENESS AND ATTITUDE REGARDING PAIN MANAGEMENT AMONG NURSES WORKING IN MAJOR HOSPITAL DEPARTMENTS

AHMED S[1*], BANO I[2], SHAFQAT R[1]

[1]*Department of Nursing, D.H.Q Hospital, Khanewal, Pakistan*
[2]*Department of Nursing Pak Italian Burn Center NMU Multan, Pakistan*
Correspondence author email address: drkash226@gmail.com

Abstract: *Pain management is a critical aspect of nursing care, yet the awareness and attitudes of nurses regarding this issue remain understudied, particularly in the context of Pakistan.* **Objective:** *This study evaluated nurses' understanding and attitudes regarding pain management in central hospital departments.* **Methods:** *A descriptive cross-sectional study was conducted at Nishtar Hospital, Multan, Pakistan, from March 2023 to March 2024. Using convenient sampling, 300 nurses from various hospital departments were included, including internal medicine, paediatrics, outpatient, surgical unit, ICU, and emergency. A 25-item questionnaire comprising polar and Likert scale questions was utilised to assess knowledge and attitudes. Descriptive statistics were employed to analyse the data, and mean scores were compared using appropriate statistical methods.* **Results**: *Of the participants, 67.3% (95% CI: 61.4%, 70.9%) demonstrated good knowledge about pain management, with a mean score of 7.07 ± 1.66. Furthermore, 50.6% (95% CI: 45.7%, 55.3%) exhibited a positive attitude, with a mean score of 48.2 ± 6.08. While no significant difference in mean knowledge scores was observed between genders (p = 0.754), a statistically significant difference was found in mean attitude scores (men: 49.03, women: 47.22, p = 0.01).* **Conclusion:** *Despite possessing good knowledge, nurses in Pakistan display a comparatively less favourable attitude toward pain management, highlighting the need for targeted interventions to address attitude-related barriers.*
Keywords: Attitude, Knowledge, Nurses, Nursing, Pain.

Introduction

Pain is an unpleasant bodily and emotional sensation that is either localised or generalised and associated with a physical disorder. Pain increases stress and affects the quality of life. According to the literature, 55-79% of the patients in the inpatient department complained of mild to severe pain. (1). Despite advancements in measures to manage pain, pain management is still critical and challenging to address.

Nurses play an important role in managing patients' pain; therefore, they must be aware and qualified to comply with all protocols. Improper knowledge about assessing and managing pain, poor communication, and inexperience in assessing pain lead to ineffective patient care in 80% of admitted patients in Pakistan. (2). Many studies report improved patient satisfaction, outcomes, and pain management when treated by nurses with more knowledge and appropriate attitudes for managing pain.(3, 4).
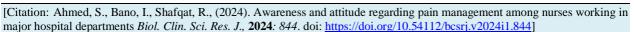
In Pakistan, all ages experience ineffective pain management as a recent study showed that pediatric patients are administered fewer analgesics than the older population irrespective of disease severity, resulting in severe pain levels in children due to inadequate knowledge about pain management in healthcare providers and the belief that children feel less pain than adults. (5). This attitude prolongs hospital stays, delays recovery, and worsens outcomes, affecting physical and physiological health. This study evaluated the awareness and attitudes of nurses working in major hospital departments regarding pain management.

Methodology

A descriptive cross-sectional study was conducted in the Nursing Department of Nishtar Hospital, Multan, from April 2023 to April 2024. A total of 300 nurses working in internal medicine, paediatrics, outpatient departments, surgical units, ICUs, and hospital emergencies were included by convenient sampling. The sample size was calculated on Epi Info by keeping a 95% confidence interval, 5% error margin, and 58% predicted knowledge. Nurses appointed for less than six months, those on maternal leave or extensive break, and administrative staff were excluded. All participants provided their consent to become a part of the study. The ethical board of the hospital approved the study.

Nurses' knowledge and attitudes were assessed using a questionnaire similar to the one used by Woldehaimanot et al. The internal consistency of the assessment was satisfactory, with a good Cronbach's Alpha (0.87). The modified 25-item questionnaire was divided into three parts: the first section recorded demographic and social data, the second section asked questions about knowledge regarding pain management, and the last section assessed the attitudes of the nursing staff regarding pain management. The questions were in English and Urdu languages. Twelve questions were asked regarding knowledge, which could be answered by selecting yes or no, and 13 questions were asked regarding attitude, which could be answered according to a Likert scale from 5 to 1, with 5 being strongly agree and 1 being strongly disagree.

All the data was analysed using SPSS 24. Frequency was used to present the distribution of study variables in

participants. Mean knowledge and attitude scores regarding pain management were compared between groups by performing an independent t-test. Participants' scores were compared based on socio-demographics by performing one-way ANOVA. A 0.05 probability value was considered significant.

Results

A total of 300 nurses were included in the study. Seventy per cent of nurses were female, and thirty per cent were male. The average age of participants was 26.11 ± 4.92 years (19-61 years). The respondents had an average of 3.5 ± 2.25 years of experience (1-27 years). Most of the nurses were bachelors qualified (Table I).

Regarding knowledge of pain management, 34% of participants agreed that analgesics should not be administered in paediatrics due to side effects, only 30% of respondents correctly identified the use of a placebo dose, and 59% of the participants were unaware of the preferred route of drug administration. Overall, 67.3% of participants

(95% CI: 61.4, 70.9%) had good knowledge about managing pain, with a mean score of 7.07± 1.66 (Table II). T-test results showed that the mean knowledge score did not differ significantly between genders, men (7.09) and women (7.05) (p=0.754). ANOVA revealed no difference in knowledge score between study variables, marital status (0.873), education (0.894), department (0.358), experience (0.708), and age (0.242).

Regarding the attitudes about pain management, 66% of participants did not signal lack of pain expression as lack of pain, 75% agreed that increased requirement to analgesia was dependent, and 74% agreed that the patient himself could accurately assess pain (Table III). 50.6% (95% CI: 45.7%, 55.3%) had a good attitude with a mean score of 48.2 ± 6.08. The genders differed significantly in terms of mean attitude score, with men at 49.03 and women at 47.22 (p=0.01). ANOVA analysis showed no difference in scores in study variables, marital status (0.91), education (0.79), department (0.17), experience (0.8), and age (0.70).

Table I: Patients' socio-demographics data

Characteristics	N (%)
Gender	
Male	90 (30%)
Female	210 (70%)
Age	
19-30 years	240 (80%)
31-41 years	60 (20%)
Marital status	
Single	186 (62%)
Married	114 (38%)
Experience	
0-3 years	177 (59%)
4-7 years	105 (35%)
8-12 years and more	18 (6%)
Education	
Diploma	33 (11%)
BSc	246 (82%)
MSc and above	21 (7%)
Department	
Emergency	69 (23%)
Outpatient	57 (19%)
Surgical	63 (21%)
Internal medicine	51 (17%)
ICU	3 (1%)
Others	57 (19%)

Table II: Assessment of knowledge about pain management

Questions	Correct answer N (%)
Nurses can recognise signs that a patient is in pain	186 (62%)
Pediatric patients should not be administered analgesics to avoid respiratory depression	102 (34%)
Patients complaining about pain should be administered a placebo dose first to confirm the pain	90 (30%)
High-dose analgesics should be administered to patients with chronic pain than with acute pain	123 (41%)
Music or relaxation techniques can decrease the pain sensation	63 (21%)
Increased pain medication requirement is a sign of addiction to narcotic	78 (26%)
If the patient is experiencing euphoria as a side effect of medication, the dose should be reduced	99 (33%)
A quarter of patients administered analgesics all day become addicted	96 (32%)
Narcotics should preferably be administered intramuscularly	123 (41%)
Patients can be maintained in a pain-free state	78 (26%)

Patients experiencing chronic pain should be administered analgesics at regular intervals irrespective of complaint of discomfort	108 (36%)

Table III: Assessment of attitudes of nurses regarding pain management

Questions	Agree/ Strongly agree N (%)
The patient can still be in pain despite a lack of pain expression	198 (66%)
Patients in continuous pain should be administered medication on a regular schedule than the PRN schedule	183 (61%)
Repeated requirements to increase medication dosage can indicate psychological dependence on the drug	225 (75%)
It's normal for the patient to experience discomfort before the next dose of medication	210 (70%)
Patients administered medicines on PRN schedule may develop clock-watching behaviour	195 (65%)
The patient himself can most accurately estimate the intensity of his pain	222 (74%)
Patients on PRN schedule can request medication before pain returns	201 (67%)
Pediatric patients should not be given narcotics due to the risk of respiratory depression	183 (61%)
Children crying can be a sign of diversional activities rather than actual pain	201 (67%)
There is no maximum dose of morphine; the suitable dose is the one that best manages pain symptoms	204 (68%)
Opioids should be administered without knowing the cause of pain	201 (67%)
Pain and effectiveness of therapy should be continuously assessed in cancer patients	237 (79%)
Patients must expect complete pain relief during treatment	234 (78%)

Discussion

This study assessed nurses' knowledge and attitudes regarding pain management in hospital wards. In the present study, 67.3% of participants (95% CI: 61.4, 70.9%) had good knowledge about managing pain. This finding is consistent with other studies in the region and internationally. (6-8).

However, the knowledge scores in our study are lower than those of other developed and developing nations, with 75% in Uganda.(9), 74% in the UK(10), 88% in Saudi Arabia(11), and 75% in the US(12) Which indicated high awareness towards patient care. This difference may be due to socioeconomic settings, sample size, and data analysis techniques. Pakistan is a developing country with a low average income, which influences the quality of healthcare and educational resources, resulting in lower knowledge. The study size was 300 nurses from different departments who were assessed using a 25-item questionnaire. The study conducted in Uganda had a considerably low sample size of 67 healthcare workers who were evaluated by a 28-item questionnaire.(9). The research in Saudi Arabia was a multi-center study in nurses of the surgical and internal medicine department(11). The study in the USA collected data by mailing a 52-item questionnaire to 1000 nurses working emergency ward as opposed to a self-administered questionnaire in our study (12).

The knowledge scores in our study are higher than some studies: 59% in Ethiopia(13), 36% in Zimbabwe(14), 47% in Iran (15), 39% in Turkey(16), 26% in Malaysia (17) and 25% in Australia (12). This difference may be due to study size and setting, data collection and analysis tools, and outcome rating. The study conducted in Malaysia categorized nurses' knowledge into moderate, low, and high which makes the interpretation of good and poor knowledge different (17). In the Ethiopian study, nurses were less qualified with diplomas and bachelor's degrees but our study had more qualified and experienced staff. Additionally, that study was once conducted on nurses working in the pediatric ward. The Australian study was conducted in nursing homes and nurses managing the elderly. These reasons can be causes of difference between mentioned studies (12).

In the present study, 50.6% (95% CI: 45.7%, 55.3%) of nurses had a good attitude regarding managing patients' pain. These scores are similar to studies conducted in Canada (50%)(18), Ethiopia (48%)(19) and Zimbabwe (57%) (20). However, these scores are lower than in other studies: 79% in Sri Lanka(21) and 76% in Uganda (22). These scores are higher than the USA study (28.2%)(23) and the Chinese study (45%) (24), this may be due to the use of the NKASRP tool for knowledge and attitude assessment.

Based on our study results, we recommend encouraging nurses to attend educational programs and training sessions to improve pain management. More analytical studies are required to identify factors involved in improving knowledge and attitudes toward patient care.

Our study has some limitations. It was single-centered, including participants of all age groups, which produced generalized results. Additionally, we only evaluated the descriptive quantitative part of patient care; an assessment of qualitative factors is required to assess independent factors influencing the nurses.

Conclusion

The nurses in Pakistan have good knowledge but a comparably less favorable attitude toward pain management.

Declarations

Data Availability statement
All data generated or analysed during the study are included in the manuscript.
Ethics approval and consent to participate.
Approved by the department Concerned. (IRB-NMC _182 dated 20-10-22)

Consent for publication
Approved
Funding
Not applicable

Conflict of interest

The authors declared an absence of conflict of interest.

Authors Contribution

SHAZIA AHMED (Principal)
Final Approval of version
IMTIAZ BANO (Head Nurse)
Concept & Design of Study, & Drafting
ROMESA SHAFQAT (Charge Nurse)
Revisiting Critically & Data Analysis

References

1. Hadi MA, McHugh GA, Closs SJ. The impact of chronic pain on patients' quality of life is a comparative mixed-methods study. Journal of patient experience. 2019;6(2):133-41.

2. Micah S, Barolia R, Parpio Y, Kumar S, Sharif H. Factors associated with postoperative pain among patients after cardiac surgery in Karachi, Pakistan's tertiary care teaching hospital. Pain research and treatment. 2019;2019.

3. Kahsay DT, Pitkäjärvi M. Emergency nurses knowledge, attitude and perceived barriers regarding pain Management in Resource-Limited Settings: cross-sectional study. BMC nursing. 2019;18:1-13.

4. Al-Atiyyat N, Salim NA, Tuffaha MG, Nigim HAA, Mah'd Saleh M, Alkhodary ME, et al. A survey of the knowledge and attitudes of oncology nurses toward pain in United Arab Emirates oncology settings. Pain Management Nursing. 2019;20(3):276-83.

5. Peng N-H, Lee M-C, Su W-L, Lee C-H, Chen C-H, Chang Y-C, et al. Knowledge, attitudes and practices of neonatal professionals regarding pain management. European journal of pediatrics. 2021;180:99-107.

6. Pervaiz H, Yousef N. 20. Knowledge and practice of Nurses' about post operated pain management at neurosurgery department in Tertiary Care Hospital, Lahore. Pure and Applied Biology (PAB). 2021;10(4):1119-25.

7. Alshehri FA, Levett-Jones T, Pich J. Nursing students' knowledge of and attitudes towards pain management: An integrative review. Nurse Education Today. 2024:106207.

8. Utne I, Småstuen MC, Nyblin U. Pain knowledge and attitudes among nurses in cancer care in Norway. Journal of Cancer Education. 2019;34:677-84.

9. Adams S-DM, Varaei S, Jalalinia F. Nurses' knowledge and attitude towards postoperative pain management in Ghana. Pain research and management. 2020;2020.

10. Al Omari D, Alhabahbeh A, Subih M, Aljabery A. Pain management in the older adult: The relationship between nurses' knowledge, attitudes and nurses' practice in Ireland and Jordan. Applied Nursing Research. 2021;57:151388.

11. Al-Sayaghi KM, Fadlalmola HA, Aljohani WA, Alenezi AM, Aljohani DT, Aljohani TA, et al., editors. Nurses' knowledge and attitudes regarding pain assessment and management in Saudi Arabia. Healthcare; 2022: MDPI.

12. Cousins M, Lane-Krebs K, Matthews J, Johnston-Devin C. Student nurses' pain knowledge and attitudes towards pain management over the last 20 years: a systematic review. Nurse Education Today. 2022;108:105169.

13. Dessie M, Asichale A, Belayneh T, Enyew H, Hailekiros A. Knowledge and attitudes of Ethiopian nursing staff regarding post-operative pain management: a cross-sectional multicenter study. Patient Related Outcome Measures. 2019:395-403.

14. Mwanza E, Gwisai RD, Munemo C. Knowledge on nonpharmacological methods of pain management among nurses at Bindura Hospital, Zimbabwe. Pain research and treatment. 2019;2019.

15. Shoqirat N, Mahasneh D, Al-Khawaldeh O, Al Hadid L. Nurses' knowledge, attitudes, and barriers toward pain management among postoperative patients in Jordan. Journal of PeriAnesthesia Nursing. 2019;34(2):359-67.

16. Topal Hançer A, Yılmaz M. Determination of knowledge and attitudes related to pain of nursing students in Turkey. International Journal of Caring Sciences. 2020;13(1).

17. Samah NA, Said N, Shohor NA, Al-Shadat EA. Knowledge and Attitude of Operating Theatre Nurses towards Pain Management. Environment-Behaviour Proceedings Journal. 2022;7(19):413-9.

18. Hroch J, VanDenKerkhof EG, Sawhney M, Sears N, Gedcke-Kerr L. Knowledge and attitudes about pain management among Canadian nursing students. Pain Management Nursing. 2019;20(4):382-9.

19. Jemebere W. Knowledge and attitudes of nurses towards postoperative pain management in Southern Ethiopia. International Journal of Caring Sciences. 2020;13(2):909.

20. Omotosho TOA, Sey-Sawo J, Omotosho OF, Njie Y. Knowledge and nurses' attitudes towards pain management at Edward Francis Small Teaching Hospital, Banjul. International Journal of Africa Nursing Sciences. 2023;18:100534.

21. Kumara G, Hindagoda H, Indika M, de Silva BSS, Marikar F. Nurses' knowledge, attitudes, and practices regarding postoperative pain management in Sri Lanka. Philippine Journal of Nursing. 2020;90(1):68-75.

22. Khalil A, Meawad E, Abd Elhameed S. Nurses' Attitude, Practices and Barriers towards PainManagement of Elderly Patients with Cancer. Mansoura Nursing Journal. 2022;9(1):23-30.

23. Alnajar MK, Darawad MW, Alshahwan SS, Samarkandi OA. Knowledge and attitudes toward cancer pain management among nurses at oncology units. Journal of Cancer Education. 2019;34:186-93.

24. Ou M, Xu X, Chen Y, Yan Y, Wang K, Zhou L. Factors related to nurses' knowledge and attitudes toward pain in hospitals in low-income areas. Pain Management Nursing. 2021;22(3):386-93.