

BRIEF COMMUNICATION

Development of the Community-Oriented Medical Education Curriculum of Pakistan: A Case Report on the National Initiative on Curriculum Development

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Background

The medical curriculum in Pakistan includes the following courses: anatomy, physiology, and biochemistry. These courses are offered in the first two years using lectures, tutorials and laboratory work. In the last three years, pathology, pharmacology, forensics and community medicine courses are taught by using clerkships in medicine, surgery, pediatrics, gynecology, obstetrics, and associated health-related disciplines.

The general objective of the undergraduate medical curriculum as specified by the Pakistan Medical and Dental Council (PMDC) is to provide compassionate, general practice, community-oriented doctors who are committed to manage common health problems of the people in a scientifically sound and cost-effective manner while using appropriate technology and a holistic approach. It also states that the doctor should be able to assume leadership in a health care team, function and communicate effectively as a manager in accordance with the code of medical ethics prescribed by the PMDC.

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In the light of best evidence-medical education (Davison *et al.*, 1999; Magzoub & Schmidt, 1996), the ministry of health (MOH), government of Pakistan (GOP) in collaboration with The World Health Organization (WHO) initiated the Community-Oriented Medical Education (COME) project in 1994. Four medical Colleges, one from each province, were included in this program.

The objective of this paper is to describe the process used to develop the curriculum, faculty training, and the salient features of the curriculum.

Process of Curriculum Development

The process adopted for implementation of this project in four medical schools of Pakistan was similar to the Interdisciplinary Generalist Curriculum (IGC) Project of North America (Murray *et al.*, 1992; Bazell & Kahn, 2001). A national coordinator (like the IGC project officer), an international and a national consultant, and four provincial coordinators were designated to oversee the academic and administrative aspects of the program and to facilitate the transition from a traditional to an innovative curriculum. The provincial coordinators were selected from the medical institutions within the program (similar to the institutional leaders of the IGC Project, e.g. Skochelak *et al.*, 2001; Sahler *et al.*, 2001).

Curriculum development and faculty training in COME and problem-based learning (PBL) started with support from the WHO and MOH. PMDC revised its objectives to incorporate COME specifying that large group teaching and lectures should be minimized while small group teaching should be increased. They also recommended that a part of the undergraduate medical education should be conducted at primary and secondary health care facilities, in addition to training at tertiary care facilities.

A “Task Force” was formed in consultation with the Principals (administrative heads) of the designated colleges, which included faculty members and the Provincial Coordinators of the COME project. Two awareness and orientation workshops were carried out in each college to involve all the stakeholders from the outset in all the phases of the transition from the traditional to the COME programme, especially in curriculum development.

Preparation of the Curricular Blocks

An agreement was reached during these workshops regarding the general outline of the curriculum.

The first drafts of the blocks were prepared in national level meetings with interdisciplinary faculty from all the four medical colleges. These initial drafts were reviewed by the international and national consultants and circulated with comments to the entire faculty through the COME task force of each college and then finalized by consensus in subsequent national faculty meetings.

Faculty Training

The faculty training on curriculum development, COME and PBL was conducted through a series of three training workshops in each institution supported by the WHO. Selected faculty members were sent to institutions with COME curriculum before implementation. The workshops were conducted by international and national consultants with master trainers from the faculty. The workshops resulted in a gradual increase in the level of competency for tutoring.

Outcome of Curriculum Development (Results)

The president of Pakistan launched the curriculum in 1999. This emphasized a political commitment to the COME Project on the part of the government. The designated COME colleges field tested one to two blocks of the curriculum in 2001–2002 and identified content areas and implementation strategies that needed revision. Two colleges implemented the curriculum in 2003 and by the end of 2003, 80% of the faculty in all the four colleges had received training in PBL and COME. The faculty resistance which was overwhelming in the earlier meetings and training sessions decreased over time.

The curricular model is integrated and in a spiral fashion is based on organ systems and themes selected from a list of common health problems (Harden *et al.*, 1997; Davis & Harden, 2003). With the exception of a few modules which run longitudinally, all the modules follow in blocks chronologically with increasing complexity from years one through five (see Table 1).

Lessons Learned

The reasons for not implementing the curriculum, despite concerted efforts from GOP, the WHO and the COME team in other colleges included lack of:

- an active needs assessment which led to difficulty in implementation as modifications had to be conducted during implementation;
- institutional preparedness;
- commitment of administrative heads, as some were not fully convinced;
- communication amongst all stakeholders;
- faculty buy in; and
- student involvement.

The colleges that implemented the curriculum addressed these issues through frequent meetings and communication amongst all stakeholders.

Table 1. Community-Oriented Medical Education (COME) Curriculum for producing a “Competent & Humane Five Star Doctor”

Blocks	Content	Duration	Evaluation
Phase I Years 1 and 2 <i>Three longitudinal blocks of 6 hours/week:</i> Community experience and basic skills, Pakistan Studies, Islamic studies <i>Fourteen system-based blocks and introduction to the study of medicine</i>	Normal structure, function and behavior with some abnormal structure function and behavior	78 weeks	Continuous assessment 30% Discipline based end of the year exam 70%
Phase II Year 3 <i>Three longitudinal blocks of 14 hours per week:</i> Community experience, Basic skills, Clinical methods, Forensic medicine Seven system-based blocks with the Foundation block of general principles of Pharmacology and Pathology	Abnormal structure, function and management. Clerkships in: Medicine, Surgery, Pediatrics, Gynaecology and Obstetrics	38 weeks	Continuous assessment 30% Discipline based end of the year exam 70%
Phase III Years 4 and 5 Clerkship rotations, electives and system-based lectures in the associated specialties The longitudinal module of community experience continues as a half-day every week in fourth year	Patient and community management	78 weeks	Discipline based exam in fourth and fifth years

Discussion

The developed COME curriculum incorporates major principles of COME and links theory with practice. It is expected to enhance students' satisfaction and result in better quality of doctors as reported earlier (Hyppola *et al.*, 2002).

This is the first time in this region that the faculty of four selected colleges sat together to develop a national curriculum for implementation. Medical education in Pakistan is a provincial issue but for this unique project a national approach was adopted and upheld by all the stakeholders.

Pakistan is a developing country and grappling with the double burden of diseases with fast changing disease spectrums. Therefore, it is desired that the graduates of medical programs should be lifelong learners who remain synchronized with the newly emerging diseases (Davison *et al.*, 1999). They should be able to manage and prevent the priority health problems of the community in which they are based (Nooman, 1989). Hence the developers of the COME curriculum hope that it will produce medical practitioners who are willing to work in all settings (Jinadu *et al.*, 2002).

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