

CLOSING THE KNOW-DO GAP: IMPLEMENTATION, PROGRAM, AND DELIVERY SCIENCE IN GLOBAL HEALTH

Evaluation of a village-level safe water treatment and storage intervention in Bassi Pathana, India

R. Bick¹, S.L. Talboys², J. Vanderslice², K. Stringer²; ¹University of Utah, Salt Lake City, UT/US, ²University of Utah, Department of Family and Preventive Medicine, Division of Public Health, Salt Lake City, UT/US

Background: Efforts to implement village-level water, sanitation, and hygiene (WaSH) projects often suffer challenges related to appropriate technology, local availability of supplies, and sufficient training and equipping of the implementation team. This study highlights lessons learned from a safe drinking water treatment and storage project undertaken through a community-based participatory research collaboration in rural Punjab, India. Partners include a community-based organization, nine villages, and both a U.S. and Indian public health academic program. A safe water treatment and storage pilot project was initiated in four of the nine villages in Spring 2013. Three project activities were evaluated including the installation of custom-made containers in 180 homes with a piped water supply, the identification of stand-alone and affordable drinking water containers for low-income households without a tap, and point-of-use chlorine treatment and awareness.

Structure/Method/Design: Sixty-seven of the custom-made containers were evaluated for technical merits using a checklist. A questionnaire was developed to assess user satisfaction. Market research was conducted to assess container preferences, availability, and affordability for families without a tap. Last, point-of-use chlorine treatment awareness was assessed for all types of containers.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Mehar Baba Charitable Trust, Post Graduate Institute
Summary/Conclusion: Community demand for a safer and more convenient way to store water was evident. Performance of the custom containers was mixed and design and implementation problems included nonsealing lids, leaky spouts, difficult to clean, and proper placement. An external problem included low water pressure resulting in low flow and difficulty in tracking flow, which is required for proper chlorination. Appropriate stand-alone containers were identified in the local market for 250 to 650 rupees. Willingness to chlorinate was high and “keeping children healthy” was an effective educational message. Chlorine tablets were only available in bulk, making it difficult to procure for home use. The team repackaged chlorine tablets for more effective household distribution. Educational materials for point-of-use chlorination were also developed. New water container designs should be fully vetted before widespread implementation, demand for WaSH is increasing due to promotional efforts, and a new way to treat drinking water with chlorine is more acceptable than previously thought.

Global clinical immersion for primary care training: Learning from the global community

A. Bigelow¹, N. Singha-Dong², M. Pardee³, A. Villarruel¹, L. Davis¹, K. Potempa³; ¹University of Michigan, Nursing, Ann Arbor, MI/US, ²SUT, Nakhon Ratchisima/TH, ³University of Michigan, Ann Arbor, MI/US

Background: The growing global emphasis on noncommunicable disease prevention along with the opportunity to learn primary health

care methods from diverse areas of the world, initiated the development of a global clinical immersion experience in the primary care nurse practitioner programs at the University of Michigan School of Nursing (UMSN). A pilot clinical immersion program in Nakhon Ratchisima, Thailand for nurse practitioner students to “give and learn” from Thailand’s primary health care system while also demonstrating noncommunicable disease prevention in a country grappling with the rapid rise of these diseases.

Structure/Method/Design: The students and faculty spent 2 weeks working in two local health care clinics managed by the Provincial Health Office. Prior to arrival in Thailand, students were surveyed relative to self-perceived cultural competence and self-efficacy. Once in Thailand, each student was coupled with a nursing student from Suranaree University of Technology (SUT). At the clinical site, the couplet worked together to provide acute and primary care to local villagers in the morning. In the afternoon, the groups would travel the village doing community assessment, home visits, and educational programs. On-site clinical conferences consisted of formal community rounds, clinical case review, and review of community-specific epidemiology. Additionally, faculty and students from UM had daily debriefing sessions and two other formal clinical conferences. During the clinical immersion, students blogged about their experiences to share their observations and clinical interactions with other nursing students in the United States and Thailand. Upon completion, the students completed retrospective pre- and post-surveys to evaluate their perception of the influence of socio-cultural factors on health care.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Oversight, direction, and clinical preceptorship was provided by a local nurse practitioner, an SUT faculty member, and a UM faculty member at each site.

Summary/Conclusion: Students and faculty from SUT and UMSN found the experience valuable and unique. UMSN students not only appreciated the sociocultural influence on health care administration and delivery, they underscored several influencing factors that cross cultures and countries: poverty, mental illness, and health literacy. The purpose of this presentation is to discuss the implementation of a global clinical experience, student perceptions/data, and strategies for sustainability.

Process improvement: A valuable tool for health-system strengthening in developing countries

A. Caldwell¹, I. Elliott¹, P. Konadu², D. Awariyah², V. Ativor²; ¹UCSF Institute for Global Orthopaedics & Traumatology, Department of Orthopaedic Surgery, San Francisco, CA/US, ²Komfo Anokye Teaching Hospital, Trauma Orthopaedics, Kumasi/GH

Background: The burden of orthopaedic trauma at the Komfo Anokye Teaching Hospital in Kumasi, Ghana is significant. Compounding this burden are barriers to getting patients in and through the operating theatre. These barriers are a contributor to infection rates for open fractures by limiting the ability to conduct serial irrigation and debridement as well as delayed primary closures. In collaboration with the Institute for Global Orthopaedics and Traumatology, a process improvement approach, typically used in manufacturing and business, was applied to map out the operating