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Original Research Article

Career Preferences Among Final Year Medical Students and Interns: A Cross Sectional Study

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ABSTRACT

Introduction: The increase in the number of undergraduate medical seats in India, suggests the need for faculties trained in specialist fields to ensure adequate education at the university level. Career selection is considered an important aspect of medical course admission and some career options are often overlooked by students. An insight into factors affecting the decision making could aid preparing workforce to prevent the over or under supply of doctors in various specialties.

Aim: To determine the career preferences among final year medical students and interns in a private medical college in Tamilnadu, India.

Materials and Methods: A cross sectional survey was conducted among final year part two MBBS students and CRRI's who were going to complete their internship in three months, by a pre validated questionnaire consisting of two sections, the first section consisting of demographic details and the second section consisting of fixed response questions about their career choices. A sample of 100 final year students and 140 CRRI's participated in this study. The primary data is analysed with SPSS software, and chi square test was done.

Results: Female students mostly preferred General medicine, Obstetrics & gynaecology and Paediatrics, while male students preferred General medicine, Paediatrics, General Surgery and Radiology. Among the students who participated in the study, 20.4% have not decided which speciality to pursue.

Conclusion: The medical students career options in our medical college was in favour of a few departments.

KEY WORDS: Career preferences, Medical students, CRRI's.

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INTRODUCTION

Medical education requires the undergraduate students to choose from a wide range of medical specialties. The differences among undergraduate students regarding their preference of a medical specialty is demon strated by numerous studies. It is important to understand the career choices of medical students as they are key determinants of the medical workforce and also influence how, when, and where medical care will be delivered. In order to discuss the policy implications of managing numbers of specialists, it

is critical to elucidate why some specialties are chosen more than others [1].

The factors affecting career choices among medical students include their demography, indebtedness, career-related beliefs, values and attitudes, personality profiles and their academic performance [1]. During preclinical and clinical experiences medical students construct their professional identity through acquisition of new knowledge and skills, interactions with other medical students, health professionals and patients. In addition to that, the cultural and societal values also influence future physicians, particularly through student interactions with family, friends, and physicians [2]. The choice of speciality might also be influenced by factors such as the characteristics of a health care delivery system, the practice opportunities available, or the policies of the government [3].

With the continuing evolution of health care delivery and with new advances in medical technology, the appropriate specialty mix within the medical workforce is still debated [4]. Research about career preference can help to provide important information to aid in planning medical educational programs, set priorities and also to plan for providing adequate health care [4]. The medical specialties preferred by medical graduates plays an indispensable role in determining future workforce of the healthcare system, especially in times of over or undersupply of doctors [4].

With an intake capacity of 83,275 MBBS seats and 42,720 PG seats, there are a total number of 558 medical colleges currently functioning in India. There is an increased number of undergraduate medical seats in the current medical education scenario in India. This increase indirectly suggests the need for professors trained in specialist fields to ensure adequate education at the university level [5].

However, there is a very little understanding of career preferences made by the students. This study was conducted out among final year medical graduates and interns in a medical college which is located in rural part of Tamil Nadu, India.

MATERIALS AND METHODS

The study was designed as a cross sectional survey using a pretested validated questionnaire. The questionnaire consisted of two sections, the first section consisted of personal and demographic details and the second session consisted of eleven fixed response questions about their career choices. After the clearance from institutional research board for no involvement of ethical issues in this study, the questionnaires were issued to final year part two MBBS students and CRRI's who were about to complete their internship in three months. All the students were informed about the purpose of the study and were explained about how to fill up the questionnaire. An informed written consent was obtained from all of the students who participated in the study.

The total number of study participants are 140, which comprised of 100 final year students and 140 CRRI's. The response rate was 100 percent, because we allowed the interested students to participate in this study. The primary data which was obtained was analysed with SPSS software, and chi square test was done to compare gender with the nature of career preference, and also with demographic background.

RESULTS

The total number of students who participated in the study were 240; 100 were final year students and 140 were interns. Around 20.4 % of the total study participants have not decided which speciality to pursue.

The demography and other characteristics of the respondents are shown in Table 1. Most of the female students opted for General medicine, Obstetrics & Gynaecology followed by Paediatrics. Only a very few female students opted for orthopaedics, ophthalmology, otorhinolaryngology, pharmacology or forensic medicine. Most of the male students opted for General medicine, Paediatrics, Surgery and Radiology. Male students did not choose physiology and ophthalmology at all (Table 2). Tables 3 show the first choice of career by semester.

Table 1: Distribution of study participants according to demographic variables (N=240).

Sl. No	Characteristic	Final year (n=100)	CRRI fresh (n=91)	CRRI finished (n=49)	P
1	Age	20.93 ± 0.53	21.99 ± 0.70	22.91± 0.65	<0.001
2	Male	42 (42%)	32 (35.2%)	31 (66%)	0.002
3	Urban background	66 (66%)	62 (68.1%)	30 (63.8%)	0.874
4	Doctor in the family	21(21%)	11 (12.1%)	3 (6.4%)	0.04

Table 2: Distribution according to first choice of specialty by gender (N=240).

Sl. No	Specialty	Women (n=135)	Men (n=105)
1	Medicine	33 (24.4)	16 (15.2)
2	Surgery	8 (5.9)	11 (10.5)
3	Orthopedics	1 (0.7)	9 (8.6)
4	Radiology	9 (6.6)	11 (10.5)
5	Dermatology	4 (2.9)	2 (1.9)
6	Pediatrics	22 (16.3)	12 (11.4)
7	Ophthalmology	2 (1.5)	0 (0)
8	Psychiatry	2 (1.5)	1 (1.0)
9	Anesthesia	1 (0.7)	2 (1.9)
10	Obstetrics and Gynecology	27 (20)	1 (1.0)
11	Oncology	2 (1.5)	0 (0)
12	Otorhinolaryngology	1 (0.7)	1 (1.0)
13	Neurology	1 (0.7)	3 (2.9)
14	Community Medicine	2 (1.5)	1 (1.0)
15	Forensic medicine	1 (0.7)	2 (1.9)
16	Physiology	1 (0.7)	0
17	Pathology	1 (0.7)	1 (1.0)

X^2= 48.92 (16), p=<0.001

Table 3: Distribution according to first choice of specialty by semester (N=240).

Sl. No	Specialty	Final year (n=100)	CRRI (n=140)
1	Medicine	21 (21%)	26 (18.6%)
2	Surgery	8 (8.0%)	11 (7.9%)
3	Orthopedics	7 (7.0%)	3 (2.1%)
4	Radiology	12 (12%)	8 (5.7%)
5	Dermatology	4 (4.0%)	2 (1.4%)
6	Pediatrics	17 (17%)	17 (12.1%)
7	Ophthalmology	2 (2.0%)	0
8	Psychiatry	1 (1.0%)	2 (1.4%)
9	Anesthesia	2 (2.0%)	1 (0.7%)
10	Obstetrics and Gynecology	12 (12%)	16 (11.4%)
11	Oncology	2 (2.0%)	0
12	Otorhinolaryngology	2 (2.0%)	0
13	Neurology	4 (4.0%)	0
14	Community Medicine	1 (1.0%)	2 (1.4%)
15	Forensic medicine	3 (3.0%)	0
16	Physiology	0	1 (0.7%)
17	Pathology	1 (1.0%)	1 (0.7%)

DISCUSSION

This study evaluated career preferences of medical students in a private medical college located in rural part of Tamil Nadu. Our data shows that gender plays an important role in career preferences. Most of the female students in our study chose General medicine, Obstetrics and Gynaecology followed by Paediatrics and very few chose Orthopedics, Anesthesia and Otorhinolaryngology. This results are in accordance with various international studies showing that women are more interested in gynaecology or paediatrics than men [6,7,8].

Most of the male students in our study opted for General medicine, Paediatrics, Surgery and Radiology, and very few chose Psychiatry, Obstetrics and Gynaecology and Otorhinolaryngology, while none of them chose ophthalmology. Previous studies revealed that female physicians are influenced in their career choice by family-friendly working conditions and by the possibility, to have close relationships to patients, a sizeable income and a short residency while the male physicians, are more often influenced by research and prestige [9]. Only very few students preferred pre clinical specialities as their career choice. Among the pre clinical specialities, Community Medicine, Forensic medicine, Physiology and Pathology were the only specialities opted by the students. The career preferences made by medical students plays a significant role in the composition of medical workforce especially when there is oversupply or undersupply of doctors in a particular speciality. There is an increased number of undergraduate medical seats in the current medical education scenario in India which indirectly suggests the increased need for professors trained in specialist fields to ensure adequate education at the university level.

Among all students, General medicine was preferably favored. However, as students grew older, the desire to take up surgery diminished, while interest in Orthopedics improved. Students from the eighth semesters were more likely to be impacted by 'experience when posting in the specialty' than those in the CRRIs; they officially made their career decisions after joining the medical course. Perhaps, in our set-up, in certain subjects, student interactions may be changed and rotations used as an incentive to affect the job preferences of students [10,11].

Studies have shown that faculty and resident role models play an important role in job choices [12,13]. A choice of specialty was expressed by eighth semester students before entering the internship. When students move through the internship, career preferences

change dynamically, gaining exposure to diversity.

While we did not follow up on the preferences of the students, we believe that when they first entered the course, our students had some choices and that these shifted to their new ones. In future years, it is just as likely that their decisions will change. Obstetrics and Gynaecology career preference did not rate high among males. Otorhinolaryngology, anaesthesia and community medicine have had few participants.

If these reasons have been established, strategies to affect career decisions may be planned. Nearly 80 percent of students choose a career based on 'personal interest' in all semesters. Those related to job security, credibility, lifestyle/prestige, career advancement, freedom and income were other variables classified as significant by at least half of the respondents. Such variables were not very different from those reported by students in other Asian and Western countries [12-15].

After graduation, many of our students sign up for the United States Medical License Test, aiming to replace their Indian degree with an American one. On the basis of its utility overseas, over a quarter of our students choose a specialization. The literature indicates that doctor migration from countries like India and Pakistan is linked to the anticipation of better income, infrastructure and protection abroad [16,17]. Senior students' tendency to move may have much to do with the experiences of their peers in India and abroad [18]. The final career choice of students can be very different from what they are actually aiming to.

Limitations: The results of this study should be viewed in the context of the following limitations. Since the present study was a cross sectional study, specialty preferences were measured at one point in time. Also, this study also did not investigate the sub-specialty preferences of the students which might be an important reason for a majority of students selecting General medicine. Also, since the study was only conducted in one private medical college in rural Tamilnadu, and the results may not be generalizable to the entire country. However, the present study can serve as pilot for more comprehensive studies in the future following up the medical students from their first year in medical college to the time they choose the specialties.

CONCLUSION

The career choices of medical students are key determinants of the structure of medical workforce and influence the delivery of speciality medical care. Most of the female students in our study chose General medicine, Obstetrics and Gynaecology followed by Paediatrics and most of the male students in our study opted for General medicine, Paediatrics, Surgery and Radiology. The career preferences of students in our medical college was clearly in favour of a few departments. Also,20.4 % of the total study participants have not decided which speciality to pursue. A detailed study to ascertain the reasons for students preferring certain specialities and not taking up certain specialities would help to understand how different medical specialties are perceived by medical undergraduate students or how career preferences are made by them.

Conflicts of Interests: **None**

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