

Teaching Medical Students about Different Health Care Systems: An International Exchange Program

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Abstract

Understanding how different health care systems are organized and financed is rarely taught in medical school. In 1997, several U.S. and European medical schools formed an ongoing, innovative, and collaborative exchange program to enable their medical students to gain an insight into the dynamics of another country's health care system. One student from each participating institution completes a month-long rotation at a host medical school under the supervision of a faculty mentor.

Selected target diagnoses serve as the basis for comparative case studies. To enable the student to effectively study the host country's health care system, each is assigned a patient with the preselected specific diagnosis. The students view the patient's care within the context of the host country's delivery system rather than being limited to the clinical diagnosis and treatment of the disease. Matching the student with a patient permits the student to see how medical care is delivered and financed in

the host country. Each student is required to prepare a written report focusing on costs; organization and delivery of care; quality and outcomes of care; politics, culture, and ethics; and learning. The case studies permit comparisons of health care systems among the participating U.S. and European Union countries, as well as opportunities for institutional and individual learning.

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Worldwide health care systems in industrialized nations can be divided into two broad categories: (1) national or government-based health systems, and (2) private, insurance-based health systems. In some countries, there is a combination of a national and a private health care scheme. Regardless of the type of health care system, the challenges are the same: providing health care, controlling costs, prioritizing allocation of scarce resources, distributing services fairly, and enhancing quality of care. Each nation's health care system has its own organizational and financial structure; however, the United States operates a system that is unique among nations. It is clearly by far the most expensive health care system in the world, and it is the only system without some form

of universal access to medical services for its citizens, without universal coverage for pharmaceutical drugs, and with a growing burden of uninsured persons.

The Organization for Economic Cooperation and Development (OECD) publishes data that allow for comparisons of health care systems among 30 industrialized countries. Consistently, these data show that the United States spends more on health care than any of the other OECD countries, whether measured as spending per capita or as a percentage of the gross domestic product, but does not provide more services than other countries.¹ In other comparable industrial countries, the health care system covers everyone and prescription drugs are affordable, and this is accomplished by spending less money per capita than is spent in the United States. The difference in spending is primarily attributed to the higher prices of goods and services in the United States.² The United States, however, does not rank the highest on key health status indicators such as infant mortality rate per 1,000 births, cancer mortality rate per 100,000 population, heart disease mortality per 100,000 population, or life expectancy, even though it spends more on health care than any other country.³ Overall, the United States ranks 17th in average life expectancy against comparable industrial countries.

Teaching international health issues in medical schools is gaining support in both the United States and other parts of the world. The distinction between domestic and international health problems is no longer useful, as was noted by the director-general of the World Health Organization, Gro Harlem Brundtland, in 2001.⁴ Medical students want to know more about global health issues, but the medical school curriculum, for the most part, has not been modified to include global health teaching.

The extent to which U.S. medical students understand the dynamics of health care policy is limited, despite the fact that national medical and governmental agencies have called for the instruction of health policy and health care systems in the medical school curriculum.^{5,6} A recent study of first-year and fourth-year students found that medical students have significant gaps in knowledge concerning the U.S. health care system, and most perceived that these deficiencies are not adequately addressed in medical school.⁷ While some U.S. medical schools have expanded their curricula to include a course on U.S. health policy, most have not. We have previously written about the required Public Health clerkship at the Joan and Sanford I. Weill Medical College of Cornell University, which focuses on

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health care systems and health care policy.⁸ Concomitant with this required rotation, Cornell has expanded its focus to include an elective in international health care systems.

The International Exchange Initiative

Understanding how health care is organized, delivered, and financed in other countries is an important means of better appreciating and understanding the relative merits and limitations of each system. In order to address these issues, in 1997 several medical schools in the United States and Europe initiated an innovative and collaborative exchange program to enable their medical students who are in their final clinical year of study to gain an insight into the dynamics of another country's health care system.⁹ The overall goal of the exchange program was to foster students' understanding of a developed nation's health care system through student exchanges and written case studies. The exchange program was viewed as an opportunity for both individual and institutional learning.

The European Commission, the United States Fund for the Improvement of Post-Secondary Education, and the Decision Resources Foundation of Waltham, Massachusetts, financed the United States–European Union Medical Educational Exchange Program (US-EU MEE). The Joan and Sanford I. Weill Medical College of Cornell University (Cornell), Harvard Medical School, and Dartmouth Medical School together with the Ludwig Maximilians University (Germany), the University of Copenhagen (Denmark), and Lund University (Sweden) formed the consortium. Dartmouth left the program in 2000 as did Lund University in 2004, and King's College London (England) joined the consortium in 2005. The rationale for this international exchange program is to enable students to (1) improve awareness and knowledge of a health care system different than their own; (2) apply acquired knowledge and insight about health care systems in the form of an in-depth write-up based on treating a patient with a specific disease; (3) gain insight into contemporary health care politics in another country; and (4) foster international interdisciplinary collaboration. Participating US-EU MEE

students receive a stipend to cover the costs of travel and accommodation.

Each of the participating medical schools selects students for a one-month rotation at the foreign host medical school. That is, Cornell and Harvard medical schools each send three students to Germany, Denmark, and England, respectively, and these participating European medical schools each send two students to Cornell and Harvard, respectively; for a total of 12 participating students each year. The exchange program was designed to provide uniformity in scope and content, with maximum local control. Each participating medical school has its own application process and its own committee to select its student representatives.

To enable the international student to effectively study the host country's health care delivery system, each participant is assigned a host country faculty mentor for the duration of his or her month-long rotation. This physician mentor will select a patient diagnosed with a preselected specific chronic disease. Each year the consortium medical schools collectively select a few target diagnoses that serve as the basis for comparative case studies. For example, in 2005, Cornell and Ludwig Maximilians selected patients with chronic obstructive lung disease to serve as the case study while Harvard and Ludwig Maximilians selected patients with schizophrenia to serve as their case study. The rationale was that observing and analyzing the care of one patient would foster a student's in-depth understanding of the host country's health care system. The student would view the patient's care within the context of the delivery system rather than be limited to clinical diagnosis and treatment of a disease.

The student is expected to prepare a written report of up to 10,000 words that critically reflects on the integration of the medical, socioeconomic, and ethical aspects of health care in the host country. This case write-up consists of two parts: a critical assessment, wherein the student uses the patient as the focal point for comments on the host country's health care delivery system, and a patient narrative, where the student describes clinically the patient's medical history, diagnosis, and treatment. In the critical assessment section of the write-up,

students are asked to take a broad view of the patient and his or her disease rather than focus narrowly on the clinical aspects of the disease. In this part of the narrative, the student should include a critical assessment of the way care is delivered and financed in the host country using the patient as a reference point. The student is encouraged to speak with the patient and his or her family support network as well as with the patient's primary care physician, consulting specialist, nurses, social workers, and hospital/clinic administrators—anyone whose job relates to the patient's care.

The patient narrative component of the case write-up focuses on five categories: costs; organization and delivery of care; quality and outcomes of care; politics, culture, and ethics; and learning. When discussing costs, the student should focus on the economics of the host country's health care system; i.e., the type of insurance scheme, how the system is financed, how the different components of the patient's care are paid for, and how utilization and costs are monitored and managed. Next, the student should give a description of how the host health care system is organized, including the role of primary care versus specialty care, and inpatient and outpatient care. Quality of care has become an important component of health care delivery, and the student is accordingly asked to address what systems are in place to ensure quality of care. How is quality measured? Did the patient get the care he or she should have gotten? If not, why not? How satisfied is the patient with his or her care? How are outcomes of care measured? Similarly, a health care system cannot be fully understood without a discussion of politics, culture, and ethics. The student is asked to discuss cultural and ethical issues as they pertain to the patient and the care delivered. For example, what kinds of "limits" or "rationing" are placed on the patient's care? Finally, what did the student learn from the exchange experience? Students are encouraged to interview the patient, the physicians involved in the case, and the patient's family, in addition to conducting a literature review, to better understand the health care system. In this concluding section of the write-up, the student summarizes the issues, using the patient as the focal point, and discusses

the strengths and weaknesses of the host country's health care system.

The physician mentor at the host institution is responsible for guiding and advising the student throughout the rotation. He or she is responsible for selecting an appropriate patient whom the student will follow until discharge, for facilitating access to information by providing access to relevant resources (medical library, health care personnel, computers, family members), and for helping the student frame questions to be raised during the rotation. The mentor is responsible for reading and commenting on the written case study. The write-up is then submitted to the medical student's administrative faculty contact at the student's home institution no later than four weeks after returning home.

Program Impact

Since 1999, approximately 56 case studies have been written by exchange students participating in the US-EU MEE program. Some of the participating medical schools (Lund and Cornell) incorporate these case studies in their curricula. At Cornell, for instance, some of the write-ups are used as a teaching tool in the required fourth year Public Health clerkship to illustrate the different structures and functions of the health care systems in Denmark, Germany, and the United Kingdom. In this way, the impact of the program has been spread beyond the limited number of participants. Unfortunately, no formal evaluation of the program has been conducted. When the exchange program was initially established, it was viewed more as a cultural exchange program rather than as a project that was going to be formally evaluated. Evaluation of the exchange program, therefore, is limited to students' self-reports about the

benefits of the program, which include an increase in their knowledge about the host country's health care system. Over the years, students who have participated in the exchange program have reported uniformly that the experience was rewarding, educational, and instructive. Both the European and American students reported gaining a better insight into their own health care systems as well as a better understanding of the strengths and weaknesses of another health care system. They also commented that by following a patient with a specific disease, they have had the opportunity to observe first-hand the sociomedical and socioeconomic issues that a typical patient confronts both as an inpatient and as an outpatient.

Conclusion

Given the gaps in medical students' knowledge not only of the U.S. health care system, but also of health systems of other countries, the US-EU MEE program is an innovative attempt to address the paucity of instruction in international health care systems in the medical school curriculum. The strengths of this exchange program lie in its focus on international health care policy, its matching of each student with a patient to permit the student to see how medical care is delivered and paid for from the inpatient setting to the outpatient setting, and its unique perspective derived from having the student live in the host country and interact with a patient and his or her health care team. The program's weakness, however, is the lack of a formal evaluation. Yet each of the participating medical schools views the program as an important and integral part of the educational curriculum, and a means of introducing global health issues into the curriculum.

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