

Assessment of Job Satisfaction and Quality of Life among Practicing Indian Anesthesiologists

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Abstract

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INTRODUCTION

Medical fraternity has maintained its ethical standards over centuries, to be ideally considered a “noble profession” in India. Unfortunately, in India, in recent past, medical professionals face job dissatisfaction which may be due to various reasons such as recovery of high fee structure paid for medical education, to save asset for future and competing with big hospitals. Based on some previous studies, anesthesiologists are working at moderate-to-extreme level of stress.[1] The reasons are not very well studied in large scale. The stress may be due to working in high-risk areas, limited resources, prolonged working hours, and making compulsion to work even at odd hours. The resident anesthesiologists are also exposed to extreme stress since beginning of the carrier.[2] Stress is high among trainee in comparison with experienced anesthesiologist.[3] There are reports suggestive of anesthesiologists

dying at a younger age and stress as a major contributing factor.[4,5] The quality of work, workload, professional relationship with colleagues, and family life itself are contributing elements.[6] The negative feeling may be observed by anesthesiologists which makes jobs frustrating. The anesthesiologist may, at times, increasingly distance themselves emotionally and disengage themselves from their work and colleagues. Anesthesiologists are often labeled as silent force behind the screen; it is also true that stress influencing silently also spoils healthy life of individuals. Previously, a study has shown, and overall stress is not high among anesthesiologist when compared to others.[7] Thus, there is a conflict whether anesthesiologists are exposed to high level of stress or no and also the quality of life was not studied among Indian anesthesiologists. The purpose of this study was to assess the stress, job satisfaction, and quality of life among practicing Indian anesthesiologists in large number.

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SUBJECTS AND METHODS

After obtaining Institutional Ethical Committee clearance, this online survey (descriptive cross-sectional study) was conducted. A survey consisting of 21 questions [Table 1] was sent to 5000 registered Indian anesthesiologists by E-mail through SurveyMonkey platform, an online survey system. Reminders were sent to one who did not respond to first mail. The answers were categorized and analyzed accordingly. Job satisfaction was studied in terms of employee's reaction toward the profession. Quality of life is studied in terms of exercise, de-stressing methods, time spent with family, and suffering.

Table 1

Questions

Question	Options
Your age is between	25-40 years 40-60 years 60-80 years >80 years
Sex	Male/female
Are you a practicing Indian anesthesiologist?	Yes/no
Type of practice	Institutional Private (freelancing) Both Institutional and private Corporate
Average number of working hours per day excluding public Holidays	<5 h 5-8 h >8 h
Your role is as	General anesthesiologist Cardiac anesthesiologist Pain physician Neuroanesthesiologist Obstetric anesthesiologist Pediatric anesthesiologist Orthopedic anesthesiologist Transplant anesthesiologist Intensivist More than one
Are you satisfied being anesthesiologist?	Yes/no
Who decides about salary/payment?	Self Institution/corporate Surgeon Local anesthesiologists organization
Are you satisfied with the payment?	Yes/no
Are you suffering with or suffered with any of the following medical disorder?	Hypertension Coronary artery disease Diabetes mellitus Tuberculosis Psychiatric disorders Malignancies Stroke More than one None
Do you think stress among anesthesiologists is highest when	Yes/no

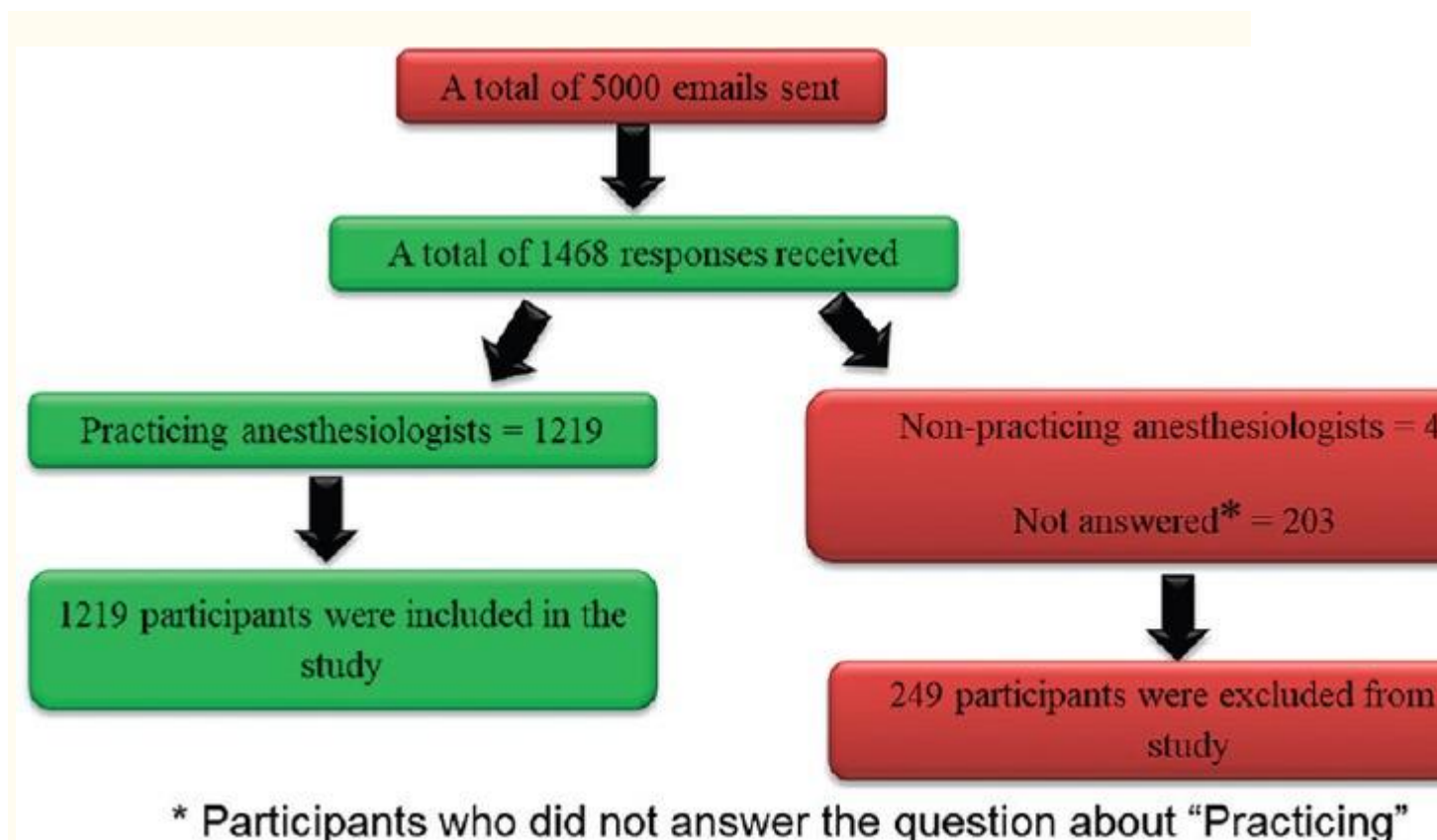
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RESULTS

Out of 5000 anesthesiologists, a total of 1468 people responded (response rate = 29.36%). Among them, practicing anesthesiologists in India are 1219 [Figure 1]. People who are not practicing and who did not respond to E-mail were excluded from the study. Demographically, a maximum number of anesthesiologists (53.72%) were 25–40 years of age group and 70.52% were male [Figure [Figure2a2a and andb].b]. Majority of anesthesiologists (47.73%) deliver their services in other specialties of anesthesia than just working as general anesthesiologist [Figure 3]. Job-related questions [Table 2] revealed that 80.87% of anesthesiologists were satisfied with the job and a maximum number of anesthesiologists (41.71%) are working in institution alone. A greater part of salary or the case-to-case basis payment is decided by institution or corporate hospitals (71.53%). Majority of the anesthesiologists (58.81%) are not satisfied with the salary/payments what they are receiving. About 52.06% of anesthesiologists work for >8 h in a day. The stress [Table 3] related questions revealed that majority of participants (83.21%) perceive that stress is highest among anesthesiologists when compared to other medical professions. The level of stress is felt severe by 48.93% with average weighted score of 7.29 out of 10. Majority of anesthesiologists (84.6%) feel that stress will be minimized in the presence of another anesthesiologist while managing the case. This reduction was felt by maximum people (68.26%) and to the extent of mild level with an average weighted score of 3.7 out of 10. Around 68.6% anesthesiologists feel that stress does affect the family life on day-to-day basis. Various methods are practiced to minimize the stress [Figure 4], but among them, most common method is by spending time with family (64.21%). When questioned about exercise pattern [Table 4], results showed that 40.63% of anesthesiologists do physical exercise whenever free, but unfortunately, around 20.31% do not exercise at all. The most common (28.83%) exercise adopted among the

given options was jogging. Almost 36.24% of anesthesiologists practice a different type of exercise technique other than the listed. Around 58.4% anesthesiologists spend time between 20 and 60 min in each exercise session while 7.51% spend >1 h. Nearly 68.05% anesthesiologists do not suffer with any major medical illness listed in the questions. Most common and least common medical disorders are hypertension (14.48%) and stroke (0.08%), respectively [Figure 5]. Furthermore, 6.16% of participants suffer more than one medical disorder. About 92.19% of the participants feel that every year, their anesthesiologist should undergo general health checkup irrespective of age. Almost all anesthesiologists spend time with family and go on holiday trip every year. Maximum people spend 5–10 days in a year (37.02%) while only 3.05% spend >30 days in a year.



[Figure 1](#)

The response and samples

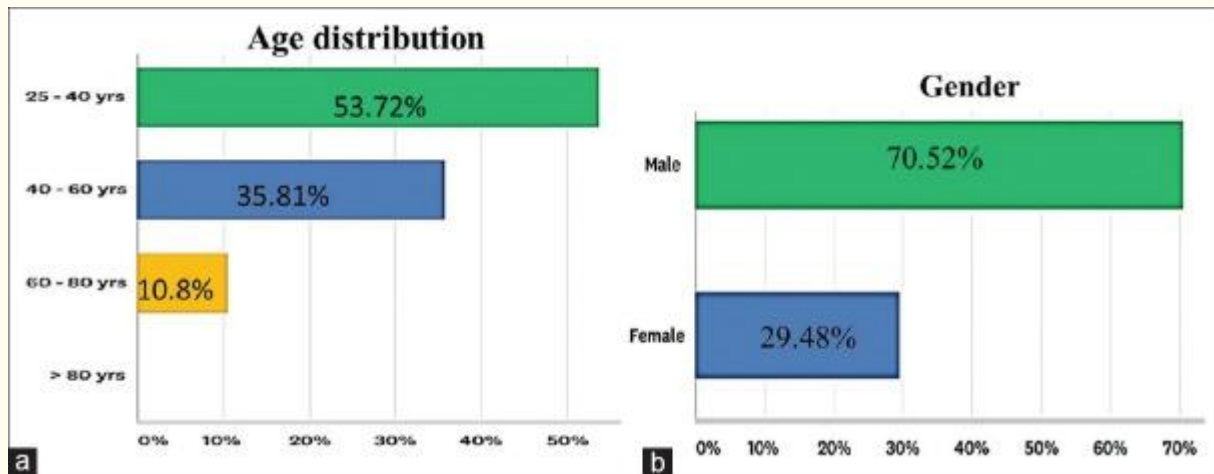


Figure 2
 (a) age and (b) gender distribution

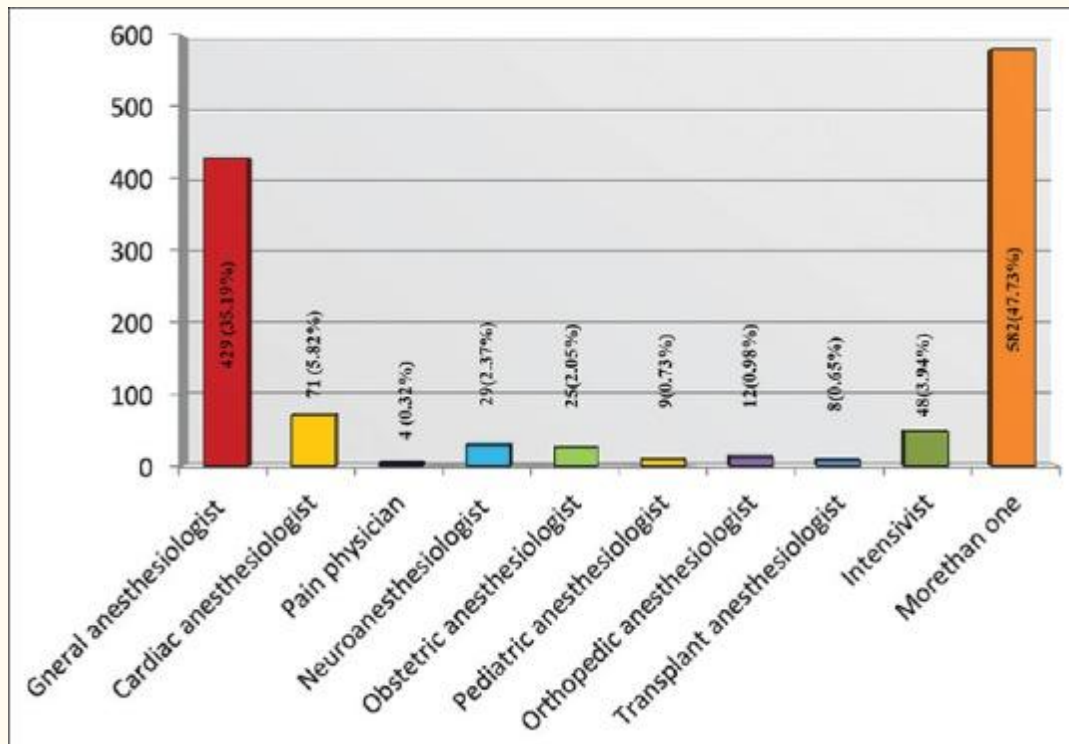


Figure 3
 Professional role in routine days

Table 2

Job-related queries

Parameter	Category	Total, <i>n</i> (%)	Skipped
Level of satisfaction as being anesthesiologist	Satisfied	981 (80.87)	6
	Not satisfied	232 (19.13)	
Type of practice	Institution alone	506 (41.71)	6
	Private practice (freelancing alone)	181 (14.71)	
	Both institutional and private practice	313 (25.80)	
	Exclusively corporate practice	213 (17.56)	
Decision on salary/payments	Institution or corporate hospitals	867 (71.53)	7
	Local anesthesiologist	91 (7.51)	
	Attending surgeon	157 (12.95)	
Salary satisfaction	Self-decision	97 (8)	5
	Satisfied	500 (41.19)	
Average number of working hours per day excluding public holidays	Not satisfied	714 (58.81)	7
	>8 h per day	631 (52.06)	
	5-8 h per day	514 (42.41)	
	<5 h per day	67 (5.53)	

Table 3

The stress-related factors

Parameter	Category	Total, <i>n</i> (%)	Skipped
Perception of high level of stress among anesthesiologist	Accepted	1011 (83.21)	4
	Not accepted	204 (16.79)	
Level of stress (average weighted score=7.29 out of 10)	Mild	35 (3.11)	93
	Moderate	540 (47.96)	
	Severe	551 (48.93)	
Feeling of reduction in stress due to the presence of another anesthesiologist	Reduces	1016 (84.60)	18
	Doesn't reduce	185 (15.40)	
Level of stress reduction (average weighted score=3.70 out of 10)	Reduced to minimal	308 (28.84)	151
	Reduced to mild	729 (68.26)	
	Reduced to moderate	31 (2.9)	
Stress affects family life	Yes	828 (68.60)	12
	No	379 (31.40)	

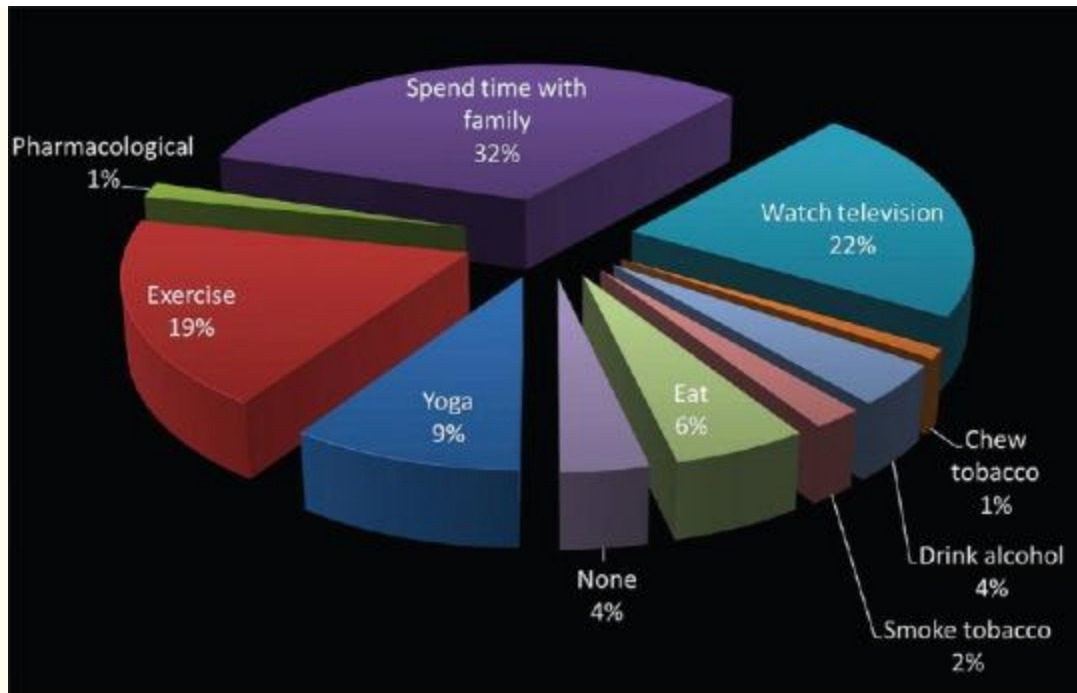


Figure 4

Stress reduction methods

Table 4

Exercise pattern

Parameter	Category	Total, <i>n</i> (%)	Skipped
Physical exercise pattern	Daily	270 (22.20)	3
	Alternate day	122 (10.03)	
	Whenever free	494 (40.63)	
	Twice in a week	83 (6.83)	
	No at all	247 (20.31)	
Type of exercise	Jogging	288 (28.83)	20
	Gym	186 (18.62)	
	Cycling	79 (7.91)	
	Swimming	28 (2.80)	
	Sports	56 (5.61)	
	Others	362 (36.24)	
	Time spent in each exercise session	<20 min	
20 min-1 h		591 (58.4)	
>1 h		76 (7.51)	

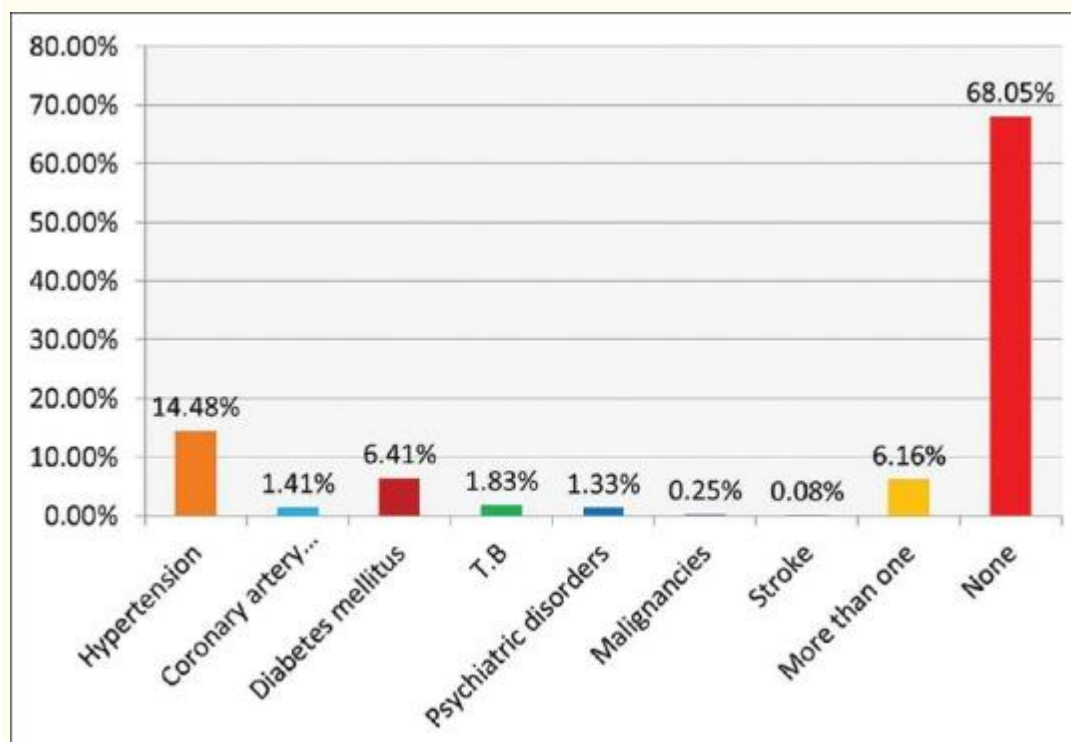


Figure 5

Suffering with medical disorders by the anesthesiologists

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DISCUSSION

Anesthesiologist plays an important role in both elective and emergency situations. In our study, we found that young anesthesiologists are major contributor for the profession (53.72%). Even in extremes of age, i.e. between 60 and 80 years, around 10.47% anesthesiologists are still in practice. A study conducted by Baxter *et al.* showed similar results, i.e., 22% were between 55 and 64 years, 7% were between 65 and 74 years, and 3% were over 74 years.[8] No single practicing anesthesiologist was observed who is aged >80 years.

The gender distribution among the practicing anesthesiologist 70.52% were males and 29.48% were females. Opposite results were observed in another study where female anesthesiologists were highest (57.4%).[9] This may be due to, the previous study was restricted to southern part of India while our survey covers entire India. Around eight members did not answer this question. There could have been improved response with the inclusion of transgender as one of the option. Majority of anesthesiologists (41.71%) are involved solely in institutional practice and around 14.92% are freelancers alone. Around 25.80% are doing both freelancing and private practice. These results are in agreement with the study conducted by Bakshi *et al.*, where the author reported that around 43% were faculty in institution and 25% were in freelance practice.[1]

Around 52.06% of anesthesiologists agreed that average working hours/day excluding public holidays is >8 h whereas about 42.41% reported that it is between 5 and 8 h. Only 5.53% of anesthesiologists agreed that they are practicing <5 h in a day. The reasons may be higher percentage of young anesthesiologists are observed in this study. The young anesthesiologists spend more time for performing duties which may be due to compulsion or desire to achieve financial stability early. Chances of human error and clouded impaired decision making may increase with sleep deprivation secondary to prolonged working hours. The doctors pull 36 h or 24 h duty in most of the Indian hospitals, while

in western countries, a day off after such duty is practiced.[10] Even in aviation industry, the maximum working hours and mandatory rest period have been considered with stringent rules.[11]

Various subspecialties in both surgery and anesthesia have developed recently. A higher percentage (47.73%) of anesthesiologists are playing more than one role in day-to-day practice. Again, this may be due to insufficient number of trained anesthesiologists in India. The level of stress may rise when multiple tasks are performed by single anesthesiologist.

The professional satisfaction is very important for contribution in day-to-day work. We report that 19.13% of participated anesthesiologists are dissatisfied being anesthesiologist. Recently, in a similar study conducted among anesthesiologists in Poland, around 28.61% of anesthesiologists dissatisfied with the job. Various reasons are increased workload, administrative burden, insufficient payment, personal rewards, and professional relations.[12]

Majority of anesthesiologists (71.53%) avow that institution or corporate hospitals decide salary scale. The local organizations are taking initiative in decision of payment (7.51%). Barely 8% of anesthesiologists decide charges of anesthesia independently while 12.95% are dependent on surgeon's decision. Anesthesiologists in India have not been able to get out of the shadows of surgeons. Frequently, remunerations for anesthesia services are linked to surgical fees, but there is a need of delinking this from surgical fee as it is clear that administration of anesthesia is not dependent on surgical process.[13]

Around 58.81% expressed displeasure toward salary or payments. Based on previous data, average salary for an anesthesiologist in India is less by 20 times in collation with anesthesiologists practicing in the USA.[13]

Among the participants, 31.95% of anesthesiologists delineated that they are suffering or suffered with communicable or noncommunicable diseases. Of the noncommunicable diseases, hypertension (14.48%) and

diabetes (6.41%) are reported as the two common problems respectively. Around 6.16% were suffering or suffered with more than one disease listed in the questionnaire. There is always a constant threat of acquiring infection while performing various procedures such as laryngoscopy, intubation, and Ryle's tube insertion.[14]

As many as 83.21% of anesthesiologists feel that stress faced is highest in collation with other medical profession. The weighted average score was 7.29 out of 10. This may be due to multifactorial causes such as poor hospital infrastructure, lack of critical care back up, poor payment scales, and increase in workload and can be due to challenging cases. Interestingly, 84.60% of anesthesiologists feel that stress level diminishes if another qualified anesthesiologist is present while managing cases; also, average weighted score dropped to 3.70 in such scenario.

In this survey, we discern that stress affected family life and quality of living among anesthesiologists (68.60%). Stress can have both positive and negative impact. During residency and early phase of carrier, stress always helps to gain confidence if a critical situation is managed well. On the other hand, negative impact of stress may lead to physical, mental, and emotional problems.

One should perceive negative impact of stress and adopt lifestyle changes to reduce its impact. Around 64.21% spend time with family to vanquish stress while others practice meditation/yoga, exercise, watch television, and by eating. Yoga is effective in preventing and managing stress only if it is practiced regularly and correctly.[15] The researchers have found that overeating behaviors to overcome stress may lead to obesity.[16] Certain unhealthy habits such as smoking, tobacco chewing, and alcohol consumption are also practiced by anesthesiologists. It has been found that tobacco use does not alleviate stress but actually increases its need.[17] Alcohol consumption rate is highest among anesthesiologist and again it has certain side effects. Another 3.06% of anesthesiologists practice pharmacological methods to overcome stress,

but this is not advisable for long term due to chances of addiction or dependency.

Only 22.2% of anesthesiologists exercise daily and 40.63% whenever they feel free respectively. Unfortunately, 20.31% of anesthesiologists do not exercise at all. There are various types of exercises, but among those which were listed, the most commonly practiced one is jogging (28.83%) while 36.24% of people practice different kind of exercise (36.24%) which is not listed. The duration spent for each exercise session by 58.40% of anesthesiologists is 20–60 min while only 7.51% do it for >1 h and 34.09% people spend >20 min. This variation may be due to type and duration of exercise is not completely understood. The American Heart Association guidelines state that type and duration of exercise has role in preventing certain types of cardiovascular diseases. For overall cardiovascular health, one should exercise at least 30 min of moderate-intensity aerobic activity, at least 5 days in a week a total of 150 min, or at least 25 min of vigorous aerobic activity at least 3 days/week for a total of 75 min or combination of two and moderate-to-high intensity muscle stretching activity at least 2 days/week for additional health benefits. For lowering blood pressure and cholesterol, one should practice an average of 40 min moderate-to-vigorous intensity aerobic activity 3 or 4 days/week.[18]

Regular holiday trips with the family reduce the stress and improve the community participation and social relations. Among the participants, only 3.05% were going for holiday trips of >30 days in a year. Around 37% of the participants are considering 5–10 days in a year for the family outing. Some of the reasons why anesthesiologists may not be taking vacations may be a discontinuity in practice leading to financial loss. A similar study conducted in Rukewe *et al.* in Nigeria showed that a higher percentage (45.7%) of anesthesiologists have not gone on vacation for a year.[2] There are no set guidelines to say, how many days anesthesiologist should take off from duty unlike paraclinical and clinical departments for the concern of occupational hazard. There is a need to bring awareness among anesthesiologists about the vacation

which may help in reducing stress, and thus, improvement in performance is observed.

About 92.19% of anesthesiologists are in agreement with mandatory general health checkup once in a year irrespective of age. Due to stress, increase in incidence of cardiovascular problems, especially myocardial infarction, in young Indians is seen.[19] Anesthesiologists are not only exposed to the stress but also to various inhalational drugs. There are no data suggestive that how many hospitals have adopted scavenging system in India to prevent theater pollution. The nitrous oxide itself can affect neuropsychological performance leading to generalized symptoms, peripheral neuropathy, and medullary depression.[20] Anesthesiologists are routinely exposed to high noise levels which may lead to stress, sleep disorder, respiratory, behavioral, endocrine, and neurological problems.[21] Thus, it is an essential thing to have a yearly general health checkup for anesthesiologists irrespective of age.

Limitations of the study

Experience of anesthesiologist, subspecialty of respondent, and type of the hospital where they practice were not correlated with stress levels. Average monthly earning, hospital infrastructure, number of anesthesiologists working in the same hospital and availability of postgraduate students, and number and type of cases handled are not studied.

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CONCLUSION

This study divulges working pattern, job satisfaction, level of stress faced, methods to alleviate stress, and quality of life of anesthesiologists in India. A balanced family and professional life with proper utilization of leisure will reduce the stress. Indian anesthesiologist association and government together should formulate guidelines related to working pattern, minimum operation theater, and case-based remittance along

provision for a yearly off from work. Measures such as yearly health check will help to detect medical conditions early.

Financial support and sponsorship

This study was financially supported by Research Directorate, Pravara Institute of Medical Sciences, Loni (Bk), Maharashtra, India.

Conflicts of interest

There are no conflicts of interest.

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