



PERCEPTION OF STUDENTS REGARDING COMMUNITY MEDICINE
CURRICULUM AND IT'S DETERMINANTS IN A MEDICAL COLLEGE OF WEST
BENGAL, INDIA

Community Medicine

Dr. Sumana
Samanta

Assistant Professor, Community Medicine, HIMS, Varanasi, UP, India

Dr. Baisakhi Maji*

Assistant Professor, Department of Community Medicine, I. D. & B. G. Hospital,
Kolkata, WB, India *Corresponding Author

ABSTRACT

Background: Community based experience encouraged a career in general practice and gave better orientation towards patient care. **Objective:** To assess the strength and weaknesses of CM curriculum, to identify the influencing factors and to document students' suggestion regarding the modification needed.

Methods: A cross-sectional study was conducted in a medical college of West Bengal in 2018 among final year students. Predesigned, semi structured questionnaire was used for data collection. Collected data were entered in MS excel spreadsheet and analyzed with the help of SPSS 22.0 version.

Results: Strength of the curriculum were research work, faculty, classroom discussion, easy course and practical session. There was significant difference in perception score among different gender, caste, present residence and career preferences.

Conclusion: Based on the students' suggestion, training of existing teaching staff and more community-based learning are needed at this hour.

KEYWORDS

Community Medicine, CM curriculum, students' perception

INTRODUCTION:

Community Medicine (CM) is the successor of community health, public health, preventive and social medicine, which all share a common agenda i.e. prevention of disease and promotion of health. Now-a -days India is in a phase of rapid health transition. At one hand we are fighting with infectious diseases, nutritional deficiencies and unsafe pregnancies and another hand we are preparing for the escalating epidemic of non-communicable diseases and emerging/re-emerging epidemics of infectious diseases.^[1] So, at this hour we need a robust public health response to prevent the diseases and promote the health at large.

MBBS doctors are the important resource for health care delivery system. As they are the primary health care providers who must have the basic competencies like providing preventive, promotive and curative services to the community, investigation & management of epidemic, computing vital statistics of health-related events and effective communication skill.^[2] These are built through the entire journey in community medicine during the period of undergraduate training.

Department of Community Medicine in medical colleges focuses on teaching and training of medical students with an aim to mould them in a basic doctor of first contact.^[3] Learning CM helps the students to become a good clinician, manager, teacher, researcher. It exposes students to primary and secondary healthcare settings. This helps them to serve the needy people in the community as a primary physician with holistic approach.^[4] Community-based experience encouraged a career in general practice and gave better orientation toward patient care.^[5] As the role of CM is very crucial in developing countries like India, curriculum in CM plays a pivotal role in undergraduate training.^[6] Community Medicine is the only subject which is being taught from 1st year to final year in the whole MBBS curriculum. But the current scenario in medical colleges is quite depressive as the students are not interested in attending classes. So, they are losing the opportunity to learn from teacher's knowledge and experience thereby not properly sensitized towards preventive & social aspects of public health.^[2]

While medical curriculum must be effective and relevant as they are the fundamentals in training of doctors, how effective or relevant they are may be a matter of perception.^[7,8] So, It will be students perception is a diagnostic feedback technique. With this back drop, the present study has been conducted in a medical college of West Bengal among final year students to assess the strength and weaknesses of CM curriculum, to identify the influencing factors and finally to document their suggestion regarding the changes needed at this hour.

MATERIALS AND METHODS:

An institute based observational study was conducted in Bankura Sammilani Medical College (BSMC) of West Bengal during March-May of 2018. This medical college has a strength of 150 students each year and it is situated in a backward district (Bankura) of West Bengal. At first one community medicine lecture class for final year (part 1) students has been selected randomly. All the students present on the designated date of survey was the sample population. Among the 150 students, 128 students were present on that day. By doing complete enumeration, sample size of this study became 128.

A predesigned, pretested, semi-structured questionnaire was used for data collection, which had been derived from previous such studies^[9] and from deliberations with teaching faculty of Community Medicine department of BSMC, West Bengal. There were three parts in the questionnaire. 1st part consisted of baseline characteristics of the students which included age, gender, caste, religion, permanent address, present residence, type of the family, education of both parents, occupation of both parents, socio-economic status according to modified BG Prasad scale 2016 and subject wise career preferences. 2nd part consisted of perception about Community Medicine course which had been measured by 5-point Likert scale. There were 14 questions, each had 5 options, strongly agree, agree, neutral, disagree, strongly disagree. Score 5 was given to strongly agree, 4 was given to agree, 3 was given to neutral, 2 was given to disagree, and 1 was given to strongly disagree. Maximum score was 70 and minimum score was 14. Final part consisted strength, weaknesses of the curriculum and their suggestions to modify the areas of CM curriculum needed at this moment.

The study proceeded after obtaining ethical clearance from the Institutional Ethics Committee of Bankura Sammilani Medical College. Questionnaire was anonymous and filled up by the students themselves. Verbal consent was taken from the students after explaining the purpose of the study, and before distributing the questionnaire.

Finally, the collected data were entered into Microsoft excel spreadsheet. Mean, standard deviation (SD), and proportion were estimated as descriptive statistics. Tables were used for displaying data. Chi square test, unpaired t test and multiple linear regression were performed in SPSS 22.0 version to obtain inferential statistics. P value of <0.05 has been considered significant in all statistical tests.

RESULTS

There were 80 male students and 48 female students present during the day of survey. Average age of the students was 22.41 ± 0.81 (mean ±

SD), minimum was 21 years and maximum was 25 years. The survey revealed that the strengths of the curriculum were research work, faculty, classroom discussion, easy course and practical session. Among these there were significant difference in male and female students regarding practical session, females were more in favor of good practical classes than the males (Table no. 1)

Table 1: Distribution of students according to strength of the curriculum (n=128)

Aspects	Male (n1= 80)	Female (n2= 48)	p value
Research works	41 (51.2)	22 (45.8)	0.55
Faculty	74 (92.5)	42 (87.5)	0.34
Classroom discussion	47 (58.8)	29(60.4)	0.85
Easy course	37 (46.3)	19 (39.6)	0.46
Practical sessions	30 (37.5)	32(66.7)	0.00

Regarding the negative aspects, students identified many, like duration & schedule, boring topics, time consuming research project, teaching methods, numerous lecture classes, assessment methods, hands on training in field visits, untrained teaching staff, focus on theory, wrong year of study, poor assistance in research work and strict attendance registration. Among those, time consuming research, hands on training in field visits, untrained teaching staff and poor assistance in research work were notified by more female students than the males. Whereas, numerous lecture classes and assessment methods were more concerning to the male students than the females (Table 2).

Table 2: Distribution of students according to weakness of the curriculum (n=128)

Aspects	Male	Female	p value
Duration & schedule	11 (13.8)	2 (4.2)	0.08
Boring Topics	34 (42.5)	15 (31.3)	0.20
Time consuming research project	17 (21.3)	18 (37.5)	0.04
Teaching methods	44 (55)	26 (54.2)	0.92
Numerous lectures	27 (33.8)	7 (14.6)	0.01
Assessment methods	17 (21.3)	2 (4.2)	0.00
Hands on training in field visits	46 (57.5)	37 (77.1)	0.02
Untrained teaching staff	11(13.8)	18 (37.5)	0.00
Emphasis on theory	40 (50)	16 (33.3)	0.06
Wrong Year of study	11 (13.8)	5 (10.4)	0.58
Poor assistance in research	15 (18.8)	19 (39.6)	0.01
Attendance registration	28 (35)	12 (25)	0.23

Students suggested few modifications in the curriculum (Table 3). Significant difference was found in decreasing lecture classes and increasing practical classes, more male students had been suggested those, whereas more females suggested that research work should be in 3rd year (Table 3).

Table 3: Distribution of students according to the changes in curriculum needed (n=128)

Changes	Male	Female	p value
Increase practical	74 (92.5)	39 (81.3)	0.05
Decrease lectures	41 (51.2)	9 (18.8)	0.00
Increased time for research	30 (37.5)	16 (33.3)	0.63
Teaching methods	62 (77.5)	21 (43.8)	0.00
Increase duration of course	22 (27.5)	16 (33.3)	0.48
Research project in 3rd year	44 (55)	35 (72.9)	0.04
Focus on health problem of our community	42 (52.5)	20 (41.7)	0.23
Removing attendance registration	3 (3.8)	3 (6.3)	0.51
Remove the course	31 (38.8)	15 (31.3)	0.39

Bivariate analysis revealed that there was significant difference in perception score among different gender, caste, permanent address, present address, socio-economic status and career preferences. Male students, general caste, permanent residence in urban area, present residence in hostel, upper socio-economic classes and clinical subjects as career preferences had more perception score than the other corresponding groups. Whereas, in multivariate analysis significant difference in perception score were found in gender, caste, present residence and career preference while considering the effect of different confounders (Table 4).

Table 4: Multiple linear regression between perception score and its correlates (n=128)

	β	Std. Error			Lower Bound	Upper Bound
Gender	3.35	0.62	5.35	0.00	2.11	4.59
Caste	2.55	0.66	3.83	0.00	1.23	3.87
Permanent residence	1.95	0.76	2.54	0.01	0.43	3.47
Present residence	3.84	0.85	4.51	0.00	2.16	5.53
SES	2.65	0.83	3.15	0.00	0.98	4.31
Career preference	2.61	0.86	3.02	0.00	0.94	4.32

*Dependent variable= Perception score

DISCUSSION

In our study about 63% respondent were male and 37% were female whereas similar study conducted by Saleh in Iraq showed 65% female respondent and rest were male.^[9] This gender differences may be due to the variation in attendance on the date of survey. The same study revealed 33.31% identified research work, 31.8% identified friendly teachers, 13.6% identified classroom discussion & practical session were the strength of the curriculum but in the present study the corresponding proportions were 49.2%, 90%, 59.4% & 48.4%.^[9] Focusing on theory in CM curriculum is one of the drawback, found 46.8% in the present study, while the study by Saleh showed 32.7% student thought the same.^[9] Other negative aspects like unorganized schedule, identified by 14.8% students and boring topics identified by 38.28% in our study whereas the study in Iraq the proportions were 27.2% and 21.2% respectively.^[9] In the present study 26.6% students felt that there were more number of lectures than the practical session but in the study Thakur et al, 60.4% students felt the same.^[11] Teaching methods was one of the major drawback in the present curriculum, notified by 54.68% students but the study in Iraq only 10.6% identified poor teaching methods.^[9]

In the present study only 2% students wanted to do PG in CM, the result was consistent with the study conducted by Singh et al, Navinan et al and Akhund et al whereas these proportion students were higher in the study conducted by Thakur et al and Murugavel J et al.^[10, 11, 12, 14] About 64% students opined that CM is mandatory in UG curriculum in our study whereas about 97% students were in favour of this in the study conducted by Murugavel J et al.^[6]

Present study revealed 61.7% demanded revision of research component whereas in the study conducted by Sadawarte et al showed 80% students demanded the same.^[3] Regarding the other modifications in the CM curriculum, 39% proposed decreasing of theoretical classes, 88.28% demanded more practical classes and 68.84% were in favors of changing the current teaching-learning methods. These proportions (39%, 36.8%, 14% respectively) less in the study conducted by Saleh in Iraq.

The present study found that majority (45.3%) of the students preferred medicine as their career, Subba et al also found the similar finding (30.9%) bur Kumar et al found major preferred career option was surgery (37.1%).^[13,14]

CONCLUSION & RECOMMENDATIONS

In the present study, students have identified some areas which are needed to give priority while making the future curriculum, like increased practical classes, modification of teaching methods. Existing teaching staff are needed to be trained to make some effective changes in the curriculum. Despite being exposed to the subject almost throughout their college years they did not opt for Community Medicine as a career option. In this regards, community-based learning will be mutually beneficial to both the community and students. It is likely to inspire students to think favorably about a future in public health.

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REFERENCES

1. Thakur AB, Upadhyay R, Wavare RR, Deshpande AR. Perception Towards Community

- Medicine as a Subject and Career Option among Medical Students in a Medical College, Indore, Madhya Pradesh. *Ntl J Community Med* 2016; 7(5):430-434. Available at http://njcmindia.org/uploads/7-5_430-434.pdf [last accessed on Jan 20,2020]
2. Unnikrishnan B, Rekha T, Mithra PP, Kumar N, Reshmi B. Perception of Medical students about their educational environment in Community Medicine in a medical College of Coastal Karnataka. *Indian J Community Medicine*. 2012; 37(2): 130-132. Available at <http://www.ijcm.org.in/article.asp?issn=09700218;year=2012;volume=37;issue=2;spage=130;epage=132;aualast=Unnikrishnan> [last accessed on Jan 10, 2020]
 3. Sadawarte MK, Kakeri MK, Nandanwar DY. Community medicine: perceptions among medical students and career preference: a cross sectional study. *Int J Community Med Public Health* 2017; 4:4577-82. Available at www.ijcmph.com/index.php/ijcmph/article/download [last accessed on Jan 10,2020]
 4. Gopalakrishnan S. Community Medicine: Learning experience of medical students. *South East Asian J Med Educ*. 2010;4:46-7. Available at http://seajme.md.chula.ac.th/articleVol4No2/SPC1_S%20Gopalakrishnan.pdf [last accessed on Jan 10, 2020]
 5. Rolfe IE, Pearson SA, Cleary EG, Gannon C. Attitudes towards community medicine: A comparison of students from traditional and community-oriented medical schools. *Med Educ*. 1999;33:606-11. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5629906/> [last accessed on Jan 11, 2020]
 6. Mugavel J, Chellaiyan VG, Krishnamoorthy D. Attitude towards learning of Community Medicine: A cross-sectional study among medical students. *J Family Med Prim Care*. 2017; 6(1): 83-7
 7. Chastonay P, Brenner E, Peel S, Guilbert FF. The need for more efficacy and relevance in medical education. *Med Educ* 1996;30:235-8. Available at www.jfmpc.com/article/issn=2249-4863;year=2017;volume=6;issue=-... [last accessed on Jan 10, 2020]
 8. 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. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3263146/> [last accessed on Jan 10, 2020]
 9. Saleh AM. Perception of students about community medicine course in Hawler College of Medicine. *Zanco J. Med. Sci.* : 19(3) : 1084-90. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5842478/> [last accessed on Jan 6, 2020]
 10. 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. Available at http://njcmindia.org/uploads/4-2_241-246.pdf [last accessed on Jan 10, 2020]
 11. Navinan MR, Wijayarathne DR, Rajapakse S. Final year students' perception regarding the curriculum in public health. *Indian J community Med* 2011; 36(4):268-74. Available at www.ncbi.nlm.nih.gov/pubmed [last accessed on Jan 6, 2020]
 12. Akhund S, Shaikh ZA, Kolachi HB. Career Related Choices of Medical Students from an International Medical College of Karachi, Pakistan. *JLUMHS*. 2012 Dec;11(3):180-4. Available at pdfs.semanticscholar.org [last accessed on Jan 10, 2020]
 13. Kumar R, Dhaliwal U. Career choices of undergraduate medical students. *Natl Med J India*. 2011; 24:166-9. Available at https://www.researchgate.net/publication/51518993_Career_choices_of_undergraduate_medical_students [last accessed on Jan 6, 2020]
 14. Subba SH, Binu VS, Kotian MS, Joseph N, Mahmood AB, Dixit N, et al. Future specialization interests among medical students in southern India. *Natl Med J India*. 2012;25:226-9. Available at <https://www.ncbi.nlm.nih.gov/pubmed/23278783> [last accessed on Jan 6, 2020]