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Attitude of Medical Undergraduates toward Learning of Community Medicine as a Subject and its Preference as a Medical Specialty: A Cross-Sectional Study

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Abstract: ***Background: The Department of Community Medicine in medical colleges focuses on teaching and training medical students with an aim to ensure value-based education and help in molding a basic doctor of first contact. The preference of medical school students to pursue community medicine as a career is widely varied but pivotal. Objectives: 1) To study the attitude towards learning of community medicine among medical school students in Central India. 2) To study the preference of PG specialty subjects among medical school students in Central India. Methods: This cross-sectional study was conducted at a teaching hospital in Central India. All undergraduate Medical Students and Interns who were willing to participate in the study were included. A pre-tested questionnaire was administered to the students who consented to participate in this study as Google Form by means of social media. Results: Study participants belonged to the age group of 17-24 years. Among 332 students, 50% were Male and 50% were Female. Almost 96% were of the opinion that community medicine subject is mandatory.50.6% found community medicine interesting during their third-year medical school. Only 26.9% of students wanted to pursue post-graduation in community medicine. Conclusion: The majority of students had a positive attitude toward community medicine discipline but only a few preferred to opt for community medicine as a post-graduate specialty. Therefore there is room to influence the medical students positively toward learning community medicine in the curriculum.***

Keywords: Community Medicine, Medical students, Attitude

1. Introduction

Community medicine is a branch of medicine that protects and promotes the health and well-being of the community through primary health-care approach. Community medicine teaching aims at a holistic training of a medical student, who will demonstrate knowledge and competence in dealing with primary health care, evidence-based practice, interdisciplinary teamwork, and professional and ethical behaviour in practice to improve and sustain the health of the population. (1)

India is currently being burdened by infectious diseases, nutritional deficiencies and unsafe pregnancies as well as the challenges of increasing trend of lifestyle diseases and emerging/ re-emerging epidemics of infectious diseases and this needs a concerted public health intervention to prevent disease and promote health and wellness among masses. Therefore, Community Medicine as a subject plays a crucial role in developing countries like India. (3)

Today, most of the teaching in community medicine is carried out using didactic lectures within the 'ivory tower' of an institution with limited exposure to the community. Public health education has to be an active process, student-centred, enquiry-driven, evidence-based and problem-solving as well as addressing the needs of the community. (4)

Several studies have reported the importance of Community learning programs and investigating student feedback have been done. Students prefer to select a clinical specialty as a career choice while in graduation. The preference of medical school students to pursue post-graduation (PG) is widely varied. Preferences may depend on personal interest, sex, childhood influence, family and social influence, monetary reason, intelligence, skill challenge, security of profession, future opportunities. (8)

2. Objective

The study intended to find the attitude toward learning of community medicine and also to assess the preference of PG specialty among medical school students.

3. Materials and Methods

Study setting:
The study was conducted in a teaching hospital located in Nagpur, Maharashtra, Central India.

Study design:
This was a cross-sectional study.

Sampling and study population:
The study population was the students pursuing MBBS course and medical interns. All medical school students who were above 18 years of age and willing to participate were included. The selected medical school comprised 1100 medical students (250 in 1st year and 2ndyear respectively, 200 in Pre-final year, Final year, and internship respectively were included. Finally, a total of 332 study participants, of

which 75 from 1st year, 71 from 2nd year, 56 from 3rdyear, 57 from final year, and 73 from internship were included in the data analysis.

Study duration:
The study duration was from September 2021 to March 2022.

Data collection and analysis:
After explaining the intent of the study, a pre-tested questionnaire was administered to the medical students. Data were expressed as percentages.

Ethical permission and informed consent:
Ethical committee approval was obtained from the Institutional Ethical Committee before conducting the study. Written informed consent was obtained from all the study participants. Confidentiality was maintained at all the points of study.

4. Result

Among the total 332 study participants, 166 (50%) were male and 166 (50%) were female. The age group of study participants ranged from 19 to 24 years with a mean (SD) of 21.5 ± 1.41.

Table 1: Baseline characteristics of study participants (n=332)

Variables	n (%)
Gender	
Male	166 (50)
Female	166 (50)
Education-academic year	
First year	75 (22.6)
Second year	71 (21.4)
Third year	56 (16.9)
Fourth year	57 (17.2)
Internship	73 (21.9)
Current residence	
Hosteller	213 (64.2)
Day scholar	119 (35.8)
Permanent residence	
Urban	230 (69.3)
Rural	102 (30.7)

Of the total of 332 study participants, 236 (71%) reported having an interest in learning principles of community medicine, and 318 (95.7%) were of the opinion that community medicine subject is mandatory in the undergraduate medical curriculum.168 (50.6%) study participants thought of Community medicine as an interesting subject in the third year of their medical graduation.

Around 61 (18.4%) thought Communicable disease as the most interesting topic followed by MCH and Family planning 52 (15.7).130 (39.2%) study participants believed that Community medicine trains a medical student to be a community worker, followed by 99 (29.8%) as a primary care physicians.

Majority i. e221 (66.6%) were of the opinion that the factors that influenced them in the learning of community medicine are field visits, followed by clinical postings 179 (53.9%), and then followed by the concept of community medicine 127 (38.3).

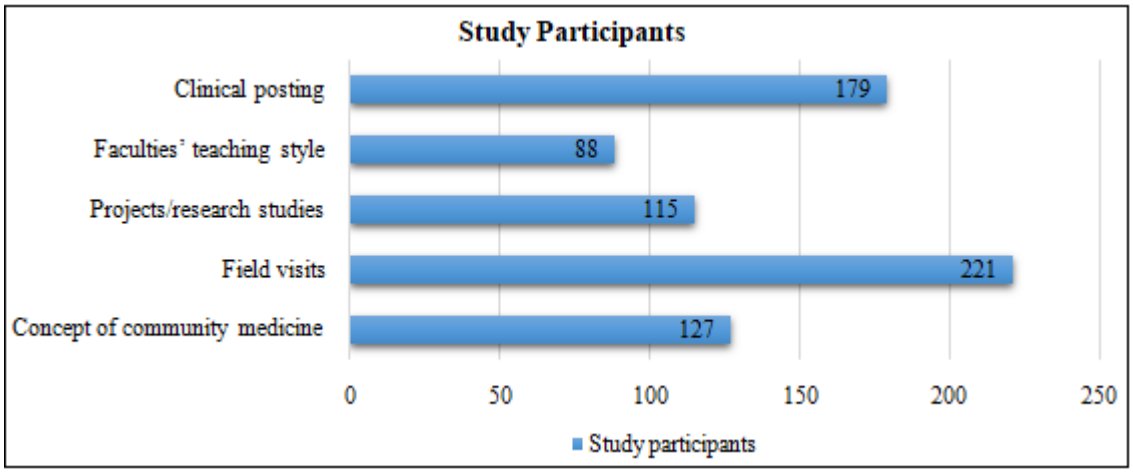

Figure 1: Factors that influenced interest in learning of community medicine

Community-focused health care was considered the most important role of Community Medicine 163 (49.1%) followed by Prevention of disease 80 (24.1%) and then Public health expert 35 (10.5%). More than half of 188 (56.6%) of the study participants thought memorizing statistical figures was one of the most difficult areas of Community Medicine. [Table 2]

Table 2: Interest and perception toward learning community medicine among medical school students (n=332)

Interest and perception	n (%)
Interested in Principles of Community Medicine	236 (71%)
Consider PSM as a mandatory subject in the medical curriculum	318 (95.7%)
Learning community medicine is interesting during	
First-year medical school	81 (24.4%)
Second-year medical school	44 (13.3%)
Third-year medical school	168 (50.6%)
Final year of medical school	4 (1.2%)
Internship	7 (2.1%)
Not interested	28 (8.4%)
Interesting subsection of community medicine	
Health-care delivery	40 (12%)
Environmental health	21 (6.3%)
Communicable diseases	61 (18.4%)
Non-communicable diseases	11 (3.3%)
Epidemiology	32 (9.6%)
Nutritional health	47 (14.2%)
Biostatistics and Demography	25 (7.5%)
Health planning and management	36 (10.8%)
Occupational health	7 (2.1%)
MCH and family planning	52 (15.7%)
Factors that influenced interest in learning community medicine*	
Concept of community medicine	127 (38.3%)
Field visits	221 (66.6%)
Projects/research studies	115 (34.6%)
Faculties' teaching style	88 (26.5%)
Clinical posting	179 (53.9%)
Others	6 (1.8%)
Community medicine trains a medical student to be	
Epidemiologist	36 (10.8%)
Primary care physician	99 (29.8%)
Nutritional advisor	17 (5.1%)
Researcher	27 (8.1%)
Community worker	130 (39.2%)
Leadership expert	21 (6.3%)
Others	2 (0.6%)
Role of community medicine	
Prevention of diseases	80 (24.1%)
Community focused health care	163 (49.1%)
Develop better rapport with patient	11 (3.3%)
Investigation of an epidemic	13 (3.9%)
Teamwork	14 (4.2%)
Imparts leadership qualities	7 (2.1%)
Research	9 (2.7%)
Public Health expert	35 (10.5%)
Difficult areas in community medicine	
Learning definitions	68 (20.5%)
Memorizing statistical figures	188 (56.6%)
Preparing for exams	57 (17.2%)
Field visits	9 (2.7%)
Concepts in community medicine	10 (3%)

*Multiple response

Of fourteen major subjects in the MBBS curriculum, only 5 (1.5%) thought of community medicine as a subject of interest. The most interesting subjects in the MBBS curriculum were General surgery 95 (28.6%) and Internal medicine 87 (26.2%). The least two interesting subjects were Community medicine 5 (1.5%) and psychiatry 4 (1.2%).

Totally, 88 (26.5%) wanted to pursue PG in community medicine discipline. Among those who wished to pursue PG in community medicine, the major reason 43 (48.9%) quoted was due to interest in research and field work. The reason for not wishing to pursue a career in community medicine

was interest in other subjects 201 (82.3%) and fewer prospects post-PG 26 (10.6%). [Table 3].

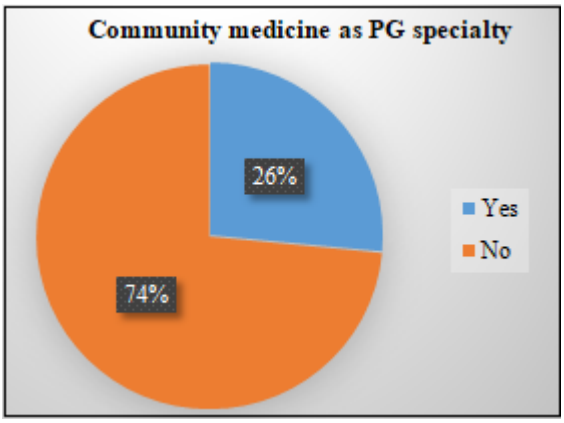

Table 3: Preference of medical specialties among medical school students (n=332)

Variables	n (%)
Community medicine as PG specialty	
Yes	88 (26.5%)
No	244 (73.5%)
Reasons for preferring	
Interested in community medicine subject	19 (21.5%)
Interested in research and field work	43 (48.9%)
Interested in administrative work	20 (22.7%)
less hectic life and residency	6 (6.81%)
Reasons for not preferring	
Interested in clinical subjects	201 (82.4%)
No community-based projects	8 (3.27%)
Difficulty in understanding the concept	9 (3.68%)
Less scope of career in this subject	26 (10.6%)
Subject interested the most	
Anatomy	39 (11.7%)
General medicine	87 (26.2%)
Physiology	23 (6.9%)
Paediatrics	20 (6.1%)
General surgery	95 (28.7%)
Obstetrics and gynaecology	27 (8.1%)
Community medicine	5 (1.5)
Others*	36 (10.8%)

*Biochemistry, microbiology, pathology, pharmacology, forensic medicine, ENT, ophthalmology, orthopaedics, anaesthesia, dermatology, psychiatry, radiology.

5. Discussion

This study was conducted in a Govt Medical College in Central India wherein 332 medical undergraduate students were enrolled. The majority (66.6%) reported that the best way to learn the principles of community medicine is through field demonstrations. Community-based learning including demographic and morbidity surveys, field surveys, community diagnosis, etc., rather than classroom-based learning is extremely helpful in the application of learned principles of community medicine. (1)

Almost 96% had an opinion that community medicine subject is mandatory in the undergraduate medical curriculum. MCI in the curriculum of an undergraduate medical school had a mandatory objective of teaching community medicine. The training is being imparted to make the students aware of environmental, social, financial, personal, and occupational issues of the patients to render care, orient the students with health systems, programs, and policies as well as train them as community and first level physicians. (11)

Although 71% were interested in learning the principles of community medicine. However, unfortunately, only 26.5% of students wished to pursue PG in community medicine discipline, and the major reason (82.4%) among them was that they are interested in clinical subjects. Reasons for preferring other disciplines were due to personal interest, better income scales, lack of attraction in terms of scientific-technical interest, workplace conditions, and research potential as has been reported in previous studies. (12, 13)

A cross-sectional study conducted by Japhereena Murugavel et al. in Medical College, Chennai, Tamil Nadu on 500 medical students found that 64% reported that the best way to learn the principles of community medicine is through field demonstrations.97% had an opinion that community medicine subject is mandatory in the undergraduate medical curriculum.83% were interested in learning the principles of community medicine but only 21.8% of students wished to pursue PG in community medicine discipline. This finding corroborates our study findings.

A cross-sectional study done by Rabbanie Tariq Wani et al. in a medical college in Kashmir done on 450 medical students found that 52.3% reported field visits as the best way to learn community medicine.79.8% had an opinion that community medicine subject is mandatory in the undergraduate medical curriculum.64% were interested in learning the principles of community medicine but unfortunately, only 19.8% of students wished to pursue PG in community medicine discipline. This is also quite similar to our study findings.

As the study was conducted in only one medical school the results could not be generalized. Further similar studies are required in medical schools in the public health sector in the future.

6. Conclusion

The majority of students considered community medicine as a mandatory discipline in the undergraduate curriculum. However, only a few students are interested in pursuing a specialization in community medicine. The World Health Organization envisages that Community Medicine Education's goal is to create a band of doctors who should have the expertise skills of health care providers, communicators, decision-makers, managers, and/or community leaders. In view of making this reality, redesigning teaching methods and their implementation has to be done. Around three-fourths of the Indian population lives in rural areas to improve their health status, there is a need for improvement in the community medicine curriculum in undergraduate medical education. Newer topics and skills need to be added to the curriculum to keep abreast of current medical practices and technology as recommended by new MCI regulations.

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