



Original Research Article

Knowledge about post operative pain management among paramedical students

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INTRODUCTION

Postoperative pain is a type of acute pain that is present in a surgical patient caused by preexisting surgical procedure(1). However, majority of surgical patients' experience acute postoperative pain (POP), although availability of perioperative interventions and management strategies (2,3). Globally, 312.9 million surgeries are performed with an estimated surgical rate of 4469/100,000 per year, as of 2012 report(4). Evidence showed that more than three quarter of patients report moderate, severe, or extreme postoperative pain in the postoperative period (5,6). Inadequate pain management can lead to various complications, including increased stress, anxiety, and prolonged hospital stays. Paramedical professionals are integral to the healthcare team and

Abstract: Effective postoperative pain management is crucial for enhancing patient outcomes, reducing complications, and improving quality of life. Paramedical students, as future healthcare professionals, play a vital role in assessing and managing postoperative pain. This study aims to assess the knowledge and attitudes of paramedical students towards postoperative pain management, identify knowledge gaps and training needs in postoperative pain management. A cross-sectional survey will be conducted among paramedical students using a validated questionnaire. The survey will cover aspects such as pain assessment, pharmacological and non-pharmacological interventions, and multimodal approaches. This study shows that 75% of students were knowledge about post operative pain management and 25% were lack of knowledge in post operative pain management in Operation theatre and anaesthesia technology. 52.9% were knowledge and 47.1% were lack of knowledge in post operative pain management other paramedical students of Physiotherapy, Pharmacy, Nursing, Cardiac care technology, Physician assistant, Cardiac perfusion technology, Medical lab technology, Radiology, Optometry). Effective postoperative pain management requires knowledgeable and skilled paramedical professionals. By educating and training students in evidence-based practices, we can improve patient outcomes and quality of care.

Keywords: Post operative pain management, paramedical students, pain management strategies, patient education.

play a crucial role in assessing and managing postoperative pain. Undertreated postoperative pain is often associated with delayed mobility leading to delayed wound healing and deep vein thrombosis, pneumonia, chronic pain, coronary ischemia, myocardial infarction, depressed immune function. All of these affect economic and medical conditions, such as extended hospital stay, re-admissions, and patient dissatisfaction with medical care (7,8).

Paramedical students, as future healthcare professionals, require adequate knowledge and skills to provide effective pain management. This study aims to assess the knowledge about postoperative pain management among paramedical students, identifying gaps in knowledge and areas for improvement.

MATERIAL AND METHODS

This study involves the cross sectional questionnaire among paramedical students in ACS medical college and hospital Chennai. This study group includes under graduate students of Operation theatre and anaesthesia technology, cardiac perfusion technology, Optometry , Radiology and imaging technology ,physician assistant ,nursing, Medical lab technology, Physiotherapy. This study was conducted after obtaining institutional ethics

committee approval .Self –administered questionnaire with questions related to knowledge and safety protocol regarding post operative pain management. Participants involved in this study were completely anonymous and their participants was left to their choice .The question consists of the following information: Gender, age, year of studying, course and knowledge towards post operative pain management.

RESULTS

Table 1 The number of responses categorized by gender

Gender	Count	Percentage
MALE	89	29.6%
FEMALE	211	70.3%

Table 2 The responses vary across different age group

Age group	No of people	Percentage
17-19	39	13%
20-25	261	87%

Table 3 The response of individuals according to their educational status

Present degree	Count	Percentage
1	281	93.6%
2	19	6.3%

Table 4 The response of individuals in which year they are studying

Year of studying	No of students	Percentage
3	52	17.3%
4	180	60%

Table 5 The knowledge of students answers to the questionnaire

S.no	Area of knowledge	Respondents	Percentage
1	Do you know what is post operative pain management ?		
	Yes	224	74.1%
	No	76	25.9%
2	Have you had received adequate training on pain management ?		
	Yes	130	43.3%
	No	170	56.7%
3	Do you feel you received adequate training on pain management ?		
	Yes	177	59%
	No	123	41%
4	Do you think pain assessment is necessary prior to pain management ?		
	Yes	232	77.3%
	No	68	22.7%
5	Do you think that for adult and children same pain assessment tool is used ?		
	Yes	97	32.4%
	No	203	67.6%
6	Do you think pain should be assessed as the 5 th vital sign		

	after pulse, respiratory rate, temperature, blood pressure ?		
	Yes	215	71.6%
	No	85	28.4%
7	Do you think post operative pain can delay mobilization and overall recovery of patient ?		
	Yes	206	68.6%
	No	94	31.4%
8	Do you think music, relaxation techniques, massage and application of heat and cold compression are non pharmacological stages of pain management ?		
	Yes	212	70.6%
	No	88	29.4%
9	Do you think inadequate knowledge remains a major barrier to effective pain management ?		
	Yes	209	69.6%
	No	91	30.4%
10	Do you think pain is seen in patients non verbal behaviour?		
	Yes	212	70.6%
	No	88	29.4%
11	Vital signs are always reliable indicators of the intensity of a patients pain ?		
	True	238	79.3%
	False	62	20.7%
12	Patients who can be distracted from pain usually do not have severe pain.		
	True	167	55.6%
	False	133	44.4%
13	Patients may sleep inspite of severe pain.		
	True	151	50.4%
	False	149	49.6%
14	Aspirin and other NSAIDS are nolt effective analgesia for painful metastasis.		
	True	143	47.6%
	False	157	52.4%
15	Opioids should not be used in patients with a history of substance abuse.		
	True	208	69.4%
	False	92	30.6%
16	Elderly patients cannot tolerate opioids for pain relief.		
	True	176	58.6%
	False	124	41.4%
17	Patients should be encouraged to endure as much pain as possible before using opioids.		
	True	185	61.6%
	False	115	38.4%
18	Patients spiritual beliefs may lead them to think pain and suffering are necessary.		

	True	161	53.6%
	False	139	46.4%
19	Combining analgesics that work by different mechanisms (combining an NSAIDS with opioids) may result in better pain control with fewer side effects than using single analgesic agent		
	True	204	68%
	False	96	32%
20	The use of placebo is important in determining if the patient's pain is real.		
	True	203	67.6%
	False	97	32.4%

Table 6 The level of knowledge of 300 paramedical students about post operative pain management

S.no	Score code	Frequency	Percent
1	Inadequate	106	35.4%
2	Moderate	130	43.3%
3	Adequate	64	21.3%
	Total	300	100%

Table 7 The knowledge level of BSc OTAT Students

S.no	Score code	Frequency	Percent
1	Inadequate	40	25%
2	Moderate	75	46.8%
3	Adequate	45	28.2%
	Total	160	100%

Table 8 The knowledge level of other than Bsc OTAT students(BPT,PHARMACY,NURSING,CCT,PA,MLT,RADIOLOGY,OPTOMETRY)

S.no	Score code	Frequency	Percent
1	Inadequate	66	47.1%
2	Moderate	55	39.2%
3	Adequate	19	13.7%
	Total	140	100%

This study shows that 75% of students were knowledgeable about post operative pain management and 25% were lack of knowledge in post operative pain management in Operation theatre and anaesthesia technology. 52.9% were knowledgeable and 47.1% were lack of knowledge in post operative pain management other paramedical students of Physiotherapy, Pharmacy, Nursing, Cardiac care technology, Physician assistant, Cardiac perfusion technology, Medical lab technology, Radiology, Optometry).

DISCUSSION

Postoperative pain is a predictable and worrisome, yet a manageable problem(9) However, ineffective pain management is a quite common phenomenon across the globe that leads to numerous problems(10). This study findings highlight the importance of assessing the paramedical students knowledge about postoperative pain management, which includes undergraduate Operation theatre and anaesthesia technology with Cardiac care technology, Pharmacy, Physiotherapy, Nursing,

Optometry, Medical laboratory technology ,Radiology and imaging technology, Cardiac perfusion technology. Paramedical students, as a future anaesthesia technicians, operating room assistants or critical care staff are integral to anaesthesia team. Their responsibility includes preparation, such as ensuring anaesthesia equipment, patient monitoring (observing vital signs), patient support and pain assessment ,reduce pain ,improved satisfaction and enhanced recovery. In this study we are included 300 paramedical students among

responds 75% of students were knowledge about post operative pain management and 25% were lack of knowledge in post operative pain management in Operation theatre and anaesthesia technology. 52.9% were knowledge and 47.1% were lack of knowledge in post operative pain management other paramedical students of Physiotherapy, Pharmacy, Nursing, Cardiac care technology, Physician assistant, Cardiac perfusion technology, Medical lab technology, Radiology, Optometry). We have used descriptive statistics to express count (N) and percentage for every variable.

CONCLUSION

In this study we concluded that undergraduate Operation theatre and anaesthesia technology students have more knowledge about post operative pain management compared with other paramedical students which includes Physiotherapy, Pharmacy, Nursing, Cardiac care technology, Physician assistant, Cardiac perfusion technology, Medical lab technology, Radiology, Optometry. Knowledge about postoperative pain management is crucial for paramedical students to provide high-quality patient care. Effective pain management can significantly impact patient outcomes, reducing morbidity and improving satisfaction. This study highlights the need for comprehensive education and training programs to address knowledge gaps among paramedical students. By prioritizing pain management education, we can improve patient care and outcomes, ultimately enhancing the quality of healthcare services.

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