

Choice of Subject as Carrier by Medical Students in Pakistan

Khalid Javed¹ Faiza Aamir² and Khursheed Anwar³

ABSTRACT

Objective: To find out the preference of medical students in Pakistan.

Study Design: Observational / descriptive / cross-sectional study

Place and Duration of Study: This study was conducted at Avicenna Medical College from January 2016 to March 2016.

Materials and Methods: All the 2nd year students were included in the study. They were asked to fill a self-designed questionnaire in which along the demographic details, they were to mention the field which they want to continue for specialization. Also they were to mention the reason for opting that specialty.

Results: A total of 105 students participated in the study. The mean age of participants was calculated as 21.75±3.68 years. There were 73 (69.5%) females while 32 (30.5%) male participants. The most commonly opted field was clinical sciences and among them surgery was selected by most of the participants. The most common reason for opting particular specialty was interest of the students.

Conclusion: We conclude that interest of our medical students into basic medical sciences is less than clinical sciences. We need to identify the factors and take certain measures so that more students could opt basic sciences also as their career

Key Words: Choice, Carrier, Medical students

Citation of article: Javed K, Aamir F, Anwar K. Choice of Subject as Carrier by Medical Students in Pakistan. Med Forum 2016;27(7):6-8.

INTRODUCTION

The number of medical graduates is increasing every year, like all over the world, because of new emerging medical colleges. There is a debate about the choice of new medical graduates about their career and the factors influencing their choices. Many international studies have suggested that family medicine is in high demand¹⁻³, while other studies suggest a variable response by medical students regarding their choices.⁴ Many researchers have found that exposure to a particular field during undergraduate years has a particular impact on the choice of specialty by students.^{5,6}

In Pakistan, medical graduates are free to choose specialty of their own choice but they usually have to compete for the particular specialty according to the competition in that specialty. As number of graduates is increasing so is the competition in specialties. Medical students usually have to choose from 2 broad categories as clinical sciences (surgical and medical), basic sciences for their specialization.^{7,8}

Previous studies have shown that this preference by medical students is influenced by many factors including their background, gender, race, previous exposure, family influence, intelligence level, opportunities in that field and personal interest.^{9,10}

MATERIALS AND METHODS

This cross-sectional study was conducted at Avicenna Hospital. All the 2nd year medical students were asked to fill a self-designed questionnaire. All the benefits and hazards were explained to the students and verbal consent for inclusion in the study was taken. They were supposed to fill the questionnaire honestly without disclosure of identity. All the demographic details of the students were noted. The first question asked from the students was 'Which field would you like to choose after graduation?' The options included basic medical sciences and clinical sciences. The next question was to specify the field. Third question was to justify their choice by giving at least one reason for choosing the particular specialty. All the data were analyzed by SPSS version 20.

RESULTS

A total of 105 students participated in the study and all of them fulfilled the proforma with a response rate of 100%. The mean age of the students was found to be 21.75 ± 3.68 years. Of 105 students, 73 participants (69.5%) were females while 32 participants (30.5%) were males. The preferred field for specialization was clinical sciences than basic medical sciences by most of

¹. Department of Anatomy / Biochemistry² / Pharmacology³,
Avicenna Medical College, Lahore

Correspondence: Khalid Javed, Assistant Professor of
Anatomy, Avicenna Medical College, Lahore
Contact No: 0321-7777357
Email: info@avicennamch.com

Received: April 24, 2016;

Accepted: June 13, 2016

the students (Table 1). When asked to specify their field, most commonly gotten answer was surgery followed by general medicine. The least commonly received answer was Pathology by one participant. Surprising to us, 3 participants opted for anatomy and 2 opted for physiology. When asked to mention the reason for opting this field, the most common reason was the interest in this field. There were some other answers which have been summarized in table 2. Also the specialties chosen by students were stratified according to gender which has been summarized in Table 2.

Table No.1: Reason for opting a specialty as given by students (n = 105)

Reason for opting this field	No.	%age
Interest in the subject	52	49.5
More money	21	20.0
Less specialists in market	15	14.3
Parent's wish	3	2.8
Other reasons	14	13.4

Table No. 2: Specialties chosen according to gender (n = 105)

Specialty	Male		Female	
	No.	%	No.	%
General Surgery	12	11.4	10	9.5
General Medicine	5	4.7	13	12.3
Gynaecology	1	0.9	14	13.4
Neurosurgery	1	0.9	2	1.9
General Physician	1	0.9	2	1.9
Paediatrics	1	0.9	4	3.8
Oncological Surgery	1	0.9	3	2.8
Cardiology	2	1.9	8	7.6
Orthopedics	2	1.9	-	-
Radiology	1	0.9	-	-
Neurology	-	-	1	0.9
Forensic Medicine	-	-	2	1.9
Rheumatology	-	-	2	1.9
Anesthesia	1	0.9	-	-
Community Medicine	-	-	3	2.8
Paediatric Surgery	1	0.9	-	-
Pathology	-	-	6	5.6
Anatomy	1	0.9	2	1.9
Physiology	1	0.9	1	0.9

DISCUSSION

Our study focused to find the preference of subjects as specialty among our medical students. Many authors have found factors which influence medical students to choose a particular subject for future. Both academic exposure and personal experiences matter in this regard and help them to shape their perception of different subjects and formulate their own choices.¹¹⁻¹³ Zarkovic et al¹⁴ had stated that role modeling is important in this

context and many students opt for a particular subject from this. In our study, most of the participants had mentioned the reason to opt for particular subject as interest. Harris et al had conducted a similar trial in Australian medical students and had found that the choice by medical students is strongly influenced by their exposure to clinical settings. If a bad incident happens during their exposure, they usually don't go for that specialty.¹¹ Similarly when they spend a good time in a particular department, they usually get into it and decide to continue with it. There might be some controversies in it but most of the authors agree on it.

According to a recent article by Rathore et al⁸, there are 203,000 doctors registered with Pakistan Medical and Dental Council (PMDC) and more than 90 medical colleges are functioning in Pakistan. According to authors, the number of medical students is rising every year and we don't have any structure to place and fit them into adequate places. We also don't have any plan in our country and therefore can't guide our junior medical students to opt for specialties.

Syed and colleagues⁵ had conducted a study among Pakistani students to continue psychiatry as a career. They had found that 7.6% of the medical students opted to continue it as career. However in our study, none of the participants had labeled Psychiatry as their option. In our study, most of the patients opted clinical sciences as career option. In most of the previous studies, it had been found that usually medical students find it more thrilling to opt for clinical subjects because they have to deal with patients and to face new challenges on the daily basis.^{16,17} Therefore, basic medical sciences are usually not opted because of having a static life in it. Cleland et al conducted a trial on United Kingdom medical students and they found that along with other factors, an important factor regarding choice of subject by medical student is the study year of medical school.¹⁸ The choices of the students change from year to year because of difference in exposure of clinical settings. In our study, we included only 2nd year medical students.

CONCLUSION

In this study we found that most of the students in Pakistan opt for clinical sciences. We recommend more trials on the topic and also to look into the factors leading our student to opt for a specialty. We need to focus on these factors and guide our students to choose a specialty of their own interest.

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Wright B, Scott I, Woloschuk W, Brenneis F. Career choice of new medical students at three Canadian universities: family medicine versus

- specialty medicine. *Can Med Assoc J* 2004;170:1920-4.
2. Morra DJ, Regehr G, Ginsburg S. Medical students, money, and career selection: students' perception of financial factors and remuneration in family medicine. *Fam Med* 2009;41:105-10.
 3. Scott I, Wright B, Brenneis F, Brett-Maclean P, McCaffrey L. Why would I choose a career in family medicine?: Reflections of medical students at 3 universities. *Can Fam Physician* 2007;53:1956-7.
 4. Chang PY, Hung CY, Wang KI, Huang YH, Chang KJ. Factors influencing medical students' choice of specialty. *J Formos Med Assoc* 2006;105:489-96.
 5. Harris JK, De Groote MA, Sagel SD, Zemanick ET, Kapsner R, Penvari C, et al. Molecular identification of bacteria in bronchoalveolar lavage fluid from children with cystic fibrosis. *Proc Natl Acad Sci USA* 2007;104:20529-33.
 6. Bauer F, Rommel N, Koerdt S, Fichter A, Wolff KD, Kesting MR. Can a one-day practical lesson in surgical skills encourage medical students to consider a surgical career? *Br J Oral Maxillofac Surg* 2015.
 7. Sheikh A, Naqvi SH, Sheikh K, Naqvi SH, Bandukda MY. Physician migration at its roots: a study on the factors contributing towards a career choice abroad among students at a medical school in Pakistan. *Globalization and Health* 2012;8:43.
 8. Rathore FA, Farooq F. Thinking Out of the Box: Alternative Career Choices for Young Doctors in Pakistan. *J Coll Physicians Surg Pak* 2016;26:145-7.
 9. Reed VA, Jernstedt GC, Reber ES. Understanding and improving medical student specialty choice: a synthesis of the literature using decision theory as a referent. *Teach Learn Med* 2001;13:117-29.
 10. Ohtaki J, Fujisaki K, Terasaki H, Fukui T, Okamoto Y, Iwasaki S, et al. Specialty choice and understanding of primary care among Japanese medical students. *Med Educ* 1996;30:378-84.
 11. Harris JE, Gonzalez Lopez-Valcarcel B, Ortun V, Barber P. Specialty choice in times of economic crisis: a cross-sectional survey of Spanish Medical students. *BMJ* 2013;3:9-11.
 12. Schrock C. Lifestyle as a factor in medical students' career choices. *JAMA* 2003;290:2940-1.
 13. An H, Kim E, Hwang J, Lee S. Analysis of medical students' needs for development of a career guidance program. *Kr J Med Educ* 2014;26:209-16.
 14. Zarkovic A, Child S, Naden G. Career choices of New Zealand junior doctors. *NZ Med J* 2006;119:U1851.
 15. Syed EU, Siddiqi MN, Dogar I, Hamrani MM, Yousafzai AW, Zuberi S. Attitudes of Pakistani medical students towards psychiatry as a prospective career: a survey. *Acad Psychiatry* 2008;32:160-4.
 16. Wang JY, Lin H, Lewis PY, Fetterman DM, Gesundheit N. Is a career in medicine the right choice? The impact of a physician shadowing program on undergraduate premedical students. *Acad Med* 2015;90:629-33.
 17. Gasiorowski J, Rudowicz E, Safranow K. Motivation towards medical career choice and future career plans of Polish medical students. *Advan Health Sci Educ Theory Prac* 2015;20:709-25.
 18. Cleland JA, Johnston PW, Anthony M, Khan N, Scott NW. A survey of factors influencing career preference in new-entrant and exiting medical students from four UK medical schools. *BMC Med Educ* 2014;14:151.