

## ORIGINAL ARTICLE

## Impact of Field Practice in Community Medicine on Students' Knowledge and Attitude Towards Health Problems and Health Needs in the Rural Community

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### Abstract:

Rural educational experience through field practice in Community Medicine may change students' perceptions about rural practice issues and their understanding about rural upbringing. In medical colleges of this country, third and fourth year students have to undergo field site training under the leadership of the department of Community Medicine to get exposure to the community with a view to get oriented to the health problems and health needs of the community as well as to change attitude and develop skills for effective delivery of comprehensive health care to the community. This study was carried out among the fourth year medical students of Community Based Medical College, Mymensingh with the objectives to determine whether the field practice in community medicine can let the students know about the common health problems in rural community, makes them understand the causes and factors of those health problems, the knowledge thus obtained can help them to mitigate the health problems prevailing in the rural community, the experiences gathered change students' likelihood of doing rural practice after graduation, and if the students gender and background are related to the likelihood of doing rural practice after graduation. A 5-point Likert scale was used. It was found that through the field practice in community medicine, the students had increased their knowledge about the common health problems in the community (mean Likert score 3.48) and about the causes of those health problems (mean score 3.44). They felt that knowledge gained through the field practice would help them to mitigate the health problems in the rural community (mean score 3.70) and they had an increased likelihood of doing practice in rural areas after graduation (mean score 3.19). Intention of rural practice was higher among the male students (mean score 3.32) than the female students although it was not significant (mean score 3.04,  $p > .05$ ). However, rural background students were more interested to do rural practice after graduation (mean score 3.87) than their urban background counterparts (mean score 3.08). This difference was statistically significant ( $p < .05$ ). Students' urban background was found to have negative correlation with their intention of rural practice (correlation coefficient -0.226,  $p < .05$ ). The students also felt very much comfortable in doing field practice (mean score 3.70).

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### Introduction:

There is a Chinese proverb "what we hear, we forget; what we see, we remember; what we do, we know". When the students study something inside the four walls of a medical college, they might miss many important things regarding health and disease in a community. But when they go to villages where vast majority of our population live with numerous and varied health problems, then they will be able to see with their own eyes and do something by themselves to remember and know many things regarding community health. Through the field practice in community medicine, the students are supposed to gain community oriented knowledge, and develop attitude and skill so that they can provide comprehensive health care with confidence to the community after graduation. Concentration of health manpower and allocation of health budget is much more in urban areas. This maldistribution is unacceptable. There is less interest among doctors to go to the villages to do practice there. This is more applicable especially for the urban background students. A study by Woloschuk and Tarram shows that the rural background students are more likely to do rural practice than the urban-based students<sup>1</sup>. The availability of adequate rural physician manpower is an international concern. Providing medical students with the opportunity to experience rural practice has been one of several strategies considered as a possible solution to this problem<sup>2,3</sup>. Rural educational experience through field practice in community medicine may change students' perceptions about rural practice issues and their understanding about rural

upbringing. All medical schools in Canada and Australia provide rural training opportunities<sup>4</sup>. In this country, where medical education is mainly hospital based<sup>5</sup>, field site training is included in the curriculum approved by the Bangladesh Medical and Dental Council<sup>6</sup>. The aim of the course in medicine is to produce need-based community oriented doctors of international standard<sup>7</sup> with three educational objectives, knowledge, skill and attitude<sup>8</sup> having attitudinal shift to save the community people through primary health care<sup>5</sup>. In our medical colleges, third and fourth year medical students have to undergo field site training under the leadership of the department of Community Medicine to get exposure to the community with a view to get orientation to the health problems and health needs of the community as well as to change attitude and develop skill for effective delivery of comprehensive health care to the community. This study was carried out among the fourth year medical students of Community Based Medical College, Mymensingh which is located 10 km away from Mymensingh town on the Mymensingh Dhaka highway. The students there routinely go to the villages during their third and fourth year classes for doing field practice in community medicine.

The objectives of the study were to determine whether i) the field practice in community medicine can let the students know about the common health problems in rural community, ii) the field practice in community medicine makes the students understand the causes and factors of those health problems, iii) the knowledge of field practice attained by the students can help



them to mitigate the health problems prevailing in the rural community, iv) the experience of field practice in community medicine changes students' likelihood of doing rural practice after graduation and v) students' gender and background are related to the likelihood of doing rural practice after graduation.

### Materials and method:

Data were collected in the years 2003 and 2004 from the fourth year students of Community Based Medical College, Mymensingh, after they had completed their field practice in community medicine. A 5-point Likert scale questionnaire containing various items such as (a) how much had the field practice helped the students to know what were the common health problems in the rural community, (b) how much had the field practice helped them to increase their knowledge about the causes of those common health problems in the rural community, (c) how much would their knowledge of field practice help them to mitigate the health problems in the rural community, (d) what were the likelihood of their doing practice in the rural area after graduation and (e) how comfortable did they feel doing field practice was used to collect data. Students were told that the collected data would be used to assess the potential benefits of the field practice programme and that only aggregated data would be published. They were also assured that their responses in the items of the questionnaire would not affect their examination results. The collected data were analyzed in a computer using the SPSS programme version 7.5 for windows<sup>9</sup>. Regarding

knowledge, Likert score 1 was considered as very low, while 2 as low, 3 as average, 4 as high and 5 as very high. Grossly, a mean Likert score of 3 and above was considered as satisfactory, while that below 3 was considered as not satisfactory. Regarding attitude, Likert score 1 was considered as very negative, while 2 as negative, 3 as average, 4 as positive and 5 as very positive. Grossly, a mean Likert score of 3 and above was considered as positive attitude while a score below 3 was considered as negative attitude. Frequency distribution was calculated to find the levels of knowledge and attitude of the students on different variables used in the study. Cross tabulations were done to note students' gender and background relationship with their levels of knowledge and attitude. Students *t* test was done to find out the statistical significance.

### Results:

A total of 105 students were interviewed for this study. Of them, 57 (54.29%) were male and 48 (45.71%) were females. Urban background students were 90 (85.71%) while rural background students were 15 (14.29%) (Table I).

**Table-I:** Distribution of students by gender and rural-urban background

Gender	Rural	Urban	Total
Male	10	47	57
Female	05	43	48
Total	15	90	105

Mean Likert score for each of the research items among the students was more than 3 (Table-II).



**Table-II:** Mean Likert scores with standard deviation (SD) of the students on different research items

Items	Mean Likert scores with SD		
	Comb- ined	Male	Female
a. How much had the field practice helped the students to know what were the common health problems in the rural community?	3.48 (±0.77)	3.60 (±0.82)	3.33 (±0.69)
b. How much had the field practice helped the students to increase their knowledge about the causes of common rural health problems?	3.44 (±0.81)	3.46 (±0.78)	3.42 (±0.85)
c. How much would their knowledge of field practice help them to mitigate the health problems in the rural community?	3.70 (±0.38)	3.75 (±0.91)	3.65 (±0.84)
d. What were the likelihood of doing practice by the students in the rural area after graduation?	3.19 (±1.23)	3.32 (±1.36)	3.04 (±1.03)
e. How comfortable did they feel doing field practice?	3.70 (±0.99)	3.86 (±1.09)	3.52 (±0.82)

More than 39% students had Likert scores of 4 and more for item (a), 43% for item (b), 61% for (c), 38% for (d) and 53% for item (e). That is, through the field practice in community medicine, the students had increased their knowledge about the common health problems in the community (mean Likert score 3.48) and about the causes of those health problems (mean score 3.44). They felt that their knowledge gained through the field practice would help them to mitigate the health problems in the rural community (mean score 3.70). The students had an increased likelihood of doing practice in rural areas after graduation (mean score 3.19). Intention of

rural practice was higher among the male students (mean score 3.32) than among the female students (mean score 3.04) but the difference was not statistically significant ( $p>.05$ ). However, rural background students were more interested to do rural practice after graduation (mean score 3.87) than their urban background counterparts (mean score 3.08). This difference was statistically significant ( $P<.05$ ). Students' urban background was found to have negative correlation with their intention of rural practice (correlation coefficient -0.226,  $P <.05$ ) (Table-III). The students also felt very much comfortable in doing field practice (mean score 3.70).

**Table-III:** Relationship of students' gender and urban-rural background with their intention of rural practice after graduation.

Parameters	Gender	Urban-rural	Rural practice
Gender	1.000	-0.101	0.112
Urban-rural	-0.101	1.000	-0.226*
Rural practice	0.112	-0.226*	1.000

\* Correlation is significant at 0.05 level.

### Discussion:

Field practice in community medicine facilitates the students in gaining community oriented knowledge and attitude for effective delivery of comprehensive health care to the community after graduation. Findings in the present study are encouraging. They illuminate how field practice in community medicine changes students' perceptions about community health problems and needs.

Present study revealed that there was moderate or high degree increase in the knowledge about common rural health



problems and their causes, which the students might have not learnt if they had not gone to the field practice programme. The students moderately or highly believed that their field practice knowledge would help them to mitigate the health problems in the rural community. Through this field practice programme the students could change their attitude in a positive direction for serving the rural people by doing practice in the rural areas after graduation. This was significantly high in rural background students as in conformity with the study findings of Woloschuk et al<sup>1</sup>. However, there were only a small number of students who were raised in rural community. Understandably, students with rural background understand better the rural custom and culture than the urban background students. Therefore, they would be more at ease and willing to live and work in a rural community.

Field practice in Community Medicine may be more effective for the students if it is longitudinal in nature and there are some rural research electives.

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