

Awareness about anaesthesia among paramedical students

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Abstract

Background: Anaesthesia plays a crucial role in pain relieving during the surgery, so understanding of anaesthesia is essential for effective patient care.

Objective: The aim of the study is to assess the awareness about anaesthesia among paramedical students.

Methodology: A cross-sectional study was conducted using a validated questionnaire among paramedical students. The questionnaire assessed their knowledge about anaesthesia, its types, anaesthesia administration and complications.

Result: Among 300 paramedical students 112 were male and 188 were female. In operation theatre and anaesthesia technology students 92.2% were aware and 7.8% were not aware about anaesthesia. 81.9% of students were aware and 18.1% were not aware about anaesthesia in cardiac perfusion technology, optometry and radiology and imaging technology departments.

Conclusion: This study shows that operation theatre and anaesthesia technology students have more awareness about anaesthesia compared to other paramedical students, so incorporating comprehensive anaesthesia education into paramedical curricula and providing clinical exposure can improve the awareness of students.

Keywords: Anaesthesia; Paramedical; Healthcare; Awareness; Attitude.

1. Introduction

Anaesthesia plays a crucial role in modern healthcare, ensuring patient comfort and safety during surgery and diagnostic procedures. As a frontline healthcare providers, paramedical students play a vital role in the perioperative environment, often assisting anaesthesiologists and other medical professions. For paramedical students understanding the principles, techniques and implications of anaesthesia is essential for supporting healthcare settings (1,2). However, the depth of anaesthesia related education and training among paramedical students can vary significantly across institutions leading to gaps in their knowledge and practice. This article aims to highlight the importance of comprehensive anaesthesia education among the paramedical students to equip their skills. In this study we have focused on assessing the awareness of anaesthesia among paramedical students.

2. Methodology

This study employs the cross sectional questionnaire among paramedical students in ACS medical college and hospital, chennai. The study group includes under graduate students of Operation theatre and anaesthesia technology, Cardiac perfusion technology, Optometry and Radiology and imaging technology. This study was conducted after obtaining the

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institutional ethics committee approval. Self-administered questionnaire with questions related to knowledge and safety protocol regarding anaesthesia. Participants involved in this study were completely anonymous and their participation was left to their choice. The structure question consists of the following information: gender, age, course and knowledge toward anaesthesia.

3. Results

Table 1 The total number of responses based on gender

Gender	Count	Percentage
MALE	112	37%
FEMALE	188	63%

Table 2 The response of individuals according to their age group

Age group	No. Of. People	Percentage
18	63	21%
19	48	16%
20	104	34.7%
21	74	24.7%
22	11	3.7%

Table 3 The response of paramedical students according to their course

Course	Count	Percentage
OT AND AT	142	47.3%
CPT	59	19.7%
RADIOLOGY AND IMAGING TECHNIQUE	55	18.3%
OPTOMETRY	44	14.7%

Table 4 The response who had previous knowledge about anaesthesia in paramedical students

Questions	Previous knowledge about anaesthesia (n=187)	No previous knowledge about anaesthesia (n=113)
BASIC QUESTIONS ABOUT ANAESTHESIA	71%	29%
GENERAL ANAESTHESIA	51%	49%
REGIONAL ANAESTHESIA	65%	35%

Table 5 The knowledge of students in response to Questionnaire

S.no	Area of knowledge	Respondents	Percentage
1	Have you ever heard about anaesthesia?		
	Yes	286	95.3%
	No	14	4.7%
2	Who will give the anaesthesia to the patient?		
	Surgeon	10	3.3%
	Anaesthetist	277	92.3%
	Nurse	8	2.7%
	Don't know	5	1.7%
3	Is Anaesthesia is given to all patients in same way?		
	Yes	22	7.3%
	No	258	86%
4	Is Anaesthetist a qualified doctor?		
	Yes	232	77.3%
	No	50	16.7%
	Don't know		
5	Whether the solid food is stopped before anaesthesia (or) not?		
	Both solid and liquid food stopped	216	72%
	Only liquid food is stopped	19	6.3%
	Food is eaten little by little	36	12%
	No need to stop any food	29	9.7%
6	Do you know is there any different types of anaesthesia for different surgeries?		
	Yes	263	87.7%
	No	37	12.3%
7	What are the anaesthesia do you know?		
	Anaesthesia	41	13.7%
	Regional anaesthesia	19	6.3%
	Local anaesthesia	12	4%
	Don't know	228	76%
8	Why will determine whether the patient is fit for anaesthesia (or) not?		
	Surgeon	19	6.3%
	Doctor specialized in anaesthesia	254	84.7%
	Nurse	6	2%
	Don't know	21	7%
9	Who will decide whether the patient can eat before the surgery (or) not?		
	Surgeon	60	20%

	Doctor specialized in anaesthesia	196	65.3%
	Nurse	16	5.3%
	Don't know	28	9.3%
10	What are the fears related to anaesthesia?		
	Not to sleep completely	145	48.3%
	Feeling pain	76	25.3%
	Being awake	79	26.3%
11	During General anaesthesia?		
	They breathe as usual	68	22.7%
	Breathe through hose connected to ventilator	182	60.7%
	Not breathing	11	3.7%
	Don't know	39	13%
12	After intervention of anaesthesia?		
	Attention may be diminished during first hour	120	40%
	Attention will not be affected by anaesthesia	62	20.7%
	Attention can be reduced to several days	21	7%
	Don't know	97	32.3%
13	Are you aware of general anaesthesia drugs used in present days? If yes which of the following?		
	Chloroform	33	11%
	Ether	10	3.3%
	Intravenous agents	75	25%
	Other inhalational agents	98	32.7%
	Don't know	84	28%
14	How general anaesthesia is administered by anaesthetic?		
	Using certain vaporizers	48	16%
	Using certain equipment	42	14%
	Using vaporizers and equipped with monitoring	166	55.3%
	Don't know	44	14.7%
15	How do you think patient will be anaesthetized?		
	Only injection at site	109	36.3%
	Gases administered through anaesthesia machine	180	60%
	Gases administered with kerchief	11	3.7%
16	According to you which anaesthetic is better?		
	General anaesthesia	140	46.7%
	Regional anaesthesia	66	22%
	Local anaesthesia	56	18.7%
	Don't know	38	12.7%

Table 6 The overall level of knowledge of individuals

Level of knowledge	Count	Percentage
ADEQUATE	104	69%
INADEQUATE	46	31%

This study shows that 92.2% of students were aware about anaesthesia and 7.8% were unaware of anaesthesia in Operation theatre and anaesthesia technology. 81.9% were aware and 18.1% were not aware about anaesthesia in other paramedical students of Cardiac perfusion technology, Optometry and Radiology and imaging technology.

4. Discussion

In this study we have evaluated the awareness about anaesthesia among paramedical students. Anaesthesia is a foundation of modern medicine, enabling complex surgical and diagnostic procedures by ensuring patient comfort and safety (9,15). For paramedical students, understanding anaesthesia is important, as they play pivotal role in perioperative care, assisting anesthesiologists. In this study we have focused on the anaesthesia awareness among paramedical students, which includes undergraduate Operation theatre and anaesthesia technology with Cardiac perfusion technology, Radiology & imaging technology and Optometry. Paramedical students, as future anaesthesia technicians, operating room assistants or critical care staff, are integral to the anaesthesia team. Their responsibility includes preparation, such as ensuring anaesthesia equipment, patient monitoring (observing vital signs), patient support and emergence response. In this study we have included 300 paramedical students. Among the respondents, 92.2% Operation theatre and anaesthesia technology participants had awareness about anaesthesia and 7.8% were not aware of anaesthesia. In Cardiac perfusion technology, Optometry and Radiology & imaging technology participants, 81.9% were aware about anaesthesia and 18.1% were not aware about anaesthesia. We have used descriptive statistics to express count (N) and percentage for every variable.

5. Conclusion

In this study we concluded that undergraduate Operation theatre and anaesthesia technology students have more awareness about anaesthesia compared with other paramedical students which includes Cardiac perfusion technology, Optometry, Radiology and Imaging technology. The awareness about anaesthesia among paramedical students is vital for preparing them to be component, compassionate and vigilant members of healthcare team. Education institutions and health care facilities must prioritize comprehensive training program, workshops, to equip paramedical students with knowledge and skills.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

This study was conducted after obtaining the institutional ethics committee approval.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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