

Medical students perceptions regarding the curriculum in community medicine: A cross sectional study

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Abstract

Introduction: Community Medicine (CM) is meant to equip the students with the knowledge and skills order to identify the prevalent health problems in the community and find methods of alleviating them. The present study is undertaken to assess the general perception of students towards Community medicine and analyze if students prefer community medicine for a career.

Materials and Methods: This was a cross sectional study, carried out in a Government Medical college of Dhule City, from August to October 2017. Present study carried out among students from IV and VII semesters who belonged to 2nd year and Final (3rd) year part I of MBBS respectively. A predesigned, pretested, semi structured questionnaire was used for evaluation. Data was analyzed with SPSS version 20.0.

Results: 165 students were included in the study; of them 50.3% were females. Common general perception of Community medicine was as paraclinical subject by 55.7%, as only preventive and health education role by 77.6% and 65.5% students. 83% thought that the curriculum is relevant to present era. 50.9% had perception of CM focus only on prevention while there were varied views regarding the topic irrelevant and exempted from the syllabus. 47.9% felt than CM lack application and needs practical example rather than just being theoretical. Only 36% students were ready to opt career in community medicine.

Conclusion: Students seem to understand the subject and don't have an issue with the topics, or its projection, however there is reluctance to choose it as a career.

Keywords: Community medicine, Perception, Medical students.

Introduction

The importance of community based medical education in undergraduate curricula has been validated in medical education and practice.^{1,2} The current shift of emphasis from curative to preventive medicine makes community based medical education of utmost importance. Even though only a small proportion of medical graduates will eventually choose public health as their speciality, a thorough knowledge base established through robust undergraduate training programmes in Community Medicine is essential for all practicing doctors. Despite this, the importance and significance of public health are often not fully appreciated^{1,3} with more emphasis being placed on hospital based and curative medicine.

While medical curricula must be effective and relevant as they are of fundamental importance in the training of doctors⁴ how effective or relevant they are may be a matter of perception⁵ Poor implementation of curricula is known to result in unfavorable student perceptions⁶ Furthermore, positive perceptions are known to increase student motivation and, therefore, learning. Brooks, a constructivist, suggests that student opinion should be sought and valued⁷ Thus, frequent assessments of student perceptions are recommended and many agree that they are useful in the structuring of the curriculum^{8,9} making them more acceptable and beneficial. Also despite the National Health Policy 2002's recommendation of reserving 25% of all post-graduation seats for Community Medicine, no such commitment of increasing seats for Community

Medicine was observed in any of the colleges/Institutions in India.¹⁰ However, before increasing the seats it's imperative to understand the students' perception about future career choices.

Hence this study was planned to assess the general perception of students towards community medicine and analyze if students prefer Community Medicine for a career.

Materials and Methods

Study Design and Participants: A cross-sectional survey of medical students was carried out at a tertiary care teaching institute in North Maharashtra during August to October 2017. In India, medical education is completed over a period of 5½ years which includes 1st year MBBS, 2nd year MBBS, final year I and II and one year of internship. The first 2½ years training include Pre- and Para-clinical subjects like Anatomy, Physiology, Biochemistry, Pathology, Pharmacology, Microbiology, and Forensic Medicine. During the next 2 years clinical specialties like ENT, Ophthalmology, General Medicine, General Surgery, Obstetrics and Gynecology and Pediatrics are taught through clinical rotations and lecture discussions. The last 1 year is a period of compulsory rotating internship. Community Medicine is taught from 1st year up to final year part I and also during internship. Hence present study was carried out among students from IV and VII semesters who belong to 2nd year MBBS and final year part I of MBBS respectively. The 1st year MBBS students were not included because they do not have exposure to all

specialties and hence it would be too premature for them to make a decision about their career.

Instrument used and Brief Procedure: Verbal informed consent was taken, and data were collected using a self-administered, semi-structured, pre-tested questionnaire among students from IV and VII semesters. A total of 190 students participated in this study out of which 165 completed the questionnaire. The questionnaire contained three sections: Socio-demographic variables, general perception regarding Community Medicine, Perception about community based learning and carrier in Community Medicine. The reasons for preference was asked as an open-ended question and later on coded and clubbed into similar categories. All responses were anonymized. The face and content validity of the questionnaire used was checked by experts from the department of community medicine, SBH Government Medical College, Dhule.

Analysis: Data were entered, managed and analyzed using the IBM SPSS Statistics for Windows. Version 20.0. The continuous and categorical variables were presented as mean/standard deviation (SD), and proportion respectively statistical test which was used for the analysis of data was Chi-square test at 95% confidence level. P value was taken as significant when found < 0.05.

Results

Socio Demographic Profile: Of the 190 available students, 165 (87%) students returned the completely filled questionnaires. Of them, 83 (49.5%) were girls. Fourth semester students were 66 in number and 7th semester were 99. The mean (SD) age of the participants was 20.7 (± 1.5) years, most of them were from urban area, Hindu by religion & well to do families.

General Perceptions Regarding Community Medicine: Regarding general perception about the subject, 56% student thought that Community medicine is a para-clinical subject, Significantly more female students thought that the subject is para & nonclinical ($p < 0.05$) across the semesters. 68% thought that it has multiple roles in general practice i.e. preventive, curative, health education & health administrative etc. 83% thought that the curriculum is relevant to the present era, Also 3rd yr students significantly thought that it is relevant to present era than 2nd year students.

Those who thought it is not, feel that it requires more field experience. 60% expect CM syllabus should be based on prevention only. As far as focus is concerned of the syllabus 51% thought that it is preventive, More male thought that it is preventive, semester wise 3rd yr students thought the same ($p < 0.05$). 43% told that topics like genetics, entomology, environment were in depth than required, significantly male students & 3rd year students more of this opinion ($p < 0.001$).

34% thoughts that textbook of CM lacks logical flow, third year students more of the opinion than 2nd year students. While 42% thought it lacks application & 48% told that it lacks practical experience. Male students thought that the CM syllabus has application component than female students, Year wise 3 year student agreed that syllabus has application component ($p < 0.001$). Most students suggested to increased field experience and also include practical examples in syllabus. Regarding suggestions female & 2nd year students significantly wants more field visits, while male students wants removal of less important topics.

Students Perceptions on Community based Learning: 78% students thought that community is being benefited from student visit, significantly 3rd year students thought about it. 83% enjoyed attachment to community, while 62% found field visits convenient. 64% thought that field visit improves efficiency to work after MBBS. The 2nd year students significantly enjoy community attachment more ($p < 0.001$).

Students Views regarding the Research Projects: 55% students exposed to research in academics, significantly more 3rd year students exposed to research than 2nd year students. While 74% found research topic useful which also 3rd year student found more useful. 106 (64%) students want more research exposure.

Student's Perception of Community Medicine as a Career option and its Relevance to their Lives: 36% ready to do career in community medicine in which males are significantly wants to do carrier in CM, while 114 (69%) had information about it & year wise 3rd year students got more information. 82% students find CM useful in personal life, also 87% thought that with the knowledge of community medicine can modify their life. 3rd year students finds CM useful in personal life significantly.

Table 1: General perceptions regarding type and role of community medicine

Community Medicine	Variable	Frequency (n=165)	Percentage (%)
Type of Subject	Clinical	43	26.1
	Para-clinical	92	55.7
	Non-clinical	30	18.2
Role in general practice	As Preventive	128	77.6
	As Curative	54	32.7
	As Health Administrative	76	46.1
	As Health Education	108	65.5
	None	3	1.8

Table 2: Other general perceptions regarding community medicine

General perception	Variable	Frequency (n=165)	Percentage (%)
Relevance of its curriculum to Current time	No	20	12.1
	Yes	137	83.0
	Don't Know	08	4.8
Focus only on Prevention	No	55	33.3
	Yes	84	50.9
	Don't Know	26	15.8
Expectation from CM syllabus	Prevention	99	60.0
	Health care Management	97	58.8
	PHC	79	47.9
	Research	55	33.3
	None	10	6.1
More than needed emphasis of Environment, Genetics and Entomology in CM than required	No	58	35.2
	Yes	71	43.0
	Can't Say	36	21.8
CM textbook lacks logical flow	No	86	52.1
	Yes	56	33.9
	Can't Say	23	13.9
CM syllabus lacks applications	No	79	47.9
	Yes	69	41.8
	Can't Say	17	10.3
CM syllabus lacks practical examples	No	66	40.0
	Yes	79	47.9
	Can't Say	20	12.1

Table 3: Students perception of community medicine as a career option and its relevance to their lives

Perception	Response	Frequency	Percentage (%)
CM as career option	No	54	32.7
	Yes	60	36.4
	Can't Say	51	30.9
Were Informed about prospects in CM	No	51	30.9
	Yes	114	69.1
Is CM useful in personal life	No	21	12.7
	Yes	134	81.2
	Can't Say	10	6.1
Will CM be useful in life modification	No	17	10.3
	Yes	144	87.3
	Can't Say	4	2.4

Discussion

The well designed & well implemented curricula are received positively by students and are more likely to facilitate learning. The method that we used to assess student satisfaction with the curriculum was measurement of student perceptions. It may be argued that students perceptions of various aspects of the course are interdependent, and therefore, cannot be considered in isolation or that students who view a certain area of the curriculum positively are more likely to view others in a similar manner due to characteristics of their personality. For this reason perception is found to influence learning whatever their basis may be. But

perceptions alone may be inadequate in aiding assessment as they are subjective and liable to be affected by various situations and variables. However, when combined with an additional objective measure it holds great value.¹¹ Hence present study was planned to assess the general perception of students towards Community Medicine and analyze if students prefer Community Medicine for a career.

The mean age of students in our study was 21 years with equal representation from both genders. Semester wise the no of students completing questionnaire were more from 3rd year. More than half number of students thought that CM is paraclinical, this view is more

expressed by female students irrespective of semester, this is reflection of student's limited knowledge of the subject. But higher percentage of students (63% & 87%) in our study claims that community medicine has multiple roles to play in health care and realized its importance & said that it is relevant present era. This finding is comparable to the study conducted by Thakur et al.¹² & Onwasigwe et al.¹³ 34% of students thought that CM syllabus lacks logical flow also they want more practical experience, this opinion significantly more expressed by 3rd year students. This shows theoretical orientation of current syllabus. A similar opinion, regarding problem based learning (PBL) sessions, is shared by Kwan, who hypothesized that a PBL based curriculum is better than typical didactic teaching and will make students lifelong learners.¹⁴

Maximum students in our study enjoyed field visits & community attachment; also they found this activity useful for general practice after graduation. Making the process of learning active, enjoyable and obviously personally beneficial, encourages students to be more involved in the education they receive. The community stream does employ some of these ideas. For example, field based activities ("community" and "family" attachment programmes) which are mostly student oriented and engaging were found to enjoyable. These ideas are further strengthened by a study on medical students by Duke et al., which, at its core, tests the same notion. He suggests that greater engagement will improve knowledge and a fun and structured experience will enhance learning.¹⁵ Nosek et al in a similar study states that attention is held longer when learning is made fun and students prefer enjoyable teaching methods.¹⁶

55% students exposed to various research topics & most of them satisfied with it, although they want still more research exposure. This finding shared in study conducted by Navinan et al in Colombo, Sri Lanka¹⁷. Only 36% students want to do carrier in community medicine & most of them are male. Although Community Medicine was not a popular choice of career, this is likely to have had many other contributory factors and it is thus difficult to conclude that this was a reflection of how important the teaching programme was perceived to be. The study conducted by Singh M K et al¹⁸ shows that only 15.6 % students and the study done in Colombo by Navinan M R et al¹⁷ shows that only 9 % students opt for community medicine as a career option.

Conclusion

The curriculum in place has been able create a positive opinion about community medicine among medical students of our institute, who understand its significance. However active engaging and enjoyable methods of group based teaching will likely be better received than traditional methods such as lectures. While community based learning is viewed positively

by students, making these experiences mutually beneficial to both community and students is likely to inspire students to thought favorably about a future in community medicine. However despite the above facts when it comes to choosing the subject as a career choice the students seem to be reluctant.

References

1. Dare AJ, Bullen C. Shifting perceptions and challenging the profession's paradigms: Reflections from an undergraduate week of population health. *N Z Med J*. 2008;121:45–50. [PubMed: 18815603].
2. Hensel WA, Smith DD, Barry DR, Foreman R. Changes in medical education: The community perspective. *Final Year Medical Students' Perceptions Regarding the Curriculum in Public Health*, *Acad Med*. 1996;71:441–6. [PubMed: 9114859] 8/30/2017 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3263146/?report=printable> 8/12.
3. Gordon L. Public health is more important than health care. *J Public Health Policy*. 1993;14:261–4. [PubMed: 8254003].
4. Chastonay P, Brenner E, Peel S, Guilbert FF. The need for more efficacy and relevance in medical education. *Med Educ*. 1996;30:235–8. [PubMed: 8949533].
5. Morgan Jones RL, Wade R, Richardson JB. The motivation to learn: Efficacy and relevance of the Oswestry postgraduate orthopaedic training programme. *Ann R Coll Surg Engl*. 1998;80:271–3. [PMCID: PMC2503101] [PubMed: 9771229].
6. Tyler IV, Hau M, Buxton JA, Elliott LJ, Harvey BJ, Hockin JC, et al. Canadian medical students' perceptions of public health education in the undergraduate medical curriculum. *Acad Med*. 2009;84:1307–12. [PubMed: 19707078].
7. Brooks JG, Brooks MG. Alexandria, Virginia USA: ASCD; 1999. In *Search of Understanding: The Case for Constructivist Classrooms*.
8. Abdelmoneim I. Students perception of the various teaching methods used in the primary health care course in the Abha, College of Medicine. *Saudi Med J*. 2003;24:1188–91. [PubMed: 14647551].
9. Watson D, Crowley P. "How Can We Implement a WholeLanguage Approach?" In: Weaver C, editor. *Reading Process and Practice: From SocioPsycholinguistics to Whole Language*. 2nd ed. Portsmouth: Heinemann; 1988.
10. National Health Policy 2002. New Delhi: Ministry of Health and Family Welfare, Government of India; 2002. [Last cited on 2013 Aug 12]. Available from: http://www.jkhealth.org/National_Health_policy_2002.pdf.
11. Imperato PJ, Feldman J, Nayeri K. Second year medical student opinion about public health and a second year course in preventive medicine and community health. *J Community Health*. 1986;11:244–58. [PubMed: 3558877].
12. Apurv B Thakur, Ritesh Upadhyay, R R Wavare, A R Deshpande perception towards community medicine as a subject and career option among medical students in a medical college, indore, madhya Pradesh, *National Journal of Community Medicine | Volume 7 | Issue 5 | May 2016 | pg 430-434*.
13. Onwasigwe CN. Attitude of University of Nigeria Medical Students to Community Medicine. *Journal of College of Medicine*. 2003 Jun;8(1):44–6.

14. Kwan CY. Learning of medical pharmacology via innovation: A personal experience at McMaster and in Asia. *Acta Pharmacol Sin.* 2004;25:1186–94. [PubMed: 15339396].
15. Duque G, Fung S, Mallet L, Posel N, Fleischer D. Learning while having fun: The use of video gaming to teach geriatric house calls to medical students. *J Am Geriatr Soc.* 2008;56:1328–32. [PubMed: 18482292].
16. Nosek TM, Cohen M, Matthews A, Papp K, Wolf N, Wrenn G, et al. A serious gaming/immersion environment to teach clinical cancer genetics. *Stud Health Technol Inform.* 2007;125:355–60. [PubMed: 17377303].
17. Mitrakrishnan Rayno Navinan, Dilushi Rowena Wijayaratne, and Senaka Rajapakse Final Year Medical Students' Perceptions Regarding the Curriculum in Public Health Indian J Community Med. 2011 OctDec; 36(4): 268–274. Doi: 10.4103/09700218.91328.
18. Singh MK, Singh AK. Community Medicine as a career option! How is it perceived by medical students? *NJCM.* 2013 Jun 30; 4(2):241–6.