

# Determinants Leading to Change in Career Preferences among Medical Students

Umair Ahmad Cheema, Asima Farman, Altaf Pervez Qasim

## ABSTRACT

**Background:** Information regarding career choices of medical students is important to plan human resources for health, design need-based educational programs and ensure equitable and quality health care services in a country. **Objectives:** To determine the change in career preferences with successive years among final year medical students and to determine those factors which affect change in career choices among final year medical students. **Study design:** Cross sectional study. **Setting:** Allama Iqbal Medical College, Lahore. **Data Collection and analysis:** Total 230 final year medical students irrespective of their ethnicity or religion fulfilling the inclusion criteria were asked to fill out self-structured questionnaire, which consisted demographic details and their views regarding career choice and various factors influencing on their choices. Finally, data was analyzed by using SPSS version 21. Frequency and percentage were calculated. **Results:** Out of 230 final year M.B;B.S students, 177 (76.96%) changed their career preference during their medical education. The most important factor influencing change in career preference was the awareness over the passage of time about their future married life, followed by having children, early settlement, high wages, better working conditions and influence of role model. **Conclusion:** Re-orientation of health care and medical education should be done along with policy settings to attract doctors to the scarcity and high-priority disciplines so that imbalances encountered would be minimal in future.

**Keywords:** career, choices, determinants, medical students.

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## INTRODUCTION

The career choices of young doctors after graduation are important because they help to provide essential information to aid in planning educational programs, adequate health care in community and in maintenance of an adequate supply of medical work force. Career decision making is a dynamic progressive, complex and multifactorial process, which occurs in many non-linear stages and includes the choice of specialty, type of practice and practice location.

It is important for medical graduates to understand about career choice as it is act as key for them how, where and when they provide medical care.<sup>1</sup>

Several factors affect career choices among medical students, including demographics indebtedness, career-related beliefs, values and attitudes, personality and personal profiles and academic performances.<sup>1,2,10</sup>

According to many researches, it is seen that most of the medical students want to pursue their career in clinical subjects and a very few number of them are interested in basic subjects of medicine

Another study showed that interest in a career in occupational health and in social insurance health was very low throughout medical graduates. Studies have shown that female usually choose fields with intensive patient contact (such as pediatrics, dermatology, obstetrics and gynecology) and men choose instrument oriented and high technology medicine; usually general surgery, orthopedics etc.<sup>3,4,10,11</sup>

There are many factors that influence career decision making among medical students. They are classified into two groups; intrinsic factors and extrinsic factors. Intrinsic factors are related to personal preferences and attributes. For example: lifestyle, intellectual challenge, physician patient relationship etc. Extrinsic factor are related to work environment. For example, role models, scope of medical practice, spectrum of patients and diseases, financial incentives etc.<sup>3,4</sup>

Newton et al, stated in his study that life style, income and working condition were factors which affecting on career choice for medical students.<sup>1</sup>

According to researches previously done, among the factors affecting career choices, personal interest was ranked first followed by previous positive experience, personal reasons and job opportunities. Influence from the mentor, life style and financial rewards and geographical location are less essential factors.<sup>5</sup>

According to study done in Pakistan by Rahman et al. more than 70% of the students were influenced by the specialty that matched their personality, time commitment, prestige labeled, and its scope internationally.<sup>6</sup>

Murdoch et al, stated that there is positive relationship between medical student's interest in primary care and factors of biosocial orientation like long term patient doctor relationship including psychological and social needs.<sup>1</sup>

Medical students usually prefer hospital related specialties and sub specialties, but the requirement for primary care providers is estimated to increase in the United States.<sup>7</sup>

The aim of this research was to determine the change in preferences of career choice and factors behind making these changes in choices during years of medical education among final year students of Allama Iqbal Medical College, Lahore.

## METHODOLOGY

### Study design:

Cross-sectional study.

### Setting:

Allama Iqbal Medical College, Lahore.

### Duration of Study:

Three months

### Sample Size:

230 medical students of final year.

### Sampling Technique:

Non-probability purposive sampling

### Inclusion criteria:

All the students of Final year M.B.B.S were included irrespective of their ethnicity or religion.

### Exclusion criteria:

Non-medical students & those reluctant to participate were not included.

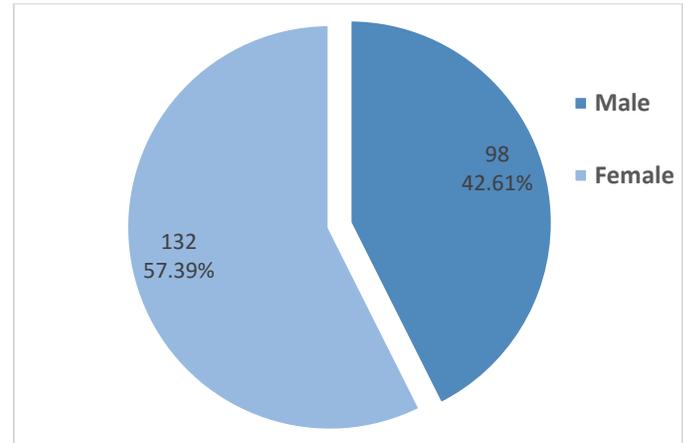
## DATA COLLECTION & ANALYSIS PROCEDURE

230 final year medical students of Allama Iqbal Medical College Lahore fulfilling the inclusion criteria were asked to fill out the self-structured pretested

questionnaire consisting of demographic details of the participants, views regarding change in their career choices and various factors influencing their choices.

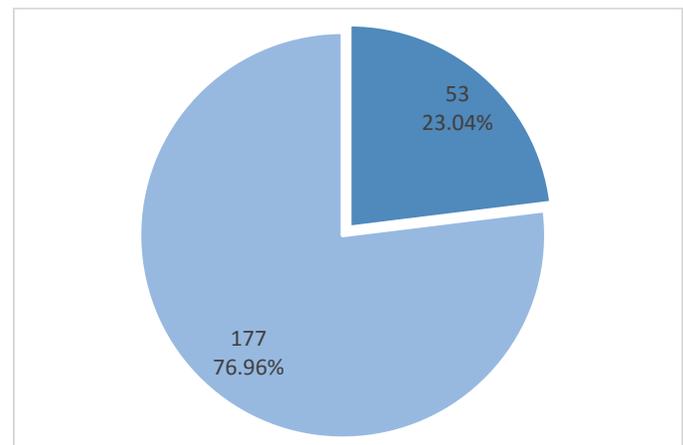
Data was entered and analyzed using SPSS version 21. Frequency and percentages were calculated for change in career choices and influencing factors among final year medical students.

## RESULTS



**Figure 1: Gender of respondents:**

Out of 230 students that took part in research 57.39% (132) were females and 42.61% (98) were males.



**Figure 2: Change in career preference**

About 177 (76.96%) students changed their career preference while 53 (23.04%) students did not change.

**Table 1: Important factor affecting the change in career preference**

	Influence of role model		Effect of high practice scope		Effect of relationship with patients	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Not at all	14	6.1	26	11.3	37	16.1
Slight	96	41.7	99	43.0	93	40.4
Highly	120	52.2	105	45.7	100	43.5
Total	230	100.0	230	100.0	230	100.0
	Effect of less hours of practice		Effect of high wages		Attraction of early settlement	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Not at all	15	6.5	18	7.8	12	5.2
Slight	100	43.5	87	37.8	85	37.0
Highly	115	50.0	125	54.3	133	57.8
Total	230	100.0	230	100.0	230	100.0
	Effect of less competition		Effect of working condition		Effect of financial incentives	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Not at all	14	6.1	16	7.0	12	5.2
Slight	110	47.8	92	40.0	111	48.3
Highly	106	46.1	122	53.0	107	46.5
Total	230	100.0	230	100.0	230	100.0

Table 1 shows that the most important factor affecting the change in career preference was attraction of early settlement of their role models (57.8%) followed by effect of high wages (54.3%), better working condition (53.0), role models (52.2%) and less working hours of practice (50%). Beside these factors, like practice scope, financial incentives and competition among doctors in their specific specialties also lead to change in career choices

**Table 2: Important determinant in changing the career choice**

	Effect of recreational opportunities		Effect of short duration of post-graduation		Effect of gender distribution in specialty	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Not at all	15	6.5	57	24.8	15	6.5
Slight	98	42.6	80	34.8	108	47.0
Highly	117	50.9	93	40.4	107	46.5
Total	230	100.0	230	100.0	230	100.0

	Effect on social and family life		Role of mentor	
	Frequency	Percent	Frequency	Percent
Not at all	14	6.1	12	5.2
Slight	108	47.0	104	45.2
Highly	108	47.0	114	49.6
Total	230	100.0	230	100.0

		Do you think marital status can affect your career preference?		Do you think that having children will ever affect your career preference?	
		Frequency	Percent	Frequency	Percent
Valid	No	28	12.2	35	15.2
	Yes	202	87.8	195	84.8
	Total	230	100.0	230	100.0

Table 2 shows that the most important determinant in changing the career choice was marital status (87.8) followed by children (84.8) and effect of recreational opportunities (50.9). Other factors like influence of mentor, access to social and family network, gender distribution and short duration of post-graduation also result in career preference change.

**Table 3: Factors\*Gender Cross tabulation:**

		Gender		Total	
		male	female		
\$Factors	Influence of role model	Count	52	68	120
		% within Gender	53.1%	51.5%	
	effect of high practice scope	Count	50	55	105
		% within Gender	51.0%	41.7%	
	effect of relationship with patients	Count	42	58	100
		% within Gender	42.9%	43.9%	
	effect of less hours of practice	Count	56	59	115
		% within Gender	57.1%	44.7%	
	effect of high wages	Count	56	69	125
		% within Gender	57.1%	52.3%	
	attraction of early settlement	Count	59	74	133
		% within Gender	60.2%	56.1%	
	effect of less competition	Count	45	61	106
		% within Gender	45.9%	46.2%	
	effect of working condition	Count	46	76	122
		% within Gender	46.9%	57.6%	
	effect of financial incentives Count		43	64	107
	% within Gender		43.9%	48.5%	
	effect of recreational Count		52	65	117
	opportunities % within Gender		53.1%	49.2%	
	effect of short duration of Count		45	48	93
	post-graduation % within Gender		45.9%	36.4%	
	effect of gender distribution Count in specialty % within Gender		48	59	107
		49.0%	44.7%		
effect of access to social Count		47	61	108	
and family network % within Gender		48.0%	46.2%		
role of mentor Count		46	68	114	
% within Gender		46.9%	51.5%		
<b>Total</b>	<b>Count</b>	<b>98</b>	<b>132</b>	<b>230</b>	

Table 3 shows that major factor influencing career preference in males was attraction of early settlement (60.2%) followed by high wages (57.1%), less hours of practice (57.1%), role model (53.1%) and recreational opportunities (53.1%). Whereas major factor among females was better working conditions (57.6%) followed by early settlement (56.1%), role model (51.5%) and role of mentor (51.5%).

## DISCUSSION

Career choices are dynamic and likely to change with the progression in one's understandings with medical field, as they move from first to final year of medical education and even thereafter. Medical students' choice of specialty is a complex decision-

making process involving multiple inter-related factors. Researches done previously have shown that the major aspects affecting medical students specialty preference were compensation factors, study experience, other people's expectations and personal factors.<sup>2</sup> The future career specialties

preferred and the factors involved in making these choices by medical students were of great significance for balanced distribution of doctors in different specialties.

Medical students, especially undergraduates, place great emphasis on specialization for several reasons including better career opportunities, the perception that doctors possessing only MBBS degree have less status in society and the belief that an MBBS degree does not significantly qualify them to practice medicine. This drives most undergraduates to pursue a post-graduation degree, so that they can make their hard work productive and fruitful which they did during their medical education.

The present study reports the factors affecting the change in career preference among 230 final year medical students of Allama Iqbal Medical College, Lahore during successive years of graduation. Out of 230 students, 98 were males and 132 were females. According to our research 76.96% students changed their career preference during successive years of their medical education. Results of our research showed that the most common determinant in changing career preference was based on expected problems in near future marriage (87.8%). Other important factors influencing career choices were based on children after marriage (84.8%), early settlement (57.8%), high wage (54.3%), working conditions (53%) and role model (52.2%). The result of our study was similar to the researches done previously. These researches showed that most medical students changed their preferences, considering how these choices might affect their marital life and children in future. It was also found that female doctors were more influenced by domestic circumstances, marriage working hours and working conditions than the male doctors.<sup>4</sup>

Study conducted in India results that out of total 300 respondents, 84% (n=252) considered post-graduation very important for future career and majority of them (99%) wanted to pursue the same in clinical subject male interested to pursue specialty in Medicine, Surgery and Orthopedic but Radiology, Pediatrics and Obstetrics and Gynecology mostly liked by females.<sup>3,10</sup>

Some students develop disliking for certain specialties due to negative role models impact. Positive role models often attract the attention of students towards their specialties. Previous researches have shown that enthusiasm and a sincere love for their work were the characteristics that inspired the students to follow their role models. Our research also shows that role model is one of the major factors affecting change in career preference.

According to this study, important factors affecting the specialty selection like high wage, hours of practice and more practice scope were found 54.3%, 50% and 45.7% respectively.<sup>9</sup>

Different studies done in different countries revealed that high wages affect career selection in 58%, 36.4% and 45.10% medical students.<sup>8,10</sup>

A study conducted in underdeveloped countries showed that the important reasons for migration among young doctors were poor salary structure, poor quality of training and poor work environment in their home countries<sup>1</sup> Since the cultural values in Pakistan restrict females from living a professional life, it is generally presumed that a large number of females leave their profession and become housewives,<sup>4,10</sup> similar results were shown in our study that marital status was the most important factor among female medical students in career choice decision.

**Limitation:** of this study was that it was a cross sectional study. Career preference may change over time. A prospective cohort study following these students through their medical education and internship and assessing their career preferences at the end might yield valuable information on trends of specialty selection among these students. More research is demanded on this topic as a multi-centric survey on large sample to come out findings with more precision and externally validated.

## CONCLUSION

There are many factors that can both positively and negatively influence specialty choice. Medical undergraduates considering whether or not to enter a specialty or subspecialty are faced with a decision that relates to personal needs, professional needs and educational needs. The perceived importance of various factors, including those concerned with lifestyle are, in making career choice is highlighted by the results of this survey. Health planners should take appropriate steps to make less preferred specialties more attractive by dealing with factors affecting the specialty preference, so that system become homogenous.

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<b>Dr. Altaf Parvaiz Qasim</b> Associate Professor / Head Department of Forensic Medicine Sahiwal Medical College, Sahiwal	Review of literature, Authentication of references, Proof reading	