

Original Research Article

Subject preference for future specialization among undergraduate medical students and their perception towards community medicine as a career option: a cross sectional study

Bitan Sengupta*, Rituparna Das, Shampa Das

Department of Community Medicine, Agartala Government Medical College and GBP Hospital, Agartala, Tripura, India

Received: 20 May 2019

Accepted: 09 July 2019

*Correspondence:

Dr. Bitan Sengupta,

E-mail: bitanmbbs@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: India is currently in need of large number of public health specialists to combat the double burden of communicable and non-communicable diseases. But it was seen that medical students are less interested in a career as a public health specialists. This study aimed to assess the preferences of subjects for future specialization among medical students and to understand their attitude towards Community Medicine as a future career.

Methods: A cross-sectional study was done among 200 MBBS students selected by stratified random sampling at Agartala Govt. Medical College of Tripura during April to May 2018. Data were analyzed using SPSS (version 25.0).

Results: Medicine was the most preferred subject (35%) for specialization followed by obstetrics and gynecology (16%) and surgery (15%). About 4% of the participants opted Community Medicine for future specialization. Lack of personal satisfaction, lack of future career prospective and lack of opportunity to earn name and money ranked top most cause for not choosing Community Medicine as a career.

Conclusions: Preference of Community Medicine for future specialization was very limited among medical students. Interest on Community Medicine as a career among MBBS students can be improved by proper counseling and modification of curriculum.

Keywords: MBBS students, Future specialization, Community medicine

INTRODUCTION

India is currently experiencing the double burden of communicable and non-communicable diseases. In recent decades, the age pattern of morbidity has been rising, primarily due to increased prevalence of chronic diseases, resulting in significant structural changes in disease patterns.¹ Community Medicine specialists can identify the determinants of health and take them into account while planning preventive, promotive, therapeutic and rehabilitative measures/strategies.² It was estimated that India would need approximately 44,936 health management professionals by the year 2030 to maintain

the normative standard of 2.97 health managers per 100,000 populations.³ But, different studies done across India on career aspiration among medical students revealed that majority of medical students prefer specialization in clinical branches like medicine and surgery and the proportion of participants who prefer Community Medicine as a career option was very limited.⁴⁻⁶ The preferences of under graduate Medical students are not only important for their future career but will reflect the availability of future doctors in our country which may eventually affect the health care system of our Nation.⁶

However, there was paucity of information regarding career aspiration among medical students and their perception towards Community Medicine as a career option from the North Eastern part of India. Hence, the present study was conducted with the aim to assess the preferences of subjects for future specialization among undergraduate medical students and to understand their attitude towards Community Medicine as a future career option.

METHODS

The present study was a cross-sectional study conducted at Agartala Government Medical College of North Eastern state of Tripura during the month of April to May 2018. The study included undergraduate medical students willing to participate. Sample size was calculated considering the proportion of students choosing Community Medicine as a career option as 15.7% with 5% absolute precision at 5% level of significance.⁴ However, considering a design effect of 0.8 for stratified sampling and 10% of non-response rate, a minimum sample size of 187 participants was obtained which was

rounded to 200. Participants were selected using stratified random sampling technique considering each medical professional year as a strata and from each strata 50 numbers of students were chosen using simple random sampling. Data were collected by using a predesigned, pre tested, structured interview schedule. Attitude of the students towards Community Medicine was measured using 5 point Likert scale with Strongly disagree as 1 and Strongly agree as 5 to negative statements regarding the subject. Data were analysed using SPSS (v25.0) and expressed in frequencies, percentages and mean. Chi square/fisher's exact test was applied to assess the association among different variables. $P < 0.05$ was considered as significant.

RESULTS

In the study total 200 medical students participated, among them 116 (58%) were male and 84 (42%) were female. The mean age of the participants was 20.81 ± 1.14 years. Most of the participants belong from urban area (66%) and from nuclear family (90%).

Table 1: Choice of specialties for pursuing the specialization.

Gender-wise choice of specialties for pursuing the specialization					
Subjects	Male (n=115)		Female (n=83)		Total (n=198)
	N (%)		N (%)		N (%)
Medicine	56 (48.6)		14 (16.8)		70 (35.3)
Surgery	16 (13.9)		14 (16.8)		30 (15.1)
O&G	7 (6)		25 (30.1)		32 (16.1)
Pediatric	9 (7.8)		10 (12)		19 (9.6)
Orthopedic	9 (7.8)		Nil		9 (4.5)
Radio-diagnosis	6 (5.2)		3 (3.6)		9 (4.5)
Community medicine	4 (3.4)		4 (4.8)		8 (4)
Others*	8 (6.9)		13 (15.6)		21 (10.6)
Professional year wise choice of specialties for pursuing the specialization					
Subjects	Professional year				Total
	1 st	2 nd	3 rd part I	3 rd part II	
	(n=50)	(n=49)	(n=50)	(n=49)	
	N (%)	N (%)	N (%)	N (%)	N (%)
Medicine	24 (48)	24 (48.9)	13 (26)	9 (18.3)	70 (35.3)
Surgery	8 (16)	4 (8.1)	10 (20)	8 (16.3)	30 (15.1)
O&G	9 (18)	8 (16.3)	8 (16)	7 (14.3)	32 (16.1)
Pediatric	5 (10)	3 (6.1)	4 (8)	7 (14.3)	19 (9.6)
Orthopedic	2 (4)	0	2 (4)	5 (10.2)	9 (4.5)
Radio-diagnosis	0	2 (4)	0	7 (14.3)	9 (4.5)
Community medicine	1 (2)	2 (4)	4 (8)	1 (2)	8 (4)
Others*	1 (2)	6 (12.3)	9 (18)	5 (10.2)	21 (10.6)

*Others include Anatomy, Biochemistry, Physiology, Pathology, Forensic Medicine, Microbiology, Psychiatry, Dermatology, ENT and Ophthalmology.

Almost all of the respondents (99%) want to pursue specialization either post-graduation or diploma. Overall, the most preferred subject for specialization was Medicine (35%) followed by obstetrics & gynecology (16%) and surgery (15%). Most preferred subject for

specialization among boys was medicine (48%) and among girls was obstetrics & gynecology (30%) respectively. About 4% of the participants opted Community Medicine for future specialization (Table 1). The choice of subject for future specialization among 1st

year medical students were mainly restricted to clinical subjects like medicine, surgery, O&G, however the preference of subjects for specialization changed to varied clinical subjects with progression of medical course as they were exposed to other subjects also. However very few students opted preclinical or paraclinical subjects for future specialization (Table 1).

A significant difference was observed between participants from rural and urban area in respect to choosing Community Medicine as a career. Participants from rural area were more interested in career in Community Medicine than from urban (Table 2).

Table 2: Determinants for choosing community medicine as a career option.

Determinants		Choose (n=8)	Don't choose (n=192)	P value
		N (%)	N (%)	
Sex	Male	4 (3.4)	112 (96.6)	0.72
	Female	4 (4.8)	80 (95.2)	
Type of family	Nuclear	6 (3.3)	174 (96.7)	0.14
	Joint	2 (10)	18 (90)	
Profession of parents	Doctor	0 (0)	16 (100)	0.34
	Other	8 (4.4)	174 (95.6)	
Resident	Rural	6 (8.7)	63 (91.3)	0.01
	Urban	2 (1.5)	129 (98.5)	

Table 3: Attitude towards community medicine among the students who did not chose the subject as future career option.

Rank	Reasons	Mean score in Likert scale
1	Poor career satisfaction	3.38±0.96
2	Lack of future career prospective	3.35±1.12
3	Can't earn money	3.23±1.04
4	Can't earn name	3.06±1.02
5	Not impressed	2.73±0.97
6	Not liked by others	2.89±1.07
7	Not projected by faculty/PG	2.56±1.11
8	Nobody done well in this field	2.47±0.87
9	Not bring recognition in society	2.58±1.07
10	PG/faculty feel frustrated	2.79±1.16

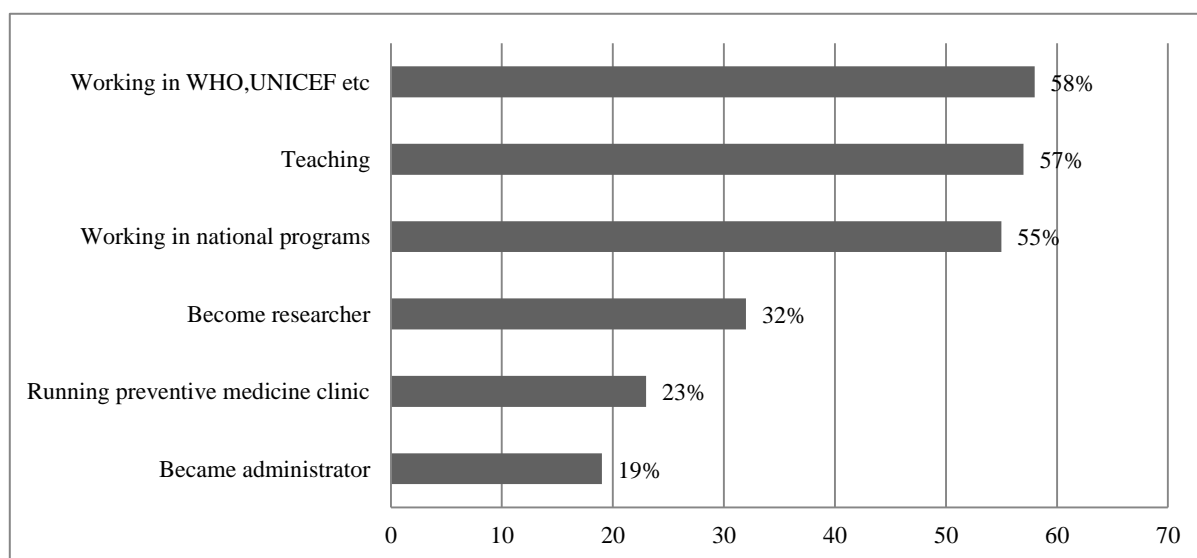


Figure 1: Scopes for a Community Medicine specialist as per the participants.

The attitude of medical students towards Community Medicine as a career option was assessed by the Likert scale. The mean Likert scores (MLS) of responses to possible reasons for not opting Community Medicine as future career option was shown in Table 3. The top ranked reasons for not opting Community Medicine with higher mean Likert scores (MLS>3.0) were poor career satisfaction, lack future career prospects, lack of opportunities to earn money and lack of name and fame equivalent to other clinical subjects in Community Medicine.

Regarding the scopes of a Community Medicine Specialist, majority of the participants were aware that, teaching in medical colleges as a faculty (57%), working in international agencies like World Health Organization, UNICEF etc. (58%) and working in national programs as a manager (55%) were the scopes available for a Community Medicine specialist (Figure 1).

DISCUSSION

India is currently in need of large number of public health specialists to combat the double burden of communicable and non-communicable diseases. But it is seen that medical graduates are not that much interested in a career as a public health specialists. This current study was an attempt to find out the preferred subjects for future specialization among medical students and how they perceived Community Medicine as a future career option.

According to the current study the most preferred subjects for specialization among undergraduate medical students were internal medicine followed by surgery and Obstetrics and Gynecology. The most preferred subjects among males was medicine followed by surgery and among females was Obstetrics and Gynecology followed by medicine. These findings were similar with results of other studies done in India, Nepal and Bangladesh where clinical branches like medicine and surgery were mostly preferred for specialization.⁵⁻⁸ In the present study it was also found that with progression of medical course the choice for future specialization also changed. Subjects like orthopedics and radio-diagnosis were more preferred by final year students than students from other professional years. This may be because students got exposure to these subjects in the final professional year.

In the current study it was found that only countable number of participants (4%) chose Community Medicine as a career option which was similar to results of other studies done at different settings where the number of participants who chooses Community Medicine as a future career is also very less.^{9,10} In the present study it was found that higher proportion of students from rural background opted Community Medicine as a career option in comparison to students from urban background which was similar to result of another study done by Singh et al.⁴

The current study revealed that, poor career satisfaction, lack of information regarding future career prospects, lack of name and fame equivalent to other clinical subjects and lack of opportunities to earn money were the most common reasons for not choosing Community Medicine as a career. These findings were similar to the findings of the other studies where poor earning of name/fame and poor career satisfaction were the most common reasons for rejecting career in Community Medicine.^{4,6}

According to the present study, medical students perceives that the scope for Community Medicine specialists are very few like teaching in medical colleges, working in international agencies like World Health Organization, UNICEF etc. or working as a manager in national programs.

In conclusion, the present study revealed that the most preferred subject for specialization among medical students were internal medicine, surgery and obstetrics and gynecology with gender variations. Specialties such as Community Medicine was not preferred because of poor career satisfaction, lack of information regarding future career prospects and lack of name and fame equivalent to other clinical subjects. According to medical students the scope of Community Medicine specialist was narrow. There is a need to improve the interest of medical students in Community Medicine and for that the curriculum for teaching Community Medicine should design in such a way that it will attract students. The objectives, future prospects and scopes of Community Medicine should be clear to the students.

ACKNOWLEDGEMENTS

The author would like to thank the Head of the department, other faculties and postgraduate students of department of Community Medicine of Agartala Government Medical College for their help and support to conduct the study. The author would also like to thank the undergraduate medical students of Agartala Government Medical College for their support in the study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee of Agartala Govt. Medical College

REFERENCES

1. Yadav S, Arokiasamy P. Understanding epidemiological transition in India. *Global Health Action*. 2014;7:23248.
2. Kar SS, Ramalingam A, Premarajan KC, and Roy G. Do Medical Students Prefer a Career in Community Medicine? *Int J Prev Med*. 2014;5(11):1468–74.

3. Tiwari R, Negandhi H, Zodpey SP. Health Management Workforce for India in 2030. *Frontiers in Public Health*. 2018;6(227):1-8.
4. Singh MK, Singh AK. Community Medicine as a career option! How is it perceived by medical students? *Natl J Community Med*. 2013;4(2):241-6.
5. Saini S, Hasan N. Assessment of specialization preference among undergraduate medical students and its influencing factors. *Int Arch Integrated Med*. 2016;3(3):134-8.
6. John DA, Sudha V, Pandey A. Specialty Preferences among Under Graduate Medical Students in a Private Medical College: A Cross sectional study. *J Med Sci Clin Res*. 2018;06(01):31989-92.
7. Jha RK, Paudel KR, Shah DK, Sah AK, Basnet S, Sah P, Adhikari S. 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 Pract*. 2015;6:609–13.
8. Ahmed SMM, Majumdar MAA, Karim R, Rahman S, Rahman N. Career choices among medical students in Bangladesh. *Adv Med Educ Pract*. 2011;2:51–8.
9. Singh G, Agarwal V, Misra SK. Analysis of Medical Students Perception for Community Medicine as Career Option and Subject. *Indian J Community Med*. 2018;43(1):56–7.
10. Murugavel J, Chellaiyan VG, Krishnamoorthy D. Attitude toward learning of Community Medicine: A cross-sectional study among medical school students. *J Family Med Prim Care*. 2017;6:83-7.

Cite this article as: Sengupta B, Das R, Das S. Subject preference for future specialization among undergraduate medical students and their perception towards community medicine as a career option: a cross sectional study. *Int J Community Med Public Health* 2019;6:3578-82.