

HEALTH SYSTEMS AND HUMAN RESOURCES

Initiating Kangaroo Mother Care in Facilities in Limited Resource Settings

A. Misra; John Snow India, New Delhi, India

Program/Project Purpose: Taking a cue from the Global Every Newborn Action Plan, India launched the India Newborn Action Plan (INAP) in September 2014. INAP is being implemented within the National Health Mission of the Government of India (GOI). Majority (80%) of mortality among newborns occurs among low birth weight and preterm newborns together constituting 'small newborns'. Recognizing this fact, care of small and sick newborn is one of the core pillars of INAP.

Evidence shows that KMC is a simple and low resource intervention that leads to decrease in duration of stay in Sick Newborn Units (SNCU), increased breastfeeding, decreased infections etc. Though the intervention is simple, it needs substantial change in attitude of nurses and doctors working in SNCU, improved knowledge and skills and infrastructure to provide effective KMC. To address these issues, GOI released KMC guidelines in September 2014, for dissemination across the country. However, in several northern states the guidelines have not taken effect.

Structure/Method/Design: The USAID supported Vriddhi Project, works in six large States of the country and is a consortium of two partners IPE-Global and John Snow, Inc. (JSI) Under the project, JSI has been mandated to set up working models in two rural, poor performing districts (Gumla in Jharkhand and Haridwar in Uttarakhand) to demonstrate rapid scale-up of newer child health interventions of GOI – Facility-based Kangaroo Mother Care (KMC), Injection Gentamicin to newborns by Auxilliary Nurse Midwives (ANMs) and Home Based Newborn Care (HBNC).

As part of the care of small and sick newborns package, JSI took up the mandate to establish KMC in two SNCUs located at district headquarters as demonstration models. At these sites, all staff have undergone training in KMC and Infant Feeding. The Project also facilitates logistics, supportive supervision, data recording and reporting.

Outcome & Evaluation: Activities to roll out KMC were initiated in May 2015 and learnings are being documented.

Going Forward: The demonstration of successful implementation of KMC in these resource limited settings will set the stage for scale up of the activities across the State and country. Experiences will be ready for sharing by March 2017.

Source of Funding: The Project is funded by USAID.

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Global Abroad Experiences and its Impact on Career Trajectories of Osteopathic Medical Students: A Retroactive Longitudinal Study

M.I. Modayil, G.H. Ice; Ohio University, Athens, OH, USA

Program/Project Purpose: Ohio University is located in the poorest counties and education and retention of primary care physicians to work in underserved regions of Ohio is an essential mission of the osteopathic college. Although a concern that providing global health experiences (GHE) may take students away from this mission exists, exposure to GHE provides an opportunity to develop cultural humility and work in diverse communities. Literature indicate that medical students who are exposed to GHE during their education develop a keener insight into differential diagnosis, conduct comprehensive physical exams that rely less on technological and invasive testing, work collaboratively in interdisciplinary health teams, and develop a greater understanding of the interaction between health, diseases, and its determinants (Drain et al., 2007; Edmonds, 2012; Kelleher, 2013; Mkandawire-Valhmu & Doering, 2012; Nilsson et al., 2014). The objective of this project was to determine the relationship between GHE and future practice of graduates with underserved populations.

Structure/Method/Design: A longitudinal analysis of student participation in abroad experiences and area of employment after graduation between the years 1999 and 2015 was conducted. Participation in GHE opportunities ranged from a variety of global abroad opportunities including independent rotations, faculty-led experiences, and experiences through third-party providers.

Outcome & Evaluation: Results revealed that students with GHE (61.8%) were more likely to practice in primary care in underserved settings versus students that did not participate during their medical coursework (53.8%), $\chi^2 = 4.36$, $p < .05$. It was also noted that students that participated in GHE sought employment in health professional shortage areas (HPSAs), 15.9% (versus 13.4% had no GHE but practiced in these areas). Students with GHE (49.2%) were more likely to work in medically underserved areas (MUA) in contrast to those that did not have GHE (37.8%), $\chi^2 = 8.55$, $p < .05$.

Going Forward: These results support previous literature suggesting GHE support a mission of working with underserved populations. Students who participate in GHE may have already been oriented toward primary care with the underserved but GHE may act as a reinforcing experience. Further, if GHE opportunities serve to attract students oriented to primary care, they can serve as a recruitment tool for primary care programs.

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University of Arizona, University of Cuenca and The Cinterandes Foundation: A New Global Health Collaboration in Ecuador

F.E. Mora¹, R. Pust², G. Pritchard³, P. Gordon³, B. Vega⁴, E. Rodas⁵, F. Moreno³; ¹University of Arizona, Tucson, Arizona, USA, ²U. of Arizona College of Medicine, Tucson, Arizona, AZ, USA, ³University

of Arizona, Tucson, USA, ⁴University of Cuenca, Cuenca, Ecuador, ⁵Cinterandes Foundation, Cuenca, Ecuador

Background: Global Health is an important component of the University of Arizona's curriculum. International collaboration and exposure to global health is vital to develop resident's and student's skills, to improve multicultural and linguistic experiences and to integrate opportunities for new academic collaboration and research development. We describe the initial results of an international collaborative program which aims to enhance academic development and capacity building efforts across organizations.

Methods: In 2015, the University of Arizona (UA) signed an international memorandum of understanding (IMOU) with the University of Cuenca (UC) and a letter of understanding with the Cinterandes Foundation - a NGO that serves underserved communities in Ecuador through a mobile program. These agreements endorsed clinical, research, community outreach, and intercultural exchange opportunities. In 2015, a short-term exchange program for students, residents and faculty began. Participants enrolled in the program during its inaugural year were surveyed on their experiences using a scale 1 (Not at all) to 5 (Very well) to measure the success of the program in meeting educational objectives. Work teams were created to develop other specific elements of this innovative program.

Findings: A total of ten residents and students participated in the program during the last year. Clinical, community involvement, public health and cultural experience were rated 4/5, specific goals of participants were also measure and included language learning 4/5, social experience 3/5 and multi-specialty learning 5/5. Cost was also analyzed. The institutions work teams as well agreed on various educational activities which included: A faculty development course, a workshop on postpartum hemorrhage management for faculty, residents, and nursing staff of UC, and multiple virtual sessions on key clinical and research topics via live video conference. This activities will be administrated at UC during 2017.

Interpretation: Inter-institutional collaborative efforts enhance academic development and help build capacity when specific institutional objectives are targeted. Despite being in the early stages of development and implementation, this program is already proving to be an efficient and cost-effective way to enhance international collaboration and advance Global Health education.

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Residency Building From Your Home Office: Effectiveness of Videoconference Based Tele-education for Emergency Medicine Residents and Providers in Vietnam

M.H. Morgan; University of Utah Hospital, Salt Lake City, Utah, USA

Background: Emergency Medicine (EM) was recognized as a specialty in the United States in 1979, and has spread globally. There remain many areas of the world where EM remains non-existent or underdeveloped. The country of Vietnam recognized EM as a specialty in 2012, but progress has been slow and physicians are working to establish and promote the specialty. One particular

continued area of need is the creation and support of resident training programs.

Methods: A novel approach of collaborative curriculum development and videoconference based tele-education was developed and implemented. The EM leadership of University Medical Center (UMC) and Cho Ray (CR) hospitals in Saigon, Vietnam collaborated with the University of Utah Division of EM to develop a year-long curriculum of high-yield topics in EM, Trauma Care, and Critical Care. This curriculum was delivered via bi-monthly videoconference lectures to trainees and attending physicians in Saigon, Vietnam. The curriculum was divided into modules, and effectiveness of the educational intervention was assessed through pre- and post-tests administered for each module with mean scores calculated for each module. Improvement in scores was considered evidence of efficacy. A longitudinal study was developed to track progress over a 12-month period.

Findings: Each course attendee was asked to complete pre module questions prior to their attendance at bi monthly lectures and then again at the conclusion of modules. After compiling scores and calculating mean scores for each module, evidence of efficacy of educational intervention was assumed if mean scores improved. Initial results suggest that the interactive videoconference format is effective at delivering education to this target population.

Interpretation: Web-based education has been utilized in a variety of settings, but there exists a paucity of literature to support its use in Global Health. The process of collaborative curriculum development and content delivery via videoconference can be an effective and feasible model for education in areas that are attempting to develop and sustain medical training in emerging specialties. Advantages of this model of education include decreased costs, increased accessibility, greater involvement and decreased time commitments. Further study is required to assess knowledge retention at greater time intervals, however our data suggests short term knowledge acquisition is effective using this educational format.

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Improving Anatomic Pathology in Sub-Saharan Africa to Support Cancer Care

S. Ayers¹, D. Berney², A. Eslan³, J. Guarner⁴, S. Lester⁵, R. Masia⁶, Z. Moloo⁷, S. Sayed⁷, J. Stall⁶, M. Wilson³; ¹African Strategies for Advancing Pathology, Denver, Colorado, USA, ²Royal London Hospital, London, United Kingdom, ³African Strategies for Advancing Pathology, Denver, CO, USA, ⁴Emory Healthcare, Atlanta, GA, USA, ⁵Brigham and Women's Hospital, Boston, MA, USA, ⁶Massachusetts General Hospital, Boston, MA, USA, ⁷Aga Khan University Hospital, Nairobi, Kenya

Background: This project focused on determining the best training approach to improve the ability of anatomic pathologists in East, Central and Southern Africa (ECSA) to perform staging of four common cancers. It was approached as a partnership among organizations in ECSA and the US. It involves three 2.5-day workshops that included 46 pathologists from thirteen institutions across eleven ECSA countries. Three different approaches to training were