

Medical students assisted health checkup and focused health education – An integration of community and family medicine

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A B S T R A C T

Objective: The objective of the study was to integrate family medicine practice with the theme of school health service, nutrition and communication skills in the year 4 MBBS curriculum at Shifa College of Medicine, Islamabad.

Methodology: Health checkup of students aged 5-15 years, in a private school Mashal Model School, Nurpur Shahan, Islamabad was carried out by a family physician assisted by 100 medical students of Year 4, undergoing Community and Family Medicine clerkship at Shifa College of Medicine, Islamabad. School children were given health education in their identified health problem. Medical students' views regarding the activity were recorded through focused group discussion.

Results: Each medical student got the opportunity to assist health checkup along with educating them on their health issue in an interactive group discussion for five minutes. Mean score of the impact of this activity on their career was found to be 7.55 ± 1.04 while the impact of this activity in their role as a health provider was found to be 7.64 ± 1.12 . Different themes were generated from the focused group discussion.

Conclusion: Themes of school health service, nutrition and communication skills can be successfully integrated in the undergraduate teaching of community and family medicine. Medical students by assisting the generalist practice in the school environment can learn communication skills, thus moving towards social responsibility.

Keywords: Community-Based Education, School health service, Health check –up, CANMED's, Integrated curriculum

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Introduction

Health Advocacy as part of Community Based Education (CBE) is one of the seven important competencies for physicians as stated in CanMED's framework. CanMed's framework identifies the abilities a physician should have to effectively serve the health needs of the community they are to serve [1]. The definition of health advocate according to this framework is "As Health Advocates, physicians contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the

mobilization of resources to effect change" [1]. Disease Prevention, Health promotion, and health protection play a vital role in improving the overall health of the community. A physician should be able to identify the needs of the community and devise an appropriate and effective mechanism to address these needs. Advocacy also involves engaging other health care professionals, local community agencies and health policy-makers in order to devise an effective long-lasting solution for the need of the community. CanMED's framework has now been applied to several undergraduate programs all over the world [2-6]. Different studies have advised

incorporation of health policy and advocacy in medical curriculum in order to make competent future physician [7].

Our study has been based on the health advocacy component of the CanMEDS's framework. Medical students need to develop health advocacy skills in order to address health issues meaningfully especially at the community level where there is a dearth of such services. The objective of the study was to identify areas for imparting health education to school children by doing their first health check up through the assistance of medical students, focusing primarily on nutritional assessment. Secondary Objective of the study was to integrate family medicine practice with the theme of school health service, nutrition, communication skills in the year 4 MBBS curriculum at Shifa College of Medicine, Islamabad, Pakistan.

Methodology

We carried out a mixed method study; qualitative and cross-sectional study from June 2016 to June 2017 in Mashal Model School located in a peri-urban slum, Nurpur Shahan, Islamabad. The school consists mostly of local street children.

Health assessment of the students was carried out by faculty member with dual specialization in family medicine and public health. This was assisted by year 4 medical students attending the community and family medicine clerkship. There are five clerkship batches in Year 4 comprising of 20 students per batch, thus making a total of 100 students. It was mandatory for all the students to participate in the school based activity as part of community family medicine clerkship schedule. All the students consented to participate in the study, resultantly they all participated in the study. Each medical student assisted the family physician in checkup of 3 school children in a clerkship batch of 20 students, resulting in a checkup of 300 children in one session. The total student strength of the school is 750.

Data was collected from the school students over a period of one year through 5 clerkship batches. The school students were selected from consecutive sampling. Students who had been assessed by the previous batches were not checked again. To ensure this the researcher first prepared the sampling frame. Their

names were taken out once their data were collected. This list was brought by the researchers on every visit. The Identity of respondents was kept anonymous. Informed consent was obtained from the principal of the school. Following health assessment, medical students organized children into groups based on the common health problem. They were then given health education in the urdu language through an interactive talk. Medical students were evaluated during the entire process and were given feedback by accompanying faculty towards the end. A questionnaire containing different components of the activity was given to the medical students. The students were asked to score all the components of the activity on a scale of 1 to 10; with 10 being the maximum and 1 being the minimum score. The components assessed were; the impact of this activity on their career, their role as a health provider, relevance of this activity to the curriculum of community and family medicine, benefit of this activity to the school and the community as a whole and recommending this activity for future groups. Each medical student was given 10 minutes to fill these 4 questions. Following this, they were interviewed regarding the activity. A focused group discussion with 10 volunteers from each clerkship batch was carried out through a focused group guide. A questionnaire containing different components of the activity was given to the medical students. The students were asked to score all the components of the activity on a scale of 1 to 10; with 10 being the maximum and 1 being the minimum score. The components assessed were the impact of this activity on their career, their role as a health provider, relevance of this activity to the curriculum of community and family medicine, benefit of this activity to the school and the community as a whole and recommending this activity for future groups. Following this, they were interviewed regarding the activity.

Data was collected and entered into SPSS version 21. Descriptive statistics were calculated for all variables. Thematic analysis was done for qualitative variables.

Results

Out of 100 Year 4 medical students, 45% were males while 55 % were females. Mean age of the medical students was 22 ± 1.7 years. All the participants recommended this activity to their peers. Scoring of

different components of this activity is presented in Table 1.

Table 1: Mean score rated by year 4 MBBS students regarding different components of the school activity (n=100).

Different components of the school activity	Mean ± SD
Benefit to School and the community as a whole	8.18 ± 1.32
Impact in terms of role as a health care provider	7.64 ± 1.12
Relevance to the curriculum of family medicine	7.97 ± 1.28
Impact on your career	7.55 ± 1.04

Out of 300 school children, 145(48.3%) were boys while 155(51.7%) were girls. Mean age of the school students was 9.3±2.5 years while median number of siblings was 6. Mean mid arm circumference was 17.9±2.5 cm while the mean BMI was found to be 14.7±1.9 kg/mm². Common health problems identified among school students are presented in Figure 1.

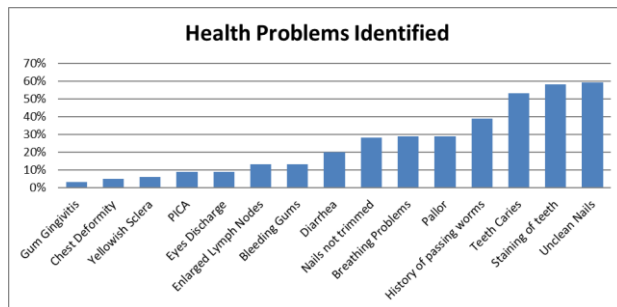


Figure 1: Common health problems identified among school children.

Themes Identified based on focused group discussion:

Impact of this activity on the medical student:

“Useful and Constructive”. According to them, it was a good opportunity for them to interact with the community and it helped them improve their confidence in terms of interacting with patients and the community as a whole. Identifying the different health problem and addressing them via public health talk gave students a sense of achievement by enhancing their communication and counseling skills.

“Sense of Achievement and Responsibility”. They also reported that this experience helped them develop a sense of responsibility, empathy, and sympathy. This activity also gave them insight into different health problems faced by the less privileged communities.

Importance of Preventive Medicine:

“Early identification of disease”: They also appreciated the importance of identifying disease earlier in the course and that earlier detection and treatment can significantly decrease the prevalence of the disease. They were of the opinion that basic problems in term of health can easily be tackled with minimum resources. Medical students felt that there was a need to spread awareness not only about the disease but also about ways to prevent the development of a disease in the community.

“Hygiene and Quality of Life” Along with this, they also learned the importance of hygiene and its impact on quality of life. It encouraged the medical student to participate in keeping their surrounding and environment clean. Medical students also deduced that the school children can enhance the success of different community health awareness programs by imparting knowledge to their parents as well and their future generation.

Role and Importance of Primary Healthcare:

This activity helped them appreciate the importance of primary health care and motivated them to pursue a career in community health care. This activity also broadened their knowledge base. They felt that programs like these can help them get a better grasp on the medical knowledge they have acquired during their course of study. According to some students, this activity helped them in becoming a better person and they gained spiritual health from this activity.

Discussion

Most of the medical knowledge is imparted to the students within the medical school premises with little focus on the community. While in reality most of the diseases occur in the community and only a small portion presents to the clinics. Hence, there is a need to focus on the community particularly in regards to disease prevention, cure and to attain better perception about disease pathology.

The University of Toronto in 2012/13 integrated compulsory clinical experience in homeless health as part of their family medicine clerkship [6]. The study concluded that integration of such programs in the medical curriculum can significantly contribute to the comprehensive advocacy curriculum. Another study concluded that incorporation of healthcare policy and advocacy training programs can significantly increase students' self-reported knowledge and confidence in their abilities [6]. In our study mean score of this activity in term of its impact on the career of medical student was found to be 7.55 ± 1.04 .

After interacting with the school children the medical students deduced that the local family physician was not giving adequate time to the health of the children during the monthly check up and hence they were suffering poor health. The medical students concluded that a good physician should not only treat the disease but also impart knowledge about disease prevention to the patient so that the incidence of the disease can decrease. A study done in Iran had a similar conclusion [8].

Empathy is the capacity to understand or feel what other person is experiencing from within the other's being frame of reference. Patients want their doctor to be academically competent and have personal qualities that contribute to their professionalism. Patients whose doctors listen to them have been shown to demonstrate enhanced understanding of their disease and are found to be more satisfied with their treatment and have a better quality of life as compared to patients of a doctor with less empathy [9]. Clinical empathy can have a significantly enhance the quality of medical care [10]. Empathy helps the physicians by appreciating what the patient's actually mean, helps identify what the patient is anxious about, it facilitated patient trust and disclosure, increased to adherence to treatment, lesser malpractice complaint, related to more favorable health outcome and it makes practicing medicine more meaningful and satisfying [11, 12]. Different studies have concluded that lack of apathy in doctors is one of the most common sources of distress to the patients [13 - 15]. A study concluded that there was a need to teach empathy to the doctors to prevent burnout among doctors [16]. This activity helped the students to understand the concept of empathy and enhanced their empathy abilities. Most of the students

were of the opinion that having empathy is one of the qualities of a good doctor. Incorporation of activities of this kind in the medical curriculum can significantly enhance the empathy skills of medical students.

Such programs helped the medical students to identify the difficulties faced by the society and helped them identify the major impediments to various health programs going in that area. Thus, in future, they can modify their practices according to the needs of the community and can come up with better health awareness policies and campaign which is tailor made for the particular community. In our study medical students found out that although school children were aware of the proper practices regarding dental hygiene but unfortunately they did not practice them which resulted in poor dental health.

This activity also helped the student to appreciate the importance of proper personalized dietary device to the health of the patients. Some of the medicine students reported that this activity helped them appreciate different causes of nutritional deficiency and their prevalence in the society.

Implementation of community-based education will not only give a confidence boost to the medical student but will also benefit the community. Repeated visits by the students to the locality will keep the people aware of different health issues and would ensure that they are taking the proper preventive measures. A study concluded that developing interceptive awareness in people improved the degree of people practicing prevention in that area [17]. Our study had a similar result.

According to a study community program such as these can encourage the student to consider a career in general practice [18]. These programs were also found to influence medical student's intention to work in rural areas in future [20]. Such programs can solve the shortage of primary care physicians in rural areas. These programs have been shown to help students to apply their knowledge and skills to a particular community in future [20].

Since this activity of community and family medicine integration among the year 4 students was carried out through single interaction, this is the limitation of the study. It is suggested that more activities of this type

should be carried among different themes to determine the extent of integration among these two curriculum.

Conclusion

Themes of school health service and nutrition among school children can be successfully integrated with health education and communication in the undergraduate teaching. Medical students while assisting the generalist practice in the school environment rehearse communication skills in the context of imparting health education, thus moving towards social responsibility.

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