

## Perceptions of house officers working in hospitals of Lahore about joining the field of anaesthesiology as a career

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### Abstract

**Objective:** To determine the perceptions of house officers working in hospitals about joining anaesthesiology as a career.

**Methods:** This quantitative, descriptive questionnaire-based study was carried out from September 2014 to February 2015 in 26 teaching hospitals of Lahore, Pakistan, and comprised house officers. Those with at least three months of working experience in anaesthesiology were included. They were approached in their respective departments and a validated self-reporting questionnaire was delivered to them and received back by hand. SPSS 16 was used for data analysis.

**Results:** Of the 73 house officers approached, 53(72.6%) responded; 35(66%) men and 18(33%) women. Overall, 25(47.16%) respondents refused to join anaesthesiology as a career and 27(50.94%) included it in their first three career choices. Moreover, 25(47.16%) cited 'minimal interaction with patient' as a reason for not taking anaesthesia as a career choice; 29(56.6%) of the respondents believed an anaesthetist had no or little role in surgery. Change in attitude about anaesthesiology as a specialty after having an anaesthesia rotation was mentioned by 26(49.05%) respondents.

**Conclusion:** House officers had reservations about joining anaesthesiology as a career. The findings are suggestive of a positive effect of anaesthesiology house job on house officers' attitude about the specialty.

**Keywords:** Anaesthesiology, Career, House officers, Perceptions, Hospital. (JPMA 66: 1205; 2016)

### Introduction

Shortage of manpower is a major problem in the healthcare systems of developing countries. This problem is even more alarming as far as anaesthesia is concerned. Pakistan, with a population of 192 million, has only 1,163 qualified anaesthetists (anaesthetist-to-population ratio is 1:160,000).<sup>1</sup> Choosing a career can be affected by different extrinsic and intrinsic factors.<sup>2</sup> Attitude about anaesthesiology as a career choice may be different from student to student of various regions in the world.<sup>3</sup> To study such factors, it may be important to develop future recruitment plans in a specialty which is already not a preferable choice of the medical students of developing countries.<sup>4</sup> Understanding the house officers' perceptions about various specialties can be a valuable input to the health systems leadership in order to promote such a specialty distribution which could match our population's growing needs.<sup>5</sup> Additionally, institutional care also demands the involvement of allied disciplines such as anaesthesiology.<sup>6</sup> The current study was planned to determine the perceptions of house officers working in hospitals about joining anaesthesiology as a career option.

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### Subjects and Methods

This quantitative, descriptive questionnaire-based study was carried out from September 2014 to February 2015 in 26 teaching hospitals of Lahore, Pakistan, recognised by Pakistan Medical and Dental Council (PMDC), and comprised house officers. The study was approved from institutional review board (IRB) of the University of Lahore. Informed consent was obtained from all the participants. The participation was voluntary and no harm to the participants was anticipated. They were assured that confidentiality will be observed. Total anaesthesia house officer slots in Lahore (10 public-sector and 16 private-sector teaching hospitals recognised by the PMDC) were 73 per rotation. All the slots were filled at the time of the study. House officers with at least three months of working experience in anaesthesiology were included. All Anaesthesia house officers were approached in their respective departments and a validated self-reporting-questionnaire (Annexure)<sup>7</sup> was delivered to them and answers were obtained. The questionnaire was taken with permission from the author.<sup>7</sup>

After informed consent and proper briefing, the questionnaire was distributed to the participants in their respective departments. Filled-in questionnaires were received back by hand. Responses from the participants were analysed using descriptive statistics. Independent

**Annexure**

**Data Collection Instrument**

Questionnaire for House Officers who have completed at least 3 months House Job in Anesthesiology

Form No: \_\_\_\_\_

Name (optional): \_\_\_\_\_

Age: \_\_\_\_\_ Sex: [Male] [Female]

How many months of experience you have in anesthesiology? [ ] [ ]

Name of the hospital: \_\_\_\_\_

**Career choice of House officer**

**1-What factors you think important in the list mentioned at the right to choose your career? Write your preference in the left side.**

- Preference at First      1. Reward of finances
- 2. Preference relevant to society
- Preference at Second    3. Permanent working time
- 4. Chances of teaching
- Preference at Third      5. Opportunities of research
- 6. Appreciation by society
- 7. Immediate results of treated patient
- 8. Self-satisfaction requirement
- 9. Searching job overseas

2- Will you select anesthesiology for your career specialty?

- [Yes]
- [No]
- [May be]

3- On right side a specialty list is provided. Which specialty would you choose as your career after finishing your house job? Please mention 3 Preferences at left side.

- First preference          1. Surgery
- 2. Medicine
- Second preference      3. Obstetrics
- 4. Anesthesiology
- Third preference        5. Pediatrics
- 6. Community medic
- 7. Pathology
- 8. Family medicine
- 9. Medical administration
- 10. General Practice
- 11. Radiology

4- Tick three important most reasons if you have not selected Anesthesiology from above mentioned list

- 1. Surgeon dependent specialty
- 2. Specialty has less prestige
- 3. Contact with patients is minimal
- 4. Low income in anaesthesiology
- 5. Chances of teaching are less
- 6. Chances of research being minimum
- 7. Patients do not recognize anaesthetist
- 8. Previous specialty exposure is absent
- 9. Other (give details) \_\_\_\_\_

Continue >>>

5- Following are anaesthesiology relevant questions. Elaborate answers in the given space.

- a) The specialty's clinical application is limited?  
\_\_\_\_\_
- b) In Pakistan, anaesthesiology is an established specialty?  
\_\_\_\_\_
- c) Before entering medical college, did you know that anaesthesiology was a medical specialty?  
\_\_\_\_\_
- d) Does anaesthetist play an intra-operative role equal to surgeon?  
\_\_\_\_\_
- e) Does anaesthetist play pre and post-operative role equal to surgeon?  
\_\_\_\_\_
- F) Does anaesthetist play a role of assistant for surgeon?  
\_\_\_\_\_
- g) Do patients undergoing surgery appreciate anaesthetist services?  
\_\_\_\_\_
- h) In your opinion, is medical college experience of anesthesiology is sufficient?  
\_\_\_\_\_
- i)What you think is enjoyable most part of your house job in anaesthesiology?  
\_\_\_\_\_
- j) In your opinion, what time period is ideal for house job in anaesthesiology?  
\_\_\_\_\_
- k) Is experience of anaesthesiology interesting for you? If your answer is in yes, write why?  
\_\_\_\_\_
- l) Has your attitude been changed towards specialty of anaesthesiology after house job in it?  
\_\_\_\_\_
- m) What is your opinion about your posting in anaesthesiology as house officer? Uninteresting/Very educative/enough time was not provided.  
\_\_\_\_\_
- n) What is your opinion about specialty of anaesthesiology? Only a specialty of my curriculum /Boring / important & interesting / Do not have any idea.  
\_\_\_\_\_
- o) In anaesthesiology teaching, which suggestions will you give to improve it?  
\_\_\_\_\_

variables included gender and experience in number of months spent in anaesthesiology. Dependent variables were the responses in the provided questionnaire. SPSS 16 was used for statistical analysis.

## Results

Of the 73 house officers, responses were received from 53(72.6%).Of them, 35(66%) were men and 18(33%) women. Besides, 25(47.16%) respondents refused to join anaesthesiology as a career, while 27(50.94%) included anaesthesiology in their first three career choices. Giving reasons for not joining anaesthesiology as a career choice, 25(47.16%) cited 'minimal interaction with patient' while 14(26.41%) believed the 'specialty has less prestige'

**Table-1:** Responses (%) of house officers to different questions.

Would you choose anaesthesiology as your career specialty? (%) Responses	Number of responses (%)	Yes Number (%)	No Number (%)	May be Number (%)
Males	35(66%)	11(20.75%)	15(28.30%)	9(16.98%)
Females	18(33%)	4(7.54%)	10(18.86%)	4(7.54%)
Total	53(100%)	15(28.30%)	25(47.16%)	13(24.52%)

  

Change of attitude after house job Has your attitude been changed towards specialty of anaesthesiology after house job in it?	Yes Number (%)	No Number (%)
	26(49.05%)	24(45.28%)

  

House officers who included anaesthesiology in first three career preferences(%)Responses	Number of responses (%)	First preference Number (%)	Second preference Number (%)	Third preference Number (%)
Males	20(3.77%)	8(15.09%)	4(7.54%)	8(15.09%)
Females	7(13.20%)	4(7.54%)	3(5.66%)	0(0%)
Total	27(50.94%)	12(22.64%)	7(13.20%)	8(15.09%)

  

Reasons for not considering anaesthesia as a career (%) Responses	Number of responses (%)
Contact with patient is minimal	25(47.16%)
Previous specialty exposure is absent	2(3.77%)
Patients do not recognize anaesthetist	11(20.75%)
Specialty has less prestige	14(26.41%)

  

What should be the ideal duration of anaesthesia house job?	Number of responses (%) in favour of 3 months
	34(64.15%)

**Table-2:** (%) of Responses for questions about knowledge/awareness of anaesthesia.

Questions	(%) of Number in favour
The specialty's clinical application is limited?	29(56.60%)
In Pakistan, anaesthesiology is an established specialty?	20(39.62%)
Before entering medical college, did you know that anaesthesiology was a medical specialty?	26(50.94%)
Does anaesthetist play an intra-operative role equal to surgeon?	38(73.58%)
Does anaesthetist play pre and post operative role equal to surgeon?	35(67.92%)
Does anaesthetist play a role of assistant for surgeon?	20(39.62%)
Do patients undergoing surgery appreciate anaesthetist services?	12(24.52%)
Is anaesthesia field interesting?	28(52.83%)

**Table-3:** Factors for career in the first three preferences.

Factors for choice of career (%)	Responses by males: Number (%)	Responses by females: Number (%)	Total responses: Number (%)
Reward of finances	24(45.28%)	12(22.64%)	36(67.92%)
Preference relevant to society	16(30.18%)	3(5.66%)	19(35.84%)
Permanent working time	14(26.41%)	10(18.86%)	24(45.28%)
Searching job overseas	8(15.09%)	3 (5.66%)	11(20.75%)
Chances of teaching	17(32.07%)	4(7.54%)	21(39.62%)
Immediate results of treated patient	4(7.54%)	5(9.43%)	9(16.98%)
Appreciation by society	7 (13.20%)	4(7.54%)	11(20.75%)
Self-satisfaction requirement	7 (13.20%)	10(18.86%)	17(32.07%)
Opportunities of research	7(13.20%)	3(5.66%)	10(18.86%)

(Table-1). In addition, 29(56.6%) of the respondents were of the opinion that anaesthetist had no or little role in surgery, and 12(24.52%) believed patients undergoing surgery appreciate anaesthetists' services (Table-2). Furthermore, 36(67.9%) participants considered financial reward as a factor which helped them in deciding their career choice whereas the 'immediate results of a treated patient' was considered a factor by 9(16.9%) respondents (Table-3).

## Discussion

Six countries of South Asia are included in those 57 countries which are facing human resources crisis,<sup>8</sup> which also stands true for anaesthesia services. The anaesthetist-to-population ratio in Pakistan is 1:160,000<sup>1</sup> compared to about 1:1 million in Nigeria,<sup>9</sup> both being at the lower end and facing a human resource problem. India also has shortage of anaesthesiologists. At present there are 14,900 qualified anaesthetists for an Indian population of 1.21 billion which means one specialist anaesthesiologist for every 81,208 people.<sup>10</sup> In this scenario, a medical student's career choice plays a pivotal role in healthcare delivery system of any country.<sup>11</sup> There can be academic and non-academic factors which may be associated with retention of undergraduate medical students, hence preventing their future career opportunities.<sup>12</sup> Selection of a residency programme has received scarce attention compared to the selection of specialisation choice itself.<sup>13</sup> Specialty content, patient's contact, quality of medical school's educational programme, personal factors and lifestyle are the factors associated in choosing a specialty.<sup>14</sup> People chiefly focus on various objective and subjective origins to construct their personal occupational opinion.<sup>15</sup> In order to cope specialist workforce requirements, understanding dynamics of career decisions about specialties will be critically significant.<sup>16</sup> The consolidated opinions of house officers about anaesthesiology explain perception patterns about medical specialty which are prevalent in Pakistani house officers, e.g. anaesthesiology is generally unpopular (47.16% house officers refused to join anaesthesiology as a career) among both genders. However, awareness of anaesthesia is increasing (50.94% respondents in our study included anaesthesiology in their first three career choices).

Our study provides the administrators of healthcare system with relevant information if particular aspects of a specialty's conditions of work, clinical scenario and salaries need to be considered. For example, 67.92% respondents in our study considered financial rewards as the main factor for career selection. The percentage of house officers which remained uninfluenced even after

specific rotation of house job and their career choice could not be altered was 45%, but 49% claimed a change of attitude about specialty of anaesthesia after their rotation. They mentioned giving more regard to the anaesthetists because anaesthesiology has just recently been added in the undergraduate medical curriculum.<sup>17</sup> Moreover, 34(64.15%) believed a period of three months should be the ideal duration of an anaesthesiology house job. While a significant number (52.83%) of respondents considered specialty of anaesthesiology as an interesting one, an alarming proportion (39.62%) had a negative perception about anaesthetist that he was considered an assistant to a surgeon. Such a perception that anaesthetists are looked as dispensable technicians is seen in another study.<sup>4</sup>

Students rejecting anaesthesiology have concerns about least patient contact, less prestige and less recognition by patient. Therefore, in contrast to surgeons, the image of anaesthetists require improvement to endorse the levels at which surgeons and anaesthetists work in peers.<sup>15</sup> Generally the environment of tertiary healthcare setting and the house officers' personal educational experiences in various teaching hospitals might have influenced their preferences about their career selection. In order to boost the process of providing specialist-delivered service, training numbers need to be increased.<sup>18</sup>

One limitation of our study was that our sample remained limited to house officers with three months' experience whose choices might alter after their house job training was finished. Before students ultimately decide a career, their choices usually undergo many transitions. A trend is also seen in new graduates to go abroad for better opportunities. The opportunities that are available abroad may also affect the career choice of young doctors.<sup>19</sup> This trend could result from the impact of policies run by other governments. Hence, this factor may also influence career choice perceptions.

## Conclusion

House officers had reservations about joining anaesthesiology as a career choice. The findings are suggestive of a positive effect of anaesthesiology house job on house officers' attitude about anaesthesiology. Several factors may contribute towards decisions regarding career perceptions. For a developing country like Pakistan, with shortage of anaesthesia personnel, such information is useful in strengthening individual programmes and planning for the future.

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