



## Medical student's speciality preferences and factors influencing them

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**ABSTRACT: Background:** Post graduation speciality preference plays a vital role in a medical student's life. Post graduate medical education is compulsory in India to practice speciality medicine. **Purpose of Study:** This study was conducted to find out the preferred post graduate specialities of Final year MBBS students and explore the factors influencing them. The study also determines the influence of gender on career choices of medical students.

**Materials & Methodology:** A cross sectional study was conducted among Final year medical students of 2016-2017 batch of a medical college in Amroha (U.P.). Data was collected with the use of pretested semi structured Proforma. This included questionnaires regarding socio-demographic profile, preference for the specialty, factors responsible for the selection of particular branch and perceptions about working in rural areas. These questionnaires were distributed to eighty nine medical interns who gave verbal consent and which were approachable at the time of study.

**Results & Conclusion:** Majority of students were interested to pursue specialisation in clinical branches (86.5%) compared to Nonclinical and Paraclinical branches (9%). The four most common specialties chosen were medicine, surgery, obstetrics and gynecology and pediatrics. Gender played a role in choosing specialty in our study, with male students opting for medicine and surgery, and female students preferring Obstetrics and Gynecology and Pediatrics. Interest in the subject was found to be most common factor (30.34%) responsible for preference of particular medical specialty among medical students.

**Recommendations:** Deficit of teachers in Nonclinical and Paraclinical subjects should be avoided through encouragement and promotion of interest of medical students in these subjects and promotion of job availability in these subjects.

**Keywords:** Post graduation, Medical Students, Speciality Preferences, Influencing Factors

### I. INTRODUCTION

Career choice of medical students plays a vital role for health care system of a country. It also plays a crucial role to bring medical specialties into mainstream focus. There are several factors having strong influence on choice of career specialty among medical students. Some of them are interest, occupation of the parents/ siblings, family background and quality of lifestyle, personality, type of medical school, experience while clinical postings, and role-modeling of the tutors. Our study is an attempt to find the preferred post graduate specialties of Final year MBBS students in a medical college and factors influencing them.

### II. AIMS AND OBJECTIVES

1. To find out preference order for different medical specialties among Final year medical students.
2. To find out different factors responsible for the selection of particular specialty.

### III. MATERIALS AND METHODOLOGY

A cross sectional study was conducted among Final year medical students of 2016-2017 batch of a medical college in Amroha (U.P.). Data was collected with the use of pretested semi structured Proforma. This included questionnaires regarding socio-demographic profile, preference for the specialty, factors responsible for the selection of particular branch and perceptions about working in rural areas. These questionnaires were distributed to eighty nine medical interns who gave verbal consent and which were approachable at the time of study. Students were allowed to choose only one answer in each question. Data was collected and put in to spread sheet of MS Excel. Simple descriptive statistics was used to generate frequencies and percentages.



**IV. RESULTS:**

All the medical students were within the age group of 22 to 25 years (Mean age = 23.4years). Out of all medical students, only 2.2% were married and rest all (97.8%) were unmarried.

Parents of 30.3% and siblings of 12.4% medical students were doctors. Majority of the medical students were found to be Hindu by religion (59.6%).

**Table 1: Socio-demographic profile of study subjects (n=89)**

Sr. No.	Variable	No. of Students (%)	
1	Age	22	17 (19.1%)
		23	31 (34.8%)
		24	28 (31.9%)
		25	13 (14.6%)
2.	Sex	Male	46 (51.7%)
		Female	43 (48.3%)
3.	Religion	Hindu	53 (59.6%)
		Muslim	18 (20.2%)
		Buddhist	11 (12.4%)
		Others	7 (7.9%)
4.	Marital Status	Unmarried	87 (97.8%)
		Married	2 (2.2%)
		Divorced/Seperated	0
5.	Parent's Occupation	Doctor	27 (30.3%)
		Others	62 (69.7%)
6.	Sibling's Occupation	Doctor	11 (12.4%)
		Others	78 (87.6%)

**Table 2: Sex wise choice of Medical Speciality of Study Subjects**

Sr. no.	Medical Speciality	Male (N <sub>1</sub> =46) (51.7%)	Female (N <sub>2</sub> =43) (48.3%)	Total (N=89)
1	Medicine	11 (12.36%)	9 (10.1%)	20 (22.47%)
2	Pediatrics	2 (2.25%)	9 (10.1%)	11 (12.36%)
3	Surgery	10 (11.24%)	0	10 (11.24%)
4	OBGY	0	10 (11.24%)	10 (11.24%)
5	Ophthalmology	2 (2.25%)	6 (6.74%)	8 (9%)
6	Dermatology	4 (4.5%)	4 (4.5%)	8 (9%)
7	Orthopaedics	6 (6.74%)	0	6 (6.74%)
8	Radiology	2 (2.25%)	0	2 (2.25%)
9	Anaesthesiology	0	2 (2.25%)	2 (2.25%)
10	Para & Non Clinical	5 (5.62%)	3 (3.37%)	8 (9%)
11	Others	4 (4.5%)	0	4 (4.5%)

**Table 3: Influencing Factors for choice of Speciality (n=89)**

Sr. No.	Influencing Factors / Reasons for choice of speciality	No. of Students (%)
1	Interest	27 (30.34%)
2	Income	18 (20.22%)
3	Job availability	8 (9%)
4	No emergency	3 (3.37%)
5	Specialty Reputation	2 (2.24%)



6	<b>Scope of Practice</b>	8 (9%)
7	<b>Occupation of Parents / Siblings</b>	23 (25.8%)

## V. DISCUSSION

Out of total 89 medical students which included 46 males (51.7%) and 43 Females (48.3%), everyone were willing to pursue post graduation after MBBS and majority of them (95%) wanted to pursue the same in medical field. None of the medical students opted for General practice and none had inclination to specialise in Family Medicine. Most of the medical students preferred Medicine as speciality for their Post graduation (22.47%). Majority of Male students were interested to pursue their specialisation in the field of Medicine (12.36%), Surgery (11.24%) and Orthopaedics(6.74%). On the other hand, most of the Female students were interested in Obstetrics and Gynaecology (11.24%), Medicine (10.1%) and Paediatrics (10.1%) as compare to male students. Majority of students were interested to persue specialisation in clinical branches (86.5%) compared to Nonclinical and Paraclinical branches (9%) which could be due to lack of proper awareness about the scope of non clinical subjects. In this study, a very few medical students have opted for Ophthalmology, Orthopaedics, Radiology, Dermatology, anaesthesiology, ENT, Psychiatry, Pathology and other post graduation subjects which could be due to relatively small sample size, rather than the actual lack of interest for these specialities. 4% medical students wanted to study management further or wanted to go for civil services or any other non medical field.

Interest in the subject was found to be most common factor (30.34%) responsible for preference of particular medical specialty among students apart from other factors like occupation of parents(25.8%), financially highly paid speciality or Income (20.22%), Scope of Practice(9%), Job availability(9%), No emergency(3.37%) and Speciality Reputation (2.24%). Amongst all medical students, only 24% medical students were willing to work in rural areas whereas remaining 76% were not willing.

## VI. CONCLUSION

In this study, the majority of medical students do not plan to pursue a career in general practice with MBBS degree. Also none of the students intended to specialise in Family Medicine which can lead to a deficit of General Family Physicians. In this study, most of the students preferred clinical subjects, only 8 students preferred nonclinical and paraclinical subjects. The

comparatively low number of medical students choosing preclinical and paraclinical specialities is a worrisome fact, as it may result in a serious deficit of teachers in these fields in the future. The four most common specialties chosen were medicine, surgery, obstetrics and gynecology and pediatrics. Gender played a role in choosing specialty in our study, with male students opting for medicine and surgery, and female students preferring Obstetrics and Gynecology and Pediatrics. Amongst all study subjects, only 24% medical students were willing to work in rural areas whereas 76% were not willing even when most of the Indian population resides in rural areas. Hence there is a need to motivate medical students to work in rural areas.

### Limitations of Study

The current study should be interpreted in light of some limitations. This survey conveys career preferences of a small size of medical students, therefore the results of present study cannot be generalized. Further studies including large, randomized sample size of medical students will give a better idea about the career choices of medical students and factors influencing them.

### Recommendations

There are many factors playing role in the specialty selection and preference among the medical students. These factors should be equally justified and addressed. Medical students should be motivated to join as Family Physician so as to avail Basic health services in each and every part of country. Deficit of teachers in Nonclinical and Paraclinical subjects should be avoided through encouragement and promotion of interest of medical students in these subjects and promotion of job availability in these subjects.

## REFERENCES

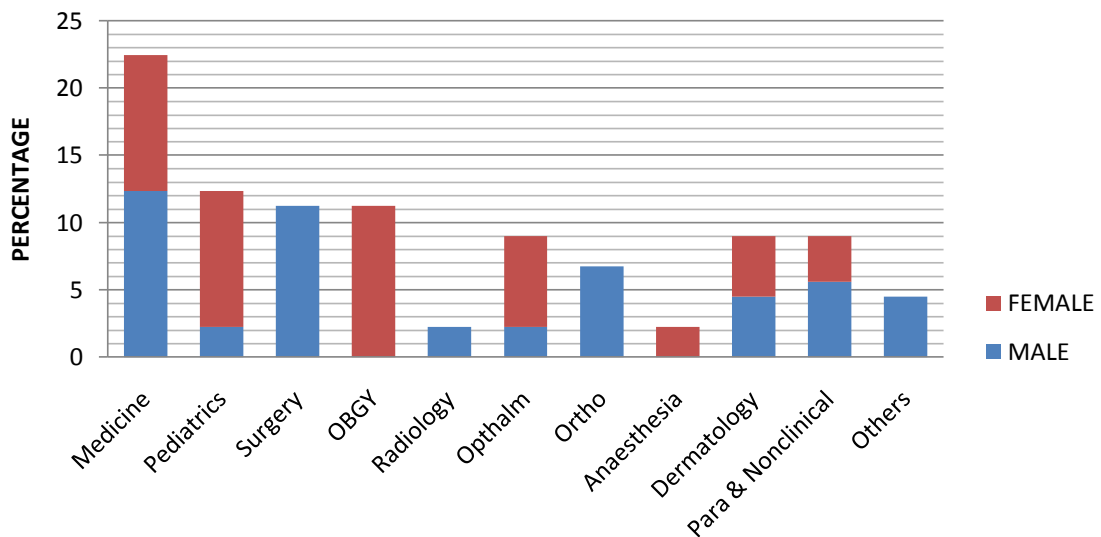
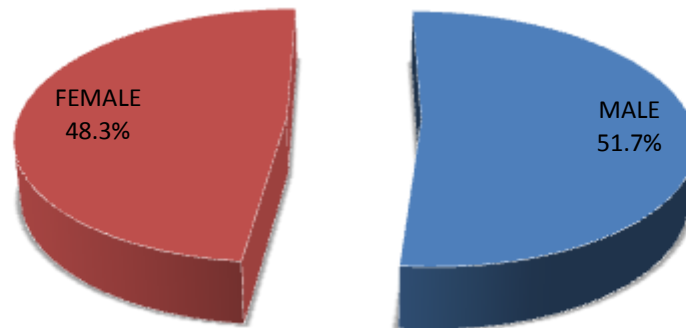
- [1]. Smitha Bhat, Landric D'Souza, Jeffrey Fernandez. Factors influencing the career choices of Medical Graduates. Journal of Clinical and Diagnostic Research, 2012 February, Vol-6(1):61-64.
- [2]. Mr. Bedanta Roy, Banerjee I, Sathian B, Mondal M, Kumar SS, Saha CG. Attitude of Basic science Medical students towards postgraduation in medicine and surgery: A questionnaire based cross sectional study



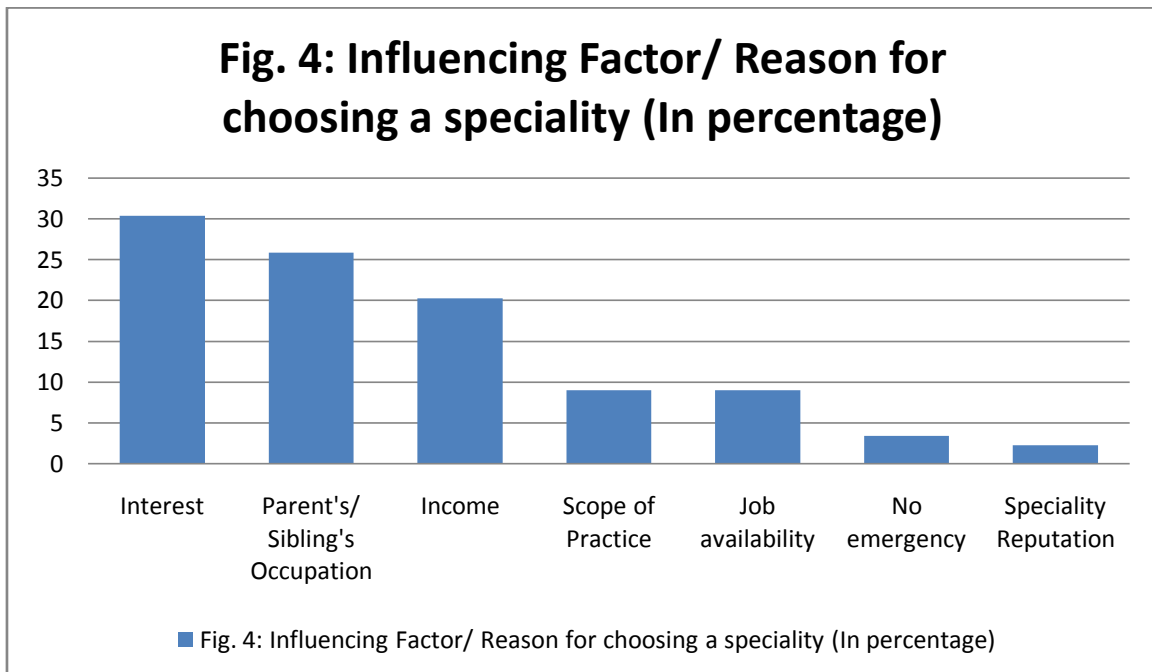
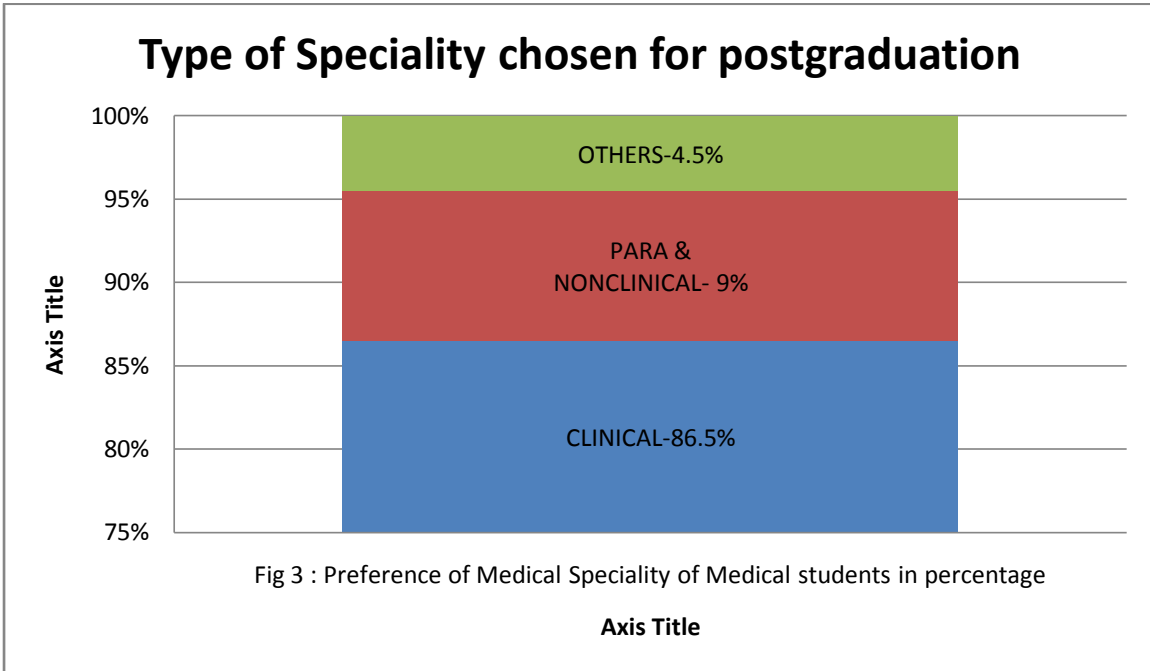
- from western region of Nepal. Nepal journal of Epidemiology 2011;1(4):126-134.
- [3]. Kathrin Kiolbassa, Antje Miksch, Katja Hermann, Andreas Loh, Joachim Szecsenyi, Stefanie Joes, Katja Goetz. Becoming a general practitioner- which factors have most impact on career choice of medical students? BMC Fac Prac. V.12; 2011:12-25. PMID: PMC3112095.
- [4]. Neeraj Gour, Dhiraj Shrivastava, Paharam Adhikari, Anumita Shahi, Sharma MK, Mahajan PC. Speciality preference among medical students and factors affecting it. OJHAS Vol.10, Issue 2:(Apr-Jun 2011).
- [5]. Sophie Querido et al. Factors affecting senior medical students' career choice. Int J Med Educ. 2018; 9:332-339; doi: 10.5116/ijme.5c14.de75.
- [6]. Rajesh K Jha et al. Subject preferences of first- and second-year medical students for their future specialization at Chitwan Medical College and Teaching Hospital, Chitwan, Nepal – a questionnaire-based study. Adv Med Educ Prac, 2015; 6 : 609-613.
- [7]. Arun Kumar et al. Factors Influencing Medical Students' Choice of Future Specialization in Medical Sciences: A Cross-Sectional Questionnaire Survey from Medical Schools in China, Malaysia and Regions of South Asian Association for Regional Cooperation. N Am J Med Sci. 2014 Mar; 6(3): 119-125.
- [8]. Pei-Yeh Chang et al. Factors Influencing Medical Students' Choice of Specialty. Journal of the Formosan Medical Association Volume 105, Issue 6, 2006, Pages 489-496. [https://doi.org/10.1016/S0929-6646\(09\)60189-3](https://doi.org/10.1016/S0929-6646(09)60189-3).
- [9]. Mathieu levaillant et al. Factors influencing medical students' choice of specialization: A gender based systematic review. Lancet Volume 28, November 2020, 100589.
- [10]. S.S. Budhathoki, P.A.C. Zwanikken, P.K. Pokharel, A.J Scherpbier. Factors influencing medical students' motivation to practise in rural areas in low-income and middle-income countries: a systematic review . BMJ Open, 7 (2) (2017 Feb 1), Article e013501.
- [11]. E. Svirko, M.J. Goldacre, T Lambert. Career choices of the United Kingdom medical graduates of 2005, 2008 and 2009: questionnaire surveys. Med Teach, 35 (5) (2013 May), pp. 365-375.
- [12]. Y.-Y. Kim, U.-N. Kim, Y.S. Kim, J.-S Lee. Factors associated with the specialty choice of Korean medical students: a cross-sectional survey. Hum Reso Health, 14 (1) (2016 Dec), pp. 1-8.
- [13]. Jalina Laishram et al. Subject preference for specialization and factors influencing it among medical graduates of Regional Institute Of Medical Sciences, Imphal. JMS Vol. 33 Issue 2: 2019 Page : 81-85. DOI: 10.4103/jms.jms\_51\_19
- [14]. Thirunavukkarasu Arun Babu et al. Speciality Preferences of Indian Medical Graduates and Factors Influencing them. RJPBCS April – June 2012; Volume 3 Issue 2 : Page No. 263.
- [15]. Priya Saigal et al. Factors considered by medical students when formulating their specialty preferences in Japan: findings from a qualitative study. BMC Medical Education 2007; 7:31 doi:10.1186/1472-6920-7-31.
- [16]. Nighat huda, sabira yousuf. Career preference of final year medical students of ziauddin medical university. Education for health november 2006; vol. 19, no. 3: pg. 345 – 353.



**Fig. 1 : Sex wise distribution of Medical Students**

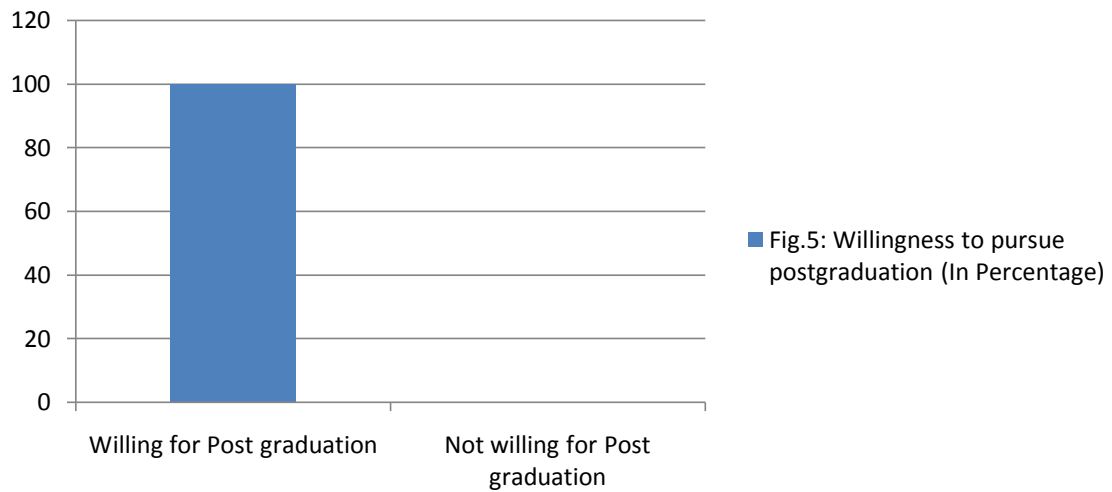


**FIG 2 SHOWING CHOICE OF MEDICAL SPECIALITY OF MEDICAL STUDENTS IN PERCENTAGE**





**Fig.5: Willingness to pursue postgraduation  
(In Percentage)**



**Fig 6: Willingness to work in Rural area (In Percentage)**

