



COMMUNITY-RELATED ISSUES/EDUCATION

Best Practices in Community-Oriented Health Professions Education: International Exemplars

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ABSTRACT Introduction: *During 1998–2000, an international team of five researchers described nine innovative health professions education programmes as selected by The Network: Community Partnerships for Health through Innovative Education, Service, and Research. Each researcher visited one or two schools. Criteria for selection of these nine schools included commitment to multidisciplinary and community-based education, longitudinal community placements, formal linkages with government entities and a structured approach to community participation. The purpose of these descriptions was to identify key issues in designing and implementing community-based education.*

Methodology: *Programmes in Chile, Cuba, Egypt, India, the Philippines, South Africa, Sudan, Sweden and the United States were visited. Before site visits were conducted, the researchers as a group agreed upon the elements to be described. Elements included overall institutional characteristics, curriculum, admissions practices, evaluation systems, research, service, community involvement, faculty development, postgraduate programmes and the school's relationship with government entities. Here I describe the common features of each of the nine programmes, their shared dilemmas and how each went about balancing the teaching of clinical competence and population perspectives.*

Lessons learned: *Based upon an analysis of the cases, I present seven "lessons learned" as well as a discussion of programme development, institutionalization of reform and long-term implications for health professions education. The seven lessons are: (1) PBL and CBE are not seen as independent curricular reforms; (2) student activities are determined based upon sensitivity to locale; (3) health professionals need to work collaboratively; (4) there is a connection between personal health and population health issues; (5) population health interventions and treatment strategies need to be appropriate to local conditions; (6) graduates need to advocate for patients and the community in the public policy arena; and (7) organizational change takes a long time.*

Conclusions: *Despite their differences, all nine exemplars are engaged in processes of organizational change. Schools are becoming more community-oriented and socially*

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accountable, and all of these programmes have accepted two fundamental tenets: “take public money, give to the public” and “place matters”.

KEYWORDS *Primary care education, social accountability, community-based education, problem-based learning.*

Introduction

During 1998–2000, a group of five researchers¹ undertook a study that looked at nine programmes (in Chile, Cuba, Egypt, India, the Philippines, South Africa, Sudan, Sweden and the United States) that seek to educate good doctors, nurses and health professionals. The officers of The Network regard these programmes as exemplary (Richards & Sayad, 2001). In making this decision, the officers relied on the following criteria: commitment to multidisciplinary and community-based education, longitudinal community placements, formal linkages with government entities and a structured approach to community participation. Each researcher looked at one or two schools. True to the spirit of Alma Ata, these programmes follow the community-oriented and problem-based learning strategies espoused by The Network. The primary objective of the study was to describe some of the best programmes in community-based health professions education in a way that can be useful to those who might want to move towards a community-based, population-oriented approach to health professions education. Here I present several conclusions that emerged from an analysis of our experiences. These conclusions are illustrated using each point and drawing examples from the nine programmes.

In 1979, shortly after the Alma Ata Declaration, the World Health Organization (WHO) took the lead in creating the Network of Community-Oriented Educational Institutions for the Health Sciences, now known as The Network: Community Partnerships for Innovative Education, Service, and Research. This organization, especially its full members, has laboured for over 20 years to help make health professions education more responsive and relevant to societal needs. Initially, The Network was relatively alone in this effort. Now, however, other organizations are addressing these issues. For example, the US government report *Healthy People 2010* includes an entire section addressing educational and community-based programmes (USDHHS, 2000). Also, the US-based organization Community–Campus Partnerships for Health (CCPH) addresses the relationship between service learning and the goals of *Healthy People 2010*.

Methodology

This article is based upon the aforementioned research project. I looked at the data from each site visit and present several generalizations. Each

programme is described from the user's point of view (Guba & Lincoln, 1981). "User" is defined in broad terms, including faculty, administrators, students and "the community". Because the organizational natures and representation styles of "community" vary from place to place, community was described flexibly.

Patton (1978) urges researchers and programme evaluators to move away from the natural science paradigm of hypothetico-deductive methodology, with its focus on quantitative measurement, experimental design, and multivariate, parametric statistical analysis. He proposes an alternative, based upon anthropological field methods, which stresses participant observation, in-depth interviewing, detailed description and qualitative field notes. In this study, we set out to follow Patton's suggestions while documenting the manner in which our nine exemplars meet the needs of their users.

One or more of us visited each institution for three days. Before we conducted the site visits, our group agreed upon the elements to be described. Elements included overall institutional characteristics, curriculum, admissions practices, evaluation systems, research, service, community involvement, faculty development, postgraduate programmes and the school's relationship with government entities. During the site visit, each researcher reviewed documents, interviewed key players, attended classes, and visited practice sites. On many occasions, the researcher was able to attend health-related community events or university-sponsored outreach activities.

Lessons Learned

As a reader, you might well ask, "If these programmes are considered exemplars of an approach, how can they be so diverse?" This is not an easy question to answer. We found that while each programme takes a different approach, each has developed a strategy for achieving the same goal. I distilled the unifying themes among the programmes into seven generalizations.

PBL and CBE Are Both Used Together

We found that all programmes described provide a variety of community-based learning experiences and most (six) use the problem-based learning (PBL) methodology. Derived from Dewey's experiential model, PBL was developed in the 1960s and used in medical education at Michigan State University and at McMaster University in the early 1970s. PBL emphasizes active rather than passive learning and critical thinking skills over memorization of facts (Nooman *et al.*, 1990; Wilkerson & Gijsselaers, 1996).

The underlying controversial assumptions of PBL revolve around the process called clinical decision-making and PBL's assertion that it can (and does) teach this process separate from knowledge acquisition (Norman &

Schmidt, 1992). In the programmes we studied, significant institutional resources were directed toward ensuring that the problems selected achieve community-oriented curricular goals and promote the health priorities of their communities.

Bashir Hamad addresses the definition, history and reasons for community-based education. Borrowing from WHO and other sources, Hamad (2000) states that community-based education (CBE) occurs when learning occurs in the community. Others add that representatives of the community should be involved in defining the very nature of what is to be learned and that, in fact, community representatives often teach and evaluate students. Examples of the convergence of PBL and CBE are provided below.

The Zamboanga Medical School in Zamboanga, the Philippines, designed its curriculum to be problem-based and community-based. They view this as a singular, two-pronged curricular approach. Since Zamboanga is a young institution, it is premature to be evaluating the success of their curriculum. On the other hand, the University of Gezira Medical School (UGMS) in Wad Medani, Sudan, has succeeded in combining PBL with a community orientation. It adopted this approach at its inception in 1975. Since then, four other medical schools in Sudan have designed their curricula based upon the Gezira model. One measure of UGMS's success is that the Ministry of Health (MOH) views their graduates as well trained. In the opinion of MOH officials, the graduates of UGMS dedicate more time than the graduates of other Sudanese schools to talking to patients and are especially careful to take patient histories that include socio-economic factors as well as clinical signs and symptoms.

The Faculty of the Health Sciences at Umtata, South Africa (UNITRA) has similarly combined CBE and PBL since its inception. Facing a critical lack of infrastructure (such as roads, electricity and potable water) and a shortage of trained practitioners, UNITRA's programme is designed to meet the needs of its rural, disadvantaged communities. Both medical and nursing students are placed in a community-based primary health care setting during the first year of study and community-based placements continue throughout their training. Community-based education and service activities comprise approximately 30% of UNITRA's medical and nursing curricula. Through these activities, medical and nursing students acquire the skills necessary to manage common health problems of individuals and communities.

During the first three years, medical and nursing students are placed in community-based clinics. Each week, they select at least two patients from whom they derive a set of learning issues. In their tutorial group, back at the university, each student summarizes the basic science principles related to the specific case. The clinical tutorial in the fourth through sixth years is an adaptation of PBL methodology (Buga, 1988). In this way, the programme ensures that the students' PBL orientation carries forward into their careers as practitioners.

Student Activities Are Determined Based upon Sensitivity to Locale

Good health care in Cuba is good health care for the Cuban people. Good health care in Sudan is good health care for the Sudanese people. Yes, there is a unifying body of knowledge and an underlying set of skills, competencies and proclivities needed by all graduates, but the context of practice is an overwhelming factor. Several questions must be considered: what are the pressing health needs of the population who will become the graduates' patients? What does "incidence and prevalence" mean where the graduates will practice? If infant mortality is high, why is it high? How do people access care? What technology is available at the local clinic? What are the implications for curriculum development?

All of the exemplars require students to rotate through community-based practice sites that range from rural village assignments at the Christian Medical College (CMC) in Vellore, India, to Cuba's neighbourhood-based primary care clinic system, to a mobile health care van that travels the back roads of Transkei in South Africa's Eastern Cape province.

How does one prepare students to work under variable conditions? First and foremost, the curriculum must emphasize patient examination skills and problem-solving methods. Simple equipment such as the stethoscope, combined with a communication style that elicits a complete patient profile, and the ability to perform a detailed physical examination become core competencies for practitioners. Each programme includes early contact with patients; most emphasize history-taking and patient instruction at the beginning of the programme. Many programmes use PBL to prepare students to proceed from most common to least common diagnoses.

Work Collaboratively with Other Health Professions

Most programmes in this study maintain an interdisciplinary approach to teaching primary health care (Edwards *et al.*, 1998). Some programmes, including Universidad de la Frontera in Temuco, Chile and the Faculty of the Health Sciences in Linköping, Sweden (Linköping FHS), have all health professions students participate in the same foundation courses. Depending on the programme, this may or may not include PBL tutorials.

The Division of Health Sciences at East Tennessee State University (ETSU) has developed a Rural Track, an interdisciplinary curriculum using the cohort approach. Twenty-five per cent (25%) of the students choose this option. Students select a rural community to learn in and the cohort stays together for the first two years of their education. Rural Track courses are team-taught by faculty from nursing, medicine and public & allied health. Teachers and students are not differentiated by discipline.

Students at Linköping FHS start their education with an intensive interdisciplinary PBL tutorial. Interdisciplinary opportunities are included throughout the curriculum. Towards the end of their course of study, students

rotate through the Student Training Ward, an eight-bed in-patient orthopaedic unit. Most patients are elderly and present with orthopaedic problems complicated by underlying medical conditions and social care needs. Students from medicine, nursing, physiotherapy and occupational therapy operate as a team and assume full charge of the ward under the supervision of an orthopaedic surgeon, a resident and a charge nurse. The students conduct daily rounds and provide medical treatment, nursing care, occupational therapy and physiotherapy.

Connect Personal Health Issues with the Health of the Population

Each exemplar stresses the relationship between personal health and the health of the population; most explicitly acknowledge the interface between personal health, population health and local socio-economic conditions. In some settings, such as UGMS, the students feel the tension between treating water-borne diseases and advocating for safe drinking water. The Universidad de la Frontera is committed to sustainable rural development and uses their university as a vehicle to improve local technology and its application, to encourage health promotion and to sustain local economic development (Kaufman & Waterman, 1993).

At the Faculty of Medicine and the Higher Institute of Nursing at Suez Canal University (FOMSCU), the school's relationship with the El tel Alkabeer village illustrates the institution's commitment to community participation in the context of teaching students to understand community health issues and, further, to use their understandings to design appropriate health interventions. In 1987, El tel Alkabeer community leaders asked FOMSCU for assistance. Over the years, students have worked with community residents to address key problems identified by a collaborative research process.

FOMSCU students addressed the problem of child survival (infant mortality) by conducting a training programme for traditional birth attendants (TBA). The TBAs now have a clear understanding of their roles and responsibilities and know which cases need to be referred. It was reported that the infant mortality rate dropped from 118 per 100,000 to approximately 15 per 100,000 within 2 years (Andrews, 2001, p. 75).

In another interesting student project, FOMSCU medical students worked with agricultural students to reduce the exposure of villagers to highly toxic chemical fertilizers. Villagers now use natural fertilizers produced by a factory from waste collected by the villagers.

This orientation extends to the developed world as well. At Linköping FHS, the content of the curriculum is specifically oriented to the priority health problems of Östergötland County. This county distinguishes itself from the rest of Sweden in that 15% of the population is over the age of 65 and geriatrics, orthopaedics and home health care are local priorities, which are clearly reflected in the curriculum.

Population Health Interventions Need to be Appropriate to Local Conditions

By systematically having students experience the places where people live, each programme addresses the dynamics of community and determines interventions accordingly. Treatment strategies or public health interventions, no matter how well designed or how rigorously tested, are meaningless if they don't match local conditions. Accordingly, we found that a key strategy involves integrating the longitudinal community placement of students with considerations of population health and patient care.

The villages where Zamboanga's students are placed tend to be impoverished and lack basic infrastructure. As part of their community rotations, students collect data concerning important health problems in the area. Based upon their findings, they often realize that medical intervention will have much less impact than, for example, teaching people how to better dispose of human waste.

UNITRA maintains partnership relationships with four communities where students provide direct care and also work on development projects directly related to abating the major causes of ill health. In one community, an income-generating baking project was implemented and it in turn holds the contract to provide the local school with fresh bread, thereby improving the nutritional status of all students and the economic status of several families.

Advocate for Patients and the Community in the Public Policy Arena

For our exemplars, public policy advocacy remains largely the purview of their institutions. As the national structures for debating public policy vary greatly among the countries represented, the activities of the institutions also vary. Linköping FHS has taken into account the health priorities of the Östergötland County Council from the inception of its HPE programmes. UNITRA students working in Ngangelizwe, one of UNITRA's partnership communities participated in lobbying efforts to secure a major sanitation project that they had determined was critical to improved health status. ETSU is represented on Tennessee's TennCare Commission, which determines service availability and reimbursement levels for those residents covered by state-funded health insurance. When elected officials and their staffs seek input on health care topics, they routinely consult ETSU representatives.

Organizational Change Takes a Long Time

A group of leaders with established credentials as deans or distinguished faculty members at many faculties of medicine took their schools into uncharted territory. They were astute politicians and visionaries. During what one might call phase one of reform (5–10 years) they kept ownership of their ideas very close to them and were unwilling or unable to institutionalize them. Thus, their approach to reform was very personalized. Phase one has been followed by a second phase (also 5–10 years), simultaneously marked by consolidation of

change and a slipping back towards the “old ways”. There will probably be a third phase, which has yet to be seen in most places. In that phase, the schools will likely reinstitutionalize reform. Many places will never get to the third phase, as they will be satisfied with the level of change reached in the first two phases.

In these nine cases, each phase is represented. Zamboanga Medical School is currently in phase one, with the enthusiasms, uncertainties and basic struggles common to that vibrant first phase of possibilities. UGMS represents the issues common to the second phase: having lost the energy of newness, will it continue to take an innovative approach or will it take the easy way out and be satisfied with community medicine blocks in a hospital-dominated programme? ETSU shows us an institutionalized community-based programme, one with the full support of its institution, one that in fact is able to act as a model for the university as a whole.

Conclusions

Despite their differences, all nine exemplars are engaged in processes of organizational change both in terms of how one teaches and where that teaching occurs. Significant change calls for nothing less than rewarding faculty members for doing things differently and thereby developing different expectations of their students.

In spite of the odds against them, this somewhat cursory look would indicate that these schools are becoming more community-oriented and socially accountable. In each of the nine schools, the changes made have been very dramatic and fundamental and have allowed them to produce graduates able to tend to personal health care needs in the context of population health. The evidence can be seen in the fundamental structure of their academic institutions, their admissions practices, the bases of faculty rewards, the formation of research agendas, and the institution’s relationships with key stakeholders.

All of these programmes have accepted two fundamental tenants: “take public money, give to the public” and “place matters”. If schools take public money they should accept responsibility for giving back to the public. Obviously, the rub comes over what “giving back” means. For some schools, it is simply a matter of leaving faculty members alone to decide what to do. For the nine schools in this study, giving back includes enough involvement with the community or government to find out what is needed for being helpful in local situations. All contexts considered—and they are varied—the evidence suggests that these nine programmes accept responsibility for giving back to the public.

These schools also practice the dictum, “place matters”. Each approach, whether analysed by institution or factor (curriculum, admissions, etc.) has been tailored to local community needs, institutional considerations and the level of resources available to the programme. While these exemplars of

community-based health professions education present a variety of settings and institutional characteristics, with strikingly different local priorities and resources, they all struggle with the same issue: how do we prepare practitioners to meet the needs of people?

Note

1. Gail Andrews, Jacques des Marchais, A.L. Susirith Mendis, Ronald Richards and Christopher Urbina with assistance from Roberto Gomez.

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