

**Original article:**

**Issues and dilemmas in career planning of medical students in Surat, India**

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**Abstract**

**Background:** In recent time issues of career choices in medical student has been gaining mounting attention. **Aim:** The current study was planned with an aim to understand issues and dilemmas in career planning of medical students in Surat city, India **Methods:** This is a cross-sectional study comprising of personal interviews using a self -designed structured questionnaire among 400 simple randomly selected medical students, interns and junior residents of Surat Municipal Institute of Medical Education and Research covering issues associated with their career concerns and future life. Data analysis was done with help of Epi Info 7. The study sample comprised of students 46.5%, intern doctors 36%, junior resident doctors 17.5%. **Results:** Females were more content with either a graduate or a post graduate degree, whereas males were more inclined towards pursuing super specialty degrees ( $P < 0.001$ ). Majority 62% of the respondent stated that given another chance, they would again like to choose for medical studies only. The percentages of females interested in a non clinical career abroad as compared to clinical career in India were lower. Majority 89% of respondents agree that there is more struggle for the students who enter M.B.B.S. from a non medical background. Percentages of males in favor of increasing the postgraduate/super specialty seats far exceeded females ( $P < 0.0001$ ). The vast majority of the respondents wanted the specialty and super specialty seats to increase as they wanted an equal ratio of Undergraduate: Postgraduate seats (70%). Those who did not favor the increase in the seats perceived that the quality of treatment may actually worsen rather than improve if the number of seats increased (60%). **Conclusion:** Freshly graduating doctors do face a severe dilemma regarding their future career after graduation, which is a very perplexing situation for them and their parents, as there is absence of any career guidance cell; absence of the culture and avenues of campus placement; and there is human need to be materialistically comparable to their counterparts who are already in a job as an engineer.

**Key words:** goals, clinical, non clinical, MBBS, post graduation, struggle.

**Introduction**

In recent time issues of career choices in medical student has been gaining mounting attention as it may influence scholar's learning and academic performance<sup>1</sup>. Right from the time of entry in the medical school or even before that, students have very strong career preference for or against a specialist branch<sup>2-4</sup>. Personal characteristics of the individuals<sup>5</sup>, gender<sup>7</sup>, personality types<sup>7</sup>, childhood experiences<sup>8</sup>,<sup>9</sup> are some of the factors found to be influencing these career predilections. Looking at the earning potential and the prestige issue involved, the most preferred specialty by male students is surgery, while the specialty most preferred by female students is obstetrics and gynaecology<sup>1</sup>. Persistence of such pattern of preference in long run creates an issue of

short fall of primary care physicians in long run especially in rural areas<sup>10,11</sup>. It need to be pointed out here that now some state governments like Gujarat have a bond in place which makes it compulsory for the graduating doctors to serve in the government health care facilities for a prescribed period. However this bond is applicable only to the students studying on free seats in government subsidized colleges and not in self financed medical colleges. The medical profession requires fine tuning of monetary aspect with social obligation, far more than any other profession<sup>12</sup>. This is in stark contrast to the privatized medical education, where the graduates feel that they have paid for their education which was without any government subsidies and hence they have no social obligations<sup>12-14</sup>, indicating us to

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## Dilemmas in career planning of medical students

choose for partial subsidization of private medical colleges against the loggishness of fully privatized education system<sup>14, 15</sup> to preserve the fundamental societal right to essential health<sup>14</sup>.

Another issue is that financial risk associated with establishing a private clinic for students from non-medical background, influences the preference of salaried position amongst them which might lead to higher frustration rate among them<sup>16</sup>.

Thus there are many issues and dilemmas associated with one's future and career planning amongst medical students. Exploration of these issues and dilemmas of medical students as well as factors influencing the same aids by providing vital information needed for planning educational programs. It also helps in future planning and setting priorities for country's health care system, as preference of medical specialties by medical students plays an important part in the future workforce in health-care system, particularly in terms of excess or shortage of doctors of particular specialty<sup>1</sup>. Hence, the current study was planned with an aim to understand issues and dilemmas of medical students in Surat city regarding their career planning.

### **Methodology**

It is a cross-sectional study design. SMIMER (Surat Municipal Institute of Medical Education & research) medical college is a Municipal Corporation Medical college located in Surat city. The present study was carried out in the SMIMER medical college. The undergraduate medical students, interns and junior residents of SMIMER were included in the sampling frame. Out of which 400 students were selected by Simple Random Sampling after obtaining the list of the students from the student section of the college. Written Informed consent was taken from all the participants. The study sample comprised of undergraduate medical students 186 (46.5%), intern doctors 144 (36%), junior resident doctors 70 (17.5%) of SMIMER medical college, as issue of study is of equal concern to all of them. Being an Undergraduate, Internee or junior resident of SMIMER College was the only inclusion criteria used.

The data collection was done with the help of a self-designed, pre-tested structured questionnaire. Questionnaire was not validated. The questionnaire contained qualitative and quantitative variables pertaining to study objective like future aims of the students, struggles faced by them and reasons for it, difficulties faced by students from non-medical family

background, perception on advantages and disadvantages of medical field as compared to other fields etc. It also included certain basic variables like gender, medical background of family etc. The variables were selected after through literature review and discussion with medical professionals.

The data collection was done by one-one personal interview of the students. The data collection was done by investigators themselves after pre training on the same. The data collection was done during a period of 29th September, 2007 to 28th December, 2007.

Data entry was done in Microsoft excel sheet. Double data entry was done to maintain quality assurance. This was followed by data cleaning and analysis with the help of Epi Info<sup>7</sup>. Frequencies and proportions were calculated wherever applicable. Chi square test was applied to check for difference between categorical variables. Prior to the study, ethical approval was taken from ethical committee of the Surat Municipal Institute of Medical Education & research medical college.

### **Results**

The respondents were asked about their goal after completion of M.B.B.S. (Bachelor of Medicine & bachelor of Surgery) studies, and the various replies by them are as given in Table 1.

Parameter	Gender		Total (%)
	Male (%)	Female (%)	
Post M.B.B.S. Goals in life (N=400)			
Post Graduation	121 (48%)	54 (36.5%)	175 (43.75%)
Private practice	46 (18.3%)	34 (23%)	80 (20.12%)
Job in Primary Health Center/Community Health Center/District hospital	9 (3.6%)	3 (2%)	12 (3.02%)
Union Public Service Commission job	16 (6.3%)	2 (1.4%)	18 (4.57%)
Study Master in Public Health/Masters in Business Administration in abroad	19 (7.5%)	13 (3.8%)	32 (7.95%)
Clear United States Medical License Examination (USMLE) and get residency match in United States of America	37 (14.7%)	42 (28.4%)	79 (19.23%)
Join family or other business	4 (1.6%)	0 (0%)	4 (1%)
Any other goal or yet undefined	0 (0%)	0 (0%)	0 (0%)

Table 1: Goals after completion of M.B.B.S. and perception on minimum qualification of doctor

Females were more content with either a graduate or a post graduate degree, whereas males were more inclined towards pursuing super specialty degrees (OR [Odds ratio] =3.456, CI [Confidence Interval] =2.087-5.723, P<0.001).

Perceptions on minimum qualification a doctor should possess ideally (N=400)

Only M.B.B.S is sufficient	6 (1.6%)	19 (12.8%)	25 (6.25%)
MD/MS is must	145 (57.5%)	105 (70.9%)	250 (62.5%)
Super specialty is must	101 (40.1%)	24 (16.2%)	125 (31.25%)

Table 2 depicts the comparison by medical graduates of their life as compared to their friends in other branches apart from medicine with regards to different aspects.

**Table 2: Comparative position of medicine as compared to other branches as perceived by medical students**

Comparison basis (N=400)	Medicine is better than other branches (%)	Medicine is worse than other branches (%)	There exists no difference (%)
Prestige in society	364 (91%)	16 (4%)	20 (5%)
Earning Potential	176 (44%)	76 (19%)	148 (37%)
Personal Satisfaction	132 (33%)	248 (62%)	20 (5%)
Duration of study weighted against the Monetary Compensation	112 (28%)	236 (59%)	52 (13%)

Interestingly, majority 62% of the respondent stated that given another chance, they would again like to choose for medical studies only (Table 3). More percentages of females as compared to males opined in favor of opting again for the M.B.B.S. studies (OR=0.621, CI=0.405-0.954, P=0.029). Reasons for the choice made are explored in Table 3.

**Table 3: Branch of preference given another chance in life: M.B.B.S. verses other branch**

Parameter	Gender		Total (%)
	Male (%)	Female (%)	
<b>Branch of preference given another chance in life (N=400)</b>			
MBBS	146 (57.9%)	102 (68.9%)	248 (62%)
Other branches	106 (42.1%)	46 (31.1%)	152 (38%)
<b>Reasons for opting MBBS again (N=248)</b>			
High prestige			99 (39.9%)
Good financial earning			62 (25%)
High personal interest in the branch			55 (22.2%)
Medical background of the family			32 (12.9%)
<b>Reason for opting other branch over medicine (N=152)</b>			
Long lengthy course			33 (21.7%)
Difficult study syllabus			46 (30.3%)
More costly course as compared to other branches			50 (32.9%)
Much struggle present for students from non medical family background			23 (15.1%)

The findings of these studies help us to assess the frustration amongst the medical students regarding their career choice, which is one of the study objective.

Upon being given a choice between a non clinical branch career abroad verses a clinical branch career in India, the percentages of females interested in a non clinical branch career abroad were lower (Table 4).

**Table 4: Given a choice between non clinical branch careers in abroad versus clinical branch career in India: What medical students prefer?**

Parameter	Gender		Total (%)
	Male (%)	Female (%)	
<b>Given a choice between two options: What medical students prefer? (N=400)</b>			
Non-Clinical branch abroad	114 (45.2%)	36 (24.3%)	150 (37.5%)
Clinical branch in India	132 (52.4%)	98 (66.2%)	230 (57.5%)
No comments	6 (2.4%)	14 (9.5%)	20 (5%)
<b>Reasons for selecting clinical branch in India (N=230)</b>			
Ease of availability of Post graduation seats in India			48 (21%)
Family support and much better social life in India			60 (26%)
Personal interest to stay back in India			30 (13%)
Well established family medical background in India (Parents are doctors)			69 (30%)
Growth of medical field in terms of infrastructure and development in India in recent years			23 (10%)
<b>Reasons for selecting non clinical branch abroad (N=150)</b>			
Earning opportunity is better abroad			102 (67.78%)
Better opportunity for those interested in research in abroad			17 (11%)
New upcoming technologies are only available in abroad			8 (5%)
Better scope in paramedical branches in abroad			24 (16%)

## Dilemmas in career planning of medical students

Majority 356 (89%) of respondents agree that there is more struggle for the students who enter M.B.B.S. from a non medical background (whose parents or immediate family members are not doctors and hence do not have a well established hospital/clinic or references), though this perception was comparatively lower among the female respondents (OR=3.085, CI=1.618-5.88, P<0.001) (Table 5).

**Table 5: Struggle in M.B.B.S. for non medical background students**

Parameter	Gender		Total (%)
	Male (%)	Female (%)	
<b>Agreed on existence of more struggle in M.B.B.S for students coming from non-medical family background (N=400)</b>			
Yes	235 (93.3%)	121 (81.8%)	356 (89%)
No	17 (6.7%)	27 (18.2%)	44 (11%)
<b>Reasons for more struggles faced by non medical family background students (N=356)</b>			
Have to create their own contacts with the patients and with other referring doctors			85 (24%)
Difficult to survive against well established and 'popular' doctors			89 (25%)
Difficult to get references without any previous identity			36 (10%)
Difficult to establish his/her own private practice and establish a new hospital			110 (31%)
No guidance from family members			36 (10%)
<b>Reasons for no difference in struggle for students belonging to non medical family background (N=44)</b>			
Practice depends more on skills rather than contacts and family background			15 (33%)
Existence of equal job opportunities for all			29 (67%)

Table 6 highlights the opinions of the students on the need of increase in post graduation seats. Percentages of males in favor of increasing the Post Graduation/super specialty seats far exceeded females (OR=2.519, CI=1.652-3.841, P<0.0001). The vast majority of the respondents wanted the specialty and super specialty seats to increase as they wanted an equal ratio of Undergraduate to Post graduate seats 176 (70%); for an improved scopes for graduate students of getting admission in different branches 55 (22%); and for improved health care

facilities for the patients 20 (8%). Those who did not favor the increase in the post graduation seats perceived that the quality of treatment may actually worsen rather than improve if the number of seats increased 65 (60%) and also that such a seat increase would fuel more competition 43 (40%) amongst doctors. The responses for the respondents with regards to the various struggles being faced by them after completing M.B.B.S. and preparing for pre-post graduation entrance examination are also seen in Table 6.

**Table 6: Opinions on increase in numbers of Post graduation seats**

Parameter	Gender		Total (%)
	Male (%)	Female (%)	
<b>Opinion of increase in number of post graduation seats (N=400)</b>			
Favoring	179 (71%)	73 (49.3%)	252 (63%)
Non favoring	57 (22.6%)	51 (34.5%)	108 (27%)
No comments	16 (6.3%)	24 (16.2%)	40 (10%)
<b>Struggles faced after completion of M.B.B.S/while preparing for Pre Post graduation entrance exams</b>			
Excess competition for securing a post graduation seat	140 (55.6%)	80 (54.1%)	220 (55%)
Low income on M.B.B.S. degree alone	27 (10.7%)	13 (8.8%)	40 (10%)
Reservation quota in post graduation admission seats	59 (23.4%)	41 (27.7%)	100 (25%)
Frustration while preparing for Post graduation entrance examination	14 (5.6%)	10 (6.8%)	24 (6%)
Indecisiveness and lack of guidance on what are the options available post M.B.B.S	12 (4.8%)	4 (2.7%)	16 (4%)

## **Discussion**

Exploration of future goals of recent graduates reveals that persuasion of Post graduation was the most common fascination amongst them as also indicated by another survey<sup>11</sup>, though appearing for USMLE (United States Medical Licensing Examination) /GRE (Graduate Record Examination) /TOFEL (Test of English as a Foreign Language) and going abroad were also common aspirations amongst the student; which points towards a fragile issue of brain drain.

What is interesting in the study is that the percentage of medical graduates who are interested in a job at a PHC (Primary Health Center) /CHC (Community Health Center) /District hospital is woefully abysmal 3% only, which is the irony in India today, where most of the peripheral job posts for doctors remain chronically vacant while the urban practitioners struggle in the puddle of stiff competition to survive. Importance of the problem of shortage of primary care physicians especially in rural areas, which is seen as a less attractive career choice by medical students was also highlighted in a nationwide survey from Germany<sup>11</sup>. Studies have exposed that countries with well-built primary care structure have superior health outcomes, less preventable deaths and lesser expenses than those with meager primary care<sup>17</sup>. There is therefore a need for finding ways ensuring ample enrollment into primary care.

Another matter of concern highlighted by the study is that less than quarter of the graduates wants to go in to the private general medical practice, which is similar to other studies highlighting low popularity of Family Medicine (which is similar to General Practice-GP in India) as a specialization branch amongst medical students<sup>1,18,19</sup>. While specialization has a glamour, prestige and financial reward attached to it; GPs (General Practitioners) have well founded fears of professional isolation from working in the community rather than institutions. There are no clear cut geographical distinctions between the work of GPs and specialists and in many area specialists have taken over work that GPs should be doing by right; particularly in Obstetrics, minor surgery, most of Pediatrics, quite a bit of Ophthalmology, ENT (Ear, nose, and throat) and Psychiatry. Hence the era when a GP could lead fairly fulfilling lives without resorting to the dubious practices and earns a respect for their service to the community, is fast vanishing; thus averting students

from taking it up as a viable career option. This in turn creates a vacuum likely to be filled up by quakes and alternative system of medicine practitioners, who all end up practicing allopath<sup>10</sup>.

Thus, majority of graduates if it was in their hands would go for Post graduation studies and specialize rather than be a MO (Medical Officer) or GP; unfortunately this freedom of choice is not tempered by ability, aptitude and resources. A Jordan based study also reveals that specialty reputation and anticipated income are important influences in student's high preference for Surgery, Pediatrics and Obstetrics and Gynecology like branches; where as other specialties like public health, family medicine and basic sciences were not preferred by almost all students<sup>1</sup>. Some other researchers have also reported similar findings<sup>20, 21</sup>.

In present study only around 20% of students opted to go for a private practice. Higher preference for working in a salaried position over private practice was also highlighted by a nationwide survey from Germany<sup>11</sup>.

Present study identifies that given another chance around 38% of students would not opt for medicine as their career choice again. A UK bases study on reasons for attrition from undergraduate medical course has also found 'wrong choice of medicine as a career' and hence shifting to another course as an important reason for attrition especially in initial two years of the course<sup>22</sup>. In present study cost involved in the medical study and tough curriculum to cope with were reported as major reasons for non preference of medicine again as a career choice. Similar reasons were also responsible for higher attrition in above study<sup>22</sup>.

In present study proportion of females content with the graduate degree alone ( $P < 0.001$ ) and with medicine as a choice of career ( $P < 0.029$ ) was higher than males, indicating higher level of satisfaction amongst females. Researchers have reported that female medical students have a more idealistic approach and are less influenced by the prospect of a good income or prestige than their male counterparts<sup>1</sup>. Female students also have comparatively less expectations on what is regarded as an adequate income<sup>11</sup>.

The findings on the opinions of the respondents on the need to increase in the Post graduation seats also

raises the same crucial issue of what should be the ideal composition of doctors in India, both in the context of the private sector as well as the government health services. Another important matter in this context is whether our medical schools are actually in a position to increase their Post-graduate student's intake when even the condition of Under-graduate education is in the doldrums.

Additional research is undoubtedly desirable to recognize which factors contribute to medical students' career preferences and dilemmas<sup>23-25</sup>. What one needs to keep in mind is that "Influencing career preference in one direction may have unpredictable and unwanted effects on preferences in another direction?"<sup>1</sup>.

### **Conclusion**

Medical students face a dilemma regarding their career and future life. After years of studies, the

brightest of these students, face an uncertain future, wherein they face a stiff competition for entry into post graduation seats with quota system; low pay as residents; absence of any career guidance cell; absence of the culture of campus placement; and their need to be materialistically comparable to their counterparts who are already in a job as an engineer. Vital issues such as medical ethics; quality of medical education; and feelings of serving the nation; have now been put on the backburner and the number of aspirants repenting on their admission into medical colleges have been increasing<sup>23-25</sup>. Of course, students whose parents are doctors and possess an existing health care facility are content with their decision. It is high time for government to give a serious thought on the career prospects of doctors, otherwise India would be saddled with a defunct health care system obsessed with specialist and super specialists.

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