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Original Research Article

Perception and awareness of first year MBBS students about the subject community medicine

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ABSTRACT

Background: In India, departments of the medical discipline community medicine or preventive and social medicine began to be established in the year 1955. It plays important role in medical curriculum for imparting training as comprehensive healthcare giver at various levels of health system. This study aimed at assessing perception and awareness of first year MBBS students about the subject community medicine, before formal introduction of the discipline as a part of their medical curriculum.
Methods: The cross-sectional study was conducted in a class of seventy-four students of first year MBBS, at Vardhman Mahavir Medical College and Safdarjung Hospital, Delhi, in May 2022.
Results: One-third of students had either parent/sibling/close relative as doctor. One-third of students knew at least one person who had pursued the discipline 'community medicine'. Most of the students (85%) expected to learn healthcare management at primary healthcare level from the medical discipline. Only one-third of the students were aware of the subject before joining MBBS. Students whose parent/sibling/close relative is doctor, differed significantly about having the knowledge about the discipline before admission to MBBS (p value <0.001). Also, students who knew any person who had pursued community medicine as specialization, had significantly more chance of knowing about the subject before admission to MBBS.
Conclusions: The medical discipline of community medicine is yet to gain familiarity among students. Community medicine specialists should come forward to address the issue and popularize the discipline as a component of medical curriculum and highlight their role in front of general population as well.

Keywords: Community medicine, preventive and social medicine, MBBS curriculum, Medical students

INTRODUCTION

The discipline community medicine or preventive and social medicine, has evolved globally over time. With the rapid industrialization and urbanization at the turn of the 19th century, European countries started having the problems of poor work conditions, poor housing and insanitary environment. French physicians and hygienists conducted surveys and studies exploring relationships between health and social conditions, and concluded that hygiene and social factors have significant effect on health. The term 'social medicine' was used for the first time in 1848, during French Revolution. In Germany, a group of doctors and others professionals, under leadership of Salomon Neumann, Rudolf Virchow and Rudolf Leubuscher started promoting social healthcare reforms, after the revolution in March 1848. Social medicine gained prominence in Latin America and the United States of America in the 20th century.[1]

Social medicine started to be institutionalized as academic discipline in early 20th century. This process of

institutionalization got hastened around the end of World War II. The University of Vienna began with social medicine course in 1909. The University of Zagreb in Croatia appointed faculty of social medicine in the year 1931. In United Kingdoms, the first chair of social medicine was appointed at Oxford University in 1943. The Royal College of Physicians of London, in 1943, recommended that every medical school should establish a department of social and preventive medicine and published recommendations for the same.[2]

On the recommendations of the Medical Education Conference in 1955, departments of preventive and social medicine were established in medical colleges across India. These departments shoulder the responsibilities of teaching/training of undergraduate and postgraduate medical and paramedical students, healthcare staff, service provision at various levels of healthcare and research components. They also play important roles in activities, monitoring and evaluation of national health programmes.[3,4] In the Udaipur conference of IAPSM in mid-seventies, a debate was held to choose between the terms 'community medicine' and 'community health' and finally community medicine replaced the discipline name.[5] The discipline community medicine recently gained prominence among general population since the COVID-19 pandemic highlighted the importance.[6,7]

This study aimed at assessing perception and awareness of first year MBBS students about the subject Community Medicine, before formal introduction of the discipline as a part of their medical curriculum.

METHODS

The cross-sectional study was conducted in a class of seventy-four students of first year MBBS, at Vardhman Mahavir Medical College and Safdarjung Hospital, Delhi in May 2022. Vardhman Mahavir Medical College was established at Safdarjung Hospital in November 2001. All the first year MBBS students, present in the introductory class were included in the study.

A semi-structured questionnaire was prepared to assess baseline awareness and perception of first year MBBS students, about the subject community medicine. Students were asked to fill the questionnaire in Google form, in a lecture theatre, before commencement of their introductory class of the subject. Data was collected anonymously. Students were instructed for preventing usage of phone and discussion with other students during filling the questionnaire.

Since the survey was done as a part of the introductory class, no ethics approval was sought. A graphical presentation of the responses was shared with the students in the class. The subject of community medicine was introduced to the students after this.

Data were entered in Microsoft excel 2010 and analyzed in STATA v. 14.00. Categorical variables were reported as a proportion (*n*, %) with 95% confidence interval. Continuous variables were reported as mean with standard deviation (mean ±SD).

Chi-square test and t-test were done for significance test. P value <0.05 was considered as statistically significant.

RESULTS

All seventy-four students, present in the lecture hall, took part in the survey. The mean age of the students was found to be 19.01 (1.29) years. Two-third of the class were men. Three-fourth of the students were urban residents. One-third of students had either parent/sibling/close relative as doctor. One-third of students knew at least one person who had pursued the discipline 'community medicine' (Table 1).

Most of the students (85%) expected to learn healthcare management at primary healthcare level from the medical discipline (Table 2).

Students whose parent/sibling/close relative is doctor, differed significantly about having the knowledge about the discipline before admission to MBBS (p value <0.001). Also, students who knew any person who had pursued community medicine as specialization, had significantly more chance of knowing about the subject before admission to MBBS (Table 3).

All students believed that health education can be instrumental in prevention and cure of disease. Twenty-four (32.4%) of total students opined that health education increases awareness about disease, ways of prevention and treatment of disease, hence help in prevention and cure of disease. Six of all students reported that this is achieved by promoting healthy lifestyles.

Fifty-eight percent of the students knew about healthcare professional other than doctors, nurses and hospital administrators. Only five students mentioned about ASHA. Only two students mentioned about ANMs. Three students mentioned about Anganwadi workers as healthcare functionary. Other students included paramedical staff (non-specific), medical technologists, AYUSH practitioners, dieticians and occupational therapists.

Out of total number of students, thirty-four students (45.9%) perceived that community medicine specialists are employed at primary healthcare centres. Six students stated that community medicine specialists are employed at secondary healthcare centres. Six students considered research as potential employment for community medicine specialists. Five students said that they can be employed in tertiary healthcare centre/medical colleges.

Table 1: Socio-demographic distribution of participants (n=74).

Variables	Number of students, proportion (N, %)
Men	50 (67.57)
Urban residence	56 (75.68)
Students having either/both parents/siblings/close relative doctor	25 (33.78)
Students who knew at least one person who had pursued the specialization 'community medicine'	25 (33.78)
Students who have visited a primary healthcare centre	7 (9.46)

Table 2: Awareness and perception about the subject community medicine (n=74).

Perceptions	Number of students, proportion (N, %)
Students who knew about the subject 'community medicine/preventive and social medicine' before joining MBBS	25 (33.8)
Students who feel that health education can help in cure or prevention of a disease	75 (100)
Students who perceives the following as duties of a basic doctor	
Treating diseases	67 (90.5)
Preventing diseases	57 (77.0)
Promoting good health practices	68 (91.9)
Maintaining health-related data records	45 (60.8)
Using health-related data for corrective actions	50 (67.6)
Provide free services to poor	57 (77.0)
Conduct research to find out health gaps	56 (75.7)
Students perception about teachings of the subject 'community medicine'	
Learning prevention of diseases	57 (77.0)
Research	39 (52.7)
Provide healthcare at the community level/ primary healthcare level	63 (85.1)
Help in understanding about pandemic	54 (73.0)
Help in understanding natural history of disease (course of disease)	56 (75.7)
Teamwork	45 (60.8)
Help in understanding healthcare system in our country	65 (87.8)
Help in advising patient about proper nutritional needs	55 (74.3)
Nothing else different from other subjects	12 (16.2)
Alternative medication (Ayurveda/Homeopathy/Unani)	28 (37.8)
Help to develop empathy about patients	48 (64.9)
Help advising about proper lifestyle	46 (62.2)
Others*	9 (12.2)

*This open-ended question resulted in varying answers viz. social healthcare, prevention of diseases, epidemiology, sanitation, healthcare distribution, primary healthcare, rural healthcare, ethics, field study, administrative skills, communication skills, promotive, preventive, curative, rehabilitative and palliative medicine. Another open-ended question 'What do you expect to learn from the subject?' yielded similar responses.

Table 3: Difference in profile of students who knew about the subject 'community medicine' before admission to MBBS.

Parameters	Students who knew about the subject 'community medicine' before admission to MBBS	Students who did not know about the subject 'community medicine' before admission to MBBS	Chi square test p value
Sex			
Men	21 (42.0)	29 (58.0)	0.031
Women	4 (16.7)	20 (83.3)	
Permanent address			
Rural	3 (16.7)	15 (83.3)	0.078
Urban	22 (39.3)	34 (60.7)	

Continued.

Parameters	Students who knew about the subject 'community medicine' before admission to MBBS	Students who did not know about the subject 'community medicine' before admission to MBBS	Chi square test p value
Parent/sibling/close relative a doctor			
Yes	17 (68.0)	8 (32.0)	<0.001
No	8 (16.3)	41 (83.7)	
Any known person who pursued community medicine as specialization			
Yes	5 (71.4)	2 (28.6)	0.027
No	20 (29.8)	47 (70.15)	

DISCUSSION

The roles of a community medicine practitioner are varying: community physician practice at different healthcare levels, training medical and paramedical manpower, providing technical expertise to plan, implement, monitor, and evaluate health programs, research.[4]

Multiple studies have investigated about students' perception of the discipline of community medicine and their preferred subject for post-graduation. These studies were conducted in students of medical colleges, who have already been introduced about various subjects in medical curriculum. Our study has different study population from those of the existing literature, since the students were enquired, in their introductory class.

The study by Maity et al, in 2019, reported that only 7.28% study participants were found to be willing to take up community medicine in post-graduation. Lack of career guidance was one of the major contributors of rejection of community medicine as career option by the students. Name/fame compared to other clinical subjects", "less opportunity of direct treatment of patients", "interference with person of other sphere of life", "unhealthy personal life" were found to be other contributors to the rejection.[8] In another study by Murugavel et al, in 2017, of total 500 study participants, 414 (83%) reported to have an interest in learning principles of community medicine. 29.9% (149) said that it is tedious and boring in comparison to other subjects. Only 21.8% considered to pursue community medicine for postgraduation. Of the major subjects of MBBS curriculum, only 15 students (3%) ranked community medicine as the first rank.[9] Thakur et al, in 2016, reported that 73.27% would not prefer community medicine as a career. The reasons cited were low pay scale (p value <0.0001), less prestige (p value 0.000045) and status (p value 0.023), lack of fame (p value 0.0246) and career satisfaction (p value <0.0001).[10] In a study conducted by Kar et al, in 2014, in a South Indian institute, less than 15 students (out of 226 students) wanted to pursue community medicine as a choice for post-graduation. Students' favourable perception about the subject included wider scope, helpful in understanding community, research orientation and improvement of population health. The unfavourable perception included less opportunities, difficult subject, not interesting subject and absence of requirement as separate subject.[11] In 2016, in the Nigerian study by Egenti et al, 92.8% students perceived community medicine as vital part of medicine. But only 14% wanted to choose community medicine for further studies.[12] A study in Malaysia, in 2015, by Anil et al, showed that 22.9% of the final year medical students of four large public medical schools had a low familiarity with preventive medicine, whereas 76.8% had a high familiarity. The study participants specified that among all the preventive medicine subjects, screening, control, smoking cessation and immunization are "extremely important to learn".[13] Hence, community medicine has not proved to be a popular discipline among medical students, in published literature.

Several reasons can be identified for the lack of popularity. The role as a community physician to provide healthcare, is often ignored in many cases. There is lack of control over PHC, RHTC and UHTC in many instances. The academic component often remains unlinked to the fieldworks. There is huge variation in training curriculum for Community Medicine post-graduate students across India. In many cases, the faculty mentors are pessimistic in their outlook.[4,14,15]

The sample size of our study was small. The conclusions are not generalizable for larger population. Further studies including more participants are recommended for better generalizability.

CONCLUSION

Since the study population consisted of students who had entered the medical school, they represent the general population of students who have just crossed the boundary of school. The medical discipline of community medicine is yet to gain familiarity among these students. Inspite of the significant role played during the COVID-19 pandemic, the awareness about the subject is low. Students have vague idea about the function and scope of the discipline. Few misconceptions like 'community medicine teaches about alternative medicine' (38%) and 'a basic doctor's duty includes free service provision to the poor' (77%), prevail among the students. The previously published literature also shows that medical students rarely prefer community medicine as a choice for post-graduation studies. Hence, it is the responsibility of medical mentors

to create awareness among the students about the actual scope of the subject and attract the students towards the medical discipline. Community medicine specialists should come forward to address the existing lacunae and popularize the discipline as a component of medical curriculum and highlight their role in front of general population as well.

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