



BRIEF COMMUNICATION

Integrating Global Health and Medicine into the Medical Curriculum

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Introduction

Broadly viewed, global health and medicine (GHM) is the study of health, illness, health practice and care in one culture in order to benefit another culture. Sometimes, international borders are crossed for study of other cultures. More often, changing locales within a country or even neighborhoods within a city enables encounters with people who speak a different language, practice a different religion, eat different foods and engage in seemingly strange health and medical practices. Until recently, the predominant model was to transport western, science-based health and disease practices to scientifically unsophisticated cultures (Mahler, 1997). This model can be highly effective in preventing infectious disease and saving earthquake victims. However, it has become increasingly clear that other models of disease and illness, such as ideas from Chinese and Indian medicine or religious and spiritual support (Wolff, 1965), may lead to more effective care of intractable, incurable and chronically ill patients who constitute a large part of the burden of disease in western countries (Bandranayake, 1993).

Here we present a preliminary description of what we believe is the first attempt to teach GHM as a distinct part of the medical curriculum. We first

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define GHM operationally, then define a curricular track that can be learned by medical students as part of their studies, and finally we describe our first three years of implementing the GHM track and our approach to evaluating this program.

Defining Global Health and Medicine

Our working definition of GHM is the knowledge, attitudes and skills that enable health care professionals to prevent, diagnose and treat illness in cultures other than their own. The scope of GHM ranges from general skills, like the ability to educate patients cross-culturally, to critical knowledge of diseases specific to a particular geographic area. Eight areas that fall within this scope include: (1) refugee and disaster medicine; (2) nutrition and prevention; (3) environmental and occupational factors; (4) medical anthropology and cross-cultural communication; (5) international health care politics, health related law and health agencies; (6) health education; (7) control of infectious disease and travel medicine; and (8) job opportunities and writing grant applications.

A Global Health and Medicine Core Curriculum for Medical Students

The GHM curriculum at Ben-Gurion University consists of required course material that spans the standard 4-year, US-style medical curriculum. GHM studies allow learners to gain competence in practicing GHM at the same time that they qualify as physicians. The curriculum includes three types of courses: those dealing directly with GHM, those in the regular curriculum that are integral to GHM, and GHM material introduced into traditional courses. GHM track courses are spread over the 4-year curriculum and consist of the following:

- Year 1: an introductory, three-trimester, 60-hour course based on a textbook (Basch, 1999).
- Years 1 and 2: any four out of eight modules, each of which is an in-depth, 12–24-hour study unit of an aspect of GHM, e.g. water and health, introduction to medical anthropology, grant writing, health care systems in different countries, complementary medicine and disaster medicine.
- Year 3: a 2-day, required workshop in cross-cultural communication, based on interviewing patients who role-play cross-cultural situations following experiences during clinical clerkships.
- Year 4: a 2-month cross-cultural clerkship in one of four under-served settings. Locations include Kenya, Ethiopia, India and Israel. All settings will

adhere to a uniform set of criteria for teaching process, content and evaluation. Each student will do a project defined by the local tutor.

Courses integral to GHM include: epidemiology and biostatistics, early clinical experience, a one-day-a-week course that exposes first-year students to patients according to a systematic approach to doctor – patient relationship and the natural history of disease; family medicine clerkship, and a 4-week rotation in the third year that enables students to work under close supervision of family practitioners in neighborhood teaching clinics.

Introducing GHM material into traditional medical courses occurs at many points in the curriculum. For example, G6PD deficiency, a genetically and culturally determined disease, is used as a model in the biochemistry course in Year 1. Similarly, cultural aspects of endemic goiter are discussed in depth in the endocrinology system in Year 2. In family medicine, internal medicine and pediatrics in Year 3 cultural, geographic and environmental aspects of AIDS and tuberculosis are emphasized.

Faculty

In a sense, all of the faculty contribute to the GHM curriculum. However, policy guidance and GHM course teaching are primarily the responsibility of a small team, led by an internist and an infectious disease specialist with extensive experience in international health, medicine and medical education. Others include two senior faculty members who coordinate the introductory course and the international clerkship. The Dean of the MD Program in International Health and Medicine also devotes significant time to supporting the GHM planning and teaching activities.

Program Evaluation: Process and Outcome

Process evaluation aims at determining whether the students have achieved the goals of each course or curricular area. The full spectrum of evaluation methods is used to determine whether students have mastered the GHM curriculum. Knowledge of introductory course material is tested using multiple choice questions, but ability to apply learned concepts to plan a refugee camp is tested at home using an e-mail scenario followed by specific questions. Performance on simulated patients in role-playing scenarios is used to evaluate student competence in a cross-cultural workshop. The evaluation of the international clerkship includes review of each student's report on the clerkship project in the under-served area, and the local supervisor's evaluation of the student's performance.

The actual outcome of the program will be measured by how many students ultimately work in international or cross-cultural positions. We expect that about 40% of the graduates of the first class will work in international medicine, at least part time, and that all graduates will maintain positive cross-cultural attitudes.

Preliminary Results

As of June 2001, three of the four years of the curriculum were completed. The introductory course was designed by faculty and students during academic year 1999–2000 and was first taught to the third cohort in 2000–2001. Seven modules were taught. The introductory course and modules were passed successfully by 98% of the students. The first cross-cultural communications workshop was very successful according to subjective assessments by the staff and participants. Simulated patients were the highlight of this course. A major learning activity, yet to be implemented, is the fourth-year international clerkship (Taylor, 1994) that will be held in the spring of 2002. Planning is progressing rapidly. All four main sites for the Clerkship in International Health and Medicine and the local tutors have been identified, and the student projects have been written.

Conclusions

Perhaps no conclusions can be reached regarding a program that has not yet been taught in its entirety and has barely been evaluated. Still, we feel that it is worth describing since, to the best of our knowledge, this attempt to require a systematic approach to the study of GHM is unique. We can say that the first three years of the GHM track are feasible within the time frame of the regular four-year medical curriculum, and the plan for the fourth-year international clerkship is complete.

It also seems clear, even at this early stage, that certain aspects of the GHM curriculum, such as cultural awareness, cross-cultural communication and basic medical anthropology, should be standard parts of every medical curriculum.

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