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Global Health Training in U.S. Graduate Psychiatric Education

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Abstract

Objective—Global health training opportunities have figured prominently into medical students' residency program choices across a range of clinical specialties. To date, however, the national scope of global mental health education has not heretofore been systematically assessed. We therefore sought to characterize the distribution of global health training opportunities in U.S. graduate psychiatric education.

Methods—We examined the web pages of all U.S. psychiatry residency training programs, along with search results from a systematic Google query designed to identify global health training opportunities.

Results—Of the 183 accredited U.S. psychiatry residency programs, we identified 17 programs (9.3%) offering 28 global health training opportunities in 64 countries. Ten psychiatry residency programs offered their residents opportunities to participate in one or more elective-based rotations, eight offered research activities, and six offered extended field-based training. Most global health training opportunities occurred within the context of externally administered, institution-wide initiatives generally available to residents from a range of clinical specialties, rather than within internally administered departmental initiatives specifically tailored for psychiatry residents.

Conclusions—There are relatively few global health training opportunities in U.S. graduate psychiatric education. These activities have a clear role in enhancing mastery of Accreditation Council for Graduate Medical Education core competencies, but important challenges related to program funding and evaluation remain.

Keywords

International; Public Health; Cross-Cultural Psychiatry; World Health – psychiatry residents

U.S. medical trainees have increasingly expressed interest in global health programs at all levels of training, ranging from university pre-medical education (1) to undergraduate (2) and graduate (3, 4) medical education. Global health training opportunities have figured prominently into medical students' residency program choices in such varied disciplines as emergency medicine (5), family medicine (6), internal medicine (7, 8), and pediatrics (9). Residency programs have responded to the increased demand by creating global health

training opportunities for their residents (10, 11). While the importance of such programming has been recognized at the highest levels of leadership in the field of psychiatry (12), U.S. graduate psychiatric education as a whole has lagged in this regard (11, 13, 14).

This gap in U.S. graduate psychiatric education is an important public health issue given the shortage of human resources for mental health care in low- and middle-income countries (15, 16) and the potential role of international partnerships in expanding treatment, strengthening health systems, and addressing inequities in the global distribution of resources (17). Overall, the global burden of disease due to mental and behavioral disorders increased by 38 percent from 1990 to 2010 (18), and more than two-thirds of the global disease burden is now accounted for by conditions not targeted in the Millennium Development Goals (19). In sub-Saharan Africa, specific mental and behavioral disorders like major depressive disorder and self-harm are among the top 20 leading causes of disability-adjusted life-years (19), while major depressive disorder is the second-highest cause of years lived with disability (20).

Global health training opportunities are likely to benefit psychiatry residency programs through the bidirectional exchange of information and resources, whether related to capacity building (12, 13, 21) or contributions to the scientific literature (22, 23). However, to date, the theoretical justification for global mental health training during residency has only recently been described (12), and the literature has only contained case studies of global health training programs for psychiatry residents at specific institutions (e.g., the Global Mental Health Program at the Yale-New Haven Medical Center Program (24)). The national scope of global mental health education and other programmatic activities has not heretofore been systematically assessed. We therefore undertook this study to identify and characterize global health training opportunities in U.S. graduate psychiatric education.

METHOD

The goal of the search protocol was to systematically identify and characterize global health training opportunities in U.S. graduate psychiatric education. First, we identified all U.S. psychiatry residency programs (numeric program code 400) accredited by the Accreditation Council for Graduate Medical Education (ACGME) for the academic year 2010–2011. In order to identify global health training opportunities, one of the study authors (VBK) and two research assistants examined both (a) the official residency program web site, if available; and (b) search results from systematic Google queries (11). We chose to use a web-based search instead of direct surveys of program directors or psychiatry residents, because anonymous surveys of global health training activities have often yielded little response from prospective participants. (Previously published journal articles have been based on data from surveys with response rates as low as 22 percent (9, 25–27).) Furthermore, web-based searches have been previously and effectively used to characterize global health training opportunities, such as was done by Peluso, Forrestel, Hafler et al (28) in their web-based review of global health programs in U.S. medical schools and by Nelson, Izadnegahdar, Hall et al (29) in their review of global health fellowships. The Internet search engine queries, conducted January–June 2011, applied a uniform set of search terms using

the “Find pages with all these words” function: *[ACGME-listed program name] global health psychiatry residency*. The first page of 20 search results were examined along with any linked web pages associated with the keywords “global health,” “international health,” “enrichment,” “rural,” “research,” “vulnerable populations,” or “health inequity.” We abstracted data from any web page linking the ACGME-accredited residency program to global or international health training opportunities. If the web search indicated the existence of global health training opportunities at a specific residency program but did not yield detailed information, we attempted to contact the program director or program administrator by e-mail. If neither the official residency program web site nor the systematic Google queries yielded any relevant material, then that program was coded as not having any global health training opportunities. Two of the study authors (ACT, VBK) reviewed all of the included programs to ensure reproducibility of the information obtained. This study was reviewed by the Partners Human Research Committee at the Massachusetts General Hospital and received an exempt determination given that it did not involve human subjects research.

Global health programs were sorted into four non-mutually exclusive categories. “Elective-based rotations” were defined as clinical or educational activities of less than six weeks’ duration. “Research programs” were defined as involving human subjects research, i.e., interaction with living persons and/or the use of identifiable private information. “Extended field training” was defined as engagements lasting six weeks or more, with or without designated didactic study in global health. Global health training opportunities that did not fit one of these three categories or could not be characterized (e.g., due to lack of information) were categorized as “other.” We also noted whether global health training opportunities were offered through externally administered, institution-wide initiatives in which psychiatry residents happened to be eligible to participate (vs. internally administered, department-specific initiatives established specifically for psychiatry residents and not open to trainees from other departments). We analyzed in greater detail the residency training programs with established partner sites.

RESULTS

Of the 183 U.S. psychiatry residency programs accredited by the ACGME, we identified 17 (9.3%) residency programs offering 28 different global health training opportunities. Ten psychiatry residency programs offered their residents opportunities to participate in one or more elective-based rotations, eight offered research activities, and six offered extended field-based training. Four programs offered additional programmatic activities that did not fall into one of these three categories.

Details of 10 selected residency programs with established partner sites are provided in Table 1. Varying degrees of training intensity were noted. The Duke Global Health Residency/Fellowship Pathway, for example, extends the duration of residency training by 3–6 months, subsidizes coursework towards a Master of Science in Global Health, and entails an extended 9-month field placement. Coursework counting toward a formal degree was not generally incorporated into other global health training opportunities, although most offered mixed curricula consisting of didactic teaching, networking, and mentorship.

Most global health training opportunities were offered through institution-wide, externally administered initiatives in which psychiatry residents were also eligible to participate. These included, for example, the Mayo International Health Program (30), the Mount Sinai Global Health Residency Track (31), and the University of California at San Francisco Global Health Clinical Scholars Program (32). For many programs, funding was also offered through a centralized institutional body (such as a center for global health) and made available to residents from across different clinical specialties. Few residency programs offered global health training specific to psychiatry residents.

DISCUSSION

In this systematic survey of U.S. graduate psychiatric education, we identified 17 residency programs that offered global health training opportunities. Few of the available training opportunities were tailored specifically for psychiatry residents, and most were embedded in externally administered global health training opportunities made available to residents from across different clinical specialties. Our findings have substantive implications for U.S. graduate psychiatric education and future global health-related programming in this area.

In comparison to other fields, such as internal medicine (33) or pediatrics (9), there are relatively few psychiatry residency programs with global health training opportunities. For example, in a national survey of 279 directors of U.S. categorical internal medicine residency training programs, Kolars, Halvorsen and McDonald (33) found that more than one-half offered some type of global health-related programmatic activity. A relative lack of global health training opportunities has been noted in other specialties as well (e.g., obstetrics and gynecology or surgery (11, 26, 34)), suggesting that common factors may explain some of these scarcities, such as educational and/or service requirements or financial challenges (26). We identified even fewer programs with established partner sites, although the significance of this is unclear. For many institutions, establishing partnerships with African institutions for the purposes of learning, scholarship, and/or clinical care is a relatively new undertaking. Models of successful partnerships with formally signed memoranda of understanding have rarely been described in the literature (35–37). We speculate that the relative paucity of global health programs in psychiatry may also be related to cultural and/or language barriers to U.S. medical graduates' practice of psychiatry in non-U.S. settings (12, 14), a challenge that is relatively unique to psychiatry compared to other specialties where greater importance may be placed on procedural aspects of clinical practice. Nevertheless, we remain hopeful that the intensity of global health training in U.S. graduate psychiatric education will increase as new technologies reduce the logistical barriers to adequate resident supervision (38) and as non-psychiatrists gain a greater appreciation for the relevance of psychological wellbeing to other health outcomes of broader political interest (39–41).

Notably, most of the global health training activities identified in our review occurred within the context of institution-wide, externally administered initiatives generally available to residents from a range of clinical specialties (including psychiatry residents), rather than within departmental, internally administered initiatives specifically tailored for psychiatry residents. Some institution-wide initiatives did not currently have partnerships in place for

psychiatry residents but are actively in the process of developing them (e.g., the Global Health Residency Scholars Program at the Emory University Program). These observations may be explained by the potential synergies resulting from having a single infrastructure -- either at the U.S./"home" institution or the partner institution -- for global health training across different specialties, such as ease of administration or facilitation of cross-specialty learning and networking. However, we also hypothesize these observations may also reflect a lack of commitment to global mental health-related programmatic activities in general.

While all programs appeared to offer funding in the form of salary support (i.e., residents continued to receive their usual salary during the time spent overseas), fewer programs offered funding to help defray costs of travel, lodging, and/or other expenses. The need to identify creative sources of funding for global health training has been recognized in other fields (34). Three residency programs specifically identified their department's "research track" as a potential source of funding or mentorship support for residents interested in global health training (4, 24). Clearly, however, such funding would be intended for residents actively pursuing primary research careers rather than other types of scholarly activity. There appeared to be limited funding available for training focused solely on program development or clinical care; where available it was generally available to residents across clinical specialties on the basis of competitive internal review.

As has been compellingly argued by Van Dyke, Tong and Mack (12), there is sound justification for implementation of "global mental health track" that provides specific didactic training, mentored scholarly activity, and field experiences for psychiatry residents. They also suggest that organized clinical experiences with marginalized populations in the U.S. may be indicated, given potential similarities with populations in some low- and middle-income countries. These are often made available to interested residents on an elective basis such as those offered by the Oregon Health Sciences University Intercultural Psychiatric Program (42) or in the Global Mental Health Track at the George Washington University Program (43). Taken together, global health training opportunities will help residents increase their mastery of the Accreditation Council for Graduate Medical Education core competencies of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice (12, 14, 24). Namely, psychiatry residents undergoing global health training in low- and middle-income countries will likely test the boundaries of their knowledge base in treating different manifestations of mental disorders; encounter new applications of practice-based learning or challenges to professionalism; and will need to solve challenges of communication, patient care, and systems-based practice not previously faced during their U.S.-based training. These arguments are consistent with qualitative research describing important ways in which attending physicians feel their global health activities have strengthened their domestic work (44).

The mere assertion that engagement in global health programmatic activities can advance U.S. residents' learning is unlikely to be persuasive. Educators have previously elaborated principles that can be used to guide the development of standardized curricula for psychiatry trainees (12, 13, 21, 45). These can then serve as templates for carefully planned program evaluations, which have been employed to evaluate global mental health training initiatives

(24) as well as other aspects of psychiatric training (4, 46, 47). In addition, psychiatry leadership bodies such as the American Association of Directors of Psychiatry Residency Training could convene priority-setting exercises, similar to those which have been conducted to guide investments in global mental health research (23, 48, 49), in order to provide concrete guidance about standardization of didactic curricula or evaluation metrics across programs.

Interpretation of our findings is subject to several limitations. First, some residency training programs may offer global health-related programmatic activity that is not described on their programs' web sites. Web sites may fail to accurately represent the entire range of opportunities available to residents, or they may simply be out of date. However, leading medical educators have argued that, in the twenty-first century, it is not unreasonable to peruse an academic medical center's Web site with the expectation that it would contain official, up-to-date information (50). Related to the above, our Internet-based search protocol was designed primarily to identify formal global health-related programmatic activity. Some residency programs may permit their residents to engage in informal elective-based rotations overseas (14) that are organized on an *ad hoc* basis. These are typically contingent on the initiative of individual residents and availability of mentors' time and funding and may not be documented on program web sites. For example, in the survey of general surgery residency program directors by Mitchell, Tarpley, Tarpley et al (27), only 13% of respondents indicated that their program offered a "formal" international experience while 60% of respondents indicated that their program offered informal rotations outside of the regular curriculum. A third limitation is that we did not assess the extent to which residents actually availed themselves of the opportunities for global health training. Related to both of the above, the findings from our web-based search should be regarded as a preliminary step in understanding the current state of the art in global mental health training. Future studies might seek to summarize data from multiple sources, including web sites, structured questionnaires, and in-depth interviews so as to better understand how these programs have been established, funded, and administered and also to better understand the actual intensity of activity. Fourth, we did not assess the extent to which trainees from host institutions have reciprocal access to U.S.-based training opportunities (3, 26, 51). Examples of such programs are rare (21) but arguably more closely represent the ideal of bilateral exchange (51). Fifth, it was beyond the scope of our study to review global health programs in U.S. postgraduate psychiatric education or to review global health training opportunities sponsored by psychiatry residency programs in other high-income countries (21, 52).

Despite these limitations, this study represents a unique systematic survey of global health training opportunities in U.S. graduate psychiatric education. In summary, we found that there are relatively few global health training opportunities for psychiatry residents and that these are typically incorporated into an institution's general global health training opportunities. Systematic approaches to curriculum development and program evaluation would help to ensure that global health programs in U.S. graduate psychiatric education achieve their goals of increasing mental health care capacity and addressing the burden of disease due to mental and behavioral disorders worldwide.

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Implications for Educators

- Psychiatry trainees are increasingly interested in global mental health training opportunities.
- Only a small number of residency programs offer global mental health training opportunities.
- Systematic approaches to curriculum development and program evaluation should be implemented along with expansions in global mental health training.

Implications for Academic Leaders

- There are only a few global health training opportunities in U.S. graduate psychiatric education and their number should be increased.
- Most global health training activities occur within the context of institution-wide, externally administered initiatives rather than within departmental, internally administered initiatives specifically tailored for psychiatry residents.
- Little funding appears to be available to support global health-related activities, particularly those focused on program development or clinical care rather than research.

Table 1

Global Health Training Programs in U.S. Graduate Psychiatric Education

Program Name	Administration	Year(s) of Training	Funding	Representative Partner Sites
College of Medicine, Mayo Clinic (Rochester) Program	Mayo International Health Program, open to residents in all specialties	PGY 4	Travel stipend	Cameroon Kenya Malawi Nepal Tanzania
Duke University Hospital Program	Duke Global Health Residency/Fellowship Pathway, or field experience organized through the Duke Hubert-Yergan Center for Global Health	PGY 3 & 4	Tuition waiver for Master of Science coursework; travel stipend	Kenya New Zealand Shipprock, New Mexico Singapore Sri Lanka Tanzania
George Washington University Program	Departmental	PGY 4	None	Cambodia Jordan Liberia Nepal Palestine Sierra Leone South Africa
Indiana University School of Medicine Program	Indiana University Interdepartmental Residency Track in Global Health, open to residents in 8 specialties including psychiatry	PGY 4	None	Honduras Kenya Mexico
Massachusetts General Hospital/McLean Hospital Program	Departmental	PGY 3 & 4 †	Travel stipend, open to residents in all specialties on the basis of competitive internal review ‡	Ethiopia Liberia South Africa Uganda
Mount Sinai School of Medicine Program	Mount Sinai Global Health Residency Track, open to residents in 4 specialties including psychiatry	PGY 4	Travel stipend	Belize India Japan Liberia Saint Vincent and the Grenadines
New York Presbyterian Hospital (Cornell Campus) Program	Weill Cornell Bugando Program, open to residents in all specialties	PGY 4	Travel stipend	Tanzania
University of California (San Francisco) Program	Global Health Sciences Clinical Scholars Program, open to residents in all specialties	PGY 3 & 4 †	Travel stipend, open to residents in all specialties on the basis of competitive internal review ‡	Kenya Tanzania Uganda
University of Massachusetts Program ‡	Opportunities available through the Academic Model Providing Access to Healthcare Consortium, open to residents in all specialties	PGY 2 & 4	Travel stipend, open to residents in all specialties on the basis of competitive internal review	Kenya
Yale-New Haven Medical Center Program	Departmental	PGY 2, 3, & 4 †	Travel stipend ‡	Peru

⁷ The residency program offers a “research track” funded in part by an R25 Research Education Grant from the U.S. National Institutes of Health. For many residents interested in global mental health research, their program’s R25-funded research track serves as a source of the protected time and funding described in the table.

⁸ All UMMS residents are eligible to apply for the UMMS Global Health Scholars Program, which includes two years of coursework leading to a Masters of Science in Clinical Investigation degree and 1–2 months of global health fieldwork. UMMS has established partner sites in numerous countries. However, in the past decade, no psychiatry residents have enrolled in the program.