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Global Perspectives

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DEVELOPMENT OF A TRACK IN GLOBAL AND HUMANITARIAN HEALTH FOR NEUROLOGY RESIDENTS

Neurology trainee interest in global health is rapidly increasing, but few neurology residency programs have formal opportunities for residents to pursue training in global health.[1] Residents who participate in rotations abroad are at times inadequately prepared or insufficiently supported, which can lead to a detrimental burden on the host institution and negatively impact residents' experiences.[2] We report the development of a track in global and humanitarian health aimed to provide a structured curriculum in the practice of neurology in resource-limited settings for neurology residents.

The 4 main components of this track are as follows:

1. Mentored, longitudinal experience in a resource-limited setting abroad that is both beneficial to the host institution and educational for the resident.
2. Mentored, longitudinal experience in a domestic resource-limited setting that is both beneficial to the host institution and educational for the resident.
3. Mentored education, research, or quality improvement project in collaboration with either of the above institutions.
4. Participation in academic global health conferences, lectures, and activities outside of those related to neurology.

Residents are paired with a mentor at the beginning of the second year of the neurology residency (postgraduate year [PGY]-3) in order to develop a 2-year plan to achieve these 4 goals. Funding support comes from within the residency program, from a cross-specialty graduate medical education fund at our institution for residents pursuing global health electives, or from mentor support if a resident is working on a particular project that already has funding.

Mentored, longitudinal experience in a resource-limited setting abroad. In collaboration with the mentor, residents select a site abroad where there is one or more of the following types of on-site mentors: a local neurologist, a neurologist from our institution or another who has an established working relationship with the site, or a non-neurology faculty member with an established relationship with the site. Residents spend at least one elective (at least 3 weeks) in both the PGY-3 and PGY-4 years at this site, and are expected to maintain contact with the site between these visits to discuss cases by e-mail or video conference with faculty support. Residents make initial contact with the site at least 3 months before the first trip in order to begin exploring how the collaboration can be fruitful for both the host institution and the resident. This early contact facilitates planning of the residents' roles at the site before arrival, and allows for development of educational sessions of specific interest to the host institution so that residents can begin preparing materials that are context-specific with predeparture mentorship. Residents have meetings with their faculty mentor for prebriefing before and debriefing after each period abroad, and have regular contact with the home mentor by e-mail or teleconference while on site to discuss cases, research or quality improvement project ideas, or any issues that may arise.

Mentored, longitudinal experience in a domestic resource-limited setting. In parallel with the development of an understanding of global health inequity in neurology, we seek to foster an awareness of the challenges that face patients with social barriers to neurologic care locally. Residents in this track therefore participate regularly during the PGY-3 and PGY-4 years in one of several domestic precepted clinics where care is provided to patients whose challenges in living with neurologic disease are affected by socioeconomic or other barriers to health care access.

Engagement in a mentored education, research, or quality improvement project in collaboration with either of the above institutions. The development of a 2-year longitudinal relationship with both of the above sites and 2 visits up to 1 year apart with the site abroad allows the resident to develop a focused project that can be completed during this period through a collaboration between the resident and colleagues at the chosen

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site. Examples could include a small research project or participation in an ongoing existing larger research project, an educational project (e.g., development of continuing medical education or patient education materials), or a quality improvement project related to diagnosis and management of a particular neurologic disease. These projects are jointly mentored by faculty from the home and host institutions.

Engagement in academic global health conferences, lectures, and activities outside of neurology. Since neurology's engagement in global health is a relatively recent phenomenon, neurologists have much to learn from colleagues engaged in global health in other medical specialties.[3] Neurologists participating in global health should therefore be active members of the global health community so as to become aware of current trends, practices, and challenges in the field, and also to receive feedback on their ideas from non-neurologist colleagues. Residents in this track therefore participate in at least 2 global and humanitarian health lectures per year outside of neurology departments or neurology conferences. These may include global health lectures in our institutions, global health sessions at national or international conferences, or participation in a global health course at our school of public health or another institution.

Case study. The first graduate of our track in global and humanitarian health was mentored by one of our own faculty members who has ongoing clinical and research collaborations in Thimphu, Bhutan. The resident spent one elective period in Bhutan in both the PGY-3 and PGY-4 years, collaborating on a larger research project run by her faculty mentor validating the use of smartphones for transmission of EEGs in resource-limited settings, and developing a smaller survey project in collaboration with local providers to address stigma associated with epilepsy. Between periods in Bhutan, she worked with her mentor and Bhutanese collaborators on a study investigating the prevalence of neurocysticercosis among epilepsy patients in Bhutan. She presented her work at the American Academy of Neurology conference in the final year of her residency. Domestically, she participated several times per year in a resident-run faculty-precepted volunteer neurology clinic at Boston Healthcare for the Homeless. In her final year of the residency, she helped direct that program. Our resident attended several sessions for trainees from all medical specialties organized by our institution's cross-specialty Center for Excellence in Global and Humanitarian Health.

Conclusions. There are currently limited structured opportunities for neurology trainees to engage in global health in a way that is mutually and longitudinally beneficial for both the host institution and the resident.[1,2] Through the creation of a track in global and humanitarian health for neurology residents, we hope to train neurologists who will be able to thoughtfully, effectively, and collaboratively bring global perspective to current and future challenges in neurology worldwide. As global health programs within other neurology residency programs develop, opportunities for interinstitutional collaboration will expand capacity to support neurologic education, care, and research where resources are limited.

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