

Creating and evaluating an interprofessional faculty and student global health grant program

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Program/Project Purpose: The Center for Global Education Initiatives (CGEI) at the University of Maryland Baltimore (UMB) created an interprofessional faculty and student global health grant program in 2014 to support faculty-initiated global health projects that include students from more than one school on campus (law, medicine, pharmacy, dentistry, social work, nursing). The purpose of the grant program is to ensure that global health students in UMB's professional schools are taught the value and necessity of collaboration in global health practice and provided with sufficient opportunity to learn how to practice in a collaborative setting.

Structure/Method/Design: The goal of the grant program is to provide financial incentives and logistical support to stimulate faculty to design global health projects for an interprofessional team of students. Our desired outcome is a broad range of interprofessional experiential learning projects that successfully teach designated global health and interprofessional education (IPE) learning objectives. Faculty members from any UMB school can apply for a one-time award of \$10,000 to support a project that can be from 2-13 weeks in length. An interprofessional group of faculty review and select faculty awardees. CGEI staff then advertise the faculty projects and invite students from all UMB schools to apply to participate in a project. Selected students are awarded travel funds to support their participation. As part of the competitive application process, applicants are required to describe how their proposed project stimulates capacity building at the project site and/or if the proposed project is sustainable over time. The project teams are required to participate in 9-12 hours of pre-project IPE training in addition to any content requirements established by the faculty leader. Upon completion of the project, CGEI staff actively help awardees identify presentation, publication, and grant opportunities to share the results of the project and engage in additional research.

Outcomes & Evaluation: We surveyed the first group of awardees (nine faculty and 33 students) pre- and post-project. The survey included quantitative and qualitative measures. Preliminary survey results indicate robust support for the grant program among students and faculty and a significant increase in multiple survey measures relating to global health and IPE learning objectives. In addition, both faculty and student appreciation for an interprofessional approach to global health greatly increased. An initial broad conclusion is that the availability of small grant funds coupled with logistical support is a strong incentive for faculty to create interprofessional global health projects.

Going Forward: We plan to develop a validated survey tool that can evaluate the success of the grant program across the broad range of projects supported by the grant program. This will help determine which IPE training activities are most appropriate for interprofessional global health education.

Funding: no outside funding.

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Speech and language therapy education in low middle income countries: the what, the where and the who

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Program/Project Purpose: An estimated 225 million people in low- and middle-income countries live with communication and swallowing disorders as a result of cleft lip and palate, hearing loss, autism, stroke, neurological disease, acquired brain injury, cerebral palsy or atypical development. Speech and language therapy (also called speech language pathology or logopedics and phoniatrics) supports these children and adults to achieve their educational, employment and human potential.

Structure/Method/Design: This project is exploring the development and evolution of a Community of Practice of speech language therapy (SLT) educators in low- and middle-income countries and an analysis of the current state of SLT education is a necessary first step.

Outcomes & Evaluation: SLT education is decades old in India, South Africa and Jordan but is a relatively new phenomenon in most other low- and middle-income countries. This presentation will present a synthesis of the current state of university level SLT education in low- and middle- income countries: where the programs are located, whether training is graduate or undergraduate level, the presence of associations of SLTs in-country. Importantly, models of curriculum provision and pedagogy currently in use will be explored that address the challenge of providing university level SLT training. These challenges include the retention of trained speech language therapists in —country; reliance on Northern volunteer SLT educators; provision of clinical internships and practicums; parallel development of the training with job opportunities; the ubiquitous use of English to train language therapists who will practice in many other languages; “best’ or “evidence based’ practice in a resource poor context.

Going Forward: Finally the potential for co-creation of curriculum, shared lecture materials, collaborative policy/systemic impact and mutual learning from the successes and challenges among the university programs and educators in low- and middle-income countries will be explored. Situating university trained SLTs in the context of models of community based rehabilitation necessitates the exploration of options other than, or in addition to, university educated providers of communication and swallowing rehabilitation. This presentation sets the conversation for the current state of SLT education such that interconnections, mutual learning and an effective, collaborative future state can evolve. The challenges of effective education of SLTs has relevance to all professions that deal with the functional rehabilitation of disability in low- and middle- income countries, and the question of how to sustainability increase the presence of trained health care professionals.

Funding: Funding for this project comes from the Canadian charity, Transforming Faces which focuses on the treatment and management of persons with cleft lips and /or palates.

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Predictors of workforce retention among malawian nurse graduates from the GAIA nursing scholarship program: A mixed methods study

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Background: The World Health Organization estimates that only 1.3% of the global healthcare workforce resides in sub-Saharan Africa with a significant shortage among nurses. Understanding retention strategies in countries with critical shortages is key to increasing the workforce. Global AIDS Interfaith Alliance (GAIA; an international NGO) began a nursing scholarship program in Malawi that requires

graduates to work in the public sector following graduation. The program currently has a 97% success rate retaining nurses through their service agreement. The objective of this study was to identify job satisfaction and retention factors of scholarship recipients after graduation to evaluate the program, inform stakeholders, and advise future projects.

Methods: This was a mixed methods study consisting of qualitative interviews and quantitative surveys that evaluated job satisfaction, factors associated with retention and impact of the GAIA Nursing Scholarship Program. Participants included male and female graduated GAIA scholarship recipients working in the public sector across Malawi, with a representative convenience sample interviewed in person based on employer location. The survey was asked of all program graduates and completed by one-third of this population. We used thematic analysis to analyze qualitative interviews for themes on drivers of public sector retention. Kruskal-Wallis, Pearson correlation and chi-squared tests were used to analyze survey data. Participants signed an informed consent and the study was approved by the Committee on Human Research at the University of California, San Francisco (UCSF) and the College of Medicine Research and Ethics Committee in Malawi.

Findings: The study included 30 qualitative interview participants and 56 quantitative survey respondents. The majority of participants indicated they would like to stay in the public sector. Most cited unavailability of supplies, inadequate human resources and high workload as major challenges to their work. Those that indicated poor working relationships with management or coworkers were more likely to consider changing jobs. Low salaries, high workload, poor accommodations provided by public sector workplaces and a lack of appreciation were indicated as reasons nurses choose to leave the public sector. Participants felt supported by GAIA staff and expressed a desire to serve their communities by working in government supported health facilities.

Interpretation: There are non-remuneration strategies that low-income countries like Malawi can employ to retain nurses in the public sector. Adequate provision of human and material resources and proper accommodations can greatly improve job satisfaction and retention. Programs such as the GAIA scholarship program may also help increase retention by creating loyalty through careful follow up monitoring.

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Medical and nursing students' intentions to work abroad or in rural areas: An eight-country cross-sectional survey in Asia and Africa

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Background: Migration of medical and nursing graduates from rural to urban areas or overseas greatly threatens health improvements in low- and middle-income countries (LMIC). Despite escalating efforts to enhance graduate retention, little is known about student migration intentions in nations most burdened by this "brain drain." Our objective was to assess medical and nursing students' intentions to migrate abroad or practice in rural areas, and identify any predictors of migration intentions.

Methods: We surveyed first- and final-year medical and nursing students at 16 premier government institutions in eight countries with critical health worker shortages (Bangladesh, Ethiopia, India, Kenya, Malawi, Nepal, the United Republic of Tanzania and Zambia). The survey contained questions to identify factors that could predict students' intentions to migrate. Primary outcomes were likelihood within five years post-training: (1) to migrate for work outside the country, or (2) to work in a rural area in the country. We assessed 14 predictors of migration intentions using multivariable proportional odds models. The study was approved by ethics review committees in each country as well as at Vanderbilt University, and all respondents provided informed consent.

Findings: Of 3822 students enrolled in first- and final-year medical and nursing classes, 3199 (84%) completed the questionnaire. Among respondents, 28% (870/3156) expected to migrate abroad, while only 18% (575/3158) anticipated a rural career. More nursing than medical students desired professions abroad (odds ratio, OR: 1.76; 95% confidence interval, CI: 1.25–2.48). Career desires before matriculation correlated with current intentions for international (OR: 4.49; 95% CI: 3.21–6.29) and rural (OR: 4.84; 95% CI: 3.52–6.66) careers. Time spent in rural areas before matriculation predicted the preference for a rural career (20 versus 0 years: OR: 1.53, 95% CI: 1.19–1.98) and against work abroad (20 versus 0 years: OR: 0.69, 95% CI: 0.50–0.96).

Interpretation: A significant proportion of students surveyed still intend to work abroad or in cities after training. These intentions appear to be identifiable even before matriculation. Adapting admissions standards to account for years spent in rural areas or applicant career desires before matriculation could promote greater graduate retention in the country of training and in rural areas. Strengths of the study include its uniquely large size in terms of countries, institutions, and students evaluated; inclusion of multiple degree programs and class years; systematic institution selection criteria; and high response rate. Future longitudinal research should clarify the relation between student migration intentions and ultimate behavior, while also examining the role of graduate migration from public to private or administrative sectors.

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Effect of an educational intervention on occupational behaviors related to mercury use in artisanal small-scale gold mining communities

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