

To Assess Knowledge and Attitude Regarding Pain Management Among Nursing Students in Khyber Pakhtunkhwa

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Abstract:

Background: Pain management is highly essential since the unmanaged pain has severe side effects on patients such as hopelessness, impeding their response to treatment, and reducing their quality of life. Among the major barriers reported towards implementing effective pain management for nursing students was the knowledge and attitude toward pain management.

Objective: This study aims to assess knowledge and attitude of nursing student regarding pain management. **Methodology:** This descriptive cross-sectional study design was utilized at a private nursing institute from July to November 2024 in Khyber Pakhtunkhwa. Simple random sampling technique was utilized to recruit 44 nursing students. **Result:** Knowledge and attitude regarding pain management of (n=44) participants was assessed, where 93.1% (n=41) was male and 6.9% (n=3) was female students. Most of the students 56.8% (n=25) show good knowledge, 36.3% (n=16) show fair knowledge and 6.8% (n=3) show poor level of knowledge. Approximately, 63.6% (n=28) students show good attitude toward pain management, some students 27.2% (n=12) had fair attitude toward pain management and only 9.09% (n=4) students had poor attitude regarding pain management. **Conclusion:** Most nursing students have good knowledge and a positive attitude towards pain management. While 56.8% of participants demonstrated good knowledge, 63.6% showed a positive attitude. A smaller portion of students had only fair or poor levels in both knowledge and attitude, which presents areas for improvement.

Key words: Knowledge, Attitude, Pain Management, Nursing Students

Introduction:

Pain is subjective response of an individual, and it has some types such as acute, chronic, and neuropathic etc. Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage [1]. Pain is a subjective phenomenon, attitudes and beliefs toward pain are derived from social interactions and therefore are to be understood within a culture in which they happen. Ultimately, they are potential obstacles to the control of pain [2]. Despite numerous technologic advancements in medicine, pain continues to be a health problem in society that causes discomfort and suffering. It has been estimated that 30%-70% of the hospital inpatients experience pain despite recommendations for the treatment. [3]. One of the most common complaints that patients present to the emergency department is pain. Approximately 35 million outpatient and 25 million inpatient surgical procedures are conducted

in the United States annually. More than 80% of patients, after undergoing surgery, experience postoperative pain; 39% of patients experience severe pain [4]. There has been a growing interest in the management of pain in the recent years, as pain has become recognized as a crucial component of medical care, and nurses and nursing students play a huge role in the assessment and management of pain incidents because they spend most time communicating with patients during bedside care, [5]. There have been frequent reports that undergraduate nursing students' knowledge about pain management is inadequate. Simulation is one such method that can be used to improve pedagogy while training undergraduate nursing students in a safe and effective manner. However, there are very few literature studies that explore the effectiveness of simulation in improving knowledge regarding pain management in students. [6]. However, nurses from lower backgrounds possess very little knowledge about the pain management, a study proved that, at an overall perspective, the nurses are highly optimistic regarding pain management [7]. Furthermore, pediatric nurse practitioners from the children's hospital were not aware of pain management and did not have an appropriate attitude toward it. There is a need for a new standardized training project on pain management that has a direct relevance to clinical practice concerning children in the future. [8]. In addition to nurses, final year nursing students at a private university also have inadequate knowledge and attitudes toward pain management [9]. Furthermore, another study highlights in turkey the nursing students have poor knowledge and attitude toward pain management [10]. The Canadian nursing students also have inadequate knowledge and have positive attitude toward pain with mean score of 66.7% [11]. Another study shows that the knowledge level and attitude of the nurses toward pain management was poor. The mean score of the participants with respect to correct answer was (2.98). While forty percent of the participants got a passing score of 70%. Females postgraduate working in the medical and surgical departments and had 5 to 10 years of work experience belonged to the group with high levels of knowledge and attitudes [12]. In addition, another study finding of knowledge and attitude towards pain management amongst the nursing and midwifery students reveals that the knowledge and attitude is average and requires interventions [13]. This study aims to assess knowledge and attitude of nursing student regarding pain management. Moreover, by identifying knowledge gap and attitude that may lead to inadequate pain management by evaluating the student's current knowledge and attitude.

Methods

A descriptive cross-sectional study design was used at private nursing institute in (KPK) Pakistan among undergraduate nursing students. Total 44 students were selected for this study. Sample size with 44 participants was appropriate because of the total population with 50 students. Some of them excluded in this study adhered to eligibility criteria so that the final sample reflected the target population correctly but remained feasible for the study duration and available resources.

A validated scale for knowledge and attitude toward pain management was used among nursing students. Questionnaire contains 17 questions and divided into two parts. In the first part, the researcher asked for demographic data on age, gender etc., whereas in the second part, a series of eleven knowledge questions which were related to general knowledge regarding pain management for instance, definition of pain management, method of pain management, tools of pain assessment and misconception about pain. Every question was of choice form with two options of True, False. The false response scored 0, while the true response scored 1. There were six statements on attitude towards pain management which formed the second part of the tool. Rating the responses involved a Likert-type scale of 5 ("Strongly Agree 5"), to "Strongly Disagree 1").

After the study was approved from the ethical review committee at the institute of FIMS College of Nursing and Health Sciences, where the study was being conducted, with approval number (FIMS/ERC/2024/75), the students were given Google forms study distributed through WhatsApp; information on the study with purposes was sent along with guidelines as well as instruments for

guides in answering the questionnaire. By submitting the completed online questionnaire, the participants agreed to participate in the study. The questionnaires were sent several times to prompt the students. The study by the researcher was started from July to November in the year 2024. To minimize survey duplication, the number of participants' response to the survey is restricted to once. Data was analyzed by using SPSS version 26. Descriptive statistics was presented using mean (S.D) in the case of parametric data while for the non-parametric data, median IQR were reported. Frequencies and percentages were also calculated to present demographic variables as these were categorical variable. Chi-square or fisher's exact test was applied in order to observe association with demographic variable.

Result:

A total 44 (n=44) participants fill the google form to assess their knowledge and attitude regarding pain management, in which 93.1% (n=41) was male and 6.9% (n=3) was female students. Of the students 63.6% (n=28) were aged 22 to 24, 27.2%(n=12) were aged of 25 to 27 and 9% (n=4) were aged 28 to 29 mentioned in the **table 01**.

Table 01 demographic data

Demographic data	n (%)
Total participants	44 (100)
Gender	
Male	41 (93.1)
Female	3 (6.9)
Age range	
22 to 24	28 (63.6)
25 to 27	12 (27.2)
28 to 29	4 (9)

Table 02 display the level of knowledge of nursing students related to pain management, where most of the students 56.8% (n=25) show good knowledge, 36.3% (n=16) show fair knowledge and 6.8% (n=3) show poor level of knowledge. The range of correct answer to each question range from 71% to 89.7%.

Table 02 level of knowledge

Level of knowledge	n (%)
Poor knowledge	3 (6.8)
Fair knowledge	16 (36.3)
Good knowledge	25 (56.8)
Range of correct answers	71% to 89.7%

Table 03 show the level of attitude regarding pain management of nursing students. This study shows positive attitude of students towards pain management. Approximately, 63.6% (n=28) students show good attitude toward pain management, some students 27.2% (n=12) had fair attitude toward pain management and only 9.09% (n=4) students had poor attitude regarding pain management. The overall attitude the students toward pain management were positive 63.6% (n=28).

Table 03 level of attitude

Level of attitude	n (%)
Poor attitude	4 (9.09)
Fair attitude	12 (27.2)
Good attitude	28 (63.6)

Discussion:

This study assessed the knowledge and attitude of nursing students regarding pain management, pointing out merits and areas for improvement in terms of assessment and intervention techniques for pain. The results of this study can then be compared with those found in international research to identify gaps and developments in pain management education and practice. The report of the current study reveals that 56.8% of the nursing students have good knowledge regarding pain management, while 63.6% is positive attitude towards it. However, the findings of a systematic review that synthesized data from 29 studies indicate that, generally, nursing students have low levels of knowledge and often display negative attitudes towards pain management [14]. Pain management is an important area of nursing care, yet the awareness and attitudes of nurses toward this topic are not addressed, especially in the context of Pakistan. A descriptive cross-sectional study was conducted at Multan, which reveals that despite having good knowledge, participants have a comparatively less favorable attitude toward pain management, indicating the requirement of specific interventions to remove attitude-related barriers [15]. Notably, while the current study aligns with previous research regarding knowledge, it differs in showing an opposing trend in attitude. Another study found the students to have a level of poor knowledge about pain. With pain management having more input in undergraduate education, quality time will be accorded towards the improvement of a patients' quality of life [16]. Contrarily, our study provides a more positive outcome, and it seems that Pakistani nursing students are possibly better educated or trained than their international counterparts about pain management. Good pain management is one of the critical factors that enhance the outcome and quality of life for patients. A study from Malaysia was done on similar grounds and shown similar concern regarding inadequate knowledge among nursing students regarding pain management and emphasized the need for provision of adequate pain management education within the nursing curricula [17]. However, our study revealed that the students had a good knowledge as well as positive attitude about pain management, and so an added number of practical trainings concerning the pain assessment and intervention will improve all the knowledge, skills, and attitudes of nursing students about pain management. Most nurses who work in the surgical unit have good knowledge about the management pain [18]. This finding is consistent with the general impression that most student nurses coming from Pakistan acquire more knowledge. Another study revealed that knowledge and attitudes of the nursing students who were in the final semester regarding pain management were inadequate [19]. The curriculum of the nursing program therefore needs to be revised so that courses enhance the nursing students' knowledge and attitude regarding pain management. Curricula related to pain should cover topics such as pain physiology, opioid pharmacology, and pain assessment in nursing [20]. Other study in Saudi nurses were found to have relatively less pain knowledge level compared to the nurses from other regional and international nurses. Pain management education should be included in continuing education and nursing undergraduate curricula [21]. It becomes even more urgent and imperative to conduct effective educative efforts by comparing our study with the Iranian study indicating unsatisfactory knowledge and attitudes of the final year nursing students and nurses towards pain management. Inservice training must thus be provided periodically for all post registration nurses to strengthen their knowledge and attitude related to pain to enhance proper pain care [22].

Conclusion:

Most nursing students have good knowledge and a positive attitude towards pain management. While 56.8% of participants demonstrated good knowledge, 63.6% showed a favorable attitude. A smaller portion of students had only fair or poor levels in both knowledge and attitude, which presents areas for improvement. Overall, it seems that nursing students do have an overall foundational knowledge in pain management but need more education to understand and approach better.

Limitation:

The small sample size was 44. This lowers the generalizability of the results obtained. The participants of the sample were mostly males, which was 93.1%. Only 6.9% females existed in that sample. This too may affect the results. Self-reported data from a Google form may also have the tendency to introduce response bias. In fact, the findings indicate that 56.8% of students (n=25) had good knowledge and 63.6% (n=28) had a positive attitude toward pain management, but it did not discuss the underlying factors that produce such results.

Conflict of interest:

The authors declare no conflict of interest.

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