

Community- Based Education: Tikrit University College of Medicine Experience. PART TWO: Community Based Education Programme in Tikrit University College of Medicine: current situation and proposal for change

Amina Hamed Ahmad Alobaidi, Kirkuk University, Kirkuk, Iraq.

Email: aminahameed2006@gmail.com, Mobile: +9647702399175

ORCID: <http://orcid.org/0000-0002-8495-3452>

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Tikrit University College of Medicine [TUCOM] has tried since foundation to implement relevant curriculum, which is both community- oriented as well as community –based [1].

Partners involved in CBME

In community-based learning activities the active partners include students, staff and community [2]. However, the development of CBLA program is influenced by economic and political factors in local national levels and these two factors affected badly the education in Iraq after 2003. TUCOM/CBME programme was designed before the first batch of student joined the college. Its development, implementation and sustainability faced a lot of challenges. The partners involved in TUCOM/CBME programme are heterogeneous and this heterogeneity does affect the program implementation. However, all the partners share a common set of values such as quality, equity, relevance, and cost effectiveness, as well as certain vision of future health services delivery [2].

These shared criteria between partners of CBME, will help in overcome of the challenges facing the implementation of the program. This is achieved by the approach of their acceptance that shared interests should prevail over sectarian and personal interest [3]. As Khamis [2] stated that there are many partners who involved in CBME, five principal partners have been identified: policy-maker, health manager, health professionals, academic institutions, and communities. In respect with the above addressed main partners the student represent the core of the model that by sound partnerships with other four is the TUCOM/CBME target to work for its development in order to achieve its mission and objectives. Good relationships between partners are a vital concern in CBME [4].

The reported studies of partner's analysis indicated in details the rationale and role of the main partners [2, 3, 4, 5]. For more details see appendix one. There is good collaboration between the CBME program of TUCOM and health services in spite of the difference of the organizational pattern, as the latter is controlled by Ministry of Health. This collaboration extends to a degree in which the MOH personnel's are involved actively in students training in PHCC. On the other hand, reliance on multi-professional teamwork at local health care in spite of being a vital issue needs to be ensured during the whole education process.

The local health system which is the product of health profession collaboration, health services provided and the community, constitutes many activities , including health promotion, student (pupil) care and basic health care beside health education and

preventive care and the referral to main PHCC and hospitals as secondary level is provided and ensured. Both systems are centralized as regards planning and administration resources as well as fully nationalized.

Still it is evident that success of this cooperation depends more on the personalities of those who are in charge, than the process and structure that regulates this relationships, which represents our last defence mechanism against the objectors and those who oppose. The disruption of this collaboration becomes evident after 2003, when a new badly selected dean for TUCOM. At present time it evident hard to see that there are sound CBME activities in TUCOM.

As the declaration of Alma-Ata outlines the importance of other sectors such as agriculture, animal husbandry, food industry, education, housing, public works, water supply and communication for PHC in addition to health sectors, the Non Governmental Organization are of vital importance toward better collaboration and more successful program achievements. The involvement of different health careers is of importance for better health profession education of undergraduates. The participation of nurse, and teachers of various health professions in these activities, will positively contribute more to the CBME program and learning activities. Political situation is a major issue in Iraq, mainly due to unstable socio-political situation, dismissing of academic experts, emigration of a large academics, vague vision toward clear policy, hesitation in empowering and enhancing the CBE program, violence and lack of security, restricted movement and transportation, beside the current threats to community unity, which lead to isolation of creative people and reluctance of many sectors for social participation; all this represent a major challenge.

Tradition and cultural aspects play another important role that should be considered, as some of the health events, for example scabies, still represents a social stigma in rural and even urban communities [6], in addition to women physical examination. This needs to be considered when planning of CBME program learning activity, each team work must include both sexes from the students, community leaders, health personnel's and staff. Community involvement is considered essential in community educational program decision-making and its success. The program that steps gradually from bottom to the top will be more acceptable for community participation and involvement. CBE program should consider inter-societal action as a tool for improvement. The facts are that intra-sectarian coordination is more evident than inter-sectarian coordination. After 2003 the practice and implementation was obviously deficient and mostly issued for publicity and propaganda rather than scientific reasons, as it not was structured toward specifying educational learning and administration purposes and the results were disappointing. This was due to bad partnerships between TUCOM administration, Health managers, policy makers, health professionals, and communities. The reason behind this major defect relates mainly to changing of some qualified staff, and the dominance of some faculty members who are reluctant to any change or real participation. The first step to overcome this problem is to change the administration of the college [from TUCOM graduates] and followed by involvement that should include creative, enthusiastic members composed of teachers and administrators, voluntary organization like NGOs and graduates, different social class sectors of the community, effective community leaders, and industrial and commercial sectors.

Fieldwork

In Tikrit University College of Medicine, the term fieldwork relies on all educational and learning activities that take place outside of the college building [7].

The fieldwork extends all over the Salahuldean Governorate, which include 8 general hospitals [3 within Tikrit City, and 5 in large cities of the governorate], and 19 PHCC [11 urban and 8 rural]. All health care facilities belong to the Ministry of Health and are run by Salahuldean Health Authority, with the exception of two, one urban (Al-Razi, in Tikrit City), and one rural [Alkharja, in Alalam, which is PHCC that established in collaboration between MOH, TUCOM and UNICEF], which run by shared committees from both local health directorate and University. In addition, the training also occurs in occupational- health clinics that are attached to factories located in 3 cities.

Components of the Fieldwork:

WHO (1987) has identified the four main types of students learning activity in community settings and include:”

1. *Assignment to a family whose healthcare is observed over a period of time.*
2. *Work in an urban, suburban, or rural community designed to enable the student to gain an understanding of the relationship of the health sector to other sectors engaged in community development, and of the social system.*
3. *Participation in community survey or community diagnosis and action plan, or in community –oriented programme, such as immunization, health education of the public, nutrition or child care.*
4. *Supervised work at the primary care facility, such as health centre, dispensary, rural or district hospital.*

Hospital providing tertiary care is not considered as community –based education activities.”

Accordingly the TUCOM/CBME field work constituents are:

A. Rural and Urban Health Units Attachments.

The students affiliated as group of 4-8 to a primary healthcare unit in urban or rural areas for a period of 2 days/week throughout the year in phase I and II and for 4-8 weeks in Phase III (clerkships).

B. Occupational Health Attachments.

The attachment of students to a clinic located in factories extends for 4 weeks in year four.

C. Family Healthcare Attachments:

Students in a group of 4, at least one female, are assigned to a group of families in an informal way of getting to know the community, or to observe their healthcare or both. This activity involves visit to family homes, and may accompany the family to a healthcare centre or rural clinic. This assignment starts in year 2.

D. Community Health Research Projects:

The students [in a group of 5-8] conducted during their 6 years M B Ch B programme a community health research projects. Students typically get an introduction to epidemiology, social sciences, statistics and research design, and health services evaluation. The students are guided through the motions of obtaining data from community, analyzing and presenting the findings to them in an appropriate manner. The projects are directed to community diagnosis in phases I and II and intervention in Phase III [7]. During community health research projects, which are mostly address what are perceived to be the priority health problems or community needs [7]. Examples of such projects are: Prevalence of brucellosis in Al-Azin village, Diarrhoea among children under the 2 year of age, Problems facing immunization programmes, Effect of antenatal care on pregnancy outcome in Tikrit, Intestinal parasitic infections among primary school children, Evaluation of accuracy

of using antenatal cards in PHCC, Prevalence of underweight among children in an Iraqi village.

E. Elective Training:

This is a selective training in PHCC or general hospitals distributed within Salahuldean Governorate or others PHCC or general hospital at the residence areas of the students during their summer holiday. The duration for this training is 8 weeks and it for students passed to second, third, fourth, and fifth years. The students trained for dressing, injections, immunization programmes, ORH programme, URI programmes, and so on...

F. Hospital-Based Activities:

This include the activities that performed in district and general hospitals as in these sites the criteria for selection of CBLA site are present [5] , especially in developing countries. The students may accompany their patients needing hospital referral during their primary care attachments in Phases I and II [7]. In year 5 they have a 32 week attachment to the outpatients clinics of the general hospital [include: Dermatology, Rheumatology, Radiology, Psychiatry, Plastic Surgery& Emergency, Orthopaedics, Neonatology, Obstetrics & Gynaecology, ENT, Ophthalmology]. In patients clerkships in the major clinical disciplines [Medicine, Surgery, O& Gynaecology, and Paediatrics] occur in year 4, while in year 6 the inpatients clerkships include the major disciplines and sub-speciality disciplines [Urology, Anaesthesia, Neurology, Nero-surgery, Emergency medicine].

G. Rural Community Project of the University:

This is a university community-based activity performed annually in rural settings. It is fifteen days duration of 10 hours working daily and some teams live with the village community. In these projects all students and staff of the medical college share in the activities through many health teams. In addition, many other teams from staff and students of others university colleges shared in the planning and application of the activities. Thus about 30% of the scheduled study hours in the curriculum are spent in fieldwork.

Distribution of the Fieldwork Activities:

Activities of the fieldwork are distributed along the TUCOM curriculum. The distribution of the activities is in accordance of competencies implied in the phase objectives and their distribution is presented in Table.1. A report of the WHO [8] showed that the evaluation of innovations in the education of health professionals has commonly concentrated on the effects of students and teachers, with less attention paid to the effect of education practice patterns and very little attention to the effect on health in the community. To overcome this deficit in TUCOM/CBE, Tikrit University adopted a community project that to be performed in a selected areas. A plan was developed for such activity for 5 years period. This community project includes activities that belong to the 3 categories of CBE taxonomy [9]. This community project performed annually for 15 days in previously selected rural settings. The design, development and implementation of each annually project is to be completed by a committee chaired by the dean of medical college, with members from each university colleges, and disciplines.

The objectives of this project are: To

1. Initiate good partnerships between students, university, health manager, policy makers and communities.

2. Develop adopters for innovative education from the university college's staff through their involvement in the project activities.
3. Demonstrate the impact of disease on the underserved family and community.
4. Facilitate student's perception of patients as part of the community.
5. Clarify how the health system, health teams and multidisciplinary teams work.
6. Enable students to acquire skills in research methodology, problem solving, communication, decision making, manual clinical skills, leadership, organization, laboratory investigations, and team work.
7. Provide a setting for teaching of behavioural sciences including medical sociology, psychology, anthropology and economics.
8. Formulate a university community who believe in CBE and PBL.
9. Promote health services in the selected rural areas.
10. Conduct health education programme.
11. Determine the impact of Zoonotic diseases, Pollution, Infectious diseases, in the selected rural community.
12. Determine effect of house scattering and building type on community health.
13. Encourage university staff to self evaluation and revision of their curricula.
14. Direct the university staff and students to new trends in education.

To achieve the above objectives, teams [Teachers, students, and community leaders] formulated for different target functions, such as, Health teams; Pollution teams, Architecture team, Civil engineering team, Animal disease team, Zoonotic disease team, e t c. All members of the above teams visited the site selected of the project 1 month before the starting date of activities. Each team develop a time table plan for their activities and required materials, instruments, appliances and resources prepared and packed.

The CBE activities of Tikrit University projects have increased community awareness of preventive aspects for various communicable, non-communicable and Zoonotic diseases. In addition, it has helped to encourage the communities to participate actively in supporting PHC activities, handling of pesticides, water sanitation, awareness of disease (early detection of chronic disease, Ca breast for example).

Students training in converting the interview data into meaningful epidemiological information are deemed necessary to them, for the optimal execution of their jobs in future. They are required as medical officers in health centres to base their services on population needs expressed in measured health status parameters. Faculty members and students of other University Colleges [other than Medical College], are practicing a new activity that definitely have a reflection and influence on their idea of education.

Community-Based Education Settings:

Internationally, the focus of education in medical colleges has shifted from traditional hospital based training to learning in the community [10]. In Iraq, there is an increase in medical colleges and consequently student's numbers over the next few years. This increase will require the development of new training locations, including general practice settings, both rural and urban. These settings include, PHCC [most of the national programmes are implemented and provide 80% of total services, TB , ARI, ORT, vaccination programmes and so on; MCH units] , Family attachments, Occupational Health Care Centres or Clinics, Outpatients of District General Hospitals, and Community settings.

As the students participated actively in the TUCOM/CBME programme, the training in such multiple training locations is an important action that reflects the move from long-stay hospital care towards day cases and community oriented care. In addition, the training in such settings is a vital since 2/3 of patients are seeking medical advice and treatment from the PHCC. In other words, if the students training are performed in hospital clinic and wards they exposed to only 1/3 of patients in their community and are trained to be a professional in curative care only. While training in the above mentioned settings, the students learn in an environment closely resembling that in which they are to work after graduation and that they should be more than passive receivers of information provided by teachers in lecture halls [7]. Furthermore, these settings fulfil the WHO [5] criteria of selection of CBE sites for students training and ensure the gaining of educational goals and objectives of the medical school.

Assessment

In CBME programme ‘‘ To ensure success there must from the beginning of activities implantation, be a means of collecting the data needed to assess whether implementation is processing according to plan and whether, unforeseen events are occurring, they are benefiting or impending the programme’’ [5]. Thus the CBME evaluation was developed as part of TUCOM quality assurance reporting requirements, in order to provide objective data about the programme’s efficacy and to identify potential areas for development. [12]. Specific evaluation methods and outcome measures are to be developed for each of the core domains of the programme, namely students, clinical preceptors, administrative staff and the curriculum [5, 13]. There are ways for establishing proper information base for purpose of systemic evaluation [5]. For student’s assessment of CBME programme, a questionnaire to be developed and distributed to students participated in the programme activities. The students asked to complete the anonymous feedback questionnaire. The completion of the questionnaire is voluntary. Quantitative data from convenience sample of students are entered in to suitable statistical package such as SPSS.

The CBE aim is to graduate doctors who are responsive to their community health needs. This type of education requires assessment for students different from those used in conventional education methods [14]. The development of a valid student assessment system for CBE will help innovative medical colleges to support student learning [15]. It was recognized that student assessment in community settings is an important problem for medical teachers. The TUCOM adopted a comprehensive approach to student assessment in community settings using various methods, including peer assessment, a supervisory checklist, community feedback, reports from students, short essay questions and multiple choice questions [6].

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Table.1. Tikrit University College of Medicine [TUCOM] Community-Based Education Program

Phase	Year	Activity	Duration	Setting
I	1	A. Rural & Urban PHC attachment B. Community Project C. Hospital-Based Activities	2days/week 4 Hrs/WK Elective- 8 Wks	PHCC Community setting General hospitals
II	2 & 3	A. Rural & Urban PHC attachment B. Community Project C. Family Health Care Attachment D. Hospital –Based Activities	2 days/week 4 Hours/week 2 Hours/ WK Elective- 8 Wks	PHCC Community setting Community setting General Hospitals
III	4	A. Rural & Urban PHC attachment B. Community Project C. Occupational Health Unit D. Family Health care attachment E. Hospital Based Activities	8 week 4 Hours /WK 4 Weeks 2 Hrs/WK Elective- 8 Wks	PHCC Community setting Factories clinic Community setting General Hospitals
III	5	A. Rural & Urban PHC attachment B. Outpatients General Hospital Clinic C. Community Project D. Family Health Care attachment	4 Weeks 32 Weeks 4 Hrs/WK 2 Hrs/WK	PHCC Outpatients Clinic Community setting Community setting
III	6	A. Rural & Urban PHC attachment B. Community Project	2 Days / WK for 11 weeks 4 Hrs/WK	PHCC Community setting
I,II &III	ALL²	Rural Community Project of the University	15 Days for 10 Hours / Day	Rural area

Notes:

1. The academic year is of 30 weeks duration for class 1-5.
2. The teams included staff and students from University Colleges other than Medical College, such as College of Dentistry, College of Pharmacy, Veterinary College, College of Agriculture, College of Engineering, College of Science, College of Education, College of Economic and Management, and Sport College.

Appendix one

Partnership for Community-Based Education

The roles of partners involved in the CBME are well described by Khamis [2] and are summarized as follows:

['Role of the community:

1. *Expression of needs and expectations.*
2. *Helps in problem identification and prioritization.*
3. *Shares in program planning, implementation and evaluation.*
4. *Gives feedback about partnership projects and helps in the continuity of the program achievement.*
5. *Understands the tasks of mobilization, leadership and provision of resources required in health management.*
6. *Involvement in policy making process to direct government policies to be more relevant to community problems.*
7. *Acts as a resource center for students training and learning.*
8. *Individuals participate directly as genuine patients.*
9. *Facilitates the implementation of students activities.*
10. *Community leaders and representatives advise the university on selection of learning sites and identification of specific areas for research and service attention.*

Role of the students:

1. *Help in the identification of community health problems.*
2. *Share in program planning, implementation and evaluation.*
3. *Conduct health education programs.*
4. *Act as ambassadors of community in dealing with the government, university, non-governmental organizations for the involvement of community in its health promotion.*
5. *Act as mediators between community, government and university.*
6. *Coordinate with other sectors to help solve problems.*
7. *Act through research not only to identify problems but also to find applicable solutions.*

Role of the government:

1. *Promotion and provision of the needs of multisectoral approach to community problems (e.g. agriculture, sanitary disposal, public services..) so as to create an environment conducive to implementing desired changes at the operational level.*
2. *To build up trust between students and community through government councils at community levels.*
3. *Dissemination of information needed in students projects.*
4. *Political and moral support.*

5. *Providing encouraging measures for change, both regulatory—such as rules and guidelines—as well as remunerative—such as offers of new and attractive working opportunities and incentives.*
6. *To provide experience, funds and technical support.*
7. *To provide places and facilities for students activities.*
8. *To share in evaluation of students activities.*

Role of the University partner through students' activities as expected by government:

1. *To find practical solutions to health problems through research.*
2. *Provide help in cost-effectiveness issues in health programs.*
3. *Promote the quality of health services through:*
 - *Participation in planning and implementation by playing a role between different sectors*
 - *Giving regular feedback about research results*
 - *Evaluation of health education programs and success of health services.*
 - *To be able to use the available resources in a proper way*
4. *To acquaint students with the future working environment.*

Role of the university in the partnership:

1. Curriculum planning:

- *Take into consideration University's, community's and government's needs, interests and mission.*
- *The medical school, however, should have an acceptable degree of autonomy in developing and planning the curriculum, yet with assurance of adequate representation of priority health problems.*
- *There should be a suitable period of time for students to interact with the "real" community.*
- *Students should be involved in curriculum planning.*
- *Regular evaluation of the curriculum with update of the priority list according to community needs.*
- *A full mission, objectives and curriculum orientation and awareness of the faculty staff members and their assistances.*
- *The community should play a role in community planning.*
- *Regular feedback to community about curriculum planning and update in response to societal needs.*

2. Activities constituting the university function include:

- *Consultation of all parties concerned.*
- *Evaluation of community-based education outcome in the form of medical graduates.*
- *Training, research, services, evaluation and regular scientific activities.*
- *Giving students sufficient and appropriate theoretical basis which consists of the various basic, clinical, behavioral and social sciences.*
- *Induce the acquisition of desired skills and behaviors for the implementation of the health agenda.*
- *Application of research methodologies to design and assessment of innovative models of health services delivery. '']*