

Loss of International Medical Experiences: Knowledge, Attitudes and Skills at Risk

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Background:

International medical experiences (IMs) change a young physician's life. Dr. Paul Farmer, a recipient of a MacArthur award, was inspired as a medical student and resident working in Haiti. He went on to establish a hospital in rural Haiti and co-founded an international non-profit that has pioneered humanitarian work on several continents. Dr. Albert Schweitzer, the 1952 Nobel Peace Prize recipient, chose a medical career after missionary work in Africa. Having obtained his M.D. degree, he founded his hospital at Lambaréné in French Equatorial Africa. International medical work has undoubtedly inspired countless others to lives of service.

Despite the great influence IMs can have on young physicians and their impact on patients and communities, they are at risk of becoming extinct. Housestaff risk losing IMs due to stringent guidelines for funding of graduate medical education. Historically, residents maintained their salary and benefits while abroad. Because resident salaries are not reimbursable by the indirect medical education financing during an international elective, many medical centers are now restricting or disallowing outside electives to save costs. Academic faculty, staff, and departments often raised funds to assist residents with travel and housing. Medical centers were previously willing to underwrite the cost of these electives but are not under increasing financial pressure not to continue.

IMs, however, should be integral to graduate medical education in today's increasingly global and inequitable society. They provide important experience in clinical, epidemiologic, cultural, and political arenas that cannot otherwise be easily had. With a continuing influx of immigrants to the United States and increased travel abroad, expertise in international medicine is vital to the delivery of quality health care. Electives

in the developing world expose housestaff to common diseases now rare in the United States. Physicians in training also learn to depend on physical exam skills and ration laboratory and radiologic tests. Time spent in developing countries emphasizes the importance of community health and increases cultural and linguistic competence.¹

From an educational perspective, IMs broaden a physician's differential diagnostic skills and introduce clinical entities rarely seen in the U.S. How many medical students have seen measles? How many residents have managed organophosphate overdose? Doctors learn about preventable tropical diseases and clinical entities only present in developing countries. Recognition of these diseases is crucial for treating new immigrants and travelers returning from abroad. Developing countries struggle to distribute few resources among many patients. Physicians must rely on their history and physical exam rather than laboratory and radiologic tests. Working side by side with local doctors, residents learn to use only essential resources and strengthen exam skills. Without every test at their fingertips, doctors in training learn to provide rational and effective care using just a history, physical exam, and limited testing, an increasingly lost art, which contributes to the rising health care costs in the US.

Young doctors gain perspective through international work. Growing up in a resource-rich society, an American's first contact with extreme poverty is often abroad. Medical students and residents visualize inequities firsthand through the lens of the health care system. Exposure to new cultures and religions is also important in a global physician's development. Whether in Bombay, India, or Georgetown, Guyana, residents learn that every person's values and belief system are not the same as their own. A

physician's ability to recognize and respect these cultural differences may lead to improved communication and compliance.

IMs also afford physicians the opportunity to learn about the delivery of health care abroad. Work in countries with a national health service or single payer system, for example, provides an important contrast to the way health care is delivered in the U.S. If our current residents are to help shape the future of medical delivery systems, they must become versed in health care realities other than our own and do so through a practical engagement with those realities rather than through literary or theoretical exposures to them.

International medical electives are unquestionably valuable to the education of today's global physician. Knowledge and skills in international health and cultural competency are vital to our health as a nation. Most important is not simply how much a doctor knows and communicates effectively but one's social consciousness. With increasing numbers of uninsured and enduring health disparities², the US desperately needs more dedicated physicians interested in ending health inequities. Exposure to the underserved in the developing world can produce a commitment to service that is unparalleled. Work abroad can thus impact young physicians greatly, pushing them to provide cost-effective, culturally competent care to those with the greatest needs.

Explicit in the IMs funding is that monies for indigent and underinsured care are provided. While this is an indirect way to teach the importance and ability to care for the indigent, it may provide a lifelong commitment to this population. In addition to the great importance these rotations are to medicine in the US, young physicians are important and effective ambassadors for our country, similar to volunteers serving in the

Peace Corp. In addition to learning from doctors and patients in host countries, young physicians have an ability to offer lessons from the US healthcare training and medical literature that may be inaccessible to foreign physicians. In an age when the US has begun to place increasing emphasis on “public relations” with foreign countries, what better ambassador can there be than a physician?

But do International Medical Experiences affect career choice and practice?

Increasing evidence proves international electives can impact medical students’ choice of residency specialty. Participants in a three-week international elective were more likely to match in primary care and pediatrics.³ They also chose to practice in more culturally diverse and underserved areas. Another study showed similar results with 70% planning careers in primary care.⁴ Residents with exposure to international medicine were more likely to work in academics or public service than to pursue private practice.³ Residents in an international health track often switched from subspecialty to general medicine during residency.⁵ In addition, residents showed increased awareness of public health measures after international experience. Participation increased residents’ value of many community health interventions, such as breastfeeding and oral rehydration.⁶ Nonetheless, physicians interested in primary care and public health may simply be more interested in international health. Thus, the effect of these studies may be due to association rather than causation.

Many important stakeholders have already recognized the importance of global health. In increasing numbers, medical students are traveling abroad for international health experiences.^{7,8} The Institute of Medicine has recognized the need for health care workers to help fight HIV/AIDS and other diseases common in the developing world. As

a result, they recommended establishment of a federally funded U.S. Global Health Service in 2005.⁹ It is time for the leaders in graduate medical education to prioritize international health opportunities. There must be support from other stakeholders for this to occur. Leaders in academic medicine can lobby for changes in reimbursement patterns at the national level or special funds for international electives. Hospitals can set up separate accounts to help finance resident salaries and benefits while abroad. Individual departments must be flexible with resident schedules to allow elective time. Medical students and housestaff can organize and lobby larger organizations such as the American Medical Association (AMA), the American Association of Medical Colleges (AAMC), and specialty groups to press for change. These measures will be one step to ensure we don't lose international experience and all the knowledge, skills, and idealism that come along with it.

Discussion:

Resident Perspective: Corita Grudzen, M.D.

Since my first trip abroad at the age of two with Milk for Bangladesh, I have always had an interest in international health. As a medical student at the University of California, San Francisco School of Medicine, I gained invaluable life experience while pursuing research and clinical experiences abroad. I spent six months working in HIV prevention in Sao Paulo, Brazil. As a volunteer, I learned that, unlike our system in the US, antiretrovirals were provided at no cost to all Brazilians with HIV. As a student on the infectious disease ward of Hospital Clinic in Sao Paulo, Brazil, I met my first patients with scrofula, Chaga's disease, and Leishmaniasis. As a resident in emergency medicine,

I was privileged to attend an international conference in India, treat flood victims in Guyana, and provide basic health care in El Salvador. In a small village outside San Salvador, I learned the value of the physical exam and used conjunctival pallor to diagnose anemia. At Georgetown Public Hospital in Guyana, I treated diseases I had only read about in textbooks and was forced to make difficult decisions about rationing of care. Whether treating a patient with cerebral malaria or deciding whom not to intubate for lack of ventilators, I realized daily the unique experiences I was afforded while working abroad. As a chief resident at New York University/Bellevue Hospital, I witnessed increasing pressure on residency directors to deny residents the opportunity to pursue IMs. While I realize I have had little impact on the countries to which I've traveled, these IMs have made me a more linguistically, culturally, and humanistically-minded physician. More importantly, they have sealed my commitment to a life of service.

Residency Program Director Perspective: Eric Legome, M.D.

As a program director I am privileged to see first hand the effect international electives have on our residents' lives and careers. I see how they improve their clinical care along with their ability to function in our highly diverse emergency department. I have witnessed multiple residents' careers and lives change due to the ability to practice abroad. For example, residents who spent international medical electives abroad are now improving emergency medical systems in developing countries as well as helping foster the development of the specialty overseas. Just as important, however, is the clear change I see in residents who now can understand why cultural and ethnic influences may

predispose someone to a certain disease entity or hinder them from actively participating in care that we feel is essential to their well being. These experiences lead to better patient understanding, more culturally appropriate interactions and a greater ability to think on a global scale when constructing a differential diagnosis.

Unfortunately, I have also have seen, throughout graduate medical education, an eroding of the commitment to allow residents to gain these experiences as these rotations come under assault from hospitals who wish to retain their IME funding. Most of us in academic medicine agree that hospital funding is essential and understand the financial pressures hospitals are under. However, if we wish to maintain our preeminence in medicine, it cannot be just in new medicines and technologies. The future physician must be able to understand and anticipate the problems of an increasingly diverse population of patients. If we do not understand where they came from and the unique ecological, sociological, and cultural factors that affect them, we will be unable to fully practice a holistic approach to their illness.

Summary:

Despite the great impact international medical electives can have on physicians and those they serve, they are decreasing in availability due to the nature of graduate medical education funding. Young physicians gain valuable clinical skills and are exposed to important cultural and practice differences while working abroad. Most importantly, they may go on to make a contribution to the health of developing nations and make an impact in decreasing global health inequities.

Competing Interests:

CG and EL report no financial or other conflicts of interests.

Authors' contributions:

CG and EL have both made substantial contributions to conception and design, have been involved in drafting the manuscript and revising it critically for important intellectual content; and have given final approval of the version to be published.

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