

ANALYSIS OF THE KNOWLEDGE, PERCEPTION AND AWARENESS REGARDING THE SCOPE OF ANAESTHESIA IN INTERNS IN A TERTIARY HEALTH CENTRE

Anaesthesiology

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ABSTRACT

Aim : The aim of this study was to analyze the knowledge of students doing their internship after graduation (MBBS) regarding the scope of anaesthesia as a career choice. It also aimed to evaluate the factors that affected the decision of whether or not they preferred anaesthesia as a postgraduate career choice. It also focused on assessing the perception of these students regarding the practice of anaesthesiology

Methods : A cross-sectional, anonymous questionnaire based study was conducted among 60 interns doing compulsory rotatory internship at a municipal medical college and tertiary care hospital in Maharashtra. The questionnaire consisted of total fifteen questions, of which five assessed the knowledge about the scope of anaesthesia, four assessed the perception of the interns about anaesthesia as a career choice and six evaluated their knowledge regarding the subject in general.

Results : The study highlighted the fact that a considerable number of students lacked a basic knowledge of anaesthesia. Most of the students were totally unaware of preoperative assessment, many were unaware about the scope of anaesthesia and the knowledge regarding anaesthesia in general was limited and biased.

Conclusion : The awareness of students about anaesthesia as a subject, the knowledge regarding the scope of anaesthesia as a career choice and its future prospects and their attitude towards anaesthesia results from their underexposure and inexperience in anaesthesia. They need to be aware of the various super-specialties in anaesthesia as well as the scope of anaesthetists in fields of pain management and critical care. A basic knowledge of anaesthesia coupled with training during MBBS will certainly go a long way in changing the attitude towards anaesthesia as well as guiding the students regarding making of a career in anaesthesia.

KEYWORDS

Anaesthesia, students, awareness, knowledge, scope, perception

Introduction

Anaesthesiology is a vast subject in medicine that has grown in its scope exponentially over the past few decades. Now anaesthesia is not just a field restricted to peri-operative patient management but also includes critical and intensive care, trauma management and acute and chronic pain management. There are various super specialties in which one can specialize after doing post graduation in Anaesthesia, such as cardiac anaesthesia, neuro anaesthesia, pediatric anaesthesia, regional anaesthesia etc.

Undergraduate students are not exposed to the field of anaesthesia as compared to the other subjects, and as such are not completely aware about the scope and expanse of the subject as it is not included in their curriculum as a separate subject. The choice of anaesthesia as a post graduation subject is influenced by many intrinsic and extrinsic factors.

The aim of this study was to analyze the knowledge of students doing their internship after graduation (MBBS) regarding the scope of anaesthesia as a career choice. It also aimed to evaluate the factors that affected the decision of whether or not they preferred anaesthesia as a postgraduate career choice. It also focused on assessing the perception of these students regarding the practice of anaesthesiology. The results might serve to highlight the necessity of including anaesthesia as a separate subject for undergraduate syllabus, and as a separate clinical posting for undergraduate students.

Methods

We conducted a cross-sectional, anonymous questionnaire based study among 60 interns doing compulsory rotatory internship at a municipal medical college and tertiary care hospital in Maharashtra. Necessary consent was taken from the Dean of the medical college and informed verbal consent was taken from the participating interns. The interns were selected based on their availability and questionnaires were handed out by the team conducting the study.

The questionnaire consisted of total fifteen questions, of which five assessed the knowledge about the scope of anaesthesia, four assessed

the perception of the interns about anaesthesia as a career choice and six evaluated their knowledge regarding the subject in general.

While assessing the knowledge regarding scope of anaesthesia, they were asked their opinions about whether they think that the role of anaesthetist is restricted to operation theatre, whether they are aware about the superspecialties in anaesthesia, and whether they are aware about the roles of anaesthetists in intensive care and pain management. While analyzing their perception about anaesthesia, they were asked whether or not anaesthesia was their choice for post graduation, and the reasons behind their answers. They were also asked if they think anaesthesia should be a separate subject and a separate clinical posting during graduation. They were also asked to opine if they thought anaesthesia was branch more suitable for females, as this has been an age old misconception.

The knowledge regarding the subject was assessed by asking them if they are aware about preoperative assessment and whether they think that anaesthesia always means unconscious patient or it can be given only to the part to be operated.

The data collected was calculated in percentages.

Observations

1. Scope of anaesthesia

| Sr. no | Question | Yes | Percent age | No | Percent age |
|--------|--|-----|-------------|----|-------------|
| 1. | Role of anaesthetist is restricted to operation theatre | 16 | 26.67% | 44 | 73.33 % |
| 2. | Aware about specialities in anaesthesia | 21 | 35% | 39 | 65% |
| 3. | Anaesthetists have a role in pain management | 54 | 90% | 06 | 10% |
| 4. | Anaesthetists can become pain specialists after special training | 56 | 93.33% | 04 | 6.67% |
| 5. | Anaesthetists have a role in intensive care | 57 | 95% | 03 | 05% |

2. Perception of anaesthesia

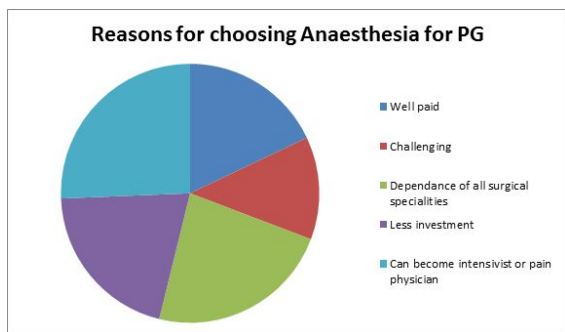
| Sr. no | Question | Yes | Percentage | No | Percentage |
|--------|---|-----|------------|----|------------|
| 1. | Is anaesthesia your choice for PG | 23 | 38.33% | 37 | 61.67% |
| 2. | Anaesthesia should be a separate subject in UG syllabus | 29 | 48.33% | 31 | 51.67% |
| 3. | There should be a dedicated anaesthesia posting for clinical rotation in UG | 36 | 60% | 24 | 40% |
| 4. | Anaesthesia is a branch more suited for females | 17 | 28.33% | 43 | 71.67% |

3. Knowledge of anaesthesia

| Sr. no | Questions | Yes | Percentage | No | Percentage |
|--------|--|-----|------------|----|------------|
| 1. | Are you aware about preoperative anaesthesia assessment? | 54 | 90% | 06 | 10% |
| 2. | Anaesthetist is the best person to deal with resuscitation | 50 | 83.33% | 10 | 16.67% |
| 3. | Anaesthesia means unconscious patient | 08 | 13.33% | 52 | 86.67% |
| 4. | Anaesthesia can be given to only the part of the body to be operated | 26 | 43.33% | 34 | 56.67% |
| 5. | Once anaesthesia is induced, you cannot leave the patient unattended | 55 | 91.67% | 05 | 8.33% |
| 6. | Is anaesthesia machine absolutely necessary to give anaesthesia | 34 | 56.67% | 26 | 43.33% |

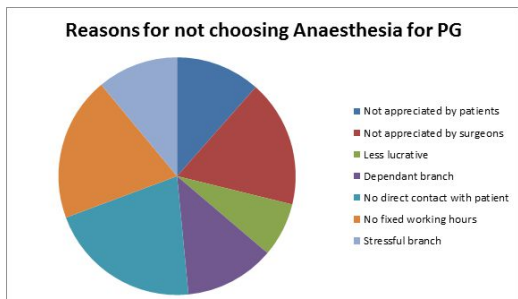
4. Reasons for choosing anaesthesia as post-graduation

| Sr. no | Reason | Number | Percentage |
|--------|--|--------|------------|
| 1. | Well paid | 7 | 30.44% |
| 2. | Challenging | 5 | 21.74% |
| 3. | Dependence of all surgical branches | 9 | 39.13% |
| 4. | Less investment | 8 | 34.78% |
| 5. | Can become intensivist or pain physician | 10 | 43.48% |



5. Reasons for not choosing anaesthesia as post-graduation

| Sr. no | Reason | Number | Percentage |
|--------|--------------------------------|--------|------------|
| 1. | Not appreciated by patients | 2 | 05.40% |
| 2. | Not appreciated by surgeons | 3 | 08.1% |
| 3. | Less lucrative | 6 | 16.22% |
| 4. | Dependant branch | 10 | 27.02% |
| 5. | No direct contact with patient | 17 | 45.94% |
| 6. | No fixed working hours | 16 | 43.24% |
| 7. | Stressful branch | 09 | 24.32% |



Results

Of the interns who filled out our questionnaires, 73.33% were aware that the role of anaesthetist is not restricted to the operation theatre. 35 % were aware about the superspecialities in anaesthesia while 90% knew about anaesthetists role in post operative pain management. 93.33% were aware that anaesthetists can specialize in pain management while 95% were aware about anaesthetists role in intensive care.

Anaesthesia was a career choice for 38.33% of students, while 61.67% did not wish to join anaesthesia. Of the 38.33% who wished to join anaesthesia, 30.44% wanted to join as it is well paid, 21.74% thought it is challenging, 39.13% preferred it for the dependence of all surgical branches on anaesthesia, 34.78% found it better as less investment is required while 43.48% wished to join in order to specialize as pain physician or intensivist.

Of those who did not wish to join anaesthesia, 05.40% thought that it is not appreciated by patients, 8.1% thought it is not appreciated by surgeons, 16.22% considered it to be a less lucrative branch, 27.02% thought it is a dependant branch, 45.94% thought that there is no direct contact with patient, 43.24% thought it to be inconvenient as there are no fixed working hours, and 24.32% thought that it is a stressful branch.

48.33% thought that anaesthesia should be a separate subject in undergraduate syllabus while 60% thought that there should be a dedicated anaesthesia posting for clinical rotation in MBBS. 28.33% thought that anaesthesia is a branch more suited for females.

Analyzing the knowledge of students regarding anaesthesia, 90% were aware about preoperative assessment. 83.33% believed that the anaesthetist is the best person to deal with resuscitation. 13.33% thought that anaesthesia means unconscious patient, while 43.33% thought that anaesthesia can be given to only the part of the body to be operated. 91.67% students believed that once anaesthesia is induced, you cannot leave the patient unattended, and 43.33% believed that anaesthesia machine is absolutely necessary to give anaesthesia.

Discussion

As a clinical subject, the exposure to Anaesthesia at undergraduate level is very limited. As such, even after graduation, many students are unaware regarding the scope of Anaesthesia. Their knowledge regarding Anaesthesia is also very limited and biased. While making a career choice, there are many factors which influence the decision. However, Anaesthesia in general is not perceived as a very preferred choice because of the absence of any specific training or any practical exposure to this subject during MBBS.

Generally students prefer a surgical or medical branch over anaesthesia, the main reason being the belief that anaesthetists dont get to have a direct contact with the patients as compared to the other clinical branches. However, if we see the recent trends, as compared to the past, more and more students have begun preferring the field for its scope and future in the fields of pain management and intensive care.

A study in Nigeria showed that 57.2% of the Anaesthesiologists were unaware or had limited knowledge of the scope of Anaesthesia prior to training.¹ In our study also, 26.67% thought that the role of Anaesthetists is limited to operation theatres and 65% were unaware about the superspecialities in Anaesthesia. Surprisingly, 90%, 93.33% and 95% students were aware about the role of anaesthesiologists in postoperative pain management, management of chronic pain and intensive care respectively.

Another study conducted by Chaitanya Kamat et al² about the awareness about scope of anaesthesiology, attitudes towards the specialty and stress levels amongst postgraduate students in anaesthesiology found that only 42.3 % of students joined the specialty out of an interest to learn anaesthesia and critical care and wished to make it a career. 55.7 % of them joined for other reasons including unavailability of other specialties during medical postgraduate counseling (21.8%), financial factors like good job opportunities in India and abroad (15.4%), anticipated income (2.1%), low expenditure for getting into the specialty, studying and setting up of clinical practice (3%) and family and peer influence (9.4%). Remaining 9.8% had other reasons like no need of super-specialization, controllable life style etc. In our study, the reasons for not wanting to choose

anaesthesia for PG were that anaesthesia is not appreciated by patients (25.40%), not appreciated by surgeons (38.1%), less lucrative (16.20%), no direct contact with patients (43.24%) and stressful (24.32%). One student wrote that he/she was not interested in the branch which again stresses the fact that the exposure during graduation being very limited, interest is not generated in the branch as compared to other clinical specialties. The reasons for wishing to pursue a career in anaesthesia included it being a well paid job (30.44%), challenging (21.74%), dependence of all surgical specialties (39.13%), less investment (34.78%) and potential to become an intensivist or pain physician (43.48%).

A study by Fauzia Anis Khan, Fauzia Nasim Minai et al, Anaesthesia as a career choice in a developing country : effect of clinical clerkship3 found parallel results. In their study, out of 150 students, only 2 students selected anaesthesia as first choice. A higher percentage of students selected anaesthesia as their second or third career choice post rotation and this change was significant. The students who included anaesthesia as their second or third career choice post clerkship found the field to be interesting and challenging. Those who did not consider it as a career choice thought that anaesthesia lacked patient contact and there was lack of recognition by the patients and peers.

As they rightly point out in their study, career choices are either made during MBBS or internship. Training in a specialty can change the attitude of the student towards the subject and can certainly make a difference in the decision regarding career choice. As such, a greater exposure of students to anaesthesia as a subject in the form of a definite syllabus and a dedicated clinical posting during MBBS will definitely play a role in guiding their career choices. It is not necessary that all will choose anaesthesia, however, while not choosing anaesthesia as a career choice, they will have a valid knowledge of the scope and future of anaesthesia.

These reports are similar those reported from other developing countries like Sri Lanka⁴ and Jordan⁵. A survey from UK reported that between 1974 and 2002 the percentage of doctors choosing anaesthesia one year after qualification rose from 5% to 12%⁶.

The study also demonstrated a gender bias as 28.33% students thought that anaesthesia is a branch more suited for females, without there being no valid explanation for this thinking. Our study also highlighted the fact that a considerable number of students lacked a basic knowledge of anaesthesia as 10% were totally unaware of preoperative assessment, 16.67% didn't feel that anaesthetist is the best person to deal with resuscitation, 13.33% believed that anaesthesia means unconscious patient, 56.67% thought anaesthesia cannot be given to only the part of body to be anaesthetized. 8.33% believed we can leave patient unattended once anaesthesia was induced and 56.67% thought that anaesthesia machine is absolutely necessary to give anaesthesia. We believe the results could have been different if these students had any kind of prior knowledge of or training in anaesthesia.

Conclusion

As a conclusion, we can say that the exposure to anaesthesia as a subject per se in undergraduate syllabus is limited. The awareness of students about anaesthesia as a subject, the knowledge regarding the scope of anaesthesia as a career choice and its future prospects and their attitude towards anaesthesia results from their underexposure and inexperience in anaesthesia. They need to be aware of the various super-specialties in anaesthesia as well as the scope of anaesthetists in fields of pain management and critical care. A basic knowledge of anaesthesia coupled with training during MBBS will certainly go a long way in changing the attitude towards anaesthesia as well as guiding the students regarding making of a career in anaesthesia.

References

1. Adudu P. Awareness of the scope of Anaesthesia as a speciality among anaesthetists and their attitudes to Anaesthesia. *Afr J Anaesth Intensive Care* 2003; 5: 11
2. Chaitanya Kamat et al. Awareness about scope of anaesthesiology attitudes towards the speciality and stress levels amongst postgraduate students in anaesthesiology : a cross-sectional study. *Indian Journal of Anaesthesia/ Vol. 59/ Issue 2/ Feb 2015*
3. Fauzia Anis Khan et al. Anaesthesia as a career choice in a developing country; effect of clinical clerkship. *J Pak Med Assoc* : V161, N 11, November 2011
4. Karaliedde LD, Senanayake N, Aluwihare AP. Career preferences of the 1984 medical graduates of Sri Lanka. *Med Educ* 1986; 20: 64-8
5. Khader Y, Al - Zubi, Amarin Z, Alkafagei A, Khasawneh M, Burgan S, et al. Factors affecting medical students in formulating their speciality preferences in Jordan. *BMC Med educ* 2008; 8:32
6. Turner G, Goldacre MJ, Lambert T, Sear JW. Career choices for anaesthesia national surveys of graduates of 1974 - 2002 from UK medical schools. *Br J Anaesth* 2005; 95: 332-8