

# Career in Anaesthesiology: A survey report

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## Abstract

**Background:** Several factors may impact the decision of medical graduates to choose a specialization in the field of anesthesiology. Job satisfaction and remuneration are a couple of primary determinants that drive one's conduct, inspiration, and retention. The objectives of the present study are to assess the current trends in anesthesia practice amongst the practicing anesthesiologists and their job and earning satisfaction in different types of specialties in the field. **Method:** A cross-sectional questionnaire study was conducted from 1<sup>st</sup> June 2020 to 1<sup>st</sup> August 2020 to have the opinions of a total of 206 practicing anesthesiologists regarding their experience in the field and choosing anesthesia as a career option. A questionnaire was prepared using Google Forms and it was circulated through WhatsApp to anesthesiologists individually and in relevant groups. Data were analyzed using GraphPad Instat version 3.1. **Results:** The most preferred field of work was either teaching in medical institutes (35.15%) or private practice (34.16%) in anesthesia. A total of 11.33% had taken super-specialty training in each critical care and pain care, respectively, 5.41% in regional anesthesia, while 68.5% had opted for none. On a scale of 0 to 10, 13.8% rated 10 as their job satisfaction, whilst 19.3% rated 6 as their earning satisfaction. A significant association was observed between (a) professional respect and job satisfaction, (b) salary satisfaction and job satisfaction, and (c) years of work experience and changing trends in super-specialty training over the years ( $P \leq 0.05$ ). **Conclusion:** Increasing the exposure and current popularity of the specialty not just at the undergraduate level, but also amongst the patient or general population can help attract more promising doctors to the field of anesthesiology. With the changing healthcare scenario, it is pertinent to introduce new post-graduation pedagogy in medical education, which is tailor-made to meet the needs. This will help the anesthesiologists to have a healthy and well-balanced professional-personal life, which in turn will boost their morale and spur job satisfaction and retention.

**Key Words:** anesthesia, career, earning satisfaction, job satisfaction, survey

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## INTRODUCTION

Anesthesiology may be defined as "the practice of medicine dedicated to the relief of pain and total care of the surgical patient before, during, and after surgery"<sup>1</sup>. In the last three decades, with the availability of further

training in super-specialities (sub-specialities) in anesthesia, the field has witnessed a tremendous expansion in the scope of hospital practice. Clinically, an anesthesiologist's role is not just limited to the operating room but also in critical or intensive care units (ICUs), pain clinics, psychiatric units, obstetrics, trauma, respiratory therapies, super-specialty surgeries like onco-surgery, cardiac surgery, neuro-surgery, and perioperative patient care. They also have been rendering their services in computed tomography and magnetic resonance imaging centers, research, administration, and teaching<sup>2,3</sup>. Several factors, namely, personal, family conditions, financial, and social aspect, may influence the undergraduate medical students in selecting their future field of specialization [4]. Moreover, job satisfaction is an important determinant of quality working life as satisfied employees tend to be more healthy, motivated, productive, and loyal to their

institution; this further contributing to patient satisfaction<sup>5,6</sup>. Previous studies have reported that job satisfaction may be positively influenced by the presence of several factors, including professional respect, good interpersonal relationships or recognition from patients and colleagues, training and growth in career, responsibilities, payment and compensation, good working conditions, and job security<sup>7,8</sup>. Lack of job or earning satisfaction may hamper the work-life balance of anesthetists, leading to stress, burnout, or even dropout from the profession, all of which may impact their overall health status<sup>9</sup>. Anesthesia holds a unique and fundamental position in providing an efficient and effective patient-focused health service. Therefore, it is important to gather opinions and viewpoints from experienced anesthetists regarding the trend in current and changing anesthesia practice, professional respect, training programs in anesthesia, and their job and earning satisfaction levels. The present study aimed to assess the current trends in anesthesia practice amongst the practicing anesthetists vis-à-vis their job or earning satisfaction in different types of specialties in the field. Similar to previous studies reporting the factors influencing the career choice in anesthesiology<sup>10-13</sup>, our questionnaire-based survey may help the current medical students and postgraduate aspirants in considering anesthesia as their career choice. Moreover, it may serve as a medium to peep into the adequacy of the duration of the anesthesia training program that, in turn, may act as a humble stimulus to the authority academicians of anesthesia to bring about amendments in the course curriculum and duration, if needed.

**MATERIALS AND METHODS**

The present study (descriptive cross-sectional) was carried out from 1<sup>st</sup> June 2020 to 1<sup>st</sup> August 2020, after taking the approval from our Institutional Ethics Committee. We developed a survey questionnaire having 21 questions related to current practicing trends amongst the anesthetists using Google Forms, which was further validated by the peers of our department and few private anesthesia practitioners. The link containing this questionnaire or survey form was then sent to various anesthetists personally and circulated within several groups of anesthetists to have their opinions regarding choosing anesthesia as a career option. The participants were randomly selected. Their confidentiality and anonymity were maintained. The inclusion criterion for this study was: all the anesthetists who had completed accredited anesthesia training. Whilst the exclusion criterion was: all those anesthetists who were not willing to participate. Implied consent was taken from each participant. The association between (1) current anesthesia practice and job

satisfaction, (2) current practice and earning satisfaction, (3) professional respect and job satisfaction, (4) practicing abroad and job satisfaction, (5) rate of salary satisfaction and rate of job satisfaction, (6) super-specialty training and job/earning satisfaction, (7) years since graduation (completion of training) and recent or changing practice trends of anesthesia over the years was also studied. Overall job or earning satisfaction was recorded on a 10-point scale, which ranged from 0 “no satisfaction” to 10 “highest satisfaction”.

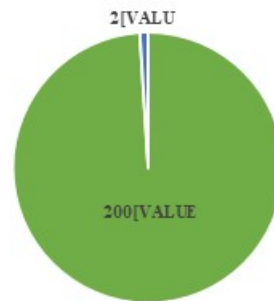
**Statistical analysis**

Responses of the anesthetists were analyzed using the GraphPad Instat software (version 3.1). Descriptive data analysis included means, percentages, and standard deviations. A P<0.05 was considered statistically significant. Association between different variables was performed using either the Kruskal-Wallis H test, Mann-Whitney U test, Chi-square test, or correlation analysis.

**RESULTS**

(I) Data were randomly collected from a total of 206 anesthetists. Questionnaire related to practicing trends and training in anesthesia amongst current practicing anesthetists

1. What is your primary medical qualification? The number of respondents (N) for this question were 202; 200 (99%) anesthetists were having MBBS degree from India, while only 2 (1%) had a foreign qualification equivalent to MBBS (Figure 1).



■ MBBS (from India) ■ Foreign qualification (equivalent to MBBS)

**Figure 1.** Primary medical qualification of practicing anesthetists

2. What is your qualification in anesthesia? When did you receive your qualification in anesthesia? From where did you receive your anesthesia qualification/s? N=203; the majority of the anesthetists (62.1%) had MD (Anesthesia) as their qualification, followed by DA (Diploma in anesthesia; 38.9%) (Figure 2a). 97 (47.78%) anesthetists had received

their qualification in or after 2011, while only 4 (1.97%) had received it in or before 1980 (Figure 2b). Out of the total respondents (N), 100 (49.26%) and 82 (40.4%) had received their qualifications from government medical college and private medical college, respectively (Figure 2c).

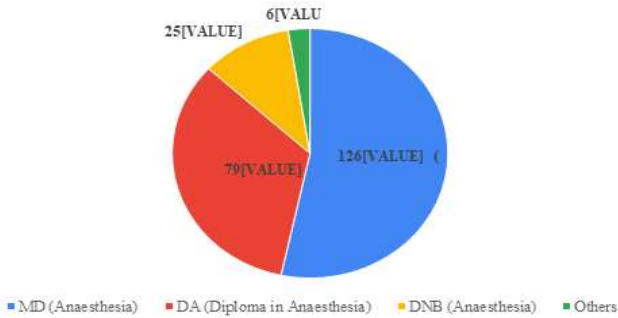


Figure 2a. Qualification in anesthesia

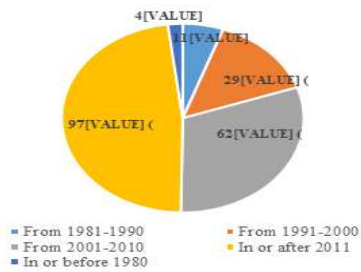


Figure 2b. Year in which received qualification in anesthesia

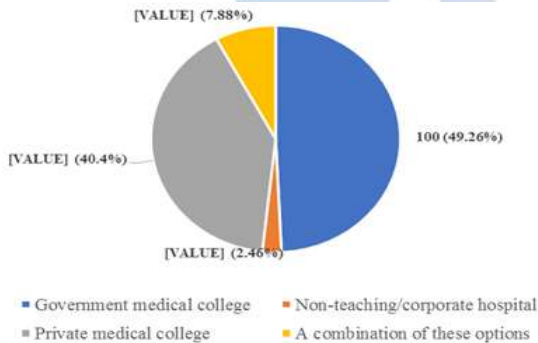


Figure 2c. Where did the qualification in anesthesia were received from?

3. How did you prefer to pursue a career in anesthesia?  
 N=202. Out of these respondents, 110 (54.46%) had pursued anesthesia by chance, and 92 (45.54%) pursued it by choice (Figure 3).

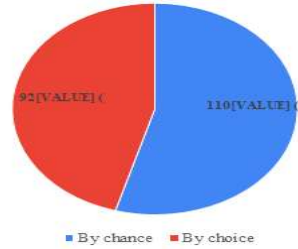


Figure 3. Preference to pursue career in anesthesia

4. Have you received any further super-specialty (sub-specialty) training? (select multiple options if applicable). Do you think that the length of training in anesthesia is adequate in India (in the western countries, it is 4 years or more)?

N=203 responded; out of a total of 63 anesthetists who had received training, 23 (11.33%) had taken in each critical care and pain care respectively, 11 (5.41%) in regional anesthesia, 9 (4.43%) in pediatric anesthesia, 7 (3.45%) in palliative care, 4 (1.97%) in obstetric anesthesia, and 2 (0.98%) in neuro-anesthesia. Additionally, 7 (3.45%) had taken training in some other super-specialty or sub-specialty areas. A total of 140 (68.96%) anesthetists had taken none (Figure 4a). Out of the total respondents (N), 153 (75.37%) believed that the length of training in anesthesia is adequate in India, while 32 (15.76%) did not believe so, and 18 (8.87%) were not sure (Figure 4b).

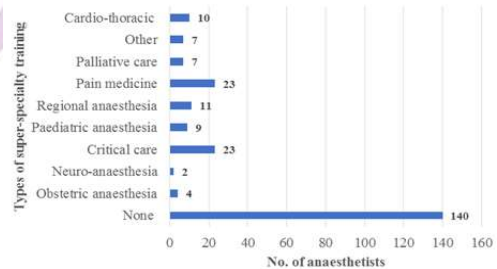


Figure 4a. Types of super-specialty trainings

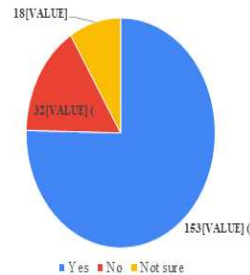


Figure 4b. Length of training in India

5. Have you received any foreign training? If received foreign training, please write the names of the country and specialty of training.

N=198 responded, with only 9 (4.54%) to have received foreign training (Figure 5) in the following specialties:

- UK; fellowship in pediatric anesthesia (pursuing) (n=1)
- UK (n=1)
- USA; anesthesia in spine deformity correction surgery with intra-operative neuro-monitoring (n=1).
- UK; obstetric anesthesia /pediatric anesthesia (n=1)
- Oman; regional blocks (n=1)
- Dubai; fellowship in regional anesthesia (n=1)
- Certificate from University of Toronto; GLP, GCP, and GMP (n=1)
- Gasman simulation course, 6 months of tenure, distance learning (n=1)
- South Korea; liver transplant anesthesia (n=1)

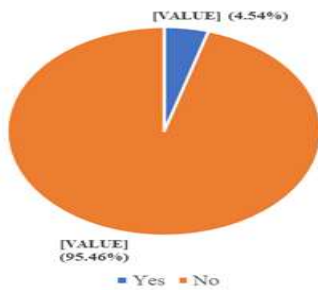


Figure 5. Number of anesthetists who have received training

6. How many years of experience do you have so far (after completion of training)?

Out of a total of 202 (N) respondents, 62 (30.69%) anesthetists had up to 5 years of experience. Anesthetists having more than 25 years of experience were 22 (10.89%) (Figure 6).

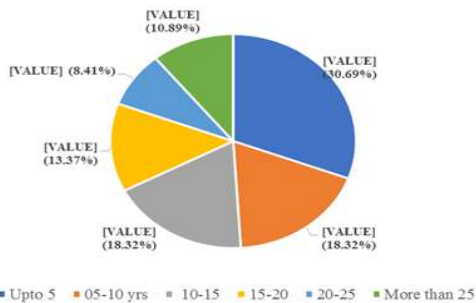


Figure 6. Total number of years of working experience

7. What is your current practice?

N=202 responded; the majority of the anesthetists (71; 35.15%) were practicing in a teaching institute or the anesthetic department of a medical college, followed by 69 (34.16%) practicing privately, while with only 2 (0.99%) practicing in pain clinic anesthesia. A total of 10 (4.95%),

16 (7.92%), 26 (12.87%), and 8 (3.96%) anesthetists were working in critical care, group, the combination of the above practices and other types of anesthesia practices (Figure 7).

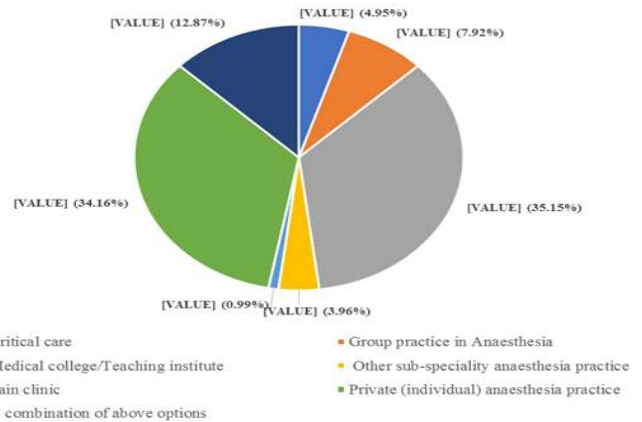


Figure 7. Current practice

8. Are you currently practicing in India or a foreign country? If working in a foreign country, please write the name of the country.

Out of 203 respondents, 186 (91.63%) were practicing in India, while only 17 (8.37%) were practicing abroad (Figure 8a). Only 17 anesthetists (N) working abroad responded. The majority of them, 7 (41.2%) were working in Oman (Figure 8b).

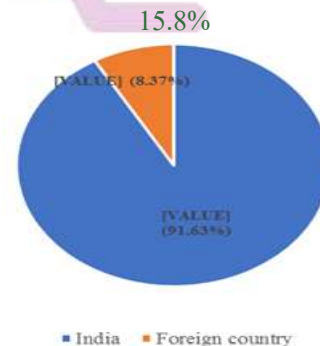


Figure 8a. Whether currently practicing in India or abroad?

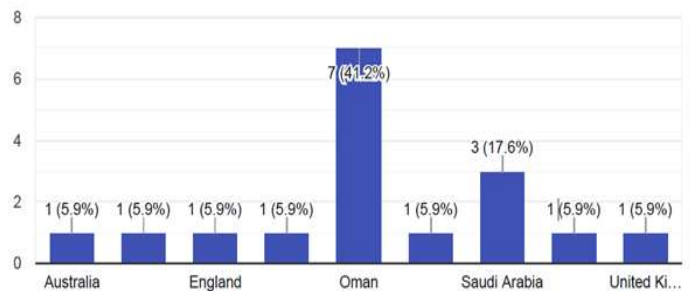


Figure 8b. Names of the foreign countries anesthetists currently working in

9. Do you think that anesthesia should be considered as a pure clinical specialty and not a para-clinical specialty in India?

N=203 responded; 182 (89.66%) believed that anesthesia should be considered as a pure clinical specialty, while 8 (3.94%) did not believe so (Figure 9).

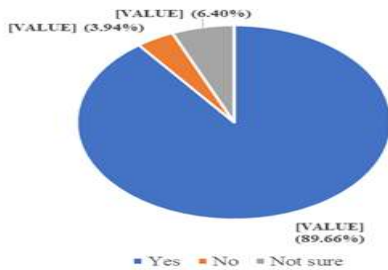


Figure 9. Should anesthesia be considered a separate clinical specialty or not?

10.. What do you think about the level of awareness amongst patients and their relatives regarding the role of an anesthetist?

N=203 responded; only 9 (4.43%) anesthetists reported that there is an adequate level of awareness regarding their role amongst their relatives and patients, while 194 (95.57%) suggested improvement in this aspect (Figure 10).

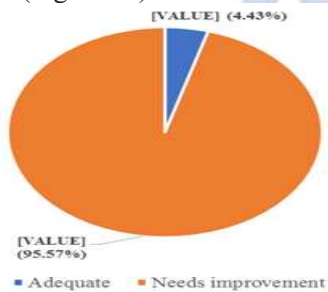


Figure 10: Level of awareness amongst patients and their relatives regarding the role of an anesthetist

11.. What do you think about the level of professional respect for anesthetists amongst doctor colleagues of other specialties? Out of the 203 anesthetists (N) who responded, only 25 (12.32%) believed that the professional respect for anesthetists was adequate, while 178 (87.68%) were of the opinion that the level was not adequate and required improvement (Figure 11).

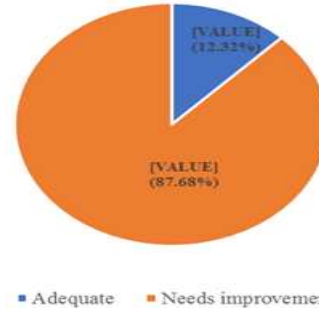


Figure 11: Level of professional respect for anesthetists amongst doctor colleagues of other specialties

12.. Would you recommend anesthesia as a career option to current medical students and post-graduation aspirants? N=202 responded; the majority (117; 57.92%) of them recommended anesthesia as a career option to current medical students (Figure 12).



Figure 12: Should anesthesia be recommended as a career option to current medical students and post-graduation aspirants?

13.. On a scale of 0 to 10, where would you rate your job satisfaction (0=no satisfaction, 10=highest satisfaction)? Please select a number. Out of the 203 respondents (N), 50 (24.6%) rated 8, 28 (13.8%) rated 10, while only 1 (0.5%) rated 0 as their job satisfaction (Figure 13).

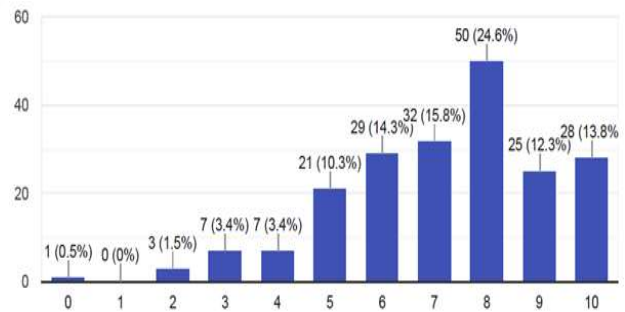


Figure 13: Rate of job satisfaction

14. On a scale of 1 to 10, where would you rate your earning satisfaction (0=no satisfaction, 10=highest satisfaction)? Please select a number. Out of the 202 respondents (N), most of them (39; 19.3%) rated 6, 34 (16.8%) rated 7, 7 (3.5%) rated 10, while only 2 (1%) rated 0 as their earning satisfaction (Figure 14).

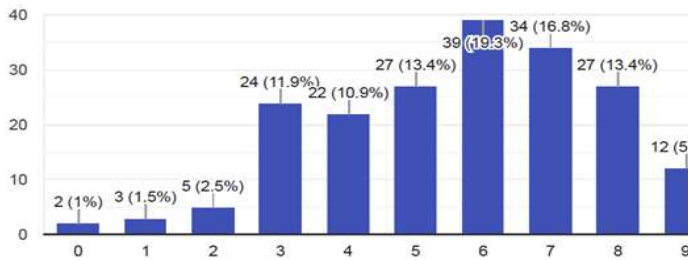


Figure 14: Rate of earning satisfaction

15. Apart from dissertation (thesis), have you conducted any other research projects? How many publications do you have?

N=203 responded; 67(33%) had, and 136 (67%) had not conducted any other research projects apart from the dissertation (Figure 15a). Out of the 201 respondents (N), 97 (48.26%) had no publications, 89 (44.28%) had 1 to 5, and only 2 (0.99%) had 20 to 30 publications. None had more than 30 publications (Figure 15b).

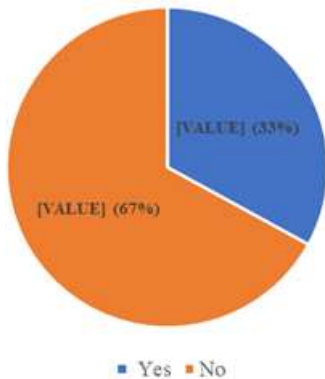


Figure 15a: Other research projects conducted by the anesthetists

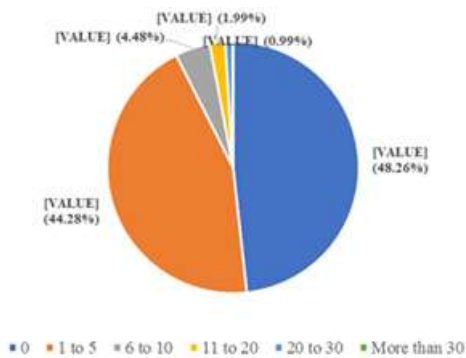


Figure 15b: Total number of publications

16. If given a chance to go back in the past and re-select your career, would you choose anesthesia again?

Out of the 204 (N) anesthetists who responded, 85 (41.67%) said 'yes' to the question, 70 (34.31%) said 'no', and 49 (24.02%) were 'not sure' (Figure 16).

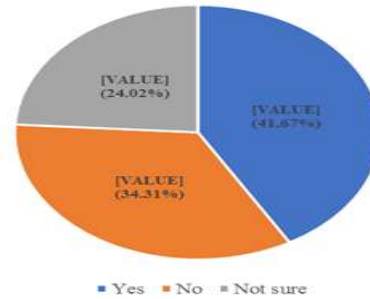


Figure 16: Would you like to choose anesthesia again as your career?

(II) Determining the association between:

1. Current practice in anesthesia and rate of job satisfaction

Amongst all the anesthetists (N= 202) currently practicing, those working in critical care (n=10), private practice (n=69), and teaching in medical college (n=71) showed the highest median rate of job satisfaction (8±1.414, 8±1.914, 8±2.207), while those working in a group practice (n=16) had the lowest median rate of job satisfaction (6.00±2.401). The association between the different types of current practices in anesthesia and the rate of job satisfaction was not significant (Kruskal Wallis H- statistic =5.612, P>0.05) (Figure 17).

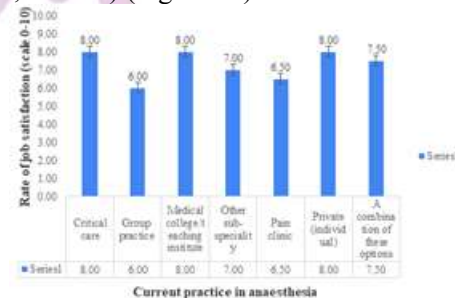


Figure 17. Association between current practice in anesthesia and rate of job satisfaction

2. Current practice in anesthesia and the rate of earning the satisfaction

Out of a total of 202 (N) anesthetists who responded, those who were working in critical care (n=10) had the highest median rate of earning satisfaction (7.00±1.947), while those working in other specialties (n=8) had the lowest (5.00±2.25). The association between the current practice and earning satisfaction was not significant (Kruskal Wallis H-statistic=4.951, P≥0.05) (Figure 18).

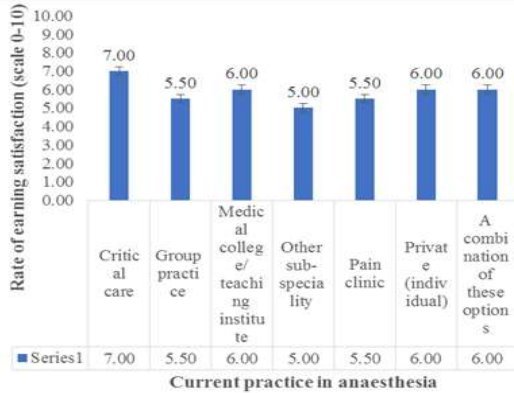


Figure 18. Association between current practice in anaesthesia and rate of earning satisfaction

### 3. Professional respect and job satisfaction

It was observed that the anesthetists that responded for adequate professional respect (n=25) had a median rate of job satisfaction of 8.00±1.670, while for those anesthetists, the professional respect among colleagues and relatives needed improvement (n=178), the median rate of their job satisfaction was 7.00±2.02. This association between professional respect and job satisfaction was statistically significant (Mann-Whitney U-statistic=1645.5; P=0.0328) (Figure 19).

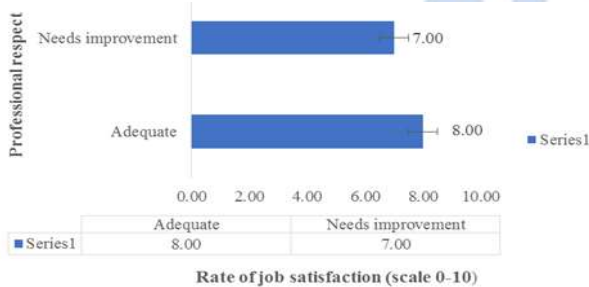


Figure 19. Association between professional respect and rate of job satisfaction

### 4. Practicing abroad and job satisfaction

The total number of anesthetists practicing in India (n=186) had a median rate of job satisfaction of 7.00 ±1.963, while those working abroad (n=17) had a better median job satisfaction rate of 8.00±2.4. However, the association of practicing abroad/India with job satisfaction was not significant (Mann-Whitney U-statistic=1413.5, P>0.05) (Figure 20).

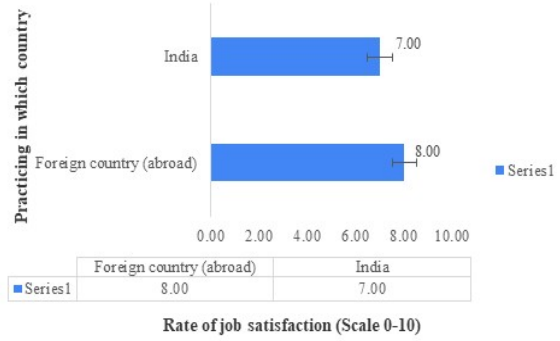


Figure 20. Association between practicing abroad and rate of job satisfaction.

### 5. Salary satisfaction and job satisfaction

Out of 203 (N) anesthetists who responded, those who had a mean rate of salary satisfaction as 10.0 had a corresponding mean rate of job satisfaction as 10.0, while those who had a salary satisfaction 0, reported the mean rate of job satisfaction to be 5. The association between salary satisfaction and job satisfaction was extremely significant (correlation coefficient r=0.4792, P<0.0001) (Figure 21).

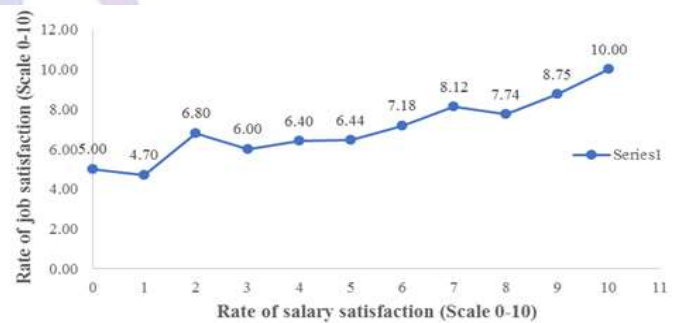


Figure 21. Association between rate of salary satisfaction and rate of job satisfaction.

### 6. Super-specialty training and job / earning satisfaction

It was observed that those who had received super-specialty training (n=63) had a better median rate of salary satisfaction (7±2.01) and job satisfaction (8.00±1.58) as compared to the median rates of salary satisfaction (6±2.205) and job satisfaction (7.5±2.15) for those who had not received the training (n=140). The association between super-specialty training received or not, and job satisfaction was not significant (Mann-Whitney U-statistic=4078.0, P>0.05) (Figure 22). The association between super-specialty training received or not, and earning satisfaction was not quite significant (Mann-Whitney U-statistic=3674.0, P=0.0551) (Figure 22).

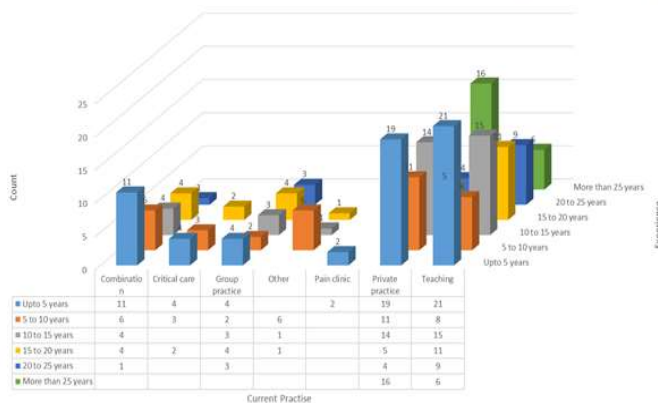


**Figure 22.** Association between super-specialty training and job / earning satisfaction

7. Association between years since graduation (completion of training) and recent practice trends or changing trends of anesthesia practice over the years.

**(i) Changing trends in current practice types in anesthesia over the years**

Those anesthesiologists who had graduated recently and had up to 5 years or 5 to 10 years of experience were mostly practicing privately (n=19; n=11), in teaching institutes (n=21; n=8), and working in a combination of anesthesia practices (n=11; n=6), respectively. Even those with more than 25 years of experience were mostly practicing privately (n=16) or in teaching (n=6). However, this association between years since graduation (or years of experience) and change in trends of anesthesia practice over the years was not significant ( $\chi^2=59.301$ ;  $P=0.0748$ ) (Figure 23a).

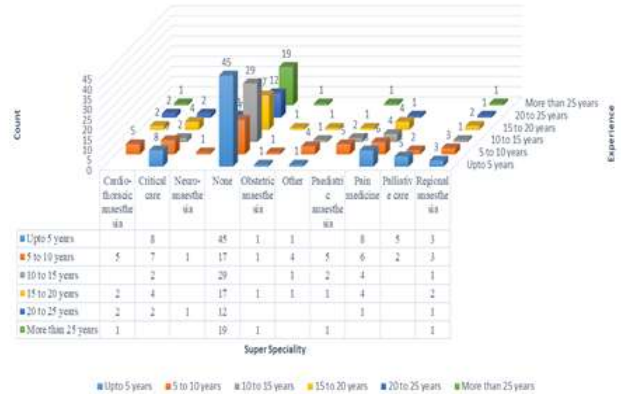


**Figure 23a:** Association between changing trends in current practice and years of experience

**(ii) Changing trends in super-specialty training over the years**

The majority of the anesthetists in our survey, having up to 5 years of experience or even more than 25 years, did not have any super-specialty training in anesthesia (n=45, and n=19, respectively). However, few with up to 5 years of

experience were trained in critical care (n=8), pain medicine (n=8), palliative care (n=5), and regional anesthesia (n=3). The years of experience since graduation and change in trends of super-specialty training in anesthesia has been found to be significantly associated ( $\chi^2=56.450$ ;  $P=0.00$ ) (Figure 23b).



**Figure 23b.** Association between changing trends in super-specialty training in anesthesia and years of experience

**DISCUSSION**

Anesthetists are highly trained doctors specialized in planning and administration of anesthesia, providing perioperative care, and continuous medical care in multiple situations. The contribution of an anesthetist in the medical field is now being widely recognized, and their role as an intensivist is also being accepted<sup>2</sup>. Junior doctors and interns are also becoming increasingly aware of the wide scope of anesthesia and the opportunities it entails. However, Schubert *et al.* (2001) estimated that there was a shortage of about 1200 to 3800 anesthesiologists in the US in 2001 that may go on for the next decade or even longer<sup>14</sup>. According to the data by the World Federation of Societies of Anesthesiologists, India has only 1.27 anesthesiologists for every 100,000 people<sup>15</sup>. This lack of workforce needs to be addressed in order to reduce anesthesia-related morbidity and mortality among the patients. Some previous studies have been conducted to assess the work-related stress and job dissatisfaction amongst the anesthetists<sup>16-18</sup>. However, we have conducted this questionnaire-based cross-sectional survey to understand the current anesthesia practices and training trends amongst the experienced anesthetists, vis-à-vis their job, and earning satisfaction levels. This study may help the budding doctors to decide and well-plan their career ahead in the field of anesthesiology. The current study demonstrated that a high percentage of anesthetists were practicing in India (91.63%), while only 8.37% were working abroad. The majority of the anesthetists (99%) who participated in our survey had their MBBS from India as their primary qualification, and 62.1% had MD as an advanced degree. Out of a total of 203 anesthetists who



responded, most of them (47.78%) had passed out of the graduation recently in or after 2011, while 30.54% from 2001 to 2010. These anesthetists had received their qualification either from a government medical college (49.26%) or a private medical college (40.4%). This increase in choice for government medical school maybe because of the lower fee structure and adequate training facilities at par with the private colleges. Although a large percentage of anesthetists in our survey had pursued this career 'by chance' (54.46%), 45.54% had opted it 'by choice'. All these data revealed the recent increased interest in the field of anesthesiology amongst the new doctors, which is consistent with a previous survey by Singh 2013<sup>10</sup>. Moreover, the focus is required in making the undergraduates exposed to the practical implications of anesthesiology, thus making the course more interesting, and so that students have a better chance to choose the specialty per their interest rather than of any other reason(s). Regarding the methods of increasing the awareness and knowledge of anesthesia among undergraduates, 89.66% practicing anesthetists in our study believed that anesthesia should be considered as a separate clinical specialty during the course of under-graduation and not just as a para clinical specialty.

In terms of work experience, the majority of the anesthetists (30.7%) had served up to 5 years, while 18.3% had either 5-10 or 10-15 years of work experience. In our study, although there was an observed diversity of training experience in critical care, cardio-thoracic, palliative care, pain medicine, regional, pediatric, neuro-, obstetric anesthesia amongst the anesthetists, 68.5% had not received any further super- or sub-specialty training. Lack of infrastructure is one of the biggest training bottlenecks, especially in most of the developing countries.<sup>19</sup> Moreover, in India, it takes long 10 years to become a qualified anesthetist with additional 1-2 years of sub- or super-specialty fellowship. However, the length of training in anesthesia was reported to be adequate by most of the anesthetists (75.4%) in our survey. Anesthesia, as a profession, involves long working hours and stressful jobs. To reduce stress and have better job satisfaction, it is important to have a better organization at work, a fixed time-bound schedule, and a friendly group to share the workload<sup>10</sup>. Similar to another study by Shetti *et al.* (2018)<sup>16</sup>, most of the anesthetists in our study preferred private/individual anesthesia practice (34.2%) or working as a teaching faculty in a medical college/institute (35.1%). Fewer opted for group practice (7.92%), critical care (4.95%), pain clinic (0.99%), or a combination of the above practices (12.87%). In comparison to working in a teaching institute, practicing in hospitals or ICUs may sometimes be more stressful because of night calls or erratic working hours during emergencies<sup>10</sup>. On the

contrary, in private practice, the anesthetist has the freedom to choose work at his own schedule. Working in a teaching institute with like-minded people is fulfilling and gives a sense of satisfaction. Our results are also in agreement with the study by Bakshi *et al.* (2017), who found out that 43% of anesthetists were working as teaching faculty while 25% were privately working as freelancers<sup>20</sup>. The problems regarding the issue related to the status and image of anesthetists amongst the medical fraternity and the general populations have been studied earlier<sup>21, 22</sup>. In our study, 95.6% anesthetists were of the opinion that the level of awareness regarding their role, amongst their patients and relatives, is not adequate and requires improvement. Additionally, unlike the other few studies<sup>10, 17</sup>, a large percentage of the anesthetists (87.68%) in our survey opined that there is a lack of recognition of anaesthesiology and the level of professional respect for anesthetists amongst the patients, fellow surgeons and doctor colleagues of other specialties is not adequate and needs improvement. This was in consistence with another survey study by Thorat *et al.* (2012), who reported that most of the anesthetists (98%) believed that in an operating room, the surgeon is given more attention and respect than them<sup>11</sup>. Educating patients and the physicians and surgeons regarding the important role of anesthetists in saving patients' lives and providing care in the perioperative period may be an important measure to raise their image among the general public<sup>23, 24</sup>. Despite the under-recognition as a field, most of the anesthetists (57.9%) in our survey recommended anesthesia as a lucrative career option with a wide range of opportunities to current medical students and post-graduation aspirants. Moreover, a total of 41.17% anesthesiologists were ready to go back to choose anesthesiology as a career option, if given a chance. One of the reasons for choosing anesthesia as a career is that it has immense earning potential. Similar to the other few studies<sup>10, 11</sup>, our study showed earning satisfaction among the practicing anesthetists. Out of the 202 respondents, 19.3% had a salary satisfaction of rate 6, 16.8% rated 7, 3.5% rated 10, while only 1% rated 0. However, this is in contrast to the data generated by a survey study by Shetti *et al.* (2018), according to which 58.81% showed dissatisfaction with salary. Moreover, it is observed that the average salary for a practicing anesthetist in India is not at par with those practicing in the USA<sup>25</sup>. Overall, job satisfaction is immensely important for greater productivity levels in day-to-day work. High job satisfaction levels in anesthetists may also act as a protective factor against acute stress, burnout, and mental disorders<sup>26</sup>. In consistence with other studies<sup>10, 16</sup>, we observed that maximum anesthetists (24.6%) had a high job satisfaction level of 8, while 13.8% rated 10, and only 0.5% rated 0 as their job satisfaction. Various factors that

result in dissatisfaction in a job include long working hours, heavy workload, administrative pressure, insufficient salary, poor relations with peers, and lack of recognition for good work<sup>17,18</sup>. Therefore, in this study, we have also tried to analyze the association between (a) Current practice in anesthesia and rate of job satisfaction, (b) current practice in anesthesia and rate of earning satisfaction, (c) professional respect and job satisfaction, (d) practicing abroad and job satisfaction, (e) salary satisfaction and Job satisfaction, (f) super-specialty training and job / earning satisfaction, and (g) years since graduation (completion of training) and recent practice trends or changing trends of anesthesia practice over the years. In our study, we found that those who had a rate of salary satisfaction as 10.0 had a corresponding mean rate of job satisfaction as 10.0, while those who had a salary satisfaction 0 reported the mean rate of job satisfaction to be 5. This demonstrated an extremely significant correlation between salary satisfaction and job satisfaction. Moreover, depending on the current practices in anesthesia, we found that the highest rate of salary satisfaction (7.00) was observed in those working in critical care anesthesia, followed by those practicing privately or in teaching institutes (6.00). In contrast, those working in group practice had the lowest median rate of salary satisfaction (5.50). In terms of overall job satisfaction, the highest median rate was observed among those working in critical care, teaching institutes, and practicing privately (8.00). Anesthesiologists practicing in groups showed the lowest job satisfaction of 6.00. Based on this data, we can suggest that good earning is the most motivating and crucial factor in deciding the field of work in anesthesiology. Additionally, because of a high salary and job satisfaction in teaching or private practice, most of the anesthetists in our survey preferred working in these fields. As discussed before, despite having a good salary in critical care practice, both group practice and critical care were not frequently chosen by the anesthesiologists. This may be because of tight work schedules and lower recognition amongst the patients and colleagues in these practices. However, this association between the types of current practices and job/earning satisfaction was not found to be significant in our study. The association between professional respect and job satisfaction was found to be statistically in our study. Those anesthetists who believed to have adequate professional respect had a better rate of job satisfaction (8.00) over those who needed improvement in this aspect (job satisfaction rate=7.00). Practicing abroad or in India had no significant impact on job satisfaction levels, although those who were working abroad had a better rate of job satisfaction than those working in India. This may be because of better facilities, working conditions, opportunities, and earning potential

for anesthetists in foreign countries than India [25]. Anesthetists that had received super-specialty training (n=63) had a better median rate of salary satisfaction (7.00) and job satisfaction (8.00) as compared to the median rates of salary satisfaction (6.00) and job satisfaction (7.50) for those who had not received the training (n=140). This may be because training imparts additional expertise in the field of super- or sub-specialties, providing a better and wider scope of opportunities. However, in our study, super-specialty training did not show a significant impact on the rate of job/earning satisfaction. We also observed that there was no change in trend in current practices in anesthesia over the period of years as those who had up to 5 years of experience or those with more than 25 years, most were either practicing privately (n=19; n=16) or in teaching institutes (n=21; n=6). Moreover, most of the anesthetists with job experience were not trained in any specialization in anesthesia (n=12 to 45). However, it has been observed that in comparison to those with more than 10 years of experience and recent post graduates (those with up to 5 years of experience), more number of anesthetists selected training in either critical care (n=8), pain (n=8), or palliative care (n=5) anesthesia. The limitations of this study were that our sample size was small, and it may not represent the entire anesthetist community in India or abroad. Moreover, only practicing anesthesia doctors were included in this study, as we do not have nurse anesthetists in India.

## CONCLUSION

Based on the findings of this survey, we conclude that by increasing the exposure and current popularity of the specialty not just at the undergraduate level, but also amongst the patient or general population can help attract more promising doctors to the field of anesthesiology. With the changing healthcare scenario, it is pertinent to introduce new post-graduation pedagogy in medical education, which is tailor-made to meet the needs. Scrapping down the diploma courses in anesthesia and enhancing the number of seats in masters may solve the problem of shortage of qualified anesthetists in teaching and other specialties in anesthesia. This will help the anesthetists to have a healthy and well-balanced professional-personal life, which in turn will boost their morale and spur job satisfaction and retention.

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