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Leadership and Communication for EMTs in India: Bringing Calm to the Chaos

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Program/Project Purpose: Emergency medical technicians (EMTs) in low and middle income countries with relatively nascent emergency medical services and pre-hospital care systems face unique challenges. In India, the highly dense population draws large crowds to field calls, and the unfamiliarity with EMTs and pre-hospital medical care often leads to chaotic scenes that interfere with patient care. These calls require skilled crowd control and clear communication with the patient, family, and bystanders. Further, most EMT care in India is directed by physicians at a centralized call center, yet EMT-to-physician communication varies in quality due to disorganized structure and incomplete content during consultations and handoff, compromising patient care and safety.

Structure/Method/Design: The author is conducting a needs assessment for leadership and communication skills for EMTs in India. The assessment runs from September 2016 to October 2016 via interviews with EMTs and administration, attendance of ambulance ride-alongs, and a survey interview of EMTs on field runs. A formal two-day training course on leadership and communication for basic EMTs in India is being developed based on this assessment and will be piloted in January 2017. It will address aspects of communication between the EMT and their patients, the emergency response consulting physicians, the hospital physicians, and the local press. Further, it will break down areas of leadership indispensable to a strong EMT, including empathy, professionalism, altruism, technical skill, and crowd control. The EMTs have little-to-no exposure to such “soft skills,” so the course will be designed in conjunction with our Indian colleagues, to be delivered in a culturally sensitive manner in order to be well received. After revising the final content of the course, a formal train-the-trainers course will follow in April 2017, which will lead to the dissemination of the course nation-wide to their 20,000 EMTs.

Outcome & Evaluation: As this program is still under development, the final presentation is anticipated to reflect the results from the needs assessment, review research on leadership education for paramedics, and include the outcomes from the pilot and the final curriculum developed.

Going Forward: This course will be the first of its kind to be widely distributed in India and will become the standard course for paramedic leadership and communication training.

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Crossing Boundaries: Health, Illness, and Palliative Care for a Rapidly Aging Population in China

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Background: As a result of rapid economic development, better basic health care and the “One-Child Policy”, China will face a rapidly growing aging population. It is estimated that the percentage of people aged 65 and older will grow exponentially from 9% in 2010 to 25% by 2030. However, the traditional care model, where the sons take care of their parents, will no longer be sustainable given the country’s “inverted pyramid” population profile. Currently, China lacks the foundation, structure, laws, finance, and number of professional caregivers, in both government and private sectors, to meet the increasing demand for elderly care.

Methods: This project looks at the current state of elderly care, identifies problems in the system, and proposes grassroots strategies to mediate the potential burden. A literature review on the burden of non-communicable diseases in China was conducted. Systematic surveys on common practices in medical ethical situations, such as patient informed consent in oncology, were obtained and analyzed. Primary interviews of patients, family members, healthcare providers of Modern Allopathic Medicine and Traditional Chinese Medicine, government experts on health system design and implementation were conducted during a field trip. The end product of the research is a documentary film which follows how a family navigates through the long-term care of an elderly patient with late-stage cancer.

Findings: The burden of non-communicable diseases, especially lung cancer, is rapidly increasing in both rural and urban settings in both genders in China over the last 5 years. Patients’ view on cancer may not match the scientific understanding of the diseases due to cultural interpretations of disease and health state, skepticism on the existing healthcare system, and misinformation on disease, treatment and outcomes of various cancers.

Traditional Chinese Medicine can also serve as a niche for both preventive care and palliative care in China. The majority of patients and doctors believe there’s insufficient integration of the two system to provide holistic care for patients with chronic diseases.

Interpretation: Research results serve as evidence for developing culturally appropriate frameworks and initiating grassroots movement to encourage the generation of the “single child” to discuss with their parents, and recognize challenges and expectations in caring for the future elderly population.

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Methodological Comparisons in Assessing Neurosurgical Capacity in Uganda

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Background: An estimated 19.2% of the world's disability adjusted life years are attributed to conditions that require surgical intervention. Despite this great burden of surgical conditions, nine out of ten people cannot access basic surgical care in low-middle-income countries (LMIC). While there has been a recent surge in support for increasing capacity and access to surgery, there is a still gap in knowledge on the capacity for surgical sub-specialties. This study examined the neurosurgical capacity of public hospitals in Uganda.

Methods: To gauge Neurosurgical capacity, Mulago, Mbarara, and Gulu Referral Hospitals were quantitatively assessed using an adapted version of the Surgeons Overseas Personnel, Infrastructure, Procedures, Equipment, and Supplies (PIPES) tool. In addition, a qualitative assessment was conducted among medical staff at the study sites using a novel questionnaire about neurosurgical needs and assets. This assessment captured key staff perspectives from the administration, neurosurgery, general surgery, intensive care, trauma, anesthesia, oncology, etc. The results from these two methods were subsequently compared for agreements and disagreements in needs.

Findings: Each hospital demonstrated a unique set of needs and assets related to neurosurgery. However, at the individual hospital sites, the quantitative results did not uniformly agree with the qualitative interview results. Needs were reported in several areas such as critical care during the qualitative interviews, while these same elements were noted as available or sufficient during the quantitative survey. Within the same site, differences were also observed in respondent answers to the quantitative survey; such as whether or not surgical drills were available.

Interpretation: The varying results between the methodologies demonstrated the strengths and weaknesses of each method. The quantitative methods are quick and powerful for assessing the surgical capacity of a region or large number of hospitals, and making generalizable conclusions of regional surgical capacity. However there may be subjectivity on the behalf of survey respondents, leading to less accurate conclusions about surgical needs at specific sites. The qualitative interviews gathered site-specific detailed information about needs and assets, but were time consuming. The results are less generalizable than the quantitative tool since the interview guide was tailored to the local context.

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Sustaining Global Health Research Collaboration in Ukraine through Support of an In-county Data Management Center

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Background: The University of Illinois at Chicago (UIC) has been continuously engaged in NIH-funded research on health issues in Ukraine since 1992. Our in-country research and training programs were carried out in large part by the UIC Louise Hamilton Data Management Center (LHDMC). The creation and operation of this Center faced many challenges but resulted in the capacity to obtain and conduct over 13 externally funded research and 3 training capacity building programs.

Methods: A mixed methods assessment that includes quantitative analysis of funding, publications, and academic exchanges and qualitative interviews with key informants.

Findings: The LHDMC was established with the technical support and guidance of Louise Hamilton from the University of Bristol, the first director, who trained the first cadre of Ukrainian researchers in state-of-the-art data management processes and epidemiologic field research methods. The LHDMC was also instrumental in creating the first IRBs in Ukraine. With the assistance of the LHDMC, UIC and its international partners were able to obtain over 7 million in external funding from diverse funding sources, over 90% of funding is provided by the US NIH. The major source of continuous funding was the Fogarty International Center, 1995 to 2015. It supported the work of 31 Ukrainian scientists, 32 US researchers and post-graduate students, and co-hosted 12 in-country international conferences. The work of the LHDMC resulted in 31 refereed papers in western journals and 38 in Ukrainian and eastern European journals. The major challenges in the operation of the center included 1) uneven stream of soft-money funding; 2) changing in-country regulations regarding reimbursement of in-country personnel; 3) changing regulations on international transfer of funds; 4) retaining trained employees.

Interpretation: The establishment of an in-country data management center is cost-effective investment and greatly facilitates long-term global health research collaborations.

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