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Successes and Limitations of Community-Based Education Service at Moi University School of Medicine, Eldoret, Kenya

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Abstract

Background: Community-based education has been introduced in many medical schools around the globe, but evaluation of instructional quality has remained a critical issue. Community-based education is an approach that aims to prepare students for future professional work at the community level. Instructional quality should be measured based on a program's outcomes. The purpose of this study was to evaluate the successes and limitation of COBES.

Methods: 274 students, 65 lecturers and 9 administrators were recruited into the study. Self-administered questionnaires with both qualitative and quantitative were used in data collection. Questionnaire utilized a five point Likert scale (1-Totally disagree, 2-Disagree, 3-Not Sure 4-Agree and 5-Totally Agree). Cronbach's alpha, median and inter-quartile range (IQR) was calculated in SPSS 22. P-value less than or equal to 0.05 was taken as statistically significant. Ethical approval was obtained from the Institutional Review and Ethics Committee (IREC) of Moi University and Moi Teaching and Referral Hospital.

Results: The response rate among students was 250 (91%), 65 (48%) among lecturers and 9 (100%) among administrators. 77% of students accepted that the college is short of vehicles for COBES. Majority of the students felt that COBES provides an opportunity to meet real life problems of the community and is challenged to provide solutions to the existing health problems. Participant 098 stated that "COBES Provides different approach to solving problems and alternative and realistic approach in seeking answers to actual health problems".

Conclusions: Community based education motivates students to practice community health care. In addition, their motivation is increased by the health education activity. Participating in this activity probably produces a positive effect and improves the instructional quality of the program based on its outcomes.

Policy Implications: Community based education during medical school has a positive effect on students. However, the adoption has been met with some concern, primarily because of the substantial manpower and means of transport. COBES becomes a major concern when there are limited resources available.

Key Words

Community-Based Education; COBES; Community Healthcare

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Background

Community-based education is effective in fostering health personnel who are responsive to community needs. Community-based education has been started in many medical schools around the globe as an innovative approach to medical education. Students are taught community-based issues by allowing them to take time off from the college to stay in the community and participate in solving health-related problems. During COBES students are allowed to go and study medicine in the community using the community as a teaching laboratory; and that kindles the desire to go back to them after graduation to serve the community as argued by (Bojuwoye, 2011). This is in line with

Kenyan government reason of starting Moi University aimed at graduating personnel who could work in rural areas. Taking students to the community makes them more likely to seek for meaning to the community's health problems and how to solve them. This method is more informative as opposed to lecture method which is theoretical. A student who has attended COBES is more informed about community's health problems as opined by Lonka (Lonka, 2013). This approach was introduced to enable students learn community's health problems as per community's perspective.

The strength of SPICES model; is that of taking

students through COBES program is a way of training health professionals in the community. This program helps students to relate hospital based diseases and the community the patient comes from. It is a way of training health professionals in a holistic approach in medical education (Baliddawa, Undated).

The importance of COBES is that it inculcates community medicine in the training of health professionals in a practical way, promotes preventive health and research as a way of finding solutions to community's health problems (ibid). Courses are taught in an integrated approach whereby subject matter interrelates and even students from all the four schools learn together. Though interrelated, all the teaching is systematic. Students participate in COBES by going to the community and staying there for a period of six weeks. They undertake electives by going to partner hospitals both within the country and foreign partnering Universities. One has to participate in a COBES program every academic year. Students study about community's health problems and seek to solve them.

The main objectives of COBES are to train health care professionals who are sensitive to the health needs of the community. This gives students an opportunity to learn health problems of the community, their nature and the magnitude of these problems; then seek to offer solutions to them. This is how the course is designed:-

1. During first year, students are introduced to community health, and what they will encounter when they go to the community. They are taught the basic principles of epidemiology, structure of health care delivery systems and the role of health care providers. This will help students identify problems when they go for COBES, refer them to the relevant health care provider.
2. In their second year, they do community diagnosis by going to the community for a period of six weeks; mainly to learn from the community. They get to know community's health problems; attempt to offer solutions assisted by their lecturers and officers in charge of the centers.
3. In the third year students prepare a COBES proposal to be researched in fourth year as COBES IV. In this research, they identify special features that affect health in urban communities. They facilitate community self-reliance by using research to look for sustainable solutions to community's health problems.

4. In fourth year, students conduct data collection, analyze, write and submit a report. This is aimed at using research as a tool in seeking solutions to community's health problems.
5. In fifth year, they go to County hospitals to learn Health Management; this enables them to learn various aspects of health services offered at the County hospitals. Students whose programs run for 4 years, COBES 4 and 5 are all undertaken in the fourth year of study.

The reason why students are exposed to research methods in first year; before going for COBES in second year is to equip them with the skills to seek for empirical solutions to community's health problems. In second year, they have the opportunity to identify the community's health problem, in third year one is expected to develop a proposal aimed at seeking solutions to the existing community's health problems. In fourth year, students do their research; and in COBES five, one can disseminate the findings, By use of research it helps students use evidence based solutions to community's health problems, and this is achieved by introducing students to community health problems in first year; in the second year they are introduced to community diagnosis. In third year students prepare research proposal of a health problem they can identify to be implemented in fourth year, as presented by Baliddawa (Undated: 2-3). At this time the student who is conducting research, has vast experience with community's health problems owing to COBES program.

In all these activities, students are given time to conduct self-directed learning which includes conducting research to find solutions to their identified problems as explained in the Moi University College of Health Sciences (2015:3).

That majority of the basic sciences courses which are taken by all Schools; students are taught at the same venue by the same lecturers. This approach makes the student relate each course to the other as argued by (Majumder, D'Souza, & Rahman, 2004). It means that when courses are integrated, students from the schools of Medicine, Public Health, Nursing and Dentistry can be taught together and that improves students' view about human health dimensions. But it is worth noting that it is only COBES and basic sciences courses which are taught together; because all health professional trainees spend much of their first and second years doing basic sciences. After basic sciences the only course that runs throughout their curricula in an integrated manner is COBES. That helps them relate their courses to actual practices in their field of study. As such, their teaching will be multi-professional and

multi-disciplinary. But where courses are interrelated; they are taught following each other starting with the one that has the basics of the other courses.

Mixing students from the four schools during COBES fosters team-work among themselves; and this helps them in getting to know that community health problems need a teamwork approach. That community's health problems are better solved using all dimensions of health professionals such as public health officers, nursing officers, dentists, medical practitioners, mental health specialists and physiotherapists.

Sending students to the community to stay within the community and learn the community's health problems is a combination of practical experience which a student encounters when serving a patient in the rural areas as opined by van den Wiel (van de Wiel, 1997). As such, the student gets relevant knowledge and aspires to research for a solution to the identified community's health problems.

It does not only expose the student, but it makes the trainees desire to be posted in the rural areas because they already have experienced community's needs (Friedman et al., 1990) opines that such graduates who had COBES in their curriculum do not resist being posted to rural areas, and this achieves one of the objectives of establishing Moi University to train personnel who can work in rural areas they cite Nigeria and Ethiopia as examples that have used that program and realized that their graduates are not opposed to taking up postings to rural centers.

Resources for COBES

Transport is a key factor in facilitating COBES success; and this is in line with WHO (2013:13) guidelines that institution using innovative teaching and learning must include COBES in their curriculum (WHO, 2013).

Universities in West Africa such as University of Ilorin, Obafemi Awolowo University and Ile-Ife Ogun University, all in Nigeria who included COBES in their curriculum faced a challenge of having to transport students to the community as opined by (Jinadu, Davies-Adetugbo, Ogunbodede, & Adetugbo, 1997). COBES is one of the ways students will come in contact with the actual health problems and needs of the community during their training. It should be seen as an integral part of problem-based method of teaching and learning; innovative learning especially problem-based learning must include COBES in her curriculum as opined by (Friedman et al., 1990).

It will be more difficult if the people in authority do not understand what COBES is all about. even if they try to find a way of transporting students to COBES centers they will be doing it half-heartedly (Kangethe, 1999).

Apart from the problem of getting vehicles to transport students to the community, Democratic Republic of Ethiopia was faced by poor road network in the rural areas. This demands that transport required ought to be one that can withstand impassable roads in the rural areas, which are encountered in almost all developing countries (Jinadu et al., 1997).

Results

The study established that teamwork among students in all the four Schools has been facilitated through electives and community-based education and service (COBES). Majority of the student participants said that COBES and electives had helped them to improve in their academic performance. They said that the COBES programs had enhanced their performance because students were integrated from four schools enabling them to learn from one another. When medical students put their expertise together, they are able to tackle difficult health problems from all dimensions as observed by both Bojuwoye and van den Wiel (Bojuwoye, 2011; van de Wiel, 1997).

The other benefit of electives and COBES is that they provide an opportunity for medical students to encounter real health problems of the community. During COBES and electives; students were challenged to provide solutions to existing community's health problems. This provided an alternative, practical and realistic approach to learning and problem-solving as supported by (van de Wiel, 1997).

Students identified COBES and field trips as the most ineffective programs due to lack of sufficient vehicles. This particular problem has also been registered in reports by Chang (Chang et al., 2011). To alleviate this problem, more vehicles need to be procured for COBES and field trips. The University administrators and lecturers must see COBES as part of the curriculum that requires full support like others courses in the curriculum. However, if programs such as COBES and field trips are seen as extra-curricular activities, procurement of the needed vehicles will not be given the priority it deserves. This view has been shared by Kang'ethe (1998:31), Kiguli-Malwadde et al (2006:10), Jinadu et al (1997:20) and the Federal Democratic Republic of Ethiopia (2015:4).

Conclusions

Community based education motivates students to practice community health care. In addition, their motivation is increased by the health education activity. Participating in this activity probably produces a positive effect and improves the instructional quality of the program based on its outcomes. Institutions of higher learning need to invest more in COBES and not look at it as an extra curricular activity.

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