

## Job satisfaction in Pakistani anesthesiologists

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### ABSTRACT

**AIMS:** The purpose of this study is to provide empirically-based evidence about Pakistani anesthesiologists' job satisfaction, upon which recommendations can be made to physicians, managers, and policy makers.

**Type of study:** A questionnaire based, cross-sectional study.

**Place & Duration:** Islamabad; July 2008-January 2010.

**Methodology:** A questionnaire was designed so as to accumulate evidence about the level of JS, mailed by post to known addresses of all anesthesiologists across the country and was also e-mailed to anesthesiologists via direct e-mailing. All heads of anesthesiology departments of major hospitals were requested to get the questionnaire filled by all the anesthesiologists in their departments.

**Results:** A total of 40 responses were received. Mean age of the respondents was 41.77 years (SD = 10.39) with a range of 27-69 years. Among the respondents, 21(52.5%) were higher diploma holders, 12(30%) were lower diploma holders and 7(17.5%) were postgraduate trainees. The respondents ranged from a professor to PG trainees, including 6(15%) senior anesthesiologists, 27(67.5%) junior anesthesiologists and 7(17.5%) PG trainees. Anesthesiology was the first choice specialty of 19(47.5%). 13 (32.5%) of the respondents repented at some point after joining the specialty. 50% of anesthesiologists were fully satisfied with their job, the great majority of senior consultants were satisfied as compared to juniors 12 (63%) vs. 8(38%). 20(50%) of the respondents were satisfied with the working conditions in the operating rooms. Only 5(12.5%) of the respondents were satisfied with anesthesia fee paid to them as compared to 35 (87.5%), who were not. 36(90%) including a majority of PG trainees (71%) opined that the anesthesia fee should be based on ASA physical status of the patients. 35(87.5%) of the respondents expressed their dissatisfaction about the public awareness about their role in the operating rooms and the healthcare system. The rating of public awareness about their role in operating rooms, intensive care, pain management and resuscitation was  $3.52 \pm .28$ ,  $2.92 \pm .26$ ,  $2.18 \pm .25$  and  $2.88 \pm .37$  respectively on a scale of 1-10. Various measures suggested to improve it included pre-anesthetic rounds (25%) and media talks (37.5%). Others favoured public awareness meetings, television programs + writing article in newspapers and proper legislation etc. 33(82.5%) suggested that PSA could play a role in improving public perception.

**Conclusion:** We conclude that JS in anesthesiologists in Pakistan is low and correlates with low anesthesia fee as well as low public awareness about the vital role played by them in the patient care in the operating rooms as well as other fields e.g. in intensive care setting, pain management and resuscitation. JS can be improved with more attention to improving working conditions, improving fee structure and public awareness about the specialty and the players in this specialty.

**Key words:** Anaesthetists; Job satisfaction; Working conditions

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## INTRODUCTION

Job satisfaction (JS) has been defined as a multidimensional construct and a product of the global evaluation of one's workplace and context<sup>1</sup>. On the one hand, JS is viewed as a dependent variable that varies with a lot of factors including the quality of working conditions, sense of achievement, pay structure, quality of life and with many stressors.

Anesthesiology is a highly demanding job and is highly regarded in the developed world; but in most of the third world countries like Pakistan, it has just started to be recognized as a medical specialty in its own right. Not much has been investigated about JS levels in many different segments of the working classes in this country and medical profession is no exception. A low level of JS definitely affects performance level and in the medical profession a dissatisfied physician cannot be expected to show the same clinical acumen and the level of care, which a more satisfied one will exhibit.<sup>2,3</sup>

Anesthesiologists are no exception, and a number of studies have been carried out to find out their level of JS and the associated factors in different countries<sup>4-10</sup>.

The research object of this study was a 'way of understanding', how anesthesiologists in Pakistan think about their specialty and create meaning about their work.

## METHODOLOGY

We conducted this cross-sectional study during July 2008-January 2010. A questionnaire was designed so as to accumulate evidence about the level of JS, to ascertain any association with professional income and public awareness, and to draw credible recommendations. There were 15 questions in total, out of which first six plus the 14th question had to be answered in either yes or no, the seventh offered three choices as an answer to the question 'In your opinion how anesthetists' fee should be judged?', and the 12th question offered four options to choose from. Question No. 8-11 asked to rate the public awareness about the role of anesthesiologists in four branches of anesthesiology on a scale of 1-10.

The questionnaire was mailed by post to all recipients included in the mailing list of 'Anaesthesia, Pain & Intensive Care' journal across the country and was also e-mailed to anesthesiologists via direct e-mailing. All heads of anesthesiology departments of major hospitals were requested to get the questionnaire filled by all the

anesthesiologists in their departments. A total of 40 responses were received during the study period; out of which 23 anesthesiologists answered the questionnaire by e-mail and 17 replies were received by post. The responses received after January 2010 were not included in the study.

### Statistical analysis:

Data was analyzed using SPSS version 15. Descriptive statistics were used to describe the data i.e. mean and standard error (S.E.) for quantitative variables while frequency and percentage for qualitative variables. Chi-square test was used to compare qualitative variables while quantitative variables were compared using analysis of variance (ANOVA). P-value < 0.05 was considered as significant.

## RESULTS

A total of 40 responses were received. Mean age of the respondents was 41.77 years (SD = 10.39) with a range of 27-69 years. Among the respondents, 21(52.5%) were higher diploma holders, 12(30%) were lower diploma holders and 7(17.5%) were postgraduate trainees. The respondents ranged from a professor to PG trainees, including 6(15%) senior anesthesiologists, 27(67.5%) junior anesthesiologists and 7(17.5%) PG trainees. One (2.5%) of the lower diploma holders was appointed as WMO while 2 were appointed on administrative posts, one as a director and one as Deputy Assistant Director of Medical Services (DADMS).

### Choice of specialty & job satisfaction:

Almost half of the anesthesiologists i.e. 19 (47.5%) joined this specialty as being their first choice. Half of the senior and junior anesthesiologists chose it as their first option, but surprisingly the majority (71.4%) of PG trainees had the other options and joined anesthesiology after they failed to enter the specialty of their choice.

A total of 13(32.5%) respondents repented at some point after joining the specialty, the frequency was highest in senior anesthesiologists. The anesthesiologists, who joined specialty as their first choice, were the least to repent (Table-1)

Exactly fifty percent anesthesiologists were fully satisfied with their job conditions. Highest frequency was observed in senior anesthesiologists while only one PG trainee was satisfied with his job conditions.

Twenty (50%) respondents were satisfied with their working conditions in the operating rooms. All the senior anesthesiologists and majority of junior anesthesiologists and PG trainees find it unsatisfactory and felt the need of improvement (Table-1)

### Link to payments:

The pay scales of employed anesthesiologists are equivalent to specialists from other fields in comparative grades; the difference that exists is in fee payment for private patients, whether it is a hospital based practice or a private clinic based one. Majority (87.5%) of anesthesiologists and PG trainees were not satisfied with the anesthesia fee paid to them. A majority of respondents [30(75%)] opined that the anesthesia fee should be based on ASA physical status of the patients. Only 1 (2.5%) junior anesthesiologist opined that it should be 50% of the surgeons' fee. Nine (22.5) respondents suggested other options, including 30-75% of surgeon's fee, % of surgeon's fee +ASA status of the patient, hours of anesthesia, hours of anesthesia+odd timings, type of surgery +ASA physical status+% of surgeon's fee and type of surgery (Figure-1).

### Public perception of anesthesiology:

Majority 35 (87.5%) of the respondents felt that the public awareness about their role in the operating rooms and the healthcare system was not satisfactory. To quantify the anesthesiologists' opinion regarding public perception about their role in operating rooms, in intensive care, in

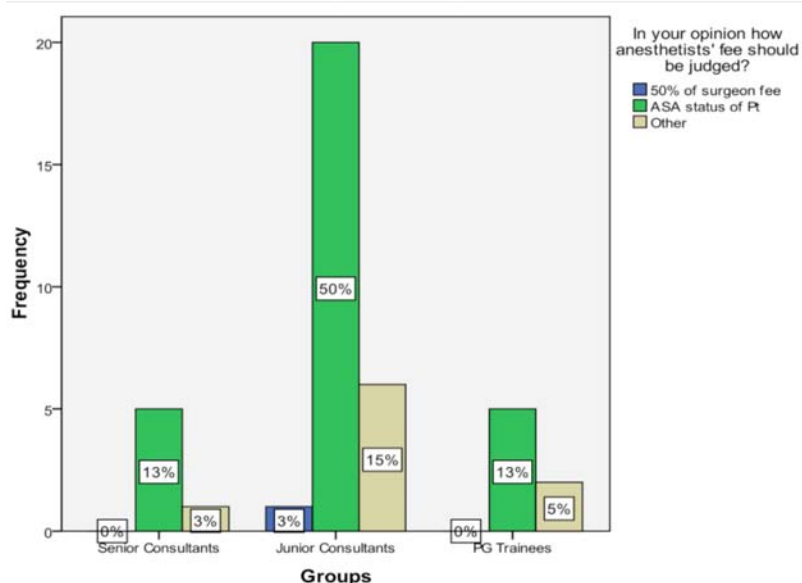


Figure 1: Comparison of Judgment of Anesthetist fee among different groups

Table-1: Comparison of choice of specialty and job satisfaction; N(%)

| Questions  | Senior Anesth (n = 6) | Junior Anesth (n = 27) | PG Trainees (n = 7) | p-value |
|--|-----------------------|------------------------|---------------------|---------|
| Anesthesia was first choice specialty                | 3 (50%)               | 14 (51.9%)             | 2 (28.6%)           | 0.542   |
| At any time repent your choice                       | 3 (50%)               | 9 (33.3%)              | 1 (14.3%)           | 0.386   |
| Satisfied with the job conditions                    | 4 (66.7%)             | 15 (55.6%)             | 1 (14.3%)           | 0.102   |
| Satisfied with working conditions in operating rooms | 2 (33.3%)             | 17 (63%)               | 2 (28.6%)           | 0.159   |
| Satisfied with the anesthesia fee paid to you        | 0 (0%)                | 5 (18.5%)              | 0 (0%)              | 0.253   |

Anesth = Anesthesiologists

Table-2: Comparison of rating of public awareness about anesthesiologists' role

| Public Awareness role in | Senior Anesth (n = 6) | Junior Anesth (n = 27) | PG Trainees (n = 7) | p-value |
|--------------------------|-----------------------|------------------------|---------------------|---------|
| Operating rooms          | 2.33 ± 0.67           | 4.04 ± 0.32            | 2.57 ± 0.65         | 0.029   |
| Intensive care           | 2.67 ± 0.96           | 3.11 ± 0.31            | 2.43 ± 0.53         | 0.590   |
| Pain management          | 2.17 ± 0.65           | 2.26 ± 0.34            | 1.86 ± 0.34         | 0.843   |
| Resuscitation            | 1.83 ± 0.40           | 2.96 ± 0.47            | 3.43 ± 1.00         | 0.447   |

Values expressed as mean ± S.E; Anesth = Anesthesiologists

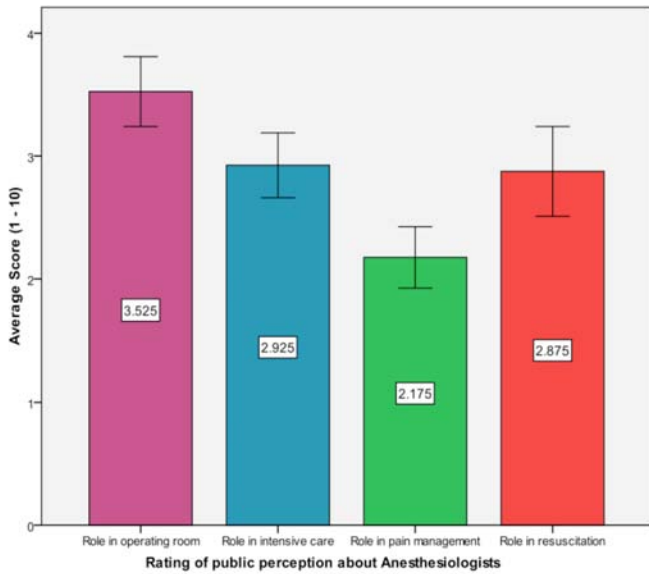


Figure 2: Description of overall score regarding public perception of role of anesthesiologists (n = 40)

pain management and in resuscitation, they were asked to judge it on a scale of 1-10. The results showed that the anesthesiologists regarded public perception about their role in all the four branches to be very low (Table-2 & Figure-2)

**Measures to improve public impression:**

To improve the public impression of anesthesiologists various measures were suggested by the respondents. Majority of them suggested through media (Electronic as well as print media) (52.5%) followed by pro-op rounds (27.5%). Others favored public awareness meetings (12.5%), legislation through parliament / Pakistan Medical & Dental Council (PMDC) / Pakistan Medical Association (PMA) and/or College of Physicians & Surgeons Pakistan (CPSP) (5%) and only one (2.5%) junior respondent suggested through annual meetings of PSA. Thirty three (82.5%) thought that PSA can play a role in improving public perception about anesthesiologists. The suggested measures were, arranging public talks (45%), media (50%), national/international conferences (27.5%) and by convincing govt. for special pay scales for the anesthesiologists & making recommendation to PMDC, PMA and to local leaders (17.5%).

**DISCUSSION**

A total of 40 responses were received; out of which 23 anesthesiologists answered the questionnaire by e-mail and

17 replies were received by post. The response rate can only be assumed as the exact total number of qualified anesthesiologists in this country is not known, nor all anesthesiologists could be approached due to logistic problems. A reasonable estimate is about 300 qualified anesthesiologists and about 200 PG trainees. If only qualified anesthesiologists are taken, the response rate comes to be 23%, which is far low as compared to 45-70% in similar surveys in other countries<sup>4-10</sup>.

JS has been defined as 'the sense of inner fulfillment and pride achieved when performing a particular job'. Job satisfaction occurs when an employee feels he has accomplished something having importance and value worthy of recognition; sense of joy<sup>12</sup>.

Business Encyclopedia defines it as 'a worker's sense of achievement and success'. It is generally perceived to be directly linked to productivity as well as to personal wellbeing. Job satisfaction implies doing a job one enjoys, doing it well, and being suitably rewarded for one's efforts. Job satisfaction further implies enthusiasm and happiness with one's work<sup>11</sup>.

BNET Business Dictionary defines JS as 'the sense of fulfillment and pride felt by people who enjoy their work and do it well. Various factors influence job satisfaction, and our understanding of the significance of these stems in part from Frederick Herzberg<sup>12</sup>.

JS has been defined as a multidimensional construct and a product of the global evaluation of one's workplace and context<sup>13</sup>. On the one hand, JS is viewed as a dependent variable that varies with the quality of working conditions and with other stressors. On the other hand, it is presumed to be an independent variable that determines a variety of consequences such as irregular work attendance and performance.<sup>14</sup> Job satisfaction is not the same as motivation, although it is clearly linked.

**Importance of job satisfaction:**

JS is one of the central variables in work and organizational psychology and is seen as an important indicator of working life quality.<sup>15,16</sup> Satisfaction is important. Physician satisfaction has been found to strongly correlate with patient satisfaction<sup>17</sup> and desirable patient outcomes<sup>18</sup>.

A number of research papers have reported links between satisfied physicians and patient compliance and patient satisfaction and go further to suggest that dissatisfied physicians may have riskier prescribing profiles<sup>19,20</sup>. Because

physician JS has been linked to clinical variables, better measurement might help to ameliorate conditions linked to medical disaffection, possibly improving health care<sup>21,22</sup>.

Associated with this decrease in satisfaction is a corresponding increase in perceived levels of stress, which may lead to such outcomes as burnout, mental health problems, or even suicide<sup>23</sup>. Equally important is the linkage of stress with disruption of work performance, including absenteeism, turnover, poor job performance, accidents and errors, and alcohol and drug abuse, documented in a recent review of the general stress literature<sup>24-26</sup>.

### Effects of Stress:

Lack of JS leads to continued stress for the person involved; in fact it is one of the most important stressor. Task-related stressors and social stressors at work (including personal animosities, poor social climate and conflicts arising from problems in relationship with superiors and colleagues) are considered important predictors of strain.<sup>27-32</sup> JS may act as a protective factor against the effects of stress. Ramirez et al.<sup>30</sup> showed that, although surgeons had the highest level of stress, they also demonstrated a high level of job satisfaction, thus possibly protecting them from burnout. Although the results of research on JS are frequently inconsistent, a few factors (eg autonomy, pay, task demands and organizational policies) are known to have a significant effect on job satisfaction.<sup>33,34</sup>

### Job satisfaction in anesthesiologists:

Hawton et al.<sup>35</sup> who reviewed death certificates in medical practitioners in England and Wales over a 16-year period. They noted that there was a higher rate of suicide in female doctors than males and that anaesthetists, along with psychiatrists, general practitioners and community health doctors, had higher suicide rates than other hospital specialities. The factors leading to JS or resulting in dissatisfaction may not be similar, but anesthesiologists are no different from other job categories regarding the effects of job dissatisfaction. Sporadic studies have been conducted to find out the ratio of JS and the burnout among anesthesiologists in various countries. Overall JS differs in some ways among these studies. A Belgian study<sup>7</sup> reported that more than 75% of anaesthetists indicated a JS score of 7 on a scale of 0-10, and a Canadian study<sup>8</sup> of anaesthetists also reported a high JS of 75%. In a study for anesthesiologists in Mexico, the overall satisfaction/dissatisfaction ratio among anesthesiologists was 59.16/40.5%. Levels of JS were found in both groups,

i.e., North (50.34%) and South (69.13%), compared to figures close to 75% in such developed countries as Belgium and Canada<sup>7,8,36</sup>

Some websites have discussed in detail the comparative JS levels among various job categories in USA, and according to them the nurse anesthetologists topped the list with a record 94.7% satisfaction rate. The average yearly income for a nurse anesthetologist is about \$150,000 a year. Anesthesiologists' scored the second position and their JS was 88% overall. With a yearly salary of nearly \$300,000 and an increasing need for more medical practitioners, anesthetologists may continue to be satisfied with their jobs for years to come.<sup>37,38</sup>

**Table 6: Job satisfaction level and median salaries of various categories in USA<sup>39</sup>**

| Category                       | Job satisfaction level | Median salary        |
|--------------------------------|------------------------|----------------------|
| Anesthesiologist               | 88%                    | \$292,000            |
| Training & Development Manager | 84%                    | \$79,000             |
| Education/Training Consultant  | 80%                    | \$77,900             |
| Creative Director              | 79%                    | \$86,900             |
| Nurse practitioners            | 79%                    | \$85,200             |
| Clergy/priests                 | 67%                    | \$18,000<br>\$32,000 |
| Firefighters                   | 57%                    | \$31,180<br>\$58,440 |
| Teachers                       | 48%                    | \$33,227             |
| Lawyers                        | 43%                    | \$110,590            |

Our study, by contrast, shows a low JS in Pakistani anesthesiologists. Roughly 50% of the respondents in our study were satisfied with their job; among these, a high ratio of PG trainees were dissatisfied, perhaps due to routine job stress associated with long working hours in this category. The response to two indirect questions 'Was anesthesia your first choice specialty?' and 'Did you ever repent your choice?' put light on this perspective from another angle. Although anesthesiology was not the first choice of almost half (53.5%) of the respondents, and exactly half of them were sully satisfied with job, 32.5% of them did repent their decision at some point of their professional life. Putting it in other way, it can be said that

half of the respondents are not satisfied and almost one third of all did repent their decision to join the specialty.

Kinzl and his colleagues concluded in their study that control over work had a strong effect on JS in anaesthetists, for example influence on handling tasks, time control and participation, whereas task demands and task-related problems did not have any effect. Anaesthetists in leading positions and specialists reported lower JS than did anaesthetists in non-leading positions<sup>9,40</sup>. This finding is consistent with our findings in that 12 (63%) of the senior group was satisfied as compared to 8(38%) in the junior group. Less than half 5 (48%) of this group did repent their decision to join specialty. JS was associated with better physical health and better emotional well-being.

### Causes of dissatisfaction:

Various studies have pointed out towards factors leading to dissatisfaction in anesthesiologists, including poor recognition, long hours of working, high emotional exhaustion, high levels of depersonalisation and low levels of personal achievement. In the developed countries the majority of an anesthesiologist's job may in fact be out of the operating theatre, providing services for pre-operative assessment, pain management, research, teaching and quality assurance activities<sup>5</sup>. As service providers, some clinicians are clearly frustrated at the lack of recognition and input from them into patient management. Although anesthesiologists may perceive their job as being important, there is a feeling that this is being eroded. Lack of referral by surgical colleagues, being considered as 'expenses rather than assets' were cited by many as areas of discontent. In addition, the traditional role of the anesthesiologist is being questioned, and in some areas the responsibility for airway and resuscitation skills is being devolved to emergency physicians. In some countries, e.g. New Zealand, Australia and USA, the anesthetic role is being shifted to a low level. All of these factors will eventually lead to uncertainty and dissatisfaction even in these countries<sup>5</sup>.

Although some inference was obtained from two websites<sup>38,39</sup>, in none of the research studies, the factor of low earnings of anesthesiologists in most of the countries was studied or linked to job dissatisfaction<sup>41</sup>. Our hypothesis about this reality was proved by a by a high level of dissatisfaction about low anesthesia fee in our study. There are four varieties of healthcare institutions in this country. Public sector hospitals include military and civil hospitals. Private sector hospitals are again of two varieties, e.g. larger hospitals, which are usually affiliated with private sector

medical colleges/universities, and private clinics with indoor facilities, which make bulk of all hospitals. In military hospitals, the anesthesia fee is usually allowed at a rate of 33% of the surgeon's fee. Private practice has not yet started in public sector hospitals due to some reasons and specialists go to private sector hospitals or clinics for practice. Some of the larger hospitals from the later group offer 30-40% of the surgeon's fee. But in most of the rest the fee is left at the discretion of the surgeon. It leaves the anesthesiologists on the mercy of surgeons and hospital administration. The competition to snatch whatever comes their way, leads to junior diploma holder and at times even non-qualified medical officers with little exposure to anesthesia practice, offer their services at very low rates. Surgeons are often happy to do away with quality anesthesia offered by experienced and qualified anesthesiologists as it suits their greed for money. It is not surprising that only 3(15%) of the senior group and 2(10%) of the junior group expressed their satisfaction with the anesthesia fee being paid to them.

To the question, 'In your opinion how anesthesia fee should be judged?: many different options were offered. It may be difficult and controversial to ascertain the fee based on more than one parameters, but it is worth studying in the view of wide spread dissatisfaction of the anesthesia community in this country.

The public awareness about the role of anesthesiologist was another aspect, which was explored, and yielded expected results. A vast majority [35 (87.5%)] of the anesthesiologists expressed their dissatisfaction about public awareness about their role in patient care in the operating rooms. The anesthesiologists regarded the public awareness in their role in the operating rooms, intensive care, pain management as well as resuscitation to be very low. It clearly indicates that most of the anesthesiologists view the situation to be very serious and they were particular to put up various measures to improve it.

In their opinion public awareness could be improved by media talks (41.7%), by doing preanesthetic rounds (27.8%), by using media (13.8%), through public awareness meetings (11.1%), by pursuing the parliament, Pakistan Medical & Dental Council (PMDC) and/or Pakistan Medical Association (PMA) to formulate rules and regulations, by achieving higher qualifications from abroad (2.8%) and by arranging regular meetings of Pakistan Society of Anesthesiologists (PSA). They seemed to be quite optimistic about PSA's role [33(82.5%)] in this regard and suggested

various measures to be taken by the society. 33(82.5%) answered in affirmative.

In countries like Pakistan, where literacy rate is down to earth, it is not surprising that only a minority of population knows anything about anesthesia or the role of anesthesiologists in patient care. Their services after a successful and uneventful recovery are not acknowledged. The respondents held PSA in high esteem and wished it to play a more proactive role in creating public awareness by adopting various means and ways. Although national and international conferences and various workshops are periodically being arranged, but there have been little exposure to general public through media. This important aspect needs to be addressed by PSA Centre as well as zonal head offices. Regarding special pay scales to anesthesiologists, Punjab government has recently announced a special allowance to all anesthesiologists serving in that province, although it may not be enough if compared to collective earnings of their contemporaries in other specialties. Other provincial governments must follow the suit. Again PSA needs to better organize itself. Regular and fair elections will be a proof of her grooming as an organized and a practical body.

A fair number of respondents (27.5%) thought that an exposure and direct interaction of the patient to the anesthesiologist during preanesthetic ward rounds or in the preanesthesia clinic can improve the public awareness.

#### Limitations of the study:

There are a number of limitations and shortcomings in the study. First, the number of participants was small, although representation was made from all over the country and from all segments of the specialty. Second, the decision to include PG trainees may be a controversial one, as on the one hand, it offered us an opportunity to include their representative views in the study, but on the other hand it may not be acceptable to all due to limited exposure of this class to the cons and pros of the specialty, thus producing a bias in the study. Perhaps it would be a better approach to conduct a separate study among them, and we invite our readers to do the needful. Third, most of the anesthesiologists in military service do not hold a teaching appointment, as they have their own system. But some junior diploma holders are still holding consultant status and/or senior level teaching appointments by virtue of their experience, service structure or lack of higher qualified

anesthesiologists. Fourth, our study just elaborated anesthesiologists' perception about public awareness of their role in different branches of the specialty. It will be more meaningful if independent studies based upon surveys are conducted from different segments of the society.

Still, it is hoped that the study will be able to create an interest in this field and provoke many new studies.

## RECOMMENDATIONS

Based upon analysis of the results of this study, following recommendations can be drawn;

- A collective approach is required to address the high level of job dissatisfaction amongst anesthesiologists. Unless this matter is addressed more meaningfully, low induction in the specialty and exodus of the trained anesthesiologists will adversely affect the healthcare of the people.
- PSA can and must organize itself at all levels and play a proactive role in persuading higher authorities at federal as well as provincial levels for proper legislation regarding the special allowances as well as practice regulations. It must act as the main body for formulating practice guidelines and directives.
- Public awareness must be on a high priority of PSA and liberal liaison with all segments of media be made to enhance the image.
- Preanesthesia clinics should be incorporated in every hospital, where surgery is intended to be conducted.

## CONCLUSION

Our results suggest that the level of JS in anesthesiologists correlates with low anesthesia fee as well as low public awareness about the vital role played by them in the patient care in the operating rooms as well as other fields e.g. in intensive care setting, pain management and resuscitation. To improve JS, more attention should be paid to improving working conditions, improving fee structure and coordinated efforts to improve public awareness about the specialty and the players in this specialty.

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