

a global health workshop as a means of teaching multifaceted issues of tropical diseases and health issues associated with climate change.

Structure/Method/Design: Simulation topics have historically been based on the global health principles of disease management, cultural humility, interdisciplinary collaboration, ethics, and socio-cultural issues. This case study provides insight into how the potential applications of simulations and workshops on global health issues can be widely adapted to educational programs.

Outcome & Evaluation: Feedback was obtained regarding simulations focused on NTDs. Participants reported that these simulations improved their medical knowledge of NTDs, interpersonal communication skills, critical thinking skills, and cultural humility.

Going Forward: Overall, these simulations are low-budget effective tools to supplement global health education. They can easily be adapted for use in conferences, health professional education, and patient advocacy, making them relevant for training in a wide variety of settings.

Source of Funding: None.

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Applying Interprofessional Global Health Principles to a Local Student-Run Free Clinic to Address the Health Care Needs in Apopka, Florida

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Program/Project Purpose: In July 2016, the University of Central Florida College of Medicine's global health organization, MedPACT, in collaboration with the Farmworker Association of Florida initiated a local clinic for an underserved community in Apopka, Florida. Our community need assessment identified healthcare obstacles that patients faced including transportation difficulty, scheduling conflicts, and language barriers. 30.5% of patients had not seen a doctor in more than 1 year, with some reporting up to 20 years gap between doctor visits. Global health principles obtained from previous Dominican Republic (DR) medical service trips were applied to our local population.

Structure/Method/Design: 183 patients were served over two days by 120 providers, including faculty and students from UCF Colleges of Medicine, Nursing, Social Work, and Physical Therapy, UF College of Pharmacy, and volunteer physicians. The breadth of services provided included internal medicine, rheumatology, dermatology, occupational health, obstetrics, gynecology, ophthalmology, pediatrics, physical therapy, pharmacy, and social work.

An open-source health records system was adapted for Apopka, allowing users to edit forms and concepts, and implement in areas with no Internet connectivity. This allowed us to keep records of all patients and establish better continuity of care.

Outcome & Evaluation: Barriers to healthcare were strikingly similar between the DR and Apopka service trips. Both populations spoke predominantly Spanish and Creole, allowing students opportunities to confront language barriers and improve cultural humility

skills. A distinctive advantage of the local clinic is the ability to provide consistent continuity of care. In Apopka, providers were able to prescribe medications, refer patients to KNIGHTS Clinic, and provide social services which was not possible in the DR.

This interprofessional event allowed students to gain mentorship and first-hand exposure to clinical care in underserved populations as part of their professional development. Interdisciplinary teams were challenged to work together and combine their unique strengths towards addressing each patient's overall needs.

Going Forward: Sustaining this clinic on a quarterly basis will allow for a continuous network of care and utilization of social programs and establish a paradigm integrating healthcare with inter-professionalism, education, and research that can be applied to other local and global student-run free clinics.

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Traffic-related Air Pollution and Parent-reported Behavioral Problems in Low Income School Children in Quito, Ecuador

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Program/Project Purpose: Long-term exposures to traffic-related air pollutants are associated with chronic health conditions including cancer, cardiovascular, and respiratory outcomes as evident in epidemiological literature. Limited information from mechanistic and epidemiological studies indicate that air pollution may also affect the nervous system leading to mental and behavioral problems in vulnerable populations. We used an established cohort in the Quito Metropolitan District (QMD) consisting of children living in low, medium, and high PM_{2.5} exposure zones to explore the relationship of traffic-related air pollution with behavioral problems reported by mothers in late childhood.

Structure/Method/Design: We leveraged the infrastructure of an ongoing prospective study on air pollution and cardiorespiratory outcomes in low-income communities in Quito to recruit 174 mother-children pairs during the summer of 2016. Here we present the preliminary data gathered from mothers of low (Alangasi; n=64), medium (Cotocollao; n=60), and high (El Camal; n=50) PM_{2.5} exposure zones via interview using the Spanish-version of Child Behavior Checklist (CBCL).

Outcome & Evaluation: Children from the three exposure zones did not differ significantly on most of the sociodemographic characteristics except, children from El Camal were significantly older and had lower frequency of home ownership. Reliability analysis of the CBCL subscales indicated that both externalizing and internalizing subscales had high Cronbach's alpha values (0.84 and 0.83 respectively). Attention, social, and thought problem subscales indicated high to moderate reliability (Cronbach's alpha values 0.81, 0.66, 0.60 respectively). The internalizing behavior score was positively

correlated with externalizing behavior score ($r = 0.61$; $p < 0.001$). Children from the high pollution zone (El Camal) demonstrated higher behavior scores (i.e. more behavioral problems) than the two other comparison groups for internalizing, externalizing, attention, social, and thought problems.

Going Forward: The subscales of the Spanish version of CBCL demonstrated good to excellent reliability in the current population. From a global environmental health point of view, our initial findings served as an indication of concern for countries where millions

of children exposed to high levels of traffic-related pollutants may be at risk of behavioral problems. Additional analyses are in progress to examine the associations after accounting for sociodemographic covariates.

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