

## Factors Considered by Final Year MBBS Students in Selecting Anesthesia as a Career Choice: A Questionnaire Based Study

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### Abstract

**Background:** Smooth functioning of countries healthcare services require balanced distribution of physicians among different specialities. Each country needs to examine the factors influencing career specialty preference which will be helpful in future recruitment process. **Aims:** To assess the awareness and attitude towards anesthesiology as a career option and the factors which influence in making such a choice. **Methods:** A cross-sectional study was conducted on final year MBBS students in Navodaya Medical College, Raichur. A semi-structured, self-administered questionnaire copy was distributed to a total of 113 final year MBBS students and results were analyzed using SPSS version IBM 22. **Results:** The most preferred specialty was General Medicine (18.45%), followed by general surgery (15.53%) and orthopedics (14.56%). Among males the most preferred specialty was general medicine (27.12%) and among females obstetrics and gynecology (27.27%) was the most preferred specialty. The most common reason for not choosing anesthesia as a career choice was lack of recognition by patients (24.71%) and the most common reason behind making a career choice was personal interest (19.42%). 30.8% students found that anesthesia as a specialty was interesting and life saving and 37.5% students found that anesthesia posting was interesting and important. **Conclusion:** With only 2% students choosing anesthesia, it is vital to provide adequate aids and emphasize on the positive aspects of anesthesia among the undergraduates to create interest in anesthesiology as a career choice.

**Keywords:** Anesthesia; Career choice; MBBS students.

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### Introduction

The specialty of anesthesiology which was confined to the operating room in the past has now widened its scope and includes ICU management, trauma, acute and chronic pain management. In spite of its improved scope, the number of students preferring anesthesia as specialty is still significantly low.<sup>1</sup>

The choice of career specialty made by graduating students and factors involved in making a choice have an impact on the healthcare services of the country. Studies on speciality preference are helpful to identify the possible influencing factors, which will provide valuable information to medical workforce planners in formulating future educational programmes especially when there is undersupply of doctors.<sup>2,3</sup>

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During the course of medical education, students are exposed to a wide range of specialities, and the exposure may significantly affect the career preference. Many factors influence the choice of career and include personal preferences, work environment, awareness and knowledge about the scope of subject and practice hours. Gender is another important factor in career choice and females usually choose pediatrics and obstetrics and gynecology.<sup>2</sup>

This study is aimed to assess the awareness and attitude towards anesthesiology as a career option and the factors which influence in making such a choice.

### Materials and Methods

This study was conducted on final year MBBS students of Navodaya Medical College, Raichur, Karnataka. After obtaining approval from the hospital ethical committee, a brief talk on the study was given to the students and informed consent was obtained. A semi-structured, self-administered questionnaire copy was then administered to a total of 113 MBBS students in March 2019, who had undergone their undergraduate training in anesthesia. The questionnaire was designed to elicit sociodemographic characteristics, preference about specialization, reason for not choosing anesthesia as a career, possible factors that affected the choice of speciality and perception about anesthesia.

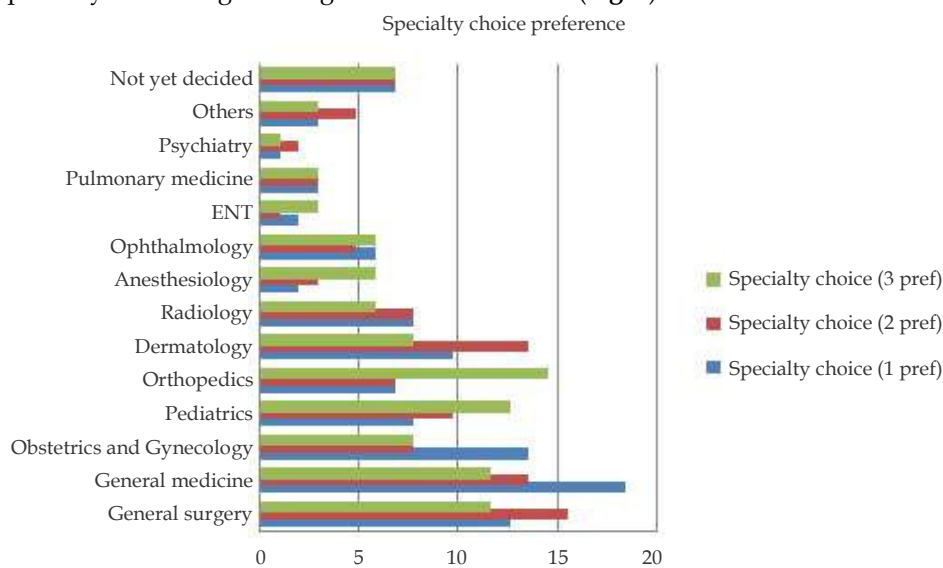
The questionnaire was designed in five parts. The first part included demographic data. The second part of the questionnaire was to find the preferred speciality following their graduation.

It included a list of 12 commonly preferred specialities including anesthesia. Top three choices in the order of preference were asked. It also had an option of not decided and others. The third part was reason for not choosing anesthesia as their preference. It had nine common reasons listed and an option to mention any other reason than the above listed. The fourth part of the study contained a list of 14 common factors that influence the students in making a career choice. The top three preferred factors were asked. It also included an option of listing any other factors. The fifth part of the questionnaire was about the perception of anesthesia before and after attending the postings.

After collecting data from self reporting questionnaire, it was coded and manually entered into the computer for statistical analysis. The analysis was done using the Statistical Package for Social Sciences Software (SPSS, version IBM 22). Data analysis was performed using frequency and diagrams.

### Results

The total number of final year MBBS students in our institute was 113. Of this 103 students participated in the study, consisting of 44 females (42.71%) and 59 males (57.28%). The mean age of respondents was 21.47. Overall the most preferred career choice was General Medicine (19 students, 18.45%). It was followed by general surgery (16 students, 15.53%) as the second preferred choice and orthopedics (15 students, 14.56%) as the third preferred choice, 7 students have not yet decided their speciality choice (**Fig. 1**).



**Fig. 1:** Specialty choice preferences.

Among 59 males, 16 students (27.12%) choose general medicine as first career choice where as only 3 females ( 6.82%) choose general medicine as first career choice. 12 females (27.27%) choose obstetrics and gynecology as first career choice and 2 males (3.39%) choose it as first career choice (Fig. 2).

Overall only 2 (1.94%) students choose anesthesia as a first career choice. The most common reason for not choosing anesthesia as a career choice was lack of recognition by patients (21 students,

24.71%), followed by it being a dependant branch (16 students, 18.82%) (Fig. 3). The most common reason behind making a career choice was personal interest (20 students, 19.42%), followed by specialty recognition (13 students, 12.62%) as the second preferred reason behind making a career choice (Fig. 4). 32 students (31.02%) found that anesthesia as a specialty was interesting and life saving and 39 students (37.5%) found that anesthesia posting was interesting and important (Table 1).

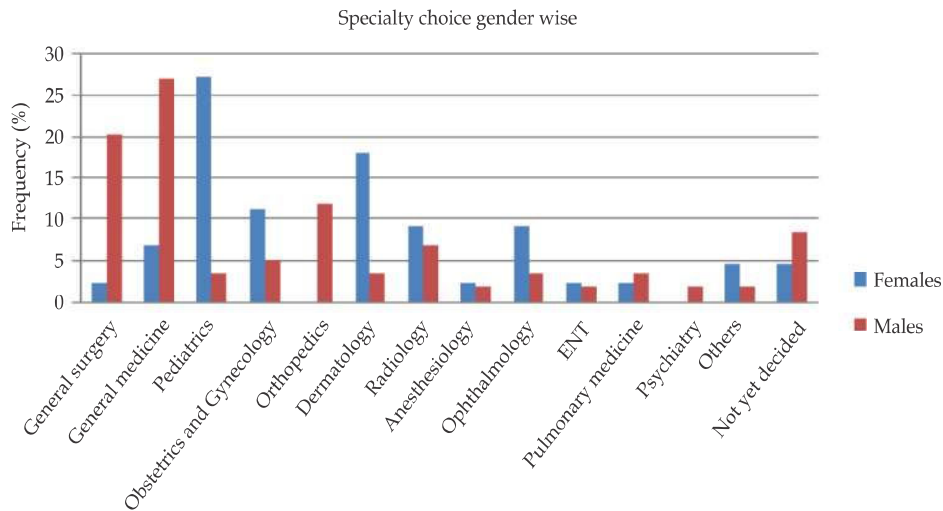


Fig. 2: Specialty choice gender wise.

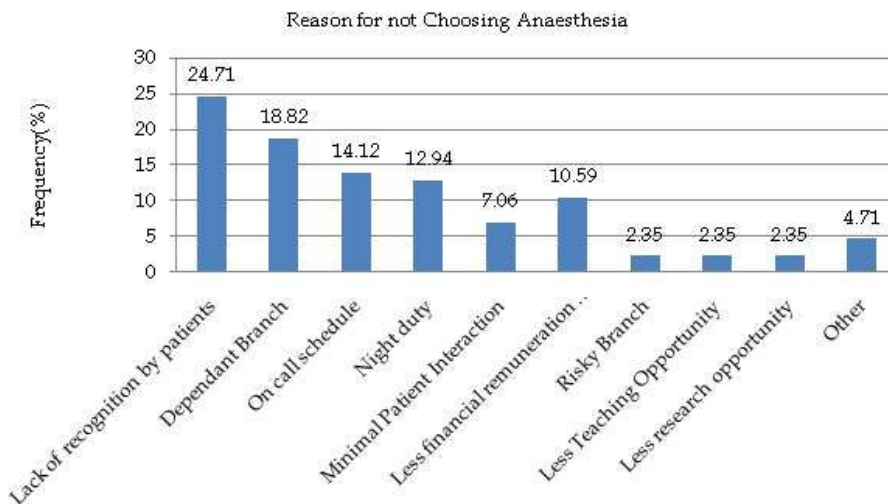


Fig. 3: Reason for not choosing anaesthesia as a career

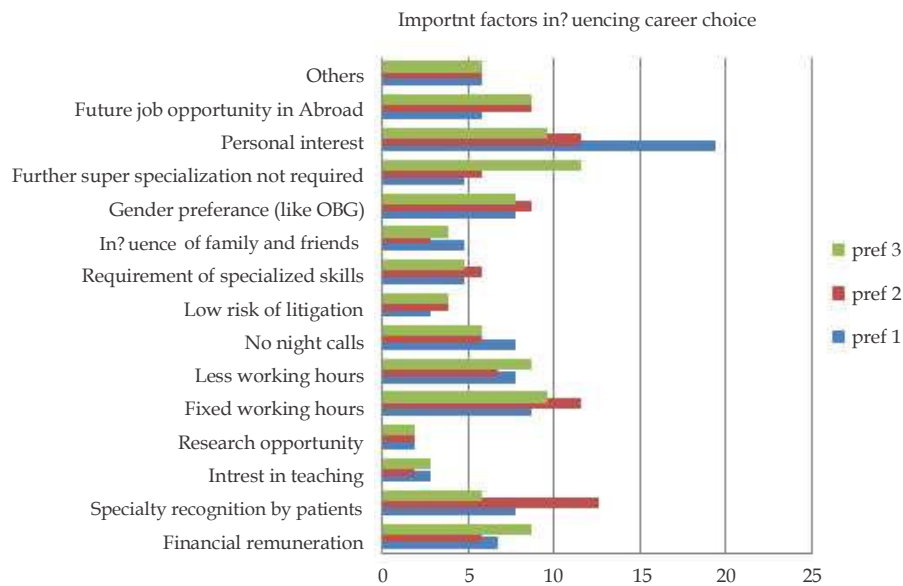


Fig. 4: Important factors influencing career choice

Table 1: Important factors influencing career choice

Anesthesia Specialty	Frequency	%
Interesting and life saving	32	30.8
Challenging and upcoming branch	20	19.2
Multi model	20	19.2
Too Stressful	15	14.4
Boring	8	7.7
No idea	9	8.7
Total	104	100

Anesthesia posting	Frequency	%
Interesting and important	39	37.5
Very informative	32	30.8
Too short	21	20.2
Boring	12	11.5
Total	104	100

## Discussion

Anesthesiologists play a very important role in saving lives of critically ill patients by providing BLS, ACLS care, managing critical patients in ICU. This is in addition to its classic role of providing the best and safe conditions for the performance of surgery, by doing pre-anesthetic evaluation and optimising the patient's condition in order to reduce peri-operative morbidity and mortality, by providing peri-operative care.<sup>4,5</sup> About three decades ago, it was noted that the lack of interest in anesthesia as a specialty was because it was seen as unchallenging and lacking in primary patient

care. This was attributed to lack of early exposure to the specialty.<sup>4</sup>

In our study we found that the most preferred specialty was general medicine followed by general surgery, orthopedics and obstetrics and gynecology. This was contrary to the other studies which showed general surgery was the most preferred specialty.<sup>2</sup> In our study, we found that there was an association between gender and the choice of future specialty.<sup>6</sup> Among 59 males, 16 students (27.12%) choose general medicine as first career choice where as only 3 females (6.82%) choose general medicine as first career choice. 12 females (27.27%) choose obstetrics and gynecology as first career choice and

2 males (3.39%) choose it as first career choice.<sup>7,2</sup> The students cannot practice independently and hence do not have hands on experience out of their hospital setting, hence the surroundings in which the students do their undergraduate studies influence their speciality choices.<sup>7</sup> Traditionally in our country OBG has evolved as a female dominant branch and medicine as a male dominant branch. Patient acceptance of a female gynecologist is more and this is one of the reasons for less number of males choosing OBG as their preferred speciality.<sup>8</sup>

In our research, among 103 students only 2 (2.08%) choose anesthesia as their first preferred specialty choice. Number of students choosing anesthesia as a second and third preference was more. This was consistent with studies conducted by Khan *et al.*<sup>9</sup> On questioning the reason for not choosing anesthesia, we found that the most common reason was lack of recognition by the patients followed by it being a dependant branch. This may be because, in developing countries like ours, there is lack of awareness among patients about anesthesia.<sup>10</sup> Whereas in developed countries the general public is more aware of anesthesia and anesthesiologists.

The most common reason behind choosing a specialty among the undergraduate medical students was personal interest in the specialty and this was consistent with findings in study conducted by Khan *et al.*<sup>9</sup> but was in contrast to the study conducted by Dikici *et al.*<sup>11</sup> The second factor influencing career choice was specialty recognition by patients. The duration of exposure of undergraduate students to a particular specialty varies with different institutes.<sup>4</sup> This varied exposure and also lack of provision of adequate aids such as mannequin are all contributory factors to the problem of limited or non-interest in anesthesia.<sup>4,12</sup> This has resulted in the diminishing of medical students' clinical skills such as basic airway management, acute, and chronic pain management, and basic life support.

In our study, we found that 31.02% students thought anesthesia as a career was important and life saving and 37.5% students thought anesthesia as a posting was important and interesting.

### Limitations

The limitation of our study was that it was a single institute study. Compulsory Rotatory Internship may change the specialty preference of the students and this may not be exact representation of the career choice that will be made following their graduation.

### Conclusion

In our study, we have found that the most preferred career choice was general medicine and the most common reason behind making the career choice was personal interest. We need to emphasise on the positive aspects of anesthesiology like surging trends towards intensivists and pain specialists apart from the traditional subspecialties like cardiac anesthesia, neuro anesthesia, obstetric anesthesia, pediatric anesthesia, bariatric anesthesia and regional anesthesia to create interest regarding the specialty. Provision of adequate aids like mannequins and conducting BLS, ALS training, simulations and workshops at undergraduate level will also create interest in the anesthesia specialty.

**Support:** Nil

**Conflicts of interest:** Nil

**Permissions:** Nil

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