As global health education becomes increasingly important, more physicians are participating in international health electives (IHEs). Haiti is a favorable site for an IHE because of its substantial health care needs and rich culture. Although both osteopathic and allopathic physicians can provide effective health care to Haitians, osteopathic physicians may be particularly well suited to serve in Haiti because of their training in osteopathic manipulative treatment (OMT). Because OMT’s laying of the hands (high touch) is similar to the touch inherent to Haiti’s traditional ethnomedical practices, osteopathic physicians’ use of OMT can enhance trust among Haitians and increase Haitians’ willingness to work with westernized medical practitioners. In addition, an IHE in a low-resource country such as Haiti can provide osteopathic physicians with a global outlook on medicine and a range of critical communication and clinical skills. The authors advocate for the development of an IHE in Haiti for osteopathic physicians.

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hysicians-in-training are requesting rotations abroad, or international health electives (IHEs), in growing numbers.¹ In addition, global health professionals have recognized the importance of providing future physicians with global experiences.² Haiti is an especially favorable site for an IHE because of its substantial health care needs and rich culture.³ Although both osteopathic and allopathic physicians can lend effective health care services and support to Haiti, US-trained osteopathic physicians can offer additional benefits with their unique modality of osteopathic manipulative treatment (OMT). The laying of the hands (high touch) approach of OMT aligns with the approach of ethnomedicine practices in Haiti; for Haiti’s docte zo (bone setters), touch is an important component of patient care. By using OMT, osteopathic physicians can help bridge Haiti’s traditional ethnomedical practices with Western evidence-based medicine and serve as key players for the delivery of quality health care to the Haitian population. As the US osteopathic medical profession continues to become increasingly involved in global health, we propose the development of an IHE program in Haiti for osteopathic physicians.
Haiti’s Health Care Status

The 7.0-magnitude earthquake that occurred in Haiti in January 2010 killed more than 200,000 and injured more than 300,000 Haitians. The earthquake also destroyed 8 hospitals and seriously damaged 22 hospitals, limiting access to emergency and basic health care supplies and services. The effects of the earthquake were compounded by Haiti’s already fragile state: Even before the earthquake, Haiti was the poorest nation in the Western hemisphere, with a chronic and persistent shortage of health care professionals. Haiti’s inflation rate averaged approximately 13% from 2003 to 2012, with an all-time high of approximately 42% in September 2003. In 2005, the country had a total of 1949 physicians, 760 of whom worked in the public sector. In other words, there were approximately 2 physicians per 10,000 people.

Haiti is predominantly agrarian, with a workforce that is 25% agricultural, 9% industrial, and 66% service-related. With this largely agricultural and service-related (ie, manual labor) workforce, Haiti’s population is predisposed to chronic musculoskeletal conditions and injuries. Malnutrition and muscle wasting due to hunger are also common in Haiti. In 2005, 1 of every 3 children aged 5 years or younger in Haiti exhibited stunted growth or was undernourished in some capacity. Adequate sanitation systems and a reliable, safe water supply are unavailable in most parts of the country. Not a single Haitian city, irrespective of size, has an adequate public sewage and drainage system. Any major storm can produce serious flooding and subsequently increase the transmission of water-borne illnesses and infectious diseases. Large amounts of land are lost each year because of soil erosion (only 2% of Haiti’s land is covered by forest), further compromising the national economic and health care infrastructure.

Currently, more than 9 million people live in Haiti, with an average life expectancy of 62 years. In comparison, the average life expectancy in the United States

Benefits of an IHE

An IHE in a low-resource country provides physicians-in-training with a global outlook on medicine and helps physicians develop a range of important communication and clinical skills. Physicians who participate in IHEs become more aware of cultural diversity and develop cultural humility. These physicians also learn to rely on patient history and physical examination findings when caring for patients because they may not have ready access to diagnostic tests while abroad. International health electives can also benefit the US health care system. The Institute of Medicine has recognized a cross-cultural experience as an important competency for delivering quality health care to underserved populations in the United States. Physicians who have participated in an IHE program are more likely to go into generalist specialties (eg, family medicine, pediatrics, internal medicine) and choose to practice in underserved communities. These traits are increasingly desirable in physicians as the US health care system focuses on primary care and preventive services.

The World Health Organization has suggested that we should no longer distinguish between domestic and international health problems. The need for this change in mindset is evident with the epidemiologic progression of human immunodeficiency virus (HIV) and AIDS, which have affected both low- and high-income countries around the world and continue to be a global challenge. Through IHEs, physicians have the opportunity to provide support to low-resource countries that are facing issues such as poor coordination of health care services and health care workforce shortages. Haiti is one such country with public health issues that could use the help of US physicians-in-training. In addition, Haiti’s proximity to the United States could potentially make it attractive to US physicians who are interested in a global health experience but are unable to travel long distances.
is 78 years. Haiti has a maternal death rate of 350 deaths per 100,000 live births, compared with the US rate of 8-11 deaths per 100,000 live births. The probability of death at age 65 years in Haiti is 34%, compared with a probability of 77% in the United States.

Contributing to Haiti’s low average life expectancy are its high morbidity and mortality rates for most diseases. The top 2 causes of death in Haiti are communicable/infectious diseases and circulatory diseases. Among infectious diseases, HIV/AIDS was the number 1 cause of death, accounting for 5.2% of the total deaths in Haiti in 1999. In 2009, the prevalence of HIV/AIDS in Haiti was 1.9%, compared with a prevalence of 0.6% in the United States. Haiti’s diarrheal and intestinal disease death rate among children prior to the October 2010 cholera outbreak was 12.1%, compared with the US rate of 7.4% among all age groups. The insufficient health care workforce, limited resources, inadequate infrastructure, and high prevalence of disease remain important factors in Haiti’s continuing health care crisis.

Osteopathic Medicine and Manipulation

Osteopathic medicine was founded in the United States by Andrew Taylor Still, MD, DO, in 1874. The 4 major principles of the US model of osteopathic medicine are (1) the organ systems in the body form a single, interconnected unit; (2) the body possesses self-regulatory mechanisms; (3) organs and their functions are reciprocally interrelated; and (4) the rationale for treatment is based on understanding these first 3 basic principles. According to osteopathic philosophy, the body has an inherent capacity to maintain homeostasis. If this normal adaptability is disrupted or if environmental changes overcome the body’s capacity for self-maintenance, disease may ensue.

These osteopathic principles are incorporated into the US model of osteopathic medical education. Like students in allopathic medical schools, osteopathic medical students complete 4 years of undergraduate medical education. Osteopathic medical students,
however, have an additional 200 hours of course work in osteopathic principles and practice, including osteopathic manipulative medicine.\textsuperscript{25} Both allopathic and osteopathic physicians are required to pass state licensing examinations to practice medicine. Osteopathic physicians can enter practice after passing either the osteopathic or the allopathic licensing examination. Compared with allopathic physicians, osteopathic physicians are more likely to select generalist specialties, such as family medicine, pediatric medicine, and general internal medicine. For instance, in 2006 approximately 30\% of allopathic medical students chose to specialize in generalist disciplines compared with approximately 50\% of osteopathic medical students.\textsuperscript{26}

Osteopathic medicine is self-described as the “high touch” medical profession, and osteopathic educational requirements reflect this description. Touch is an important part of the practice of osteopathic medicine. All osteopathic physicians are educated and trained to use their hands. Osteopathic physicians use their hands to communicate caring, to promote healing, to diagnose neuromuscular skeletal conditions, and to provide manual treatment when necessary.

Osteopathic manipulative treatment (OMT) is a manual diagnostic and therapeutic intervention applied to the neuromusculoskeletal system. Evidence has shown predictable effects of OMT on organ systems (ie, somatovisceral reflex) in the human body.\textsuperscript{27} Using manual techniques, osteopathic physicians diagnose visceral disease through the identification of manifested aberrations in the musculoskeletal tissue texture and intervertebral joint motion (ie, viscerosomatic reflex).\textsuperscript{24} Osteopathic manipulative treatment is used to manage these diagnosed somatic dysfunctions.

The benefits of OMT are not limited to mechanical and the neurophysiologic effects; the simple act of laying of the hands has a positive impact on patients.\textsuperscript{28} Whether it is being used to manage asthma, diarrhea, tuberculosis, or HIV (all are common diseases in Haiti), OMT has a role as an adjunct therapy.\textsuperscript{24,29} In addition, laying of the hands facilitates patient-physician communication and therefore plays a key role in the practice of osteopathic medicine.

**Osteopathic Medicine and Haiti’s Traditional Health Care System**

Elements of Haitian’s traditional ethnomedicine are similar to elements of osteopathic medicine. For example, Haitian ethnomedical practitioners’ belief that treatment must be applied in the opposite direction of the body’s imbalance to restore equilibrium corresponds to osteopathic physicians’ belief that the body has an inherent capacity to maintain homeostasis. Also, the manual treatment techniques used by the docte zo parallel the manual treatment techniques used by osteopathic physicians.

Haitians have a well-documented distrust of westernized medicine,\textsuperscript{30} which likely increases their risk for inadequate health care. Because aspects of osteopathic medicine evoke the docte zo’s practices, however, the Haitian community may accept osteopathic medicine and OMT. On the basis of their cultural acceptance of traditional Haitian ethnomedicine, Haitians may be more willing to trust a Western medicine practitioner, such as an osteopathic physician, who practices manipulation and who has demonstrated distinct clinical skills related to diagnostic touch. For example, AIDS patients in Haiti with common musculoskeletal manifestations would benefit from OMT for symptom relief.\textsuperscript{29} This acceptance could extend to the acceptance of other aspects of Western medicine.

Of course, the similarities between Haitian ethnomedicine and OMT alone will not be sufficient to completely overcome the long and deep-rooted distrust of Haitians toward Western medicine. Building trust also requires that osteopathic physicians understand Haiti’s culture and ethnomedical practices.
This opportunity, however, is rarely taken. According to the American Osteopathic Association and the American Association of Colleges of Osteopathic Medicine, although osteopathic physicians practice in Haiti and participate in humanitarian work in the country, no osteopathic physicians permanently reside or practice full time in the country. An IHE in Haiti for osteopathic physicians would provide the opportunity for osteopathic physicians to study Haiti’s ethnomedical practices and help foster a long-term relationship between Haitians and the osteopathic medical profession. If successful, this IHE could serve as a model for other international programs that are seeking to reduce the distrust of westernized medicine in low-resource countries with traditional hands-on medical practices.

Conclusion
The osteopathic medical profession should establish an IHE in Haiti for osteopathic physicians. Osteopathic physicians, with their training in OMT, are in a unique position to bridge the ethnomedical practices of Haiti with Western evidence-based medicine, potentially facilitating Haitian trust of Western medicine and contributing to improved health status in Haiti.

References


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