

International Health Electives: Strengthening Graduate Medical Education

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An international health elective (IHE) can be an important component of the medical education and professional development of a physician. It provides essential global health skills that are crucial in a globalized society. Graduate medical education has an opportunity to deliver such skills to our health care workforce while addressing the pending workforce shortage and the uneven distribution of primary care physicians across the United States. Currently, there is a call for graduate medical education programs to create more training sites and to undergo reform that will help fill residency slots and train more primary care physicians. The author proposes that graduate medical education programs incorporate international health electives into their accredited residency programs. This addition could potentially strengthen their programs while making them more appealing to qualified candidates.

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In 1997, the Institute of Medicine recognized the importance of global health training for US physicians by calling for more awareness of the impact of globalization.¹ In addition, in 2003 the World Federation for Medical Education advocated for a more globally mobile health care workforce and the creation of a global health practitioner, or one who thinks globally and acts locally.² These practitioners would have an opportunity to learn about different cultures, health systems, and public health challenges of low-resource countries around the world and apply that knowledge to the way they practice medicine in the United States. With these calls for global health initiatives, global health education for US physicians has received increased attention, including fieldwork that takes place internationally. These international rotations, referred to as international health electives (IHEs),³ have become popular among US physicians-in-training because of the educational and personal advantages they provide, including the expansion of clinical knowledge, the improvement of physical examination skills, and the opportunity to practice medicine in underserved and multicultural regions.⁴

Both osteopathic and allopathic medical schools around the country have well-established IHE programs,^{5,6} and US medical school graduates are seeking out residency programs that also have established IHEs.^{4,7,8} I recommend that graduate medical education (GME) programs that are looking to increase their number of residency slots⁹ strongly consider establishing an IHE program. By offering international clinical experience, GME programs could strengthen residents' training and potentially increase the number of qualified applicants to their programs. Moreover, improving global health education for residents would help meet the global health care needs of our evolving society.² In the present article, I discuss the benefits and potential challenges in establishing IHEs and make the case for incorporating IHEs into GME programs.

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The Importance of an IHE

An IHE provides immediate and long-term educational and personal growth for physicians.³ For example, Sawatsky et al³ reported that physicians who participate in an IHE will rely more on patient history and physical examination findings than on diagnostic testing when

caring for patients. Other studies^{10,11} have shown that IHEs provide a cultural aspect to education and instill cultural humility in physicians, a trait that is important to meeting the health care needs of our increasingly diverse society. For example, a study by Campbell et al¹¹ showed that surgical residents acquired improved understanding of the global burden of surgical diseases, global public health issues, and cultural sensitivity after exposure to cross-cultural communication. The long-term impacts of an IHE are likely to benefit our health care system. For instance, Miller et al¹² found that physicians who participated in an IHE program were more likely to choose primary care as their specialty or to choose to practice in underserved communities in the United States.¹²

International health electives also train physicians to deal with health care in the 21st century—a more globalized society.² Moreover, in light of recent terrorist attacks and natural disasters, our society is facing new medical issues and disease burdens that were once known to be problems of only other nations.^{13,14} For example, chronic respiratory diseases were associated with posttraumatic stress syndrome among rescuers and recovery workers after the World Trade Center terrorist attack on September 11, 2001,¹⁵ and there was a Norovirus outbreak immediately after Hurricane Katrina in 2005.¹⁶ Whereas these disease burdens were unexpected and rare in the United States, they are more common in developing and conflict-prone nations around the world. An IHE can provide early exposure to these disease burdens, which would be of great value to our future physicians.

Graduating medical students are aware of the demands of global health care and are now seeking GME programs with established IHEs.⁴ In 2009, a survey of 794 surgical residents in the United States revealed that 92% of survey respondents were interested in an IHE.¹⁷ Additional studies^{4,7,8} have suggested that graduates from US allopathic medical schools are using IHE as a criterion for selecting their residency programs. Although we have no current data on the selection criteria of graduates from osteopathic medical schools, it is likely that they too may be using IHE as a deciding factor for their residency selection process.

Although some of the personal and professional benefits of an IHE may be acquired through rotations in resource-poor settings in the United States,¹⁸ more studies will need to be conducted to differentiate the most cost-effective means of obtaining these valuable skills. An IHE is unique, however, in that it provides hands-on educational experiences for residents to learn about the global burden of diseases.¹¹ In addition, although the present article mostly refers to the impact of IHEs that involve low-income countries, there may also be benefits to conducting IHEs in high-income countries, such as opportunities for collaborative

research and exposure to different health care delivery systems. Additional studies are also needed to better differentiate those benefits from lower resource settings.

Osteopathic GME Programs

Graduate medical education in the United States is undergoing a major transformation. In October 2012, the AOA, the American Association of Colleges of Osteopathic Medicine, and the Accreditation Council for Graduate Medical Education (ACGME) announced plans to discuss a unified accreditation system.¹⁹ With this merger, the ACGME would be the single accreditation system for all US GME programs. However, the ACGME standards would recognize distinctly osteopathic competencies in programs currently accredited by the AOA.²⁰ Therefore, the osteopathic medical profession will still be in the critical position of determining the future of our osteopathic medical health care workforce. The osteopathic medical profession has faced this challenge in recent years; the number of osteopathic physicians in osteopathic GME programs increased by 50% from the 2006-2007 to the 2010-2011 academic years—certainly nowhere near the number needed to address the pending physician shortage in this country.²¹ There has been a call for more strategies to increase the number of osteopathic GME programs to meet the growing number of graduates from colleges of osteopathic medicine.⁹ As osteopathic GME programs look to increase their number of positions, they should also consider their ability to attract recent graduates. International health electives are one way in which osteopathic GME programs can attract graduates and ensure positions are filled.

In light of the increased interest of osteopathic medical students in IHEs, colleges of osteopathic medicine are already attempting to meet these demands by creating student-level international experiences either independently or by means of nongovernmental organizations such as Doctors United For Haiti, foundations, and other types of medical organizations like DOCARE International.⁵ Although there have been recommendations to osteopathic GME programs on how to establish an IHE,²² little is known about whether IHE programs are common among osteopathic GME programs and whether there are challenges and problems that are unique to osteopathic IHEs. Regardless of whether one believes in the future primary care physician shortage or the unequal geographic distribution of available health care in the United States,²³ one would certainly agree that the osteopathic medical profession is in a key position to address these issues, and that influencing and training our future physicians in global health is paramount. Similar to the influences and benefits that an IHE can have for medical students,²⁴ an IHE in residency programs may potentially have a greater impact.

Addressing the Concerns and Challenges of an IHE

Common concerns of GME program staff in establishing an IHE include lack of supervision for trainees, lack of guidelines and standardizations, and lack of support from stakeholders.²⁰ The most often cited obstacle is the IHE's expense.²⁵ Institutional funding sources for residents who participate in rotations abroad have been scarce and, as a result, institutions are requesting changes to their funding patterns (eg, becoming a Federally Qualified Health Center) and applying for state grants and creating separate accounts for IHEs.²⁵ With current funding patterns (eg, Centers for Medicare and Medicaid payments), some institutions may be concerned about a loss of income associated with having residents away from the base institution. In addition, despite pressure from policymakers on GME programs to train more primary care physicians, lack of funding has been found to hinder any appropriate reform.²⁶ These issues further hinder the prospects of successfully incorporating IHEs in GME programs.

Efforts have already been made to address these potential obstacles and help GME programs establish more IHEs (Figure). Although not exclusive to residency programs, the AOA has created guidelines regarding international clinical clerkship and cultural competency for students.²² Strategies such as obtaining Federal Qualified Health Center status for US community teaching health care centers, increasing residency slots, and obtaining other grants have been shown to help some residency programs remain financially viable.²⁶ We suspect that these strategies can also create funding opportunities for IHEs. Moreover, the US President's Emergency Plan for AIDS Relief, or PEPFAR, has been advocating for an exclusive global health corps with financial incentives for physicians.²⁷ This corps may also serve as a potential funding solution if implemented. Although we have started recognizing some funding strategies for GME,^{25,27} more studies are needed to demonstrate true cost benefits for specific strategies in different types of programs.

There have also been concerns about the ethical practices and the impacts of IHEs on host nations.^{28,29} Dharamsi et al²⁸ found that appropriate preparation and reflection for residents before participating in an IHE can encourage residents to practice ethical and sustainable practices while in the host nation. In response, the AOA Bureau on International Osteopathic Medical Education and Affairs put together a set of guidelines for IHEs, including a strong recommendation that osteopathic GME programs establish a code of conduct to ensure residents "do no harm" while practicing in resource-poor settings.²² The set of guidelines was approved in 2011 by the AOA House of Delegates, asserting that health has to be the primary purpose of any medical mission.

Drain et al⁴ have suggested that residency is the best

Change in funding patterns for GME

Establishment of a GME- or residency-specific IHE council or committee

Commitment by leading resident and physician organizations

Policy statement by the American Osteopathic Association and the Accreditation Council for Graduate Medical Education

Individual hospital commitment

Development of a nationally funded global health service corps

Figure. Strategies to increase international health electives (IHEs). Adopted from Grudzen et al.²⁴ **Abbreviation:** GME, graduate medical education.

time for physicians-in-training to participate in an IHE. Compared with medical students, residents have acquired some clinical context and have a greater ability to contribute to the delivery of care to host nations in which an IHE is established.⁴ Therefore, an IHE that involves residents with the ability to treat patients would be useful to a developing nation that is facing health care workforce shortages. These considerations are especially important as there are already concerns about volunteers who are inadequately prepared, are a drain to a team, and are causing limitations to care and services delivered in these settings.³⁰

IHE Progress

Both osteopathic and allopathic medical schools have well-established IHEs.²⁴ One of the greatest milestones of medical school IHEs is their ability to influence young physicians to go into primary care professions, thereby meeting an important need of the US health care system.^{31,32} The residency programs that foster global health interest through IHEs have also shown success in a number of areas.^{3,4,10,12,33}

Yale University's Internal Medicine Residency program started its first IHE site in Haiti in 1981.³⁴ Their program has been in existence for more than 3 decades and provides 4- to 6-week rotations for second- and third-year internal medicine residents. A retrospective survey study¹⁰ showed that participants and nonparticipants of an IHE were equally likely to change their career plans. However, the 2 groups did differ when it came to the type of career change; those who participated in an IHE were 56% more likely to change their career choice from a subspecialty to general internal medicine compared with 31% of nonparticipants.¹⁰ In addition, participants were more likely to practice in underserved settings and care for the poor.¹⁰

Participants of the Mayo International Health Program demonstrated heightened cultural awareness, were exposed to diseases they might not have otherwise encountered, had increased awareness of cost, and gained improved history and physical examination skills.³ A survey by Miller et al¹² on the Duke University Medicine Residency International Health Program found that many new graduates from medical schools are seeking programs with established IHEs and that Duke University's IHE is beneficial to its residency program. Despite these positive institutional experiences, IHEs do not exist in all graduate training programs, and currently it is unclear how many exist among osteopathic GME programs.

Conclusion

International health electives are an important component of global health education. International experience is important to osteopathic medical school graduates, who are seeking GME programs that offer IHEs. As GME programs look to create new residency positions in response to physician shortages and unequal distribution of primary care services, I propose that GME programs consider offering safe and organized IHEs to attract qualified applicants. More importantly, the implementation of IHEs can prepare our physicians for the demands of globalization and improve the quality of care in the United States and abroad.

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