

Anaesthesia as a Career: Identifying Factors that Influence its Choice

NAILA ASAD, HAFIZ MAQSOOD ALI, NAUREEN AKHTAR, HAQDAD DURRANI, ARSHAD TAQI, SANA IMTIAZ, SAADIA KHALIQ.

ABSTRACT

Background: The recruitment of medical officers and residents has been low in anaesthesia that leads to shortage of anesthetists in our country. There are a number of factors that influence the decision of a student to make a choice for a career.

Aim: To identify the factors that influence the choice of anesthesia as career.

Methodology: Two hundred participants working in anesthesiology of different hospitals of Punjab were included in this questionnaire based survey. They had to select factors that influenced them to select anesthesia as career. They also had to enumerate three factors in order of importance.

Results: One hundred and eighty five questionnaires were received. 65.9% participants chose the speciality because of opportunity to do procedures that was followed by time for family and promotion prospects. The most important factors listed according to importance were diversity in clinical spectrum and promotion prospects.

Conclusion: The opportunity to learn procedures followed by promotion prospects and time for family influence selection of anaesthesia. Increasing the exposure of anesthesiology at undergraduate level can attract students to come into this specialty.

Keywords: Anaesthesia, career, influencing factors.

INTRODUCTION

Career choice is a complex decision making process¹. The preference of medical specialities chosen by medical graduates plays an important part in the distribution of human resource and quality of service in health-care system. There is no aptitude testing or counselling in our medical institutions to guide graduates choose a speciality best suited to their personality². Large number of factors such as financial, clinical diversity and family influence the selection of a specific field. Major specialities have always been an attraction to pursue as a career. Anaesthesia is unpopular among medical graduates as choice of career in developed and developing countries³. Majority of postgraduate trainees join anaesthesia as second or third option when they fail to enter the discipline of their choice⁴. The choice of anaesthesia by medical graduates in Israel is 1%, 1.4% in Ghana and 12% in USA^{5,6,7,8}. This is significantly in contrast with medical students of Australia where 17.7% intend to choose anesthesia⁷. Khan FA conducted research in a single institution of Pakistan and found sixty two percent chose anesthesia because of general interest and nature of the speciality³.

As there is shortage of anesthetists in our country, there is a need to understand the factors that influence the decision to opt a speciality. A better understanding of factors can help us in improving work force and building the department of anaesthesia in competition with other major disciplines.

The aim of this study is to conduct a cross-sectional survey amongst anesthesiologists in various hospitals of Punjab to determine factors that influenced their choice of anesthesiology as a career.

MATERIALS AND METHODS

This cross sectional survey was undertaken after clearance from the Institutional Ethical Committee. Non probability

Received on 14-04-2019

Accepted on 19-08-2019

purposive sampling technique was used in this anonymous, questionnaire-based survey.

Inclusion criteria: 200 consenting post-graduate students and consultants working in department of anesthesiology of different hospitals (Private and Public sector) in Punjab were included in the study.

Exclusion criteria: Residents and medical officers who refused to fill the questionnaire were excluded.

Data collection procedure: The data was collected from different hospitals. The questionnaire collected demographic data concerning age, gender, type of postgraduate degree that they were pursuing and the institute that they were associated with. Participants were asked to consider 16 factors that influenced them to choose anaesthesia as a career. They responded yes or no according to whether the factor had influenced them or not. These factors were taken from a previous study and modified as per local perceptions in our country.² Participants were also requested to specifically enumerate, in order of importance, the three most important factors that led to their option for this career. These could include factors not listed in the questionnaire². Responses to survey questions were analyzed in SPSS 20 using descriptive statistics and represented in percentages. For Quantitative variable such as age mean \pm sd was calculated. Qualitative variables (gender and factors) were represented in percentages and frequencies.

RESULTS

Two hundred participants were included in this survey from various hospitals. Only 185 filled questionnaires were received. Demographic data showed mean age 33.03 \pm 8.42 years and 39.5% female and 60% male (Table 1).

Factors that influenced career choice is shown in Table 2. 65.9% participants chose the field of anaesthesia because of opportunity to do procedures. Diversity in the field and promotion prospects were the first among most important factors that influenced the decision of participants (n=20) in

joining anesthesiology. 26 participants chose time for family as the second important factor while 24 chose promotion prospects as third important factor.

Table 1: Demographic Data

Mean Age in years	33.03±8.42
Number of Male participants	111/185 (60%)
Number of Female participants	73/185 (39.5%)

Table 2: Factors affecting choice of anaesthesiology as career

Factor	Students Influenced by the factor
Financial prospects	81/185 (43.8%)
Promotion prospects	108/185 (58.4%)
Opportunity to do procedures	122/185 (65.9%)
Diversity of clinical spectrum	101/185 (54.6%)
Time for family	108/185 (58.4%)
Opportunity of overseas placement	103/185 (55.7%)
Intellectual challenge	94/185 (50.8%)
Chose it by exclusion of other specialties	50/185 (27%)
Time for leisure	51/185 (27.6%)
Predictable working hours as senior resident/faculty	84/185 (45.4%)
Prestige of specialty	84/185 (45.4%)
Influence of mentor/role model	74/185 (40%)
Research potential	45/185 (24.9%)
Teaching opportunities	59/185 (31.9%)
Influence of my family	23/185 (12.4%)
Presence of doctor-patient relationship	44/185 (23.8%)

DISCUSSION

Anesthetists are versatile physicians who not only ensure stability and safety of patient but participate in a number of hospital activities ranging from the alleviation of acute and chronic pain to running ICUs, gaining specialized intravenous access and emergency management of life-threatening events. They conduct preoperative assessment, prepare and optimize patients for surgical procedures, provide postoperative care and are involved in research and postgraduate education of trainees.^{9,10}

In our survey maximum number of participants (n=122) (65.9%) were influenced by getting the opportunity to do procedures. Anaesthesia is the only speciality that gives the chance to practice all different procedures such as endotracheal intubation, insertion of central venous pressure line, insertion of arterial line, epidural and spinal anaesthesia. The other factors preferred by participants were promotion prospects and time for family (58.4%). Anaesthesiology is one of the specialities where considerable opportunities to work as consultants are available. Most of the consultant posts in Government as well as private sector hospitals are vacant due to non-availability of qualified anesthetists. Thus chances of promotion in Government Sector are earlier when compared to other major specialities like general surgery, medicine and obstetrics & gynecology. Spending time with family is another thought which has been considered important among the participants (58 males vs 49 females).

A study by Khan FA revealed influence of family in 16% of residents in her institution.³ Contrary to her findings family could only convince 12.4% in our study participants for the choice of anaesthesia. Majority were not influenced by family (87%) which could be a reflection of independence in the choice of opting a career.

Overseas job vacancies in anesthesiology are frequently advertised in our country, so opportunities to work overseas was chosen by 55.7%. The working hours in anesthesia influenced 45.5% to pursue it as career. More females (n=44) than males (n=39) preferred the speciality due to this factor as the working hours are flexible and duties can be adjusted. Although more males (111/185) responded to questionnaire we cannot represent the choice being different among genders. The data was collected from different hospitals of Punjab where male-to-female ratio is different.

When asked to enumerate the most important factor that led to choose anaesthesia; diversity of clinical spectrum and promotion prospects were rated at the top. Contrary to these results, in the study by Tyagi et al majority participants placed intellectual challenging nature of speciality to be the most important.² Ability to work in ICU and establishment of an independent pain clinic were some other factors that attracted our participants in anaesthesia. Financial and economic aspect were chosen by 40% which differs from the results of Khan FA (36%).³ This difference could be due to their participants being residents of one hospital. Factors like patient-doctor relationship, research potential and teaching opportunities did not have much impact on the participants. The importance of role models did not inspire participants (40%). Positive attitude of teachers and trainers can have an influence on interns and thus can affect recruitment in the speciality.

Few studies done in other countries reported different results. Tyagi et al found economic security as the deciding factor in 67.7% students. In comparison to 65.9% in our study who were influenced by opportunity to do procedures he found 64% students who chose anaesthesia because of this factor.² Thorat P et al in their cross-sectional survey cited enthusiasm, commitment and financial aspect to be the main reason of choosing anesthesiology by practicing anesthesiologists¹¹.

In our study, 56.2% decided to join anaesthesia after internship, 35.1% during internship and only 8.6% decided during MBBS. This low percentage in undergraduate students could be due to lack of knowledge and awareness about the subject as there are no rotations in anesthesiology of undergraduate students in most of our medical institutions. Turner in his study observed an increase in percentage of graduates choosing anesthesiology from 4.6% to 11.5% after anaesthesia, resuscitation and intensive therapy were included in the undergraduate curriculum¹².

Most studies done earlier have reported career preferences in medical undergraduates. We collected the data from different hospitals and participants had already chosen anaesthesia as career and were either working as medical officers, residents or consultants. Limitations of this study were that we did not survey the factors on Likert scale and level of job satisfaction. Future multi-centric studies with larger numbers can be done involving other provinces to compare the data.

CONCLUSION

In conclusion our survey data indicates that career selection of anaesthesia is related to the opportunity to

learn procedures followed by promotion prospects and time for family. We recommend the exposure of anaesthesia at undergraduate level which will bring awareness and attract young doctors into the field. This will help to overcome the shortage in our hospitals.

REFERENCES

1. Ayuob NN, Sindi AH and EIDeek BS. Medicine as a career choice: a cross-sectional study on undergraduate medical students at King Abdulaziz University. *Int J Res Med Sci.* 2016;4(2):593-601
2. Tyagi A, Kumar S, Sethi AK, and Dhaliwal U. Factors influencing career choice in anaesthesiology. *Indian J Anaesth* 2012; 56(4): 342–347.
3. Khan FA & Hamdani GA. Factors influencing the choice of anesthesia as a career in a developing country. *MEJ Anesth* 2007;19(1):149-57.
4. Khan TH. Job satisfaction in Pakistani anesthesiologists. *Anaesth Pain & Intensive Care* 2011;15(2):93-101.
5. AlKhilawi RM, Alatassi A, Almohawis AH, Alhumaid TA, Almazayad KA, Bustami RT. Medical students' attitude toward anesthesia as a future career. *Saudi J Anaesth* 2018;12:215
6. Orbach-Zinger S, Rosenblum R, Svetzky S, Staiman A, Eidelman LA. Attitudes to anesthesiology residency among medical students in the American and the Israel programs at Sackler Faculty of Medicine, Tel Aviv University. *Isr Med Assoc J* 2011;13:485-7.
7. Oku OO, Oku AO, Edentekhe T, Kalu Q, Edem BE. Specialty choices among graduating medical students in University of Calabar, Nigeria: implications for anesthesia practice. *Ain-Shams J Anaesthesiol* 2014;7:485-90.
8. Rahman MA, Aryee G, Essuman R, Djagbletey R, Lamptey E, Owoo C Boni F. Factors influencing the choice of anaesthesia as a field of specialty in University of Ghana School of Medicine and Dentistry, Korle-Bu Teaching Hospital. *South Afr J Anaesth Analg* 2015; 21(6):166–168.
9. Moore JN, McDiarmid AJ, Johnston PW, Cleland JA. Identifying and exploring factors influencing career choice, recruitment and retention of anaesthesia trainees in the UK. *Postgrad Med J* 2017;93:61–66.
10. Emmanouil B, Goldacre MJ and Lambert TW. Aspirations to become an anaesthetist: longitudinal study of historical trends and trajectories of UK-qualified doctors' early career choices and of factors that have influenced their choices. *BMC Anesthesiology* 2017;17:100
11. Thorat P, Shidhaye RV, Gourav G, Arun KG and Divekar DS. Career choice influences in Indian anaesthesiologists: A cross sectional survey. *SLJOL* 2012; 20.1: 43-48.
12. Turner G, Goldcare MJ, Lambert T, Sear JW. Career choices for anaesthesia: National surveys of graduates of 1974-2002 from UK medical schools. *Br J Anaesth* 2005;95:332-8.