

continuous improvements to the MSGH coursework and program design, and to describe the desired student characteristics for admission into graduate degree programs in global health.

Methods: This study examines survey responses from students matriculated in the MSGH program between 2014 and 2015. All active students were invited to complete an online self-assessment with questions related to their global health experience, skills and career goals. Free-text responses were hand-coded using 10 categorical variables. These categories were developed through an inductive process.

Findings: Previous data revealed that students admitted to the MSGH program during this first year were 78% female, with an average age of 36. 57% were working in health science and 11% in government or public administration. Survey text responses from active students during the same time period provide additional information on their backgrounds and goals. Students' previous global health experiences fell overwhelmingly in the medicine and mission/volunteer categories, 45% and 50% respectively. Responses indicating the desired area of future work were spread more evenly across the categories. All professional categories, excluding volunteer and mission work, were represented in at least 2 text responses. The highest response rates were in the categories of medicine and government and policy, 30% and 25% respectively.

Interpretation: The diversity of industries represented by students admitted to the program underscores the interprofessional nature of the field and the workforce. This diversity is encouraging and necessitates pedagogical techniques that can appeal to a wide array of students, including a majority female population. Findings also suggest that career advising will need to adapt to market demands, prioritizing program management in the non-profit/governmental sectors.

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Development of a Global Health Milestones Tool for Emergency Medicine Trainees: A Pilot Project

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Program/Project Purpose: In Graduate Medical Education, increasing numbers of both institutions and learners are participating in global health experiences. Within the context of outcomes-based, competency linked education and assessment methodologies, a standardized assessment tool may prove valuable to all stakeholders. Milestones are now used as the standard for trainee assessment across many specialties in Graduate Medical Education, thus, the development of a similar tool for Global Health was undertaken with learners in Emergency Medicine in mind.

Structure/Method/Design: With inspiration stemming from the Interprofessional Global Health Competencies published by the CUGH Global Health Competency Subcommittee, a group of global health educators with expertise and experience in global

emergency care convened to develop an assessment tool. The expert consensus group was divided into teams to develop individual milestones based on the 11 stated domains, and an iterative review process was implemented.

Outcome & Evaluation: Milestones were developed in each of the 11 domains, with five levels of competency for each domain. Specific resources and suggested evaluation methodologies were identified for each level within each domain. The Global Health EM Milestones Tool is designed for continuous usage by learners and mentors across a career in global health and emergency care.

Going Forward: This Global Health Milestones tool may prove valuable to numerous stakeholders. Next steps include a formalized pilot program for efficacy across programs and stakeholders, accompanied by evaluation of the same.

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Health Worker Text-messaging for Training, Peer Support, and Mentoring in Pediatric and Adolescent HIV/AIDS Care: Lessons Learned in Zimbabwe

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Program/Project Purpose: Global 90-90-90 targets necessitate strengthening HIV related counseling services among children, adolescents and their families. Innovative, cost-effective approaches are needed, as Zimbabwe's resources for training and mentoring are limited. Blended learning incorporates electronic media and discussion groups using the mobile phone text messaging application, WhatsApp. This study assessed the use of the text-messaging component of the program, to build skills, knowledge and confidence of primary counsellors to care for children and adolescents with HIV.

Structure/Method/Design: Forty-three health care workers completed the blended learning course "HIV Testing Services for Children and Adolescents" between August–October 2016. Participants used *WhatsApp* as a forum for peer-to-peer learning and support. Two evaluators reviewed the messaging activity and entries. At the end of five weeks, two follow-up discussions were conducted to assess lessons learned.

Outcome & Evaluation: Participants strongly endorsed using *WhatsApp* groups as part of the training. They generated over 300 entries and continued discussions after all course assignments were complete. Communication categories tracked included greetings and social contacts, inquiries, comments, and responses about course assignments, participants' own case consultations, feedback, and encouragement. Case discussions were complex, including patient history, symptoms, medications, and psychosocial issues - child abuse, adherence, and disclosure. Two "spin-off" text messaging

groups emerged from this experience, including a *WhatsApp* support group for teens.

Going Forward: Lessons learned include: 1) Provide orientation in advance of initiating groups; 2) Include guidance on discussion group norms for entries, language, cases, and feedback; 3) Assign a moderator to guide the following of norms; 4) Complete one case before moving to the next. The highly positive results of this assessment indicate that text messaging discussion groups can be an effective adjunct to training courses for health workers, and in low resource settings are a low-cost platform for building health care worker competence and enhancing care.

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A Novel Paradigm for Short-Term Medical Teams

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Program/Project Purpose: Short-term medical aid trips have been criticized in the past for their inability to provide follow-up care, for their inability to address root causes of disease, and because they may detract from local economies. However, these types of trips are growing in popularity. Mobile electronic medical records systems have enabled these teams to collect patient-level data, even in areas with limited access to the Internet and electricity. By sharing this data with local healthcare providers, we can begin to improve the continuity of care provided to those who may rely on foreign aid as their primary mode of healthcare.

Structure/Method/Design: In the village of Morne l'Hopital, Haiti, there are 2-4 American teams who volunteer once per year for one week at a time. They use fEMR, an electronic medical records system designed for use in remote locations without IT personnel in the field. This system will flag patient records of those who are pregnant, and send email notification to a local nonprofit hospital. The hospital can then dictate whether the patient should come to the hospital, if the hospital should send an outreach team to their village, or if the next American team should provide the next point of care. This is a unique dynamic between providers from a variety of institutions, but ultimately putting authority into the hands of in-country physicians.

Outcome & Evaluation: We can measure number of women who deliver in a health care setting, and number of women who were monitored at each trimester of pregnancy.

Going Forward: This paradigm may be applied to other areas of primary care and to other geographic locations.

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Exploring the Implementation of Clubfoot Treatment Services in Malawi Using Extended Normalization Process Theory: An Ethnographic Study

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Background: Annually in Malawi around 800 children are born with clubfoot, where one or both feet are twisted inwards. If untreated, this limits participation in everyday life. Clubfoot may be treated using staged manipulation. This method has been adopted as the national standard and is delivered in 29 regional clinics. Implementing these services is challenging. Extended Normalization Process Theory (eNPT) specifies four constructs that may impact on service implementation: capacity, potential, capability and contribution. This study uses ethnographic methods to explore how clubfoot services can be successfully implemented, using eNPT to illuminate findings.

Methods: Six observation sessions of 4-5 hours each were undertaken at Beit/CURE Hospital and two outreach clinics. Findings were used to inform 61 semi-structured interviews with professionals working at these and a further nine clinics. Follow-up interviews were then undertaken with clinic coordinators. Four interviews were conducted with professionals responsible for managing public health services to provide an understanding of the wider healthcare system.

Data were analysed using an inductive thematic analysis. An abductive approach was undertaken whereby inductive codes were transposed onto the constructs of eNPT. Codes that did not fit within the theory were integrated into an additional theoretical category.

Findings: Capacity or co-ordination between healthcare professionals was effective. This included cooperation with primary care and participants felt most health workers could successfully identify and refer patients. There was a desire for a closer working relationship with Beit/CURE. Motivation to enact the intervention varied and was influenced by contextual factors inherent in the healthcare system. Many professionals were committed to delivering and providing services, but some faced challenges in doing so. Implementation was also affected by staffing levels, resources and availability space. Contributions to service delivery were facilitated by proformas and monitoring systems to improve practice, although participants suggested improvements to both. A fifth construct was identified concerning strategies to facilitate patient access, including arranging patient transport and following up those that had absconded from treatment.

Interpretation: Findings identify and describe elements that impact on the successful implementation of clubfoot treatment services in Malawi. It is hoped this will inform future service development in Malawi and other low income country settings.

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