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Brief Communication

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Working at a dedicated hospital for respiratory diseases from the perspective of an anesthesiologist

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Abstract:

Despite subsequent improvements at the last eighty years, thoracic surgery is still ranked at top spots by means of mortality and morbidity on the occasion of dealing with high risk patients mostly. This fact legitimates the stress and anxiety of anesthesiologists employed in high-volume thoracic surgery centers. To evaluate the level of satisfaction and determine major concerns, a survey was formed and sent to 30 anesthesiologists working at four major centers dedicated to respiratory diseases. 19 Replies were received and the collected data was shared. Degree of expertise and how it had been gained, quantity of night shifts, measures of personal relationships, availability of certain diagnostic and therapeutic tools, contribution to research activities and eventually level of satisfaction at all was questioned and ratings were noted. The level of acceptable satisfaction was determined to be 68.4%. Major concerns were seemed to be excess of night shifts; inability to use certain modalities like ecmo, ila, picco, ultrasound and video laryngoscopy; inadequate participation at research acts, and unfavorable inter-disciplinary relationships. Participants specified basic potential improvements to overcome these adversities as taking place in scientific activities and publishing process more frequently(38.8%) And regulating personal relationships (36.8%). Concisely, by taking concrete steps for solving these issues, a favorable work environment can be consituted. It is mandatory to emphasize that reciprocal acts of both anesthesists and respiratory disease specialists will certainly help promoting not only the institutions but also the quality of health service.

Keywords:

Anesthesia department, anesthetists, thoracic surgical procedures

Introduction

At the early 20th century, general anesthesia was established with ether or chloroform inhalation – during spontaneous respiration – in patients whose thoracic integrity was preserved. Once, thoracic cavity was explored, collapse of the relevant lung, and contralateral shift of mediastinum had been immediately observed. This led to subsequent tachypnea and cyanosis. This instance was resulting in remarkable time constraint and had remained as a major adversity until direct laryngoscopy, cuffed endotracheal tubes and ultimately, selective controlled positive airway ventilation became available. Eventually, single pulmonary ventilation was properly performed right after neuromuscular blocking agents had been introduced to thoracic surgery in 1947. In conjunction with routine utilization of intraoperative mechanic ventilation in 60s, a significant reduction in the mortality rates of thoracic surgery was identified.[1]

Despite these improvements, thoracic surgery is still ranked at top spots by means of mortality and morbidity on the occasion of dealing with high-risk patients mostly.

Responsibility of providing safety of the patient and the procedure, coping with

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challenging medical conditions, demanding interpersonal relationships with peers and other stuff, work overload, restriction of social interactions, medicolegal concerns, and time constraints are the major stressor factors of an anesthesiologist.[2-4] According to the results of a survey published from India, 81% of anesthesiologists rated their level of stress as moderate to high.[2] In addition to that, heavy stress exposure is a major determinant of job dissatisfaction.[3] One can appreciate that, heavy stress is an ordinary situation for thoracic anesthesia.

Burnout is the most dreaded form of this deterioration which was defined by Maslach as emotional exhaustion arising as a result of stress caused by interpersonal interaction.[5] In a survey-based study involving Lithuanian cardiac surgeons and anesthesiologists, the latter were more likely to report burnout (66.7%) and control issues, unstable professional relationships, and work overload were established as major risk factors.[6] Perceived stress and frequency of burnout were also investigated in Turkish anesthesiology trainees, and age was found to be negatively correlated with them.[7] In several other studies, the age was not associated with level of stress or job satisfaction.[2,3,8]

Speaking of satisfaction, what are the actual determinants for thoracic anesthesiologists? Can intensive working schedules, preoperative preparation of already highly morbid patients, challenging recovery process singly affect this instance or are there any unidentified parameters? To answer these questions, a survey was formed and sent to 30 anesthesiologists working at four high volume centers dedicated to respiratory diseases Appendix 1. Here is reported the data obtained from 19 replies.

First of the questions was about expertise of the physicians on their main and subspecialties. 42.1% of them were in their first 5 years of their career, whereas 15.8% had been working for 5–10 and 42.1% over 10 years' period. About 63.2% of the physicians stated that they could not sufficiently practice on thoracic anesthesia during their training and improved their knowledge and skills at their current institutions. Three-fourth were working at night shifts 4–6 times a month; while 5% were 1–3 and the rest were none–except working on call-so.

Another query was addressing interdisciplinary personal relationships. Various definitions were rated as follows: relationship based on mutual interests, 36.8%; democratical, 15.8%; distant, 42.1%; bureaucratical, 5.2%; manipulative, 10.5%; disproportionate, 10.5%; academically noncollaborative, 42.1%; and academically collaborative, 0%. In the U.S survey, working with respected peers were designated as a predictor of satisfaction.[9] In another, only 55% of anesthesiologists were satisfied about the assistance they received in the operating room. About 45% of the anesthesiologists involved in this survey felt highly regarded by surgeons. Moreover, only half of the surgeons were asking for permission to start the case and thanking to his/her colleague at the end.[8]

One of the most significant factors effecting job satisfaction aside from frequency of night shifts, financial income, variability of working areas, and personal relationships is access to multiple diagnostic and interventional modalities. Regarding this fact, participants were questioned about their status: While fiberoptic bronchoscopy was almost invariably available; utilization of ILA (Interventional Lung Assist), Pulse Index Continuous Cardiac Output (PICCO), video laryngoscopy, and ultrasound was quite restricted [Figure 1].

Aside from these, availability of in-house meetings with the content of research activities was 63.1% and only 15.6% of them were considered to be favorable by the participants. The most beneficial feature of these meetings was designated as developing the team spirit (31.6%).

After these questions, their level of job satisfaction in general terms was asked to participants. The answers were illustrated in Figure 2. Theoratically, two main factors were identified to influence level of satisfaction: Intrinsic motivating factors (such as recognition, responsibility, and accomplishment) and extrinsic-hygiene factors (such as salary, environment, and job security).[3] In our survey, the incidence of acceptable satisfaction was found to be 68,4% and this rate was slightly lower than previous reports.[2,3,8]

"Do you have any ideas for enhancing your efficiency?" was another question and 63.2% replied positively.

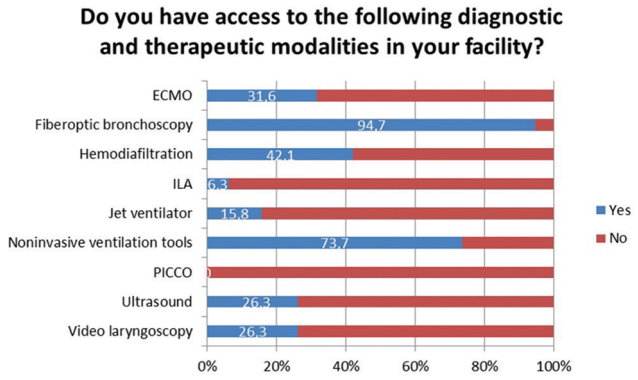

Figure 1: Graphic demonstrating modalities which can be accessed by anesthesiologists at their institutions. ECMO: Extracorporeal membrane oxygenator; ILA: Interventional lung assist; PICCO: Pulse index continuous cardiac output

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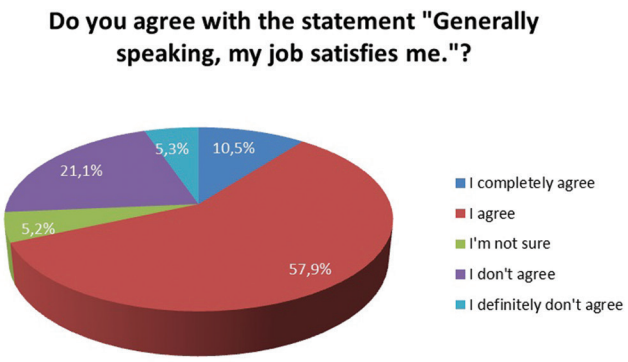

Figure 2: Graphic illustrating the level of job satisfaction

Here are the most rated ones: To participate in scientific activities and publishing process, 38.8%; regulate personal relationships, 36.8%; improve his/her knowledge and skills about anesthesia, 26.3%; ameliorate environmental conditions and technical support, 26.3%; and improving financial status, 10.5%.

Concisely, all these abovementioned issues, additively make anesthetists lose their motivation. Currently, it is an undeniable reality that, turnover of anesthesia specialists is considerably rapid in dedicated hospitals performing a huge volume of surgical procedures with high morbidity and mortality rates such as cardiovascular and thoracic interventions. However, providing permanency of physicians managing these exceptional procedures which harbor particular features and rules is crucial for the performance of the facility. This raises the necessity of taking steps to increase the motivation and satisfaction of anesthetists, taking into account that, the majority do not have the required expertise at the beginning. Giving anesthetists a chance to prove that they protect the values of local operational habits and the institution itself; sharing not only the risks, but also the spiritual and financial benefits and improving collaboration can be counted at once among these steps. Thereby, these subspecialists who shift their career to a single direction and risk the possibility of – at least partially – losing certain professional skills and habits may not feel regret about what they are doing. Finally, it is mandatory to emphasize that reciprocal acts of both anesthetists and respiratory disease specialists will certainly help promoting not only the institutions but also the quality of health service.

Limitations of the study

Obviously, main limitation of the study is the size of sample population. Although anesthesiologists capable of performing thoracic anesthesia might be much more higher than this, target population of our survey were those in working dedicated thorax centers. As far as we know, this is the first research questioning satisfaction of thoracic anesthesiologists in Turkey. Therefore, our aim was to determine the recent status and identifying common problems rather than comparing the data intinsically or extrinsically. Prospectively, several researches – in which more complex statistical analyses could be performed – might be conducted about this topic by expanding the population and stratifying the content of the survey.

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Conflicts of interest

There are no conflicts of interest.

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Appendix

Appendix 1

Survey questioning job satisfaction and working environment of thoracic anesthesiologists

1. For how long have you been working as an anesthesiologist?
   - 0–5 years
   - 6–10 years
   - 11–20 years
   - 21–30 years
   - 31–40 years.

2. Do you agree with this statement? "I gained the required expertise about thoracic anesthesia during my training."
   - Yes
   - No.

3. Please mark if you are actively participating in the following units of your institution? (You may mark more than one item)
   - Operation theatre
   - Algology clinic
   - Nutrition clinic
   - Critical care unit
   - Code blue assembly
   - Investigatory commission of circulating capitals
   - Committee of control of infectious diseases
   - Committee of transfusion of blood products
   - Chief of operation theater
   - Other (please specify).

4. How many night shifts do you have?
   - 1–3
   - 4–6
   - 7–10
   - None except working on call
   - None.

5. Do you agree with this statement? "I can easily share my problems about working conditions with my superior."
   - I completely agree
   - I agree
   - I'm not sure
   - I don't agree
   - I absolutely don't agree.

6. How frequently do you feel stressed out in your daily practice?
   - Almost always
   - Considerably commonly
   - Occasionally
   - Never.

7. Which of the following diagnostic and therapeutic tools are available at your institution? (You may mark more than one item)
   - Fiberoptic bronchoscopy
   - Video laryngoscopy
   - Ultrasound
   - Noninvasive ventilation tools
   - Jet ventilator

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- PICCO
- ECMO
- İLA
- Hemofiltration, hemodiafiltration.

8. How do you define your personal relationship with your colleagues from other disciplines? (You may mark more than one item)
   - Based on mutual interests
   - Democratical
   - Distant
   - Bureaucratical
   - Manipulative
   - Disproportionate
   - Academically collaborative
   - Academically noncollaborative.

9. Do you have regular in-house meetings at your institution?
   - Yes
   - No.

10. If your answer is "Yes" to 11th question, what do you think about the content of these meetings?
    - Academically sufficient
    - Academically nonsufficient
    - They have a positive effect on my daily practice
    - I consider them as waste of time
    - I do not think that they enhance my knowledge or cöntribute to my personal improvement
    - I think they help constructing the team spirit.

11. Do you agree with this statement? "Generally speaking, my job satisfies me"
    - I completely agree
    - I agree
    - I'm not sure
    - I don't agree
    - I absolutely don't agree.

12. Do you agree with this statement? "I am satisfied with my salary"
    - I completely agree
    - I agree
    - I'm not sure
    - I don't agree
    - I absolutely don't agree.

13. Do you have any ideas for enhancing your working efficiency?"
    - Yes
    - No.

14. If your answer is "Yes" to 13th question, what are these ideas about?
    - Improving my knowledge and skills about anesthesia practice
    - Ameliorating environmental conditions and technical support
    - Participating in scientific activities and publishing process
    - Improving financial status
    - Regulating personal relationships
    - Other (please specify).