

# BUILDING EFFECTIVE GLOBAL HEALTH EDUCATION AND TRAINING PROGRAMS

## Sustainable community-based interventions in rural Mayan artisan groups in Guatemala

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**Background:** Our goal is to help develop sustainable programs that will enable indigenous female Mayan artisans to achieve better health outcomes, education, and group empowerment. By incorporating interventions that directly involve the women's input and experiences, lasting effects and increased cooperation can be accomplished.

**Structure/Method/Design:** The "pain away," "power to change," and "do it together" programs were implemented in two rural villages, Chipiacul and La Fe. Both villages, as well as 16 others work with a nongovernmental organization called Mercado Global (MG), using their skills to create fabric, purses, and other products to be sold in international markets. "Pain away" is an exercise program, intended to improve musculoskeletal complaints that many women identified was a concern. "Power to change" is an eight-step program developed by a multidisciplinary team to help the artisans recognize their ability to become change agents in their community and acquire problem-solving skills collectively. The "do it together" program is an interactive method of health education, conducted through first-aid scenarios that may have been encountered in their community. Educational material is reinforced and followed up continuously by community health workers and team members.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Mercado Global

**Summary/Conclusion:** The women were all highly engaged through all interventions. The "pain away" program was introduced first and practiced with the team members. All group members from each village joined, including their kids. Some did it with modifications due to physical limitations or insufficient understanding, and also while carrying toddlers. "Be the Change You Want to See" and "Prepare the Group," were the first two steps implemented from "power to change" program. Members from each group discussed why they had joined MG and identified economic investment in family, self-sustainability, and the desire for attaining an improved future as primary reasons. The second step was a team-building exercise involved in getting members to choose a group name to represent them. Both villages had very different approaches to what was important to them and how they wanted to be represented, which may be attributed to how long each of the villages had been part of MG and the economic and educational advantages that had been attained up to that point. In the "do it together" program, participants shared their usual management of common illnesses and injuries prior to us reviewing other ways to manage the problems. Participants were allowed to have hands-on experience and they were offered a period to review after each scenario. Many of the participants displayed a good foundation of basic first-aid skills toward the end of the session.

## Integration of critically appraised topics in the global health curriculum: A perspective from the University of Pittsburgh global health track

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**Background:** The use of clinical trials and comparative effectiveness research is the foundation of evidence-based medicine across the globe. However, there is a paucity of systematic reviews on which to guide clinical decision making in global settings where scarce resources may limit the availability of interventions that are standard of care in the developed world. Similarly, diseases that are common in developing countries may be rare enough in developed countries to lack established clinical guidelines. The use of critically appraised topics (CAT) may be an effective and practical way for residents and medical students to apply evidence in a meaningful way in low-resource settings.

**Structure/Method/Design:** 10 residents and medical students in a global health preparatory seminar at the University of Pittsburgh Medical Center were tasked with critically appraising a clinical question in a developing country or resource-limited setting. The questions were formulated into a format suitable for literature search (PICO). Residents and medical students then conducted a comprehensive electronic literature search and selected studies and papers that were clinically relevant. They were then able to apply a level of evidence to the retrieved literature and appropriate conclusions were drawn. Each CAT was evaluated for clinical relevancy, evidence sources and selection, synthesis of evidence, and clinical applicability. The resulting CATs can be found at [http://www.residency.dom.pitt.edu/Program\\_Overview/](http://www.residency.dom.pitt.edu/Program_Overview/).

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** UPMC St Margaret Family Medicine Faculty Development Fellowship

**Summary/Conclusion:** We found that residents and medical students were able to effectively apply the critically appraised topic methodology to clinical global health topics and were able to gauge the level of evidence and clinical applicability of their findings. Our residents predominantly chose treatment questions on which to base their CAT; topics included use of aspirin for stroke treatment in areas without cranial imaging, effectiveness of homemade metered-dose inhalers compared with nebulizers in treatment of acute asthma exacerbation, and the evidence for zinc therapy in the management of diarrhea. The CAT approach is an interactive method that can be effective in promoting the acquisition of literature-search and critical appraisal skills, both of which can foster the translation of evidence-based research into clinical scenarios in developing countries and serve as a valuable component of preservice training.

## Promoting cultural sensitivity and ethics in the next generation of physicians using interactive cases

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**Background:** Medical student and resident interest in global health continues to grow, and educational programs are responding by providing training experiences in global health. Although the 2010 Working Group on Ethics Guidelines for Global Health Training (WEIGHT) recommends pre-travel preparation for trainees, many programs have not incorporated this training into their programs. As

part of its pre-departure training program, the UCLA Global Health Education Program developed cases, corresponding to the 14 WEIGHT guidelines, to simulate professional and personal challenges faced in field-based global health electives.

**Structure/Method/Design:** During the pre-travel preparation session, trainees work through cases in small groups and reflect with faculty on domains of professionalism, practicing within one's training level, awareness of expertise, demonstrating help-seeking behaviors, cultural humility, sensitivity to diversity, and respect for patient privacy in the use of photography and social media. With faculty guidance, this case-based discussion frames the global health elective as an experience for students and trainees to further develop humanism and professionalism, in addition to the many biomedical and public health lessons that will be learned along the way.

The cases were refined and improved upon after pilot testing. A mixed-methods evaluation containing a 4-point Likert scale and open-ended questions was administered to medical students post-curriculum to assess the training. Seventy-four medical students were surveyed and 100% identified an increased sensitivity to differences arising in daily interactions inside and outside of the clinical setting, as a result of the pre-departure training. When asked an open-ended question about what they expect to do differently on their electives based on learning from the training, 65% referenced themes introduced through the pre-travel case curriculum. For example, one student commented "[I will] be more reflective when faced with a situation with possible ethical or cultural conflict."

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Not applicable

**Summary/Conclusion:** The use of interactive cases is an effective educational strategy for self-reflection, improved communication skills, and professionalism. Simulation of challenging scenarios can enhance knowledge, skills, and attitudes within a specific, less-familiar context to prepare students and trainees for international settings. This case-based curriculum is a reproducible pre-travel preparation tool for addressing and assessing competencies, in keeping with the WEIGHT recommendations for pre-travel preparation.

### **Building and sustaining a global educational partnership in nursing: Setting up for "success"**

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**Background:** Nurses have been involved in various strategies for strengthening nursing globally, including academic preparation of foreign nurses at academic institutions and support of institutional capacity building. Global partnerships are viewed as one strategy to support achieving the goal of health for all within all nations. The purpose of this research project was to explore how contextual features contribute to the success in building and sustaining a global educational partnership in nursing.

**Structure/Method/Design:** A qualitative methodological framework was used to guide the research process employing a case-study approach and participatory action research (PAR) to explore an established global partnership between two academic institutions in Ghana and Canada. Habermas and Foucault's theoretical and philosophical frameworks provided an awareness of the relevance that social and critical perspectives contribute to understanding the complexities of the development of global partnerships in nursing. The sample consisted of 31 Individual interviews and four focus groups with Ghanaian and Canadian participants

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Not applicable

**Summary/Conclusion:** A case study of a successful nursing education development project revealed important categories related to the beginning, maintenance, and sustainability of the initiative. Three major categories emerged: "Getting Started," "Keeping It Going," and "Following the Project." In addition, seven major themes arose: "Taking the opportunity," "Associating," "Committing," "Learning," "Accommodating" and "Sustaining." The findings related to the first category of "getting started" and how decisions made around communication, power sharing, and focus on capacity building contributed to the success of this project will be discussed. In conclusion, recommendations for the initiation of a nursing education project will be discussed.

### **Outcomes and collaborations among alumni of the NIH Fogarty International Clinical Research Program: Results from a 2013 impact evaluation**

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**Background:** The NIH Fogarty International Clinical Research Scholars and Fellows (FICRS-F) Program offered 1-year mentored clinical research training experiences in low- and middle-income countries (LMICs) for doctoral students and postdoctoral professionals in health-related professions from the U.S. and LMICs during 2004-2012. We conducted an impact evaluation among a representative sample of FICRS-F program alumni.

**Structure/Method/Design:** We used REDCap Survey™ to conduct an electronic survey of 100 FICRS-F alumni. A representative subset of all Fogarty participants (n = 536) was selected to maximize the response rate. The selection was weighted such that the combination of program and year should have a similar distribution to the entire program. The evaluation included questions on accomplishments, ongoing collaborations, career influences, continuing research, and interest in global health.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Not applicable

**Summary/Conclusion:** We achieved a response rate of 94%, with inputs from 38 U.S. and 34 international doctoral scholars and 15 U.S. and 7 international postdoctoral fellows who participated in the program. When queried about work derived directly from the training period, most participants had published one or more primary research papers and presented two or more posters; U.S. fellows had submitted a median (interquartile range) of 3 (1-5) grant proposals. In total, accomplishments derived directly from work done among 94 FICRS-F participants during their training period included 207 primary research papers, 14 book chapters, 52 review articles, 32 other publications (e.g., letters, editorials, commentaries, book reviews), 215 posters, 117 grant proposals, 30 US government-funded grant awards, and 49 non-US government-funded grant awards. Among 117 grant proposals, 79 were funded (estimated 67.5% success rate). Accomplishments that may be linked directly to the FICRS-F experience are numerous and will likely increase as alumni continue to publish and write grant proposals.

Among U.S. scholars and fellows, respectively 47% and 80% returned to the training site after the training period. Overall, respondents continue to collaborate with US-based mentors (n = 59;