Data and disease in Dhaka: Patterns and perceptions of illness in an unplanned community in Sankar

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Background: We conducted a survey of residents in an unplanned community in Sankar, Dhaka, Bangladesh to determine perceptions of the origin and manifestation of disease with the aim to create improved interventions to increase clinical care utilization. Currently, approximately 11% of local families use the Spreeha clinic.

Methods: We surveyed 77 individuals in their homes using random cluster sampling and a version of the Illness Perceptions Questionnaire adapted for the purpose and translated into Bangla. We asked respondents to evaluate their perceptions of illness outcomes and physician capabilities on a 5-point Likert Scale and to evaluate disease origins and manifestations on a binary scale. We recruited participants by going door-to-door, alternating sides of the road and speaking to the first willing individual in each housing block. We analyzed results with descriptive statistics and two-sample t-tests in Stata and compared them with clinical diagnoses.

Findings: Three-quarters of respondents were women. Most respondents were aware of biological pathogens (89.61%) and the dangers of environmental pollution (90.92%), but 71.43% believed that supernatural forces also cause illness and 10% made unprompted statements that all illness comes from Allah. Half of respondents felt they were at risk of illness. Respondents were significantly more likely to report believing that a physician could aid them in the event of an illness if they also indicated that they felt they had control over whether they became ill (p = 0.0020) or if they felt that they were at risk of becoming ill (p = 0.0357). There was not a statistically significant difference in the proportions of individuals indicating belief in a doctor's capabilities and acceptance of either superstition (p = 0.1095) or their acceptance of biologic pathogens (p = 0.6054).

Interpretation: Knowledge of biological pathogens is common, but there is still a lag in clinical utilization among Sankar residents. Spreeha might find more success in shifting focus in health promotion interventions from pathogen education to highlighting individual control over health outcomes and individual risk.

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Oncology nursing workforce capacity building in rural Rwanda: Strengthening specialized cancer care through nursing education and skill development

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Program: Providing specialized oncology education and training to nurses in a rural hospital in a low-income country requires human and financial resources and governmental and institutional support. Since 2012, the Dana-Farber Cancer Institute (DFCI) has collaborated with Partners in Health and the Rwandan Ministry of Health to provide oncology nursing education and skill development. DFCI developed a global oncology nurse fellowship to place a US-trained oncology nurse in-country for three to 12 months to mentor, teach, and build in-country nursing expertise and leadership.

Structure: The following describes two nurse training programs taught by DFCI nurse fellows: a three week orientation for nurses from the oncology department at Butaro Hospital and a 12 week course for nurses from referral hospitals in Rwanda to build national nursing capacity. Both tracks include an overview of cancer, treatments, chemotherapy, side effects, oncologic emergencies, palliative care, patient and family education, and survivorship. Teaching methods were contextually related to cancer care in Rwanda, and include lectures, readings with discussion questions, oral presentations, role-plays, and clinical practice. Evaluations consist of pre and post tests, demonstration of skills, and competency checklists to track mastery of skills and knowledge.

Outcome & Evaluation: The three week program has been offered six times with 46 nurses completing training. Knowledge assessment scores from this program show an average increase of 14% between pre and post tests. The experience has yielded an educated and skilled oncology workforce at Butaro Hospital and has developed the first Rwandan oncology nurse leaders a ward manager, a care coordinator and an educator who now co-teaches both training programs to ensure sustainability. The 12 week program was piloted with two students. Knowledge assessment scores from the pilot show an average increase of 18% between pre and post tests.

Going Forward: In order to develop a robust model of sustainability, DFCI is collaborating with the University of Rwanda to develop a Masters curriculum in oncology nursing using content from the above courses. Oncology nursing workforce capacity building is paramount to address the burgeoning global cancer burden. Similar low resource settings should strive to prioritize oncology education for nurses.

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Global task shifting to nurse anesthetists: A systematic literature review

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Background: Estimates of the surgical workforce defined as surgeons, anesthesiologists, and obstetricians indicate 2.2 million more providers are necessary to address the current global surgical burden of disease. This shortage is concentrated in low- and middle-income settings. Although major increases are required in all three cadres, trained anesthesiologists have historically been particularly lacking. Task shifting, the movement of tasks from