

Knowledge regarding pain management among nursing students of Swatantra Senani Uttamraoji Patil Nursing College, Aurangabad, Maharashtra, India

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Abstract

Background: Pain is a universal experience. It has well established that many people will suffer from pain at the end of life, and untreated pain contributes to reduction in the quality of life. Nurses play a crucial role in pain management; student nurses are the face of future nursing and must be highly knowledgeable to ensure their practices in the assessment and management of pain.

Aim and Objectives: To assess the knowledge regarding pain management among nursing students of Swatantra Senani Uttamraoji Patil Nursing College, Aurangabad, Maharashtra.

Material and Methods: A cross-sectional study was carried out from January to April 2016 among 85 nursing students of Swatantra Senani Uttamraoji Patil Nursing College, Aurangabad, Maharashtra, while their clinical posting period at Noor Hospital of Indian Institute of Medical Science & Research Medical College, Badnapur, Jalna, Maharashtra. A pre-designed questionnaire which assessed knowledge regarding pain management was the tool of data collection. Results were analyzed in the form of frequency, percentage, and mean whenever appropriate.

Results: Out of 85 respondents, majority 40 (47.05%) were in the age group of 20 years, 58 (68.24%) were females, 75 (88.24%) were unmarried, 40 (47.05%) were in second year, and 72 (84.70%) were from rural area. Majority of them (61.18%) had average knowledge and only 17.65% had good knowledge regarding pain management. There was significant association between demographic variables like age ($p = 0.0204$), education ($p = 0.0173$), and marital status ($p = 0.0432$) with knowledge scores.

Conclusion: The level of knowledge regarding pain management among nursing students was average. Considering the important role of nursing in pain management, there is need of close clinical supervision, additional training, and allotment of more hours to pain management unit in nursing curriculum.

KEY WORDS: Knowledge, pain management, nursing students

Introduction

When considering four domains of quality of life, pain has considerable impact on physical, psychological, social, and

financial wellbeing. Pain is widespread, causes a lot of unnecessary suffering, disability, and increases enormous costs on the health care system and nation's economy.^[1] Unrelieved pain interferes with sleep, increased level of anxiety, depression, morbidity and mortality.^[2] 'American Pain Society' coined the phrase "Pain: the 5th Vital Sign" to emphasize its significance and to increase the awareness among health care professionals about importance of effective pain management. Excessive pain following surgery is a common entity that has been highlighted in the literature for almost 40 years. The Royal College of Surgeons' (RCS) report on 'Pain after Surgery' showed 30–70% of patients suffer from moderate to worse pain after surgery.^[3]

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Pain is highly subjective deeply personal experience; poorly managed pain can have other numerous deleterious effects.^[4] Despite this even treatment of pain is delayed, disorganized, inaccessible, or ineffective. This gap between 'need and deed' is mostly because of inadequate awareness or diffusion of knowledge to the public, the patient, the physician, or caretaker.^[5]

The literature documents that chronic pain after surgery is a common occurrence. Under treatment of pain and lack of knowledge about pain management have been evident for approximately two decades. Patients have rights of effective pain management, and American Pain Foundation has established these rights in their Pain Care Bills of Rights (2010).^[6] Until the knowledge and attitude of health care providers' improve, pain will continue to be untreated. Because nurses are often the cornerstone of pain management, nurses' knowledge in this area is especially important.^[7] Hence the present study was carried out to assess the knowledge regarding pain management amongst nursing students of Swatantra Senani Uttamraoji Patil Nursing College, Aurangabad, Maharashtra, India.

Material and Methods

A cross-sectional study was carried out from January to April 2016 among 85 nursing students of Swatantra Senani Uttamraoji Patil Nursing College, Aurangabad, Maharashtra, while their clinical posting period at Noor Hospital of Indian Institute of Medical Science & Research Medical College, Badnapur, Jalna, Maharashtra. A pre-designed questionnaire which assessed knowledge regarding pain management was the tool for the data collection. On the day of the study, a total of 100 students were present and filled the questionnaires, of which 7 were returned unfilled and 8 were incomplete, that's why they were excluded from the final analysis; at final 85 questionnaires were filled complete and included in the study and data were analyzed. To assess the knowledge regarding pain management, there were 24 self-administered, semi-structured questionnaires were developed for the study. Each correct answer was given one score, and the range of the score varied between 0 (with no correct answer) to 24 (for all correct answers). A scoring mechanism was used to understand overall knowledge level; a score of one has given for each correct response and zero for wrong response. Respondents with all correct response get a maximum of 24 points; higher points indicate good knowledge. Based on total score, knowledge level regarding pain management was categorized into poor (≤ 8 points), average (9–17 points), and good (≥ 18 points). The participation to study was on voluntary basis. Demographic details such as age, gender, year of the education, marital status, and locality of the respondents were recorded. All participants were given a briefing about objective of the study and were assured confidentiality in collection of personal data. Institutional ethical committee approval was obtained for the study.

Statistical Analysis

Results were analyzed statistically using percentage, proportions, and Chi-square test. If p -value will be equal or less than 0.05 and observed difference was considered to be statistically significant.

Results

The demographic characteristics of the study are shown in Table 1. Out of total 85 participants, 58 (68.24%) were females and 27 (31.76%) were males. The majority of the respondents 40 (47.05%) were in the age of 20 years, followed by 20 (23.53%) in the age of 22 years, and 25 (29.42%) in the age of 21 years. Majority 75 (88.24%) were unmarried and 40 (47.05%) had education second year, 25 (29.42%) had third year, and 20 (23.53%) had fourth year of B.Sc. Nursing. Majority 72 (84.70%) were from rural area.

Response of nursing students regarding their knowledge towards pain management is tabulated in Table 2. The level of knowledge divided into three levels such as Poor, Average, and Good. Majority 61.18% had average knowledge, 21.17% had poor knowledge, and only 17.65% had good knowledge about pain management.

Table 1: Socio-demographic characteristics of the study population ($n = 75$)

Category	Frequency	Percentage
<i>Age (in years)</i>		
20	40	47.05
21	25	29.42
22	20	23.53
<i>Gender</i>		
Male	27	31.76
Female	58	68.24
<i>Marital status</i>		
Married	10	11.76
Unmarried	75	88.24
<i>Education</i>		
Second year	40	47.05
Third year	25	29.42
Fourth year	20	23.53
<i>Residence</i>		
Urban	13	15.30
Rural	72	84.70

Table 2: Knowledge score of pain management among nursing students ($n = 75$)

Category	Knowledge score	Frequency	Percentage
Poor	0–8	18	21.17
Average	9–17	52	61.18
Good	18–24	15	17.65

Table 3: Association between socio-demographic variables and knowledge score of pain management amongst nursing students

Category	Poor	Average	Good	p-Value
<i>Age (in years)</i>				
20	12	25	3	$\chi^2 = 11.6118$, p -value = 0.02048 S, $p < 0.05$
21	4	17	4	
22	2	10	8	
<i>Gender</i>				
Male	8	14	5	$\chi^2 = 1.9146$, p -value = 0.3839 NS, $p > 0.05$
Female	10	38	10	
<i>Education</i>				
Second year	11	27	2	$\chi^2 = 11.9935$, p -value = 0.0173 S, $p < 0.05$
Third year	5	15	5	
Fourth year	2	10	8	
<i>Residential status</i>				
Urban	5	5	3	$\chi^2 = 3.7161$, p -value = 0.1559 NS, $p > 0.05$
Rural	13	47	12	
<i>Marital status</i>				
Married	5	3	2	$\chi^2 = 6.2825$, p -value = 0.0432 S, $p < 0.05$
Unmarried	13	49	13	

S – significant; NS – non-significant.

Association between socio-demographic variables and knowledge score about pain management among nursing students is shown in Table 3. It shows association among the socio-demographic variables like age ($p = 0.0204$), education ($p = 0.0173$) and marital status ($p = 0.0432$) was significantly associated with knowledge scores. No significant differences were found in pain management knowledge among residential status and gender ($p > 0.05$).

Discussion

In the present study, majority 61.18% had average knowledge, 21.17% had poor knowledge, and only 17.65% had good knowledge regarding pain management among nursing students, similar finding was observed in study conducted by Al-Khawaldeh et al.^[8] which shows that 92.5% and 7.5% of the participants were considered to have poor and fair knowledge of pain management. Duke et al.^[9] carried out study in junior and senior students enrolled in a baccalaureate nursing program, where senior students nearing graduation scored only 68% knowledge regarding pain management. In a study by Manwere et al.^[10] showed that registered nurses had inadequate knowledge with a mean knowledge score of 64.5% regarding pain management. Another study done by Yava et al.^[11] showed that the nurses' average correct answer rate for the entire knowledge scale was 39.65% (range = 7.7–80.1% for each item), indicating poor knowledge of pain management.

In the present study, regarding medication items, 53.33% of students knew that morphine is considered the drug of choice for the treatment of prolonged moderate to severe pain for patients with cancer, and 46.67% knew that time to peak

effect for morphine given orally is 1–2 h. Similarly, the study done by Al-Khawaldeh et al.^[8] revealed that 47.5% of students knew that morphine is considered the drug of choice for the treatment of prolonged moderate to severe pain for patients with cancer, and 37.9% knew that time to peak effect for morphine given orally is 1–2 h.

Regarding the pain assessment items, majority of (77.33%) nursing students reported that pain intensity can best be evaluated by the patient himself/herself in the present study, similar findings were also observed in a study done by Al-Khawaldeh et al.^[8] They also showed that more than half of the students (50.4%) had given correct answer as pain intensity can best be evaluated by the patient himself/herself.

In the present study, the knowledge of the nursing students regarding pharmacological pain management was poor than non-pharmacology pain management, e.g., appropriate non-opioids analgesic for mild pain, opioids (morphine) antagonist, non-pharmacological items like distraction to provide pain relief, cognitive therapies of pain management. Similar findings were also seen in a study conducted by Cason et al.^[12] which shown that knowledge of pharmacology items was lower than that of non-pharmacology items.

Majority of nursing students had average knowledge regarding pain management. There is an essential need of education and increase hours of training on pain management for nursing students.

Conclusion

The level of knowledge regarding pain management among nursing students was average. Considering the important role of nursing in pain management, there is need of

close clinical supervision, additional training, and allotment of more hours to pain management unit in nursing curriculum.

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