ANAESTHESIOLOGY AMONG UNDERGRADUATE MEDICAL STUDENTS

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ABSTRACT

BACKGROUND
Anaesthesiologists play a crucial role in patient management, but their contribution remains unrecognized as they are always behind the scenes. This has led to a lack of awareness and knowledge of anaesthesia among public and medical students. This study was conducted to find out knowledge and awareness of anaesthesia speciality among undergraduate medical students. The study also aimed to highlight the need for increasing the clinical exposure of medical students in speciality of anaesthesiology.

MATERIALS AND METHODS
This was a questionnaire based cross sectional study where 86 medical students completed a questionnaire of 12 items. The questionnaire was divided into four parts:
1. Demographic details and career choice.
2. Knowledge of students regarding role of anaesthesiologist.
3. Knowledge of students regarding role of anaesthesiologist in hospital activities.
4. Knowledge of students regarding clinical anaesthesia.
Results were calculated in percentage format.

RESULTS
The study showed that undergraduate medical students (preclinical batches) lacked knowledge of anaesthesia, few were not aware that anaesthesiologist is a doctor and majority of students were not aware about types of anaesthesia and preoperative fasting.

CONCLUSION
It was concluded that students lacked knowledge of anaesthesia and effective measures need to be taken to increase the awareness and knowledge of anaesthesia among undergraduate students. This could be accomplished by designing an attractive clinical curriculum highlighting the glamorous aspect of this speciality (management of chronic pain and exposure to intensive care units) and considering the possibility of including anaesthesiology as a separate subject in undergraduate syllabus.

KEY WORDS
Knowledge, Medical, Student, Anaesthesiology.


BACKGROUND
The speciality of anaesthesiology has evolved tremendously during the last thirty years. Present day anaesthesia is safe and advanced due to introduction of new drugs, improvement in technology and advent of latest anaesthesia workstations. The spectrum of anaesthesiology has broadened, today Anaesthesiologists are not confined to operative rooms but are also catering to intensive care services, chronic pain management and palliative care. In spite of this, anaesthesiology was not first choice of medical undergraduates in a study conducted in 2018.1

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Medical students and common man seem to be less aware about specialty of anaesthesiology as compared to other medical fields. A substantial amount of research has revealed poor awareness of anaesthesiology among doctors, interns, medical/dental students, and paramedics.2,3,4 Studies have also revealed that medical students find anaesthesiology as uninteresting and less glamorous.5

Thus, this study was conducted with the aim of finding out the awareness and knowledge of undergraduate medical students (Preclinical batches) regarding anaesthesiology as specialty, as a career choice, different roles of Anaesthesiologists in operative rooms and hospital. The results might serve to devise an effective and attractive curriculum for medical students for their clinical postings in anaesthesiology. The results might also serve to highlight the need to reform the existing schedule of anaesthesiology postings in terms of number of hours of anaesthesiology teaching and including anaesthesiology as a separate subject in undergraduate syllabus.
MATERIALS AND METHODS
A cross sectional study was conducted in a Government Medical College, Delhi. The study was conducted in a questionnaire format containing 12 questions pertaining to demographic details, awareness and knowledge towards the speciality of anaesthesiology. as a career choice, different roles of Anaesthesiologists in operative rooms and hospital. Eighty-six undergraduate medical students studying in first and second year (Preclinical) session were included in the study. An informed consent was obtained from each participant. The participants not willing to take part in the study were excluded and the ones who participated were assessed according to their responses to the questionnaire.

The questionnaire was divided into four parts-
1. Demographic details and career choice.
2. Knowledge of students regarding role of Anaesthesiologist.
3. Knowledge of students regarding role of Anaesthesiologist in hospital activities.
4. Knowledge of students regarding Clinical anaesthesia.

Results were calculated in percentage format.

RESULTS
Eighty-six participants were included in the study and out of these sixty-three were male and twenty-three were females. All the participants were in the age group 17 to 21 years. Sixty percent students opted for anaesthesiology as a as career and forty percent students opted not to choose anaesthesiology.

Knowledge pertaining to role of Anaesthesiologist was inadequate. According to sixteen students (18.6%) Surgeons decide whether the patient is fit for administering anaesthesia or not and only 59.3% students knew that Anaesthetist stays with the patient throughout the surgery. (Table 1) Knowledge about type of anaesthesia was poor as 40.6% knew only about local anaesthesia, 27.9% knew about only general anaesthesia and 8.1% knew only about regional anaesthesia. Majority of students (60%) believed that fasting of patients is not required before administering anaesthesia (Table-2) 73.2% students knew about the role of Anaesthesiologist in chronic pain management and 72% were aware of post operative pain management (Table 3). Lowest score obtained was, 3/12 (By one student) and highest score obtained was 11/12(by one student). None of the student scored 100% marks and maximum number of students scored marks in the range of 50-74%. (Table-4)

<table>
<thead>
<tr>
<th>1. What are the Types of Anaesthesia?</th>
<th>*Not answered by 04 (4.6%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) General Anaesthesia</td>
<td>24 (27.9%)</td>
</tr>
<tr>
<td>b) Regional Anaesthesia</td>
<td>20 (40.6%)</td>
</tr>
<tr>
<td>c) Local Anaesthesia</td>
<td>16 (18.6%)</td>
</tr>
<tr>
<td>d) All of the Above</td>
<td>00 (9.3%)</td>
</tr>
</tbody>
</table>

1. Role of Anaesthetist in BLS (Basic Life Support)

<table>
<thead>
<tr>
<th>1. Who Administers Anaesthesia?</th>
<th>81 (94%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Doctor</td>
<td>81 (94%)</td>
</tr>
<tr>
<td>b) Nurse</td>
<td>2 (2.3%)</td>
</tr>
<tr>
<td>c) Technician</td>
<td>3 (3.4%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Who Decides Patient is Suitable for Anaesthesia?</th>
<th>62 (72%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Anaesthetian</td>
<td>62 (72%)</td>
</tr>
<tr>
<td>b) Surgeon</td>
<td>16 (18.6%)</td>
</tr>
</tbody>
</table>

2. ICU is run by *not answered by 01

| a) Anaesthetist         | 14 (16%) |
| b) Physician            | 02 (2.3%) |
| c) Pulmonologist         | 02 (2.3%) |

Table 1. Awareness of Role of Anaesthetologist (Above Parameters were Evaluated)

Chart 1. Showing Answer to Types of Anaesthesia

<table>
<thead>
<tr>
<th>1. Role of Anaesthetist in BLS (Basic Life Support)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Yes</td>
</tr>
<tr>
<td>b) No</td>
</tr>
</tbody>
</table>

Table 2. Knowledge about Clinical Anaesthesia

Chart 1. Showing Answer to Types of Anaesthesia
Anaesthesiologists play a crucial role in patient care but there has been a problem of image of an Anaesthesiologist as a doctor in the eyes of lay man. In previous studies conducted on public awareness about anaesthesia in India, a large proportion of people were not aware about the person anaesthetizing them. This was contrary to a study conducted in United Kingdom, in 1994 where 80% of patients were not aware about the person anaesthetizing them. Aisling et al in preclinical Irish medical students. They found that 87.5% students are aware about Anaesthesiologists role in labour analgesia and 22.5% students were aware about intraoperative blood transfusion role of Anaesthesiologists.

Review of literature shows that Medical undergraduate students have found speciality of anaesthesiology as boring and uninteresting and lacking patient contact. Time and again studies have been conducted to explore if medical students want to pursue anaesthesiology as their career and factors influencing career choice in anaesthesiology. Patil et al found that 38.3% interns in a tertiary health centre wanted to pursue anaesthesiology as post graduate course. Similar result was found by Aisling et al where 30% medical students in clinical batches opted for anaesthesiology as a career. In present study 60.4% opted for anaesthesiology as a career. Knowledge regarding clinical aspect of anaesthesiology among the medical students was limited according to present study. Students had least knowledge about regional anaesthesia and majority of students answered that fasting of patients is not required before administering anaesthesia.

CONCLUSION
Undergraduate medical students are lacking basic knowledge of anaesthesiology. Most of the students were not aware about preoperative fasting and types of anaesthesia. It is recommended that positive and glamorous aspects of our speciality should be highlighted among undergraduates. An attractive clinical teaching curriculum should be framed for undergraduate medical students, there should be an increase in number of teaching hours in anaesthesiology clinics and anaesthesiology should be taught as a separate subject in undergraduate syllabus. This will help more and more students opt for anaesthesiology as a career choice and give a boost to our numbers on national front.

REFERENCES


