

Students' views regarding selecting medicine as a profession

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Abstract

Objective: To assess students' perceptions regarding merits and demerits of selecting medicine as a profession.

Method: A cross sectional survey based on convenience sampling was done, where 300 students of both sexes were included, 150 from a medical profession and 150 from a non-medical profession. They were asked to fill a structured, pretested questionnaire, and the results were analyzed by SPSS 16.0.

Results: All medical students mentioned that they selected the medical profession because of personal interest. In addition to this 95% students believed this profession offers services to humanity. However, 87% students felt that their family had an influence in their career selection. Interestingly gender consideration, financial reward and overseas consideration ranked low in order. There was a statistically significant difference between the preclinical and clinical groups in their decision of reselecting medicine, if they were given a second chance ($p=0.001$). Of those who did not opt for a medical career, 78% students mentioned that medical training is difficult and prolonged, 75% students felt that there is too much competition while 62% students expressed that doctors have excessive working hours.

Conclusion: Our study concluded that reasons for joining medical profession are primarily based on personal interest, respect and honor, family influence and service to humanity. Financial gain is not a major consideration of many students in choosing medicine as a profession, however, long working hours and prolonged training discourages many students.

Keywords: Medicine, Profession, Merits and demerits (JPMA 61:832; 2011).

Introduction

Medicine being one of the oldest and noblest of all professions takes its name from the Latin word 'ars medicina', which means the art of healing.¹ It is primarily concerned with the proper maintenance of health through scientific methodology and covers a vast array of fields ranging from biological research to surgery. In Pakistan, it is widely sought after, and is considered as one of the most respectable of all professions.

Several international studies over the years have explored perceptions and preferences of students in choosing a career in medicine. In many Western countries like Switzerland, students seem to have lost their interest in medicine and show inclination towards other professions.²

Also, sometimes medical students and graduates face the dilemma of remaining in or leaving the profession.³

The most important determinant of career choice in previous studies appeared to be personal interest, opportunity, flexible working hours and part-time practice.⁴ Despite increased numbers of women in medicine, issues of gender continue to have a substantial impact on the medical education of female students.⁵ In recent years, structured programmes for doctorates in medicine and natural sciences have found increasing acceptance.⁶ There is a lack of scientific education, leisure time, incentives, and adequate infrastructure which de-motivate the students to aspire for a career in medicine in developing countries.⁷ In the recent past it has been observed that students mostly from a middle class background and having an outstanding academic record in

high schools are able to get admissions in medical colleges.⁸ Swiss medical students and residents face tough conditions during their academic career.² In Australia, the selection of medicine as a profession depends on medical curriculum, geographical location, timing and duration of general practice, exposure and experience, and vocational training. These are important influences on the complex process of career choice in a developed country.⁹

In USA, medical students generally have a better understanding of primary health care. The opportunity to learn new things by means of a doctor-patient relationship inspires the students for residency in family medicine.¹⁰

A study conducted in Hungary revealed that female medical students aspire for better health conditions, personal satisfaction and a good social standing while opting for medicine.¹¹

A Canadian study concluded that training of community medicine students under the supervision of renowned and learned specialists and demystifying inaccurate perceptions of community medicine through integration of public health with clinical medicine may motivate more students to enter the community medicine speciality.¹²

In most of the studies of developed countries, the majority of respondents reported that their interest in interaction with people, a wide range of job opportunities, fact that medicine is a highly-appreciated profession and their desire to acquire more and more knowledge greatly influenced their decision to enter medicine.¹³

Our study evaluates the perceptions and preferences of Pakistani students regarding career selection.

The aim of our study was to investigate the merits and demerits of medical profession as visualized by the medical students in their career selection and comparing it with the factors which de-motivated the non medical students. The reasons that influenced students to choose medicine and their association with a satisfying career were established. The proportion of medical students who would not select medicine again if they were given a second chance was also recorded.

Methodology

A cross sectional study was conducted amongst 300 medical and non-medical students. Minimum number of participants required for our sample group was calculated as 264, with a confidence level of 95% by using Openepi software.

A structured, pretested questionnaire was used. For the study, two groups of students were considered. Convenience sampling was done. Group A consisted of students of Dow and Sindh Medical Colleges who selected

medicine as their profession. They were the first 150 students who filled and returned the questionnaires. Similarly Group B consisted of 150 students who belonged to professions other than medicine. They were students from Institute of Business Administration (IBA), University of Karachi and National University of Science and Technology NUST). The study was carried out from, 3rd January, 2007 to 1st July, 2009.

For preparation of questionnaire a pilot study was done. Group A students were divided in pre-clinical (1st and 2nd year students) and clinical groups (3rd, 4th and 5th year students). They were asked to enlist important factors which influenced their choice of selecting medicine as a profession. Similarly, students from group B gave factors which resisted them from opting for medicine. The commonest factors based on response were included in the questionnaire.

The students of Group A were presented with certain factors, which they were asked to rate from a scale of 0 to 3 (with 0 being the least significant and 3 the most), indicating the most influential factor leading to their choice. The factors were: family influence, financial reward, gender consideration, overseas consideration, personal interest, respect, honor and service to humanity.

The students of "Group B" were also presented with certain factors, which they were to rate from a scale of 0 to 3 (with 0 being the least significant and 3 indicating the most influential factor leading to their choice). The factors were: difficult and prolonged training, doctors fleece patients, excessive working hours, less financial reward, no aptitude, no social life and too much competition.

Students of both groups were also asked to give any other factor or reason that influenced them to take their respective decision. In addition, the medical students were asked whether they would opt for medicine if they were given a second chance to reselect their profession.

The data was collected over a period of three months. It was analyzed using SPSS 16.0. The numerical variable age was analyzed for mean and SD while categorical variables of Group A: were analyzed for proportions and included personal interest, service to humanity, family influence, respect and honour, financial reward, gender consideration and overseas consideration. Similarly categorical variables of Group B: analyzed for proportions were factors including difficult and prolonged training, too much competition, excessive working hours, no social life, doctors fleece patients; less financial reward and no aptitude. Associations were assessed using chi square test and p values calculated. A p-value of $p < 0.05$ was considered as statistically significant, unless otherwise mentioned

Results

The mean age of 300 students was 21 ± 1.6 years. Of

Table-1: Factors for choosing medicine as a profession (Group A).

Motivating Factors	Strong N (%)	Moderate N (%)	Slight N (%)	No Impact N (%)
Personal Interest	81 (54)	51 (34)	18 (12)	0 (0)
Service to Humanity	76 (51)	62 (41)	4 (3)	8 (5)
Family Influence	62 (41)	42 (28)	27 (18)	19 (13)
Respect and Honour	54 (36)	60 (40)	15 (10)	21 (14)
Financial Reward	3 (2)	16 (11)	59 (39)	72 (48)
Gender Consideration	26 (17)	24 (16)	23 (16)	77 (51)
Overseas Consideration	4 (3)	15 (10)	15 (10)	116 (77)

the 300 medical and non medical students 162 (54%) were males and 138 (46%) were females. Group A comprised of 67 males and 83 females whereas Group B comprised 95 males and 55 females.

Of the 150 students of Group A, 95 (63%) students had doctors in their families compared to 43 (29%) in Group B ($p < 0.001$). All one hundred and fifty (100%) Group A students either slightly, moderately or strongly considered that they had a personal interest in studying medicine. One hundred and forty two (95%) students were of the opinion that their families influenced them to become doctors, whereas the factor of "respect and honor" inspired 131 (86%) students in choosing their profession. Seventy eight (52%) students believed that there was a great financial reward for doctors. Interestingly about one quarter, 34 (23%) students believed that they were studying medicine as a means to go abroad (Table-1).

A greater proportion of students from clinical years were satisfied with their medical profession when compared to students from preclinical years. Fifty two (67%) students from clinical group whereas 26 (40%) students from pre clinical group expressed their willingness to reselect medicine if they were given a second chance ($p = 0.001$). However, there was no statistically significant difference between the males and females medical students in their decision of reselecting the medical profession ($p = 0.548$) (Table-3).

Of the 150 students of the non-medical group, 117 (78%) students felt (either slightly, moderately or strongly) that it was the difficult and prolonged training of medicine

Table-2: Factors for not choosing medicine as a profession (Group B).

Discouraging Factors	Strong N (%)	Moderate N (%)	Slight N (%)	No Impact N (%)
Difficult, Prolonged Training	51 (34)	40 (27)	26 (17)	33 (22)
Too much competition	33 (22)	36 (24)	43 (29)	38 (25)
Excessive working hours	30 (20)	33 (22)	30 (20)	57 (38)
No Social Life	25 (17)	30 (20)	33 (22)	62 (41)
Doctors fleece patients	50 (33)	10 (7)	15 (10)	75 (50)
Less financial reward	30 (20%)	20 (13%)	28 (19)	72 (48)
No Aptitude	46 (31)	12 (8)	18 (12)	74 (49)

Table-3: Preclinical vs. clinical group & gender difference (Group A).

Group & Gender	Reselect medicine N (%)	Will not reselect medicine N (%)	Total N (%)	P Value
Pre-clinical	29 (40)	43 (60)	72 (100)	0.001
Clinical	52 (67)	26 (33)	78 (100)	
Male	38 (57)	29 (43)	67 (100)	0.548
Female	43 (52)	40 (48)	83 (100)	

that discouraged them to opt for this profession. One hundred and twelve (75%) students believed that there is too much competition in medicine. Excessive working hours of doctors discouraged 93 (62%) students whereas 88 (59%) students believed that doctors had no social life. Surprisingly, more than half (52%) of the students thought that medicine offers less financial rewards. Seventy six (51%) students believed that they had no aptitude for medicine and half (50%) of the students had the impression that doctors charge too much from the patients and hence, did not want to take medicine as their profession (Table-2).

Discussion

Medical profession has its merits and demerits. Is it so that the demerits of this profession are repelling competent and brilliant minds? Do the demerits outweigh the merits of this profession?

Interaction with a number of medical residents led us to conclude that a doctor's professional life is filled with care for people, interaction with masses from different backgrounds, feeling of contentment and piety, challenges, knowledge and wisdom.

According to a report of Royal College of Physicians, the core values of the medical profession are integrity, compassion, altruism and excellence, that are glued to a set of values including team work and continuous improvement.¹⁴ Medicine is an integrated approach to basic principles.¹⁵

The top ranking reason why almost all students chose medicine as a career was based on personal interest. Studies done in the West reported that 70% of the males and females chose this profession because they had high interest in it.⁴ On the other hand, the top ranking reason which de-motivated the non medical students was difficult and prolonged training of doctors and their excessive work load. It was seen in Great Britain, Germany, and Switzerland and now in the Asian countries that many medical students and graduates left medicine to pursue other careers or expressed their dissatisfaction in demonstrations and strikes.¹⁶

Many of the medical students who participated in our study were motivated to alleviate the sufferings of the diseased and the disabled. Some students regarded medicine as a holy profession, not just a trade, referring to a doctor as God's representative on earth, healing the suffering by His

will. It is a belief that programmes for professional values and ethics in medical education mould students into better human beings. The generic motivations of medical students according to a study carried out in Britain were: Indispensability, Respect, Helping People and Science.¹⁷

A high proportion of students (87%) were encouraged by their families which showed that family support/ pressure was a major factor in influencing young minds which has also been reported by Ehsan et al, in his study.¹⁸ A convincing factor highlighted by many medical students was the fact that medicine could be adopted as an independent career, and a doctor could work anywhere without requiring much capital.

Surprisingly, for only 78 (52%) students, monetary reward was one of the considerations. Hence, from our study, we could clearly make out that students still believed in the core values of this profession and money was not their only priority.

Seventy eight percent (78%) medical students put up the argument that medicine was too tough with stressful life, excessive work load and long working hours which left very less time for family and friends whereas, more than half of the students thought an ideal life is a balance between work and family life, but medicine only meant work and work. Other studies have also indicated that doctors insist on a higher quality of life and more flexibility to arrange their lives according to their preferences.^{19,20}

According to our study 46% of the students mentioned that they would not go into medicine again as compared to an American study in which 22% of the respondents expressed their reluctance.²¹

Strong argument put up by students of group B was that other professions such as banking, marketing, accounting and finance, as compared to medicine offered better financial security and required less hard work and commitment. Fifty nine percent (59%) students were of the opinion that medicine offered less financial award and security. Reasons such as unsatisfactory pay scale, no aptitude for the profession convinced around half of the students not to enter the medical profession. Some students were convinced that medicine was the career of their choice but they could not get admissions in prestigious medical colleges. A few students thought that they could not stand the sight of human suffering and some said that they had never given a serious thought to this. Medicine is regarded as a noble career as during their education, medical students work as health coaches, advising and helping people about basic health issues, solving their everyday problem, thereby enjoying respect and honor.²²

Efforts can be made to reduce long working hours and improve salaries. A major step was taken in 1993 at European Union Level by a council of ministers. They decided to regulate the working hours of doctors in order to safeguard

the health and safety of doctors. A further step was taken in April 2000 and a "Work Time Directive" was issued by British government for the convenience of doctors.²³ Similar, efforts can be taken in our country.

The salaries of doctors of our country can be increased. When compared with the West, doctors are the most highly paid professionals in America with residents of radiology and anaesthesia earning \$350,000 and \$275,000 annually, respectively.²⁴ This fascinates our doctors and unfortunately our country loses brilliant brains to America, Europe and Australia. Approximately 10,000 medical graduates from Pakistan had gone to USA for post-graduation of which only 300 came back to practice in Pakistan.²⁵

Well structured medical curriculum and organized training programmes along with proper numeration of doctors as per local needs may reduce workload on doctors.

Conclusion

This study suggests that the reasons for joining medical profession are primarily based on personal liking, desire for respectable living, family pressures and service to humanity. However, though a respectable profession but training is difficult with long working hours and less financial reward. A high proportion of medical students was dissatisfied by their profession and did not want to reenter if they were given a second chance of career selection; however, as the students enter the clinical years their level of interest increases. In order to make medicine attractive sustainable efforts are required which provide promising opportunities to medical students and doctors.

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