**Full Title:** Medical Education in Global Health: Ethical Considerations

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**Abstract:**

An increasing number of students are opting to participate in global health electives during their medical training. Such international rotations have been demonstrated to positively affect student behaviour by evoking a deeper understanding of the impact of poverty, developing cultural awareness, and inspiring students to pursue careers caring for the underserved. However, while opportunities to receive this experience are becoming more abundant, important ethical issues have arisen surrounding these international placements. Such ethical issues include: potential conflicts of interest, participation above the trainee’s clinical level, power imbalance, and burden on the host institution. We therefore review the aforementioned ethical considerations and include practical approaches to address these issues. Moreover, we highlight the concept of the creation of ongoing partnerships between sending and host institutions to establish mutually beneficial relationships, further strengthening the partnership and promoting the exchange of ideas.

**Keywords:** medical electives *(educational and training placement undertaken as part of a medical degree)*, medical education *(education related to training future physicians)*, global health *(health of populations in a global context),* ethics *(branch of knowledge that deals with moral principles)*

**Introduction**

Due to increased globalization and awareness of health determinants worldwide, a growing number of medical students are opting to participate in global health electives. Research has demonstrated that such international rotations positively affect student behaviour by eliciting a deeper understanding of the impact of poverty, fostering cultural awareness, and inspiring students to pursue careers caring for underserved populations [1,2]. While opportunities to pursue this important experience are becoming more diverse and abundant, medical institutions and students are recognizing the emergence of numerous associated ethical considerations and are striving to mitigate these issues. Many of these ethical issues are now being incorporated into mandatory medical student pre-departure training, however, a standardized ethical framework to guide student actions and behaviour has yet to be solidified [3,4].

In lieu of the above circumstances, we explored ethical issues surrounding global health medical placements and included practical approaches to address these issues. First, since medical electives have an educational mandate alongside service, students can be faced with conflicting priorities while on an international placement. Second, students may step outside of their level of training to perform tasks beyond their current abilities. Misunderstanding of the health professional student’s responsibilities by the host institution may exacerbate this situation. Third, the major influence of socioeconomic status may create a power imbalance rendering local patients vulnerable to potential exploitation. Fourth, despite their best intentions, students may tax local resources in an already impoverished society by requiring an interpreter or by monopolizing the time or resources of a local preceptor. Finally, the concept of the creationof ongoing partnerships between sending and host institutions isdiscussed. The establishment of these mutually beneficial relationships can provide a platform to openly discuss ethical or logistical issues arising over time, further strengthening the partnership and promoting the exchange of ideas.

**Ethical Consideration: Potential Conflicts of Interest**

When participating in a global health elective, students need to be cognizant of balancing their learning needs with the right of the patient to appropriate care. This potential conflict of interest can be a serious issue due to vulnerable patients, a lack of supervision, and a low likelihood of negative ramifications for students who abuse their positions [4].

Moreover, it has been suggested that the demand for global health electives is increasing for as many career-driven reasons as altruistic ones [5,6]. For example, specific residency programs require students to have acquired international health care experience. Therefore, students may choose to participate in global health electives to build a strong curriculum vitae to gain entry into highly competitive residency programs that will likely result in urban-centric practice [6]. These goals are in stark contrast to the original altruistic motive of embarking on a global health elective.

Additionally, students may experience tensions between their service and training obligations and being in an exotic location that provides unique tourism opportunities [7]. This has also been referred to as “voluntourism” [8,9]. Although exploring the host country can be personally rewarding, it can be costly in local terms and may take the trainees away from their expected responsibilities. This can also cause local staff to have reservations about the students’ commitments to learning and the appropriate use of funds [7].

Since these conflicts of interest can result in a decrease in the level of confidence and trust in the trainee by host healthcare providers, students need to be able to recognize when such conflicts arise and address them ethically. One method trainees can employ is participation in self-reflection and “anti-discriminatory” analysis. This can assist the students in understanding the basis for their privilege, identifying multiple forms of oppression, and creating a worldview that considers issues such as imperialism, colonialism, and systemic social inequity [4,10].

**Ethical Consideration: Participation Above the Trainee’s Clinical Level**

Due to a strong desire to help and learn, medical students in resource-challenged settings may find themselves in a position to perform assessments, treatments, or procedures exceeding their present level of training. Though the intention may be noble, this can lead to ethical conflicts and leave both trainees and patients vulnerable to negative consequences [11]. When trainees step beyond their knowledge level, this can lead to poor patient outcomes, increased workload for local staff to deal with the sequelae of adverse outcomes, negative impact on the local health care system, and associated student guilt [12].

Adding to the complexity of this ethical dilemma, research has shown that international patients may prefer to be treated by a western trainee and may be willing to undergo riskier procedures than they would otherwise permit a local physician to perform, even though local workers may be able to do a superior job using available resources [13,14]. Furthermore, Radstone [15] discovered that host country staff perceived that trainee doctors should be able to diagnose (94.9%), prescribe (84.6%), and treat patients (89.7%) without supervision, but were not aware that this was prohibited in the trainee’s home country. Language and cultural barriers can compound these circumstances.

This situation of practising beyond one’s clinical skill level underscores a common misperception that people who live in poverty will benefit from any type of medical service, irrespective of the experience or lack thereof of the provider. In lieu of this, Shah and Wu suggest that medical students have an obligation to disclose their current level of training and to avoid acting beyond these capabilities to maintain a level of trust with the locals and host country [11].

**Ethical Consideration: Power Imbalance**

In resource-poor settings, patients are exposed to “dissymmetries in power” in medicine [16]. These power imbalances render local patients vulnerable to possible exploitation.As mentioned previously, local patients are likely unaware of a medical student’s clinical skill level or restricted level of acceptable unsupervised duties [15]. Moreover, patients in host countries may be unable to demand superior care due to socioeconomic or cultural vulnerability [11].

This power imbalance can also muzzle the host institution regarding the reporting of issues with visiting trainee conduct or hidden expenses because of fear of disrupting the relationship that may be providing another form of benefit to the institution, such as developing training opportunities for local staff or the provision of necessary equipment [7]. Host institutions may also lack the ability to monitor and record the benefits and costs that a medical student brings to their institution [7].

It is therefore critical that the sending institution prevent exacerbation of pre-existing inequities by avoiding misguided application of financial, human, or material resources for the sake of the medical student [17,18]. It is also important that the sending institution be aware of the true burden of the medical elective on the host institution, as discussed in the next section.

**Ethical Consideration: Burden on the Host**

Though the benefits of global health electives for medical students and sending institutions have been well-documented, little research has been performed regarding the benefit for host institutions. Recent reflections and analyses have suggested that these short-term international experiences may impose a significant burden on areas that are already resource-limited [7,9,11,12].

Local staff may be distracted from other important duties while helping orient trainees to the unfamiliar environment. The need for formal or informal translation services may also strain resources in the local community. Additionally, the supplementary supervision required by medical students may monopolize the time of local physicians and staff, thus interfering with regular health care service [7].

Hidden costs associated with accommodating trainees may also place a strain on the host institution. These expenses may include paying for visas, food, and incidental costs not covered by the sending institutions or medical students. Furthermore, as previously mentioned, host institutions may lack the capacity to monitor and document these hidden costs, resulting in anabsence of appropriate reimbursement [7].

Crump and Sugarman therefore maintain that “sending institutions have a moral obligation to ensure that the patients and host institutions in which these programs take place are at minimum not left worse off as a result of this collaboration” [7]. They go on to suggest that the sending institutions “arguably also have a moral obligation to help improve care and service delivery”. One way to accomplish this is to establish long-term reciprocal relationships between institutions. This is explored in the subsequent section.

**Ethical Consideration: Building International Partnerships**

One of the principal challenges for global health initiatives is bridging the gaps of geography, language, culture and resources between the foreign hosting sites and the sending institutions. Numerous approaches have been undertaken with mixed results, but a common critical component seems to be an ongoing partnership between both parties that is based upon a mutual mission of education and service, and maintained through open communication [9]. These long-term sustainable relationships promote accountability, exchange of ideas, and collaborative agreement among all involved parties, thus promoting consistency of practice and achievement of local community goals [19].

The development of these partnerships requires long-term planning, careful management, and rigorous regulation. An example of a successful partnership specifically pertaining to health elective training exists between the Indian Institute of Cerebral Palsy (IICP) in Kolkata, India and the Faculty of Health Sciences at the University of Sydney, Australia. This relationship has resulted in the development of an ongoing program in which speech therapists and occupational therapists from the University of Sydney attend placements at the IICP with careful consideration to ensuring a positive impact at the IICP [20]. Another example of a successful medical training partnership is the “Making The Links” service-learning project through the University of Saskatchewan [21]. This project consists of five distinct phases: (1) orientation to health issues of underserved populations, (2) northern community experience, (3) volunteer experience in a student-run clinic in an underserved urban area, (4) international experience in Mozambique, and (5) reflection and evaluation. According to Meili et al., this project has shown promising results, including an increase in student awareness of social accountability [21].

Finally, when creating global health partnerships, it is essential to establish a method to assess the effectiveness of the relationship for both parties. Systematic data collection within existing short-term global health experience programs is needed to inform host and sending institutions about the true cost of these programs so that unknown disparities can be addressed. Additionally, efforts should be directed at developing a means of assessing the potential benefits and harms to both medical trainees and to patients or other intended beneficiaries in the host country. Moreover, formal ethical guidelines, such as those developed in the context of the research setting, should be established and universally applied [7,22]. The Working Group on Ethics Guidelines for Global Health Training (WEIGHT) recently proposed a set of such guidelines for institutions, trainees, and sponsors of field-based global health training. The incorporation of ethical consideration into both pre-departure and post-departure training was suggested, as well as steps to achieve mutual and reciprocal benefit [22].

**Conclusion**

Many medical educational institutions provide students with an opportunity to participate in global health electives. The benefits of such short-term training are acknowledged for the trainees, but there are important ethical considerations inherent to sending individuals from resource-abundant settings for service experiences in resource-constrained locations [7]. Such considerations include: potential conflicts of interest, participation above the trainee’s clinical level, power imbalance, burden on the host, and building international partnerships. Awareness of and careful attention to these ethical issues by both the sending organization and the medical students themselves can significantly improve the experience for all stakeholders. Moreover, the featured approaches may be useful to incorporate into the medical student pre-departure training that routinely occurs before embarking on an international placement, as is suggested by the global health training guidelines proposed by WEIGHT [22]. Finally, a long-term partnership can provide an opportunity for communication that can lead to potential solutions to these and other intrinsic challenges. Projects such as “Making The Links” provide a platform for the development of these partnerships and a method to teach social accountability during medical training [21].

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