

Research Article

A study to assess the perceptions of first year medical students for choosing medical school as a career

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ABSTRACT

Background: There are more than 44000 seats in over 350 medical colleges in India for pursuing the MBBS course. Yet medicine is not among the top vocation in most career advisories and the best school students do not aspire to be doctors.

Methods: The present study was a cross sectional study done on 150 students of first semester of GR Medical College, Gwalior, Madhya Pradesh, India on a predesigned or pre validated questionnaire. Only 104 students participated in the study.

Results: A total of 104 students participated in the study. Among them, 68 (65.39%) were males and 36 (34.61%) females. The maximum percentage of students was of the age group of 20 years i.e. 26 (25%). The choice of a career in the medical field is a complex personal decision influenced by a multitude of factors. Career choices are influenced by both graduates inclination before starting medical school as well as any exposure during training in medical school.

Conclusions: These data showed that the maximum percentages of the Medical Students were satisfied with the medical school as 95 (91.34%) but still some of them have regrets. In choosing medical school they wants to help poor, earn money and personal development, and influenced by some doctor relative. These were important factors for decision making in medical school.

Keywords: Career choice, Curriculum, Medical school, Medical students, Motivation

INTRODUCTION

There are more than 44000 seats in over 350 Medical Colleges in India for pursuing the MBBS course. This is not enough as we have only one doctor for as many as 1953 persons in India. Yet Medicine is not among the top vocation in most career advisories and the best school students do not aspire to be doctors. The attitude of the students and the reasons for choosing a particular career are of great importance for policy makers around the

world.^{1,2} The students have a number of career choices and it becomes difficult for them to choose a particular career when they are unsure.

Decision process involves a number of factors that includes personal interest, peer pressure, self-motivation, financial reasons, better quality of life etc.³ Medical career is unique as it is perceived to be very noble providing an opportunity to serve fellow human beings more than any other carrer.⁴ The choice of a career in the

medical field is a complex personal decision influenced by a multitude of factors. Career choices are influenced both by the graduate's inclination before starting medical school as well as any exposure during training in medical school.^{5,6}

These include gender and residency conditions e.g. part time work and parental leave availability, family background, parent's socio-economic status, prestige, income and faculty role models, controllable life style versus non controllable life style, local market forces, committed relationship, the influence of a faculty advisor and the perceptions of employment availability.⁷⁻¹²

The final choice results from a complex interplay between extrinsic and intrinsic studies of the primary motivation of medical school applicants and medical students are infrequent, typically asking students to rate each of a number of personal reasons for being a doctor on a Likert scale.¹³

A retrospective analysis of doctor s' reasons for entering medicine found five more factors being good at science subject, wanting a good interesting career, always having wanted to be a doctor, influenced by friends and relations and wanting to help or work with people.¹⁴ It is possible that most such factors are important for most people but there are also demand characteristic which make respondents less likely to rate highly such socially desirable items as thought, it would be glamorous/ good/ life style/ status or job security and even less so for becoming rich or having power over people, however true they may be.¹⁴

Primary motivations become clear when possible motivations are in conflict. Helping people and doing scientific research are both admirable motivations, but very often both activities cannot be carried out at the same time requiring a decision as to which is the more important for a particular doctor. When choices have to be made motivations become clearer.¹⁵

Considering all these aspects the present study has been undertaken with the objectives to assess the socio - demographic status of medical students, assess the importance of choosing medical school by the number of attempts taken to qualify national eligibility entrance test, assess the reasons of choosing medical school as a career and the level of satisfaction regarding career and work load in studies of medical school and assess the resistance offered by the family members and its reasons for choosing medical school as a profession.

METHODS

The present study was a cross sectional study and has been carried out in First Semester Students of G R Medical College, Gwalior, Madhya Pradesh, India.

A total of 150 students were give pre-designed and pre-validated questionnaire form, 11 were not taken into consideration due to some administrative problems. 35 other forms were either incompletely filled or dropped out for one or the other reason.

Questionnaire included the questions regarding socio demographic profile, type of exam given and number of attempts taken, reasons for choosing medical school and the satisfaction level in the medical school, the perceptions regarding workload of studies, resistance offered by family members if any, and their reasons and cost of affordability of books in medical schools.

The study period was from January 2014 to April 2014. A total of 104 students responded in the study. Informed consent was taken from the students, they were also assured that their findings would not be communicated to any one and would only be used for research purpose.

The data was collected, analyzed and interpreted by using Microsoft excel.

RESULTS

The present study was conducted among 150 students of first semester of college. A total of 104 students participated in the study. The socio-demographic profile of students is shown in Table 1. Among them, 68 (65.39%) were males and 36 (34.61%) females. The maximum % of students was of the age group of 20 years i.e. 26 (25%).

The choice of a career in the medical field is a complex personal decision influenced by a multitude of factors. Career choices were influenced by both graduates inclination before starting medical school as well as any exposure during training in medical school.

For inclination of medical school the motivational level was very high as seen in Table 2 i.e. 33 (31.73%) appeared for AIPMT Exam for three times.

Table 3 shows the level of satisfaction of joining Medical School i.e. 95 (91.34%) and the various reasons for choosing Medical School.

Table 4 showed the perceptions of work load and the satisfaction level regarding work load.

As shown in Table 5, 19 (18.27%) students felt that the resistance was offered by family members in which 10 (52.63%) quoted it because of the late settlement and duration of course and 7 (36.84%) felt that there was a financial burden on the family for their children and 50 (48.08%) felt that they able to afford the books.

Table 1: General profile of students.

Variables	Age in Years	Males n=68		Females n=36		Total n=104		Statistical Analysis
		No.	%	No.	%	No	%	
Age in Years	19	14	20.58	7	19.45	21	20.19	X ² =5.96 Df=5 P=0.310
	20	16	23.53	10	27.78	26	25.00	
	21	13	19.12	12	33.33	25	24.04	
	22	11	16.18	5	13.89	16	15.38	
	23	11	16.18	2	5.55	13	12.50	
	23	3	4.41	0	0	3	2.89	
Origin	Rural	32	47.06	8	22.22	40	38.46	X ² =6.13, Df=1 P=0.013
	Urban	36	52.94	28	77.78	64	61.54	
Category	UR	27	39.71	24	66.67	51	49.04	X ² =11.0 Df=3 P=0.012
	SC	15	22.06	6	16.67	21	20.19	
	ST	5	7.35	4	11.11	9	8.65	
	OBC	21	30.88	2	5.55	23	22.12	
Living Status	Hostler	17	25.00	19	52.78	36	34.62	X ² =8.02, Df=1 P=0.005
	Day Scholar	51	75.00	17	47.22	68	65.38	
Education Status of Father	8 th	10	14.71	4	11.11	14	13.46	X ² =5.66 Df=4 P=0.226
	10 th	7	10.29	0	0	7	6.73	
	12 th	8	11.76	3	8.33	11	10.58	
	Graduation	27	39.71	16	44.44	43	41.35	
	Post Grad.	16	23.53	13	36.11	29	27.88	
Educational Status of mother	8 th	27	39.705	6	16.67	33	31.73	X ² =6.26 Df=4 P=0.181
	10 th	6	8.823	3	8.333	9	8.65	
	12 th	11	16.176	8	22.222	19	18.27	
	Graduation	15	22.058	11	30.555	26	25.00	
Occupation of father	Post Grad.	9	13.238	8	22.224	17	16.35	X ² = 2.16 Df=2 P=0.340
	Govt. Service / Private Service	36	52.902	24	66.666	60	57.692	
	Own Business	18	26.470	8	22.222	26	25	
Occupation of Mother	No Response	14	20.588	4	11.112	18	15.388	X ² =3.53 Df=3 P=0.317
	House Wife	46	67.647	21	58.335	67	64.425	
	Service Govt. / Private	6	8.823	5	13.888	11	10.576	
	Own Business	6	8.825	1	2.777	7	6.730	
Monthly Income of Father	No Response	10	14.705	9	25	19	18.269	X ² =7.12 Df=6 P=0.309
	Above 23,220	21	30.882	17	47.222	38	36.536	
	Between 11,610-23219	15	22.058	9	25	24	23.076	
	Between 6966-11609	11	16.176	3	8.335	14	13.464	
	Between 3483-6965	4	5.882	0	0	4	3.846	
	Between 961-3482	4	5.882	0	0	4	3.846	
	Below 960	2	2.941	1	2.777	3	2.884	
No Response	11	16.176	6	16.666	11	10.576		
Monthly Income of Mother	No Response	11	16.176	6	16.666	11	10.576	X ² =14.8 Df=6 P=0.022
	Above 23,220	1	1.470	4	11.111	5	4.807	
	Between 11,610-23219	4	5.882	4	11.111	8	7.692	
	Between 6966-11609	3	4.4117	0	0	3	2.884	
	Between 3483-6965	6	8.823	0	0	6	5.769	
	Between 961-3482	8	11.764	0	0	8	7.692	
	Below 960	13	19.117	7	19.444	20	19.230	
No Response	33	48.529	21	58.333	44	51.923		

Table 2: Importance of choosing medicine as career in medical school.

Variables	Type of Exam Entry/ Category	Males n=68		Females n=36		Total n=104		Statistical Analysis
		No.	%	No.	%	No.	%	
Exam Entry/ Category	AIPMT	11	16.18	8	22.22	19	18.269	X ² = 6 Df=3 P=0.112
	MPPMT	54	79.41	26	72.22	80	76.923	
	GOI	3	4.41	0	0	3	2.884	
	NRI	0	0	2	5.56	2	1.94	
No. of Attempts for Clearing the Exam	With 12	4	5.88	6	16.67	10	9.61	X ² = 16.8283 Df=4 P=.002087
	1 st Attempt*	27	39.71	3	8.33	30	28.85	
	2 nd Attempt*	11	16.18	14	38.89	25	24.04	
	3 rd Attempt*	23	33.82	10	27.78	33	31.73	
	4 th Attempt*	3	4.41	3	8.33	6	5.77	

*Signifies the No. of years taken for the preparation for entry in medical school.

Table 3: Reasons of choosing medical school as career.

Categories	Responses for choosing Medical School	Male n=68		Female n=36		Total n=104		Statistical Analysis
		No.	%	No.	%	No.	%	
Level of satisfaction of choosing Medical School	Satisfactory	66	97.05	29	80.55	95	91.34	X ² =15.0 Df=4 P=0.005
	Not Satisfactory	1	1.47	0	0	1	0.96	
	Confused	1	1.47	0	0	1	0.96	
	Still wants to leave	0	0	1	2.78	1	0.96	
	No Response	0	0	6	16.67	6	5.78	
Reason for choosing Medical School as a carrier	Wants to help Poor	38	55.88	20	36.36	58	36.48	X ² =5.16 Df=8 P=0.0740
	Influenced by some doctor Relative	12	11.54	4	7.27	16	10.06	
	Brother Doctor	3	2.88	2	3.63	5	3.14	
	Sister Doctor	5	4.81	1	1.81	6	3.78	
	Own choice	28	27.90	22	40.00	50	31.45	
	Weak in Maths / No other option	0	0	0	0	0	0	
	Forced by mother	0	0	0	0	0	0	
	Forced by Father	3	2.88	1	1.82	4	2.52	
	Earning Money	6	5.77	3	5.45	9	5.66	
	Father/Mother Doctor forced to choose	1	0	0	0	1	0.63	
Father/Mother Doctor wants to choose	8	7.69	2	3.64	10	6.29		

Table 4: Perceptions regarding workload of studies in medical school and its satisfaction level.

Variables	Responses	Males n=68		Females n=36		Total n=104		Statistical Analysis
		No.	%	No.	%	No.	%	
Workload of Studies	Normal	27	39.71	15	41.668	42	40.39	X ² = 0.434 Df=2 P=0.805
	Not too much hard	23	33.82	10	27.777	33	31.73	
	Too hard	18	26.47	11	30.555	29	27.88	
Satisfaction Level of workload	Very satisfied	19	27.74	3	8.33	22	21.15	X ² = 8.99 Df=2 P=0.011
	Satisfied	40	58.82	21	58.34	61	58.65	
	Not satisfied	9	13.24	12	33.33	21	20.20	

Table 5: Responses and reasons regarding resistance offered by family members.

Variables	Responses	Males		Females		Total		Statistical Analysis
		No.	%	No.	%	No.	%	
Resistance By Family Member	Yes	12	17.65	7	19.45	19	18.27	$X^2 = 0.770$ Df=2 P=0.680
	No	53	77.94	26	72.22	79	75.96	
	No Response	3	4.41	3	8.33	6	5.77	
Reasons Regarding Resistance	Late Settlement	6	50	4	57.14	10	52.63	$X^2 = 0.397$ Df=2 P=0.820
	Financial burden	5	41.67	2	28.57	7	36.84	
	Bonds	1	8.33	1	14.29	2	10.53	
	No Response	0	0	0	0	0	0	
Regarding the Affordability of Medical School Books	Not able to afford	26	38.24	18	50	44	42.31	$X^2 = 6.11$ Df=2 P=0.047
	Able to afford	32	47.06	18	50	50	48.08	
	No Response	10	14.70	0	0	10	9.61	

DISCUSSION

8141 first grade students applied Turkish medical schools in 2012-2013 academic years as stated by OSYM 2012.¹⁶ Surprisingly very little was known about why they applied to study medicine, what their interests in medicine were and what was in particular they liked the idea of being a doctor and practicing medicine. The motivational and other factors used by medical students in making their career choices for specific medical specialties which had been looked at in a number of studies in the literature. There were however few studies that assess the generic factors which make Medicine itself of interest to medical students and to potential Medicine students specified by Livingstone MM et al.¹⁵In the

In the present study father's education was graduation and post-graduation 43 (41.35%) and 29 (27.89%) which was similar to the study done by Hunkar Korkaz in which most fathers were educated with a university degree and the fathers worked in professional occupations.

26 (25%) and 17 (16.35%) of the students mother's had graduation and post-graduation respectively. Curriculum exists for students and it was concerned both with content and process. Previous research by Bordage and Lemieux and Iry had demonstrated that Medical education students tend and to bring with them into medical training a personal professional scheme or a personal value system about medicine formed over the years from personal experience.²⁶ According to Kagan such personal value systems could act as filters through which others and perhaps their future, professional roles and practices could be interpreted.²⁷ A higher percentage of students in the present study were from professional families with well-educated parents when compared with similar reports in the literature. This might be explained by the fact that most successful Turkish parents often take a central role in the decision making process of their children. The career for the medical background of the parents with the career preference of students was in

present study there were more male students in comparison to females as shown in Table 1, but in the study done by Ferimann there was the increasing proportions of female students and about the problems in medical school of male and ethnic minority students quoted by Wars V, Robert et al.^{17,18}

There had also been a growing awareness that medical students typically come from relatively high social classes as quoted by Grenhalgh, Seyan and Boynton and Mc Manus, many from Medical families Horton, Lents and Laband, Mc Manus, Billings and concern that such individual have different motivations and interests in medicine as a career stated by Gough, Mc Manus, Lurngston and Kotana.^{15,19-25} In the present study also there was higher high socio economic status group. accordance with our expectation and the result of the career research quoted by Williams and Cantellion.²⁸

In the study done by Mc Manus, Lurugstone, Katona a UK survey identified four motivational dimensions for applying for Medical training.¹⁵ Indispesibility means having control and authority, helping people means caring and experiencing comparison, respect means being trusted and having prestige and science means being able to keep updated and to evaluate scientific evidence. In the present study, the motivational level as shown in Table 2 was so high that 33 (31.73%) students gave the eligibility test for three times and then they were selected i.e. they tried four times for choosing the medical school.

In the study done by Johansson and Hamberg the Swedish medical students held doctorship to be a profession of commitment, authority and duty but in the study done by Vaglum, Wiers, Jennsen and Ekeberg, a Norwegian study categorized the reasons for choosing Medicine as people oriented, status oriented and natural science oriented.^{29,30} In the present study as shown in Table 3, the various reasons for choosing medical school as a career in which 50 (31.44%) choose by their own choice. In the present study it was seen that 29 (27.88%)

of the students felt that the work load was too hard as shown in Table 4. As stated by Hunkar Korkaz et al becoming a doctor is hard work including applying, studying, testing, writing, researching, practicing and training medical educators have long researched various methods to facilitate teaching Medical curriculum for students.

As shown in Table 4, there was no resistance offered by the family members in 79 (75.96%) students but those 19 (18.27%) families who offered resistance gave the reason of late settlement due to longer duration 10 (52.64%)

Other surveys have also shown that “scientific nature and intellectual challenges of Medicine” to be an important motivation for medical students as commented by Todesco, Hayyes, Formult.³¹

CONCLUSION

In medical schools prestige, money and personal developments are important factors in career decision making in medical students. Though the medical students had chosen the medical school of their own will but still some had regrets.

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REFERENCES

- Pruthi S, Pandey R, Singh S, Aggarwal A, Ramavati A, Goel A. Why does an undergraduate student choose medicine as a career. National Med. J. India. 2013;26(3):147-9.
- Baharvand M, Moghaddam EI, Pouritemad H, Alavi K. Attitudes of Iranian dental students toward their future careers - an exploratory study. J. Dent Educ. 2011;75:1489-95.
- Huda N, Yousuf S. Career preference of final year medical students of Ziauddin Medical University. Educ Health (Abingdon). 2006;19:345-53.
- Draper C, Louw G. What is medicine and what is a doctor? Medical student's perceptions and expectations of their academic and professional carrier. Med. Teach. 2007;29:100-7.
- Marrison JM, Murray TS. Carrer preferences of medical students; influence of a new four-week attachment in general practice. British Journal of General Practice. 1996;146:721-5.
- Newton DA, Grayson MS, Thompsom LF. The variable influence of lifestyle and income on medical students' career speciality choice; data from two U.S. medical schools. 1998-2004. Academic medicine. 2005;80:809-14.
- Senf JH, Campos, Outcalt D and Kutob R. Factors related to the choice of family medicine; a reassessment and literature review. The Journal of the American Board of Family Medicine. 2003;16(6):502-12.
- Gabazzi GM, Seechi C, Curci P. Current factors affecting the choice of Psychiatry as a speciality; an Italian study. Acad Psychiatry. 2003;27(2):74-81.
- Bland KI, Isaccs G. Contemporary trends in student selection of medical specialities; the potential impact on general surgery. Archives of Surgery. 2002;137(3):259-67.
- Valente E, Wyott SME, Bern RJ, Griner PF. Market influences on internal medicine residents' decision to subspecialize. Annals of Internal Medicine. 1998;128(11):915-21.
- Leverette J, Massabki A, Peterson H. Factors affecting medical students' selection of Canadian Psychiatric residency programs. Part II. Some contemporary uses. Canadian Journal of Psychiatry. 1996;41(9):582-6.
- Osborn EH. Factors influencing students' choices of primary care or other specialities. Academic Medicine. 1993;68(7):572-4.
- Wierenga AR, Branday JM, Simon DT. Motivation for and concerns about entering a medical programme. British Dental Journal. 2003;193,471-3.
- Allen I. Doctors and their careers: a new generation. London: Policy Studies Institute. 1998.
- McManus IC, Livingston G, Katona C. The attractions of medicine: The generic motivations of medical school applicants in relation to demography, personality and achievement. BMC Medical Education. 2006;6:11.
- OSYM. 2012. Retrieved from <http://www.osym.gov.tr/belge/1-404> assessed on 12 Oct 2014.
- Ferriman A. Men should be encouraged to apply to medical school. British Medical Journal. 2005;325:325.
- Wass V, Roberts C, Hoogenboom R, Jones R and Van der V leuten C. Effect of ethnicity on performance in a final objective structured clinical examination: qualitative and quantitative study. British Medical Journal. 2003;326,800-3.
- Greenhalgh T, Seyan K, Boynton P. Not a University type: Focusgroup study of social class, ethnic and sex differences in school pupils' perceptions about Medical school. British Medical Journal. 2004;328:1541-44.
- Mc Manus IC. Social class data are problematic to interpret (letter). British Medical Journal, 329:800-801. Kingdom in 1996 and 1997: retrospective study. British Medical Journal. 2004;317:1111-6.

21. Horton RC. Admission to Medical school: from Audit to Action. *JRSM.* 1986;79:504-6.
22. Lentz BF, Laband DN. Why so many children of doctors become doctors: *JHR.* 1998;3:396-413.
23. Mc Manus IC. Factors affecting likelihood of applicants being offered a place in Medical school in the United states. 1998.
24. Belleugs K. Learning to live in a Medical household. *British Medical Journal.* 2004;328:235.
25. Gough HG, Hall WB. A comparison of Medical students from medical and non-medical families. *Journal of Medical Education.* 1977;52:541-7.
26. Bor dage G, Lemieux M. Cognitive structures of experts and novices: Semantic structures and diagnostic thinking of expert and novices. *Academic Medicine.* 1995;66(9):570-2.
27. Kagen DM. Implications of research on teacher beliefs. *Educational psychologist.* 1992;27(1):65-90.
28. Williams C, Cantellion P. A surgical career? The views of junior women doctors. *Medical Education.* 2000;34:602-7.
29. Johanson EE, Hamberg K. From calling to a scheduled vocation: Swedish male and female students reflections on being a doctor. *Medical teacher.* 2007;29: e1-e8.
30. Vaglum P, Wiers Jennsen J, Ekeberg O. Motivation for medical school: the relationship to gender and speciality preferences in a Nationwide sample. *Medical Education.* 1999;33:236-42.
31. Todisco J, Hayes S, Farnell D. Career motivations of male and female medical students. *Psychological Reports.* 1995;77:1199-202.

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