Annals of Global Health, VOL. 82, NO. 3, 2016
May–June 2016: 532–574

(75% case; 74% control), most patients (60% case response; 44% control response) report that they do not know the etiologies. About 50% of total participants report that they have no available resources for information about breast cancer. Other results reveal that participants occasionally or frequently have conversations about health and wellness with their family members (86% case response, 83% control response) and a self reported family history of cancer is comparable to that of the global percentage (8% case, 14% control). 86% of cases have shared their breast cancer diagnosis with at least one family member.

The Likert-Scale component reveals that both the cases and controls share similar sentiments about the perceptions of genetic risk and understanding family history. This denotes, that whether a woman is directly, indirectly, or not at all affected by breast cancer, it is the cultural contingencies that shape ones experience and interaction with breast cancer in Ibadan, Nigeria.

Abstract #: *2.067_NEP*

Higher levels of education mitigate the relationship between perceived stress and common mental disorders among women in rural India: results of a cross-sectional study

N. Fahey[1], A. Soni[2], J. Allison[2], J. Vankar[3], A. Prabhakaran[3], T. Moore Simas[4], N. Byatt[4], A. Phatak[3], E. O'Keefe[4], S. Nimbalkar[3]; [1]Des Moines University, Des Moines, Iowa, [2]University of Massachusetts, Worcester, Massachusetts, [3]Pramukhswami Medical College, Gujarat, India, [4]Boston University, Boston, Massachusetts

Background: Common mental disorders (CMD) are a constellation of mental health conditions that include depression, anxiety, and other related non-psychotic affective disorders. The WHO ranks CMD as the leading cause of disease burden in India among women in the 15 - 44 year age group. Qualitative explanatory models of mental health among reproductive-aged women in India reveal that distress is strongly associated with CMD. The relationship of perceived stress and CMD might be attenuated or exacerbated based on an individual's sociodemographic characteristics. Identification of these attributes and the mechanisms through which they could mitigate the relationship of high perceived stress and CMD holds promise for developing new strategies to promote mental health in rural India.

Methods: Cross-sectional survey of 700 women from rural Gujarat, India. CMD status was assessed using Self-Reported Questionnaire 20 (SRQ-20). Factors associated with CMD were evaluated using multivariable logistic regression. Effect modification for the relationship of perceived stress and CMD based on age, education, income, and marital status was assessed using interaction terms and interpreted in terms of predicted probabilities.

Findings: 663 women were in the analytic cohort with roughly one in four screening positive for CMD (23.7%). Poor income, low education, food insecurity, and recurrent thoughts after traumatic events were associated with increased risk of CMD. Perceived stress was closely associated with CMD status. Higher education attenuated the relationship between high levels of stress and CMD (82.3%, 88.8%, 32.9%; p-value for trend: 0.03). Increasing income and age attenuated the link between moderate stress and CMD.

Interpretation: Our findings suggest a high burden of common mental disorders among reproductive-aged women from rural western India. Higher education, age, and income may provide resources to women to cope with stress. Women with increased age and income are able to manage moderate stress, but high stress might overwhelm their coping mechanisms. Future efforts to improve mental health in rural India should focus on preventing CMD by enhancing rural women's self-efficacy and problem-solving capabilities to overcome challenging life events and stressors, thereby reducing the risk of CMD.

Funding: Institutional travel grant.

Abstract #: *2.068_NEP*

Orthopedic care capacity assessment and strategic planning in Ghana: mapping a way forward

B.T. Stewart[1,2,3,4], A. Gyedu[2,3], G. Tansley[5], D. Yeboah[2,3], F. Amponsah-Manu[6], C. Mock[1,7,8], W. Labi-Addo[9,10], R. Quansah[2,3]; [1]Department of Surgery, University of Washington, Seattle, WA, USA, [2]School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, [3]Department of Surgery, Komfo Anokye Teaching Hospital, Kumasi, Ghana, [4]Department of Interdisciplinary Health Sciences, Stellenbosch University, Cape Town, South Africa, [5]Department of Surgery, Dalhousie University, Nova Scotia, Canada, [6]Department of Surgery, Eastern Regional Hospital, Koforidua, Ghana, [7]Harborview Injury Prevention & Research Center, Seattle, WA, USA, [8]Department of Global Health, University of Washington, Seattle, WA, USA, [9]Eastern Regional Health Directorate, Ghana Health Service, Ministry of Health, Koforidua, Ghana, [10]St. Joseph Orthopaedic Hospital, Korforidua, Ghana

Background: Orthopedic conditions incur more than 52 million disability-adjusted life years annually. This burden disproportionately affects low- and middle-income countries, which are least equipped to provide orthopedic care. We aimed to assess orthopedic capacity in Ghana, illustrate population-level spatial access to orthopedic care, and identify hospitals that would improve access to care most if their capabilities were improved.

Methods: Seventeen orthopedic resources were selected from the World Health Organization's *Guidelines for Essential Trauma Care*. Direct inspection and structured interviews with hospital staff were used to assess resource availability at 40 hospitals countrywide. Cost distance analyses were used to map population-level potential spatial access to orthopedic care. We identified facilities for targeted capability improvement that would have the greatest impact population-level spatial access to care using location-allocation modeling.

Findings: Orthopedic care assessment demonstrated marked deficiencies. Some deficient resources were low-cost (e.g. spinal immobilization, closed reduction capabilities, prosthetics for amputees). Several factors contributed to resource non-availability, namely equipment absence, technology breakage, and lack of training. User fees for orthopedic implants were often prohibitively expensive for patients in need. Population-level spatial access to basic (i.e. closed reduction, traction), intermediate (i.e. fixation), and advanced (i.e. spine, pelvis, or hand surgery) orthopedic care within two hours was: 74.9% of Ghanaians [uncertainty interval (UI) 70.8–77.3%]; 74.6% (UI 69.9–77.1); and 59.4% (UI 50.0–68.3), respectively. Building basic orthopedic capacity at 15 target hospitals would improve spatial access to basic care from 74.9 to 83% of Ghanaians

(UI 81.2–83.6%; 2,169,714 Ghanaians); building intermediate orthopedic capacity at 10 target hospitals would improve access from 74.6 to 81.6% (UI 78.9–82.7%; 1,875,062 Ghanaians); and building advanced orthopedic capacity at 2 target hospitals would increase access from 59.4 to 68.2% (UI 59.6–73.6%; 2,357,221 Ghanaians).

Interpretation: Availability of low-cost resources could be better supplied by improvements in training and organization of orthopedic care. However, there is critical need to advocate and provide dedicated funding for orthopedic care. These initiatives might be particularly effective if aimed at hospitals without sufficient capacity that serve a large proportion of the population.

Funding: US NIH/Fogarty International Center (R25-TW009345; D43-TW007267).

Abstract #: *2.069_NEP*

Novel lay-provider first-responder trauma course improves prehospital care in rural Peru

M. Stewart, M. Fuller, S. Hartsell; University of Utah, Salt Lake City, UT, USA

Background: The World Health Organization predicts that by 2030 road traffic injuries will be the fifth leading cause of death and the third leading cause of disease burden worldwide. While middle-income countries represent half of the world's vehicles, they have 80% of the world's road traffic deaths. The majority of these deaths occur pre-hospital, however many LMICs lack formal Emergency Medical Services. As an ongoing project, prior research established that over 70% of trauma patients arrive to centers of care in Cusco, Peru via non-EMS methods. The goal of the current project is to improve prehospital patient care by piloting a novel lay-provider first-responder trauma course in rural communities surrounding Cusco, Peru.

Methods: A novel first-responder trauma course was developed based on recommendations from the World Health Organization and tailored to specific disease patterns represented in trauma patients arriving to hospitals in Cusco, Peru. Course content utilized an illustrative flipbook and focused skills sessions targeted at lay-providers that can be easily translated into other languages. Surveys were administered before and after course administration to collect baseline data and assess course efficacy.

Findings: Of the 40 community members that participated in the two pilot courses, 60% had never taken a first-aid course. Pre- and post-course surveys demonstrated significant knowledge acquisition in the following first-responder techniques: basic airway opening maneuvers, placing patients in the rescue position, applying splints to fractured extremities, appropriate wound care, hemorrhage control, spinal immobilization, and patient transport. Following the course, participant comfort providing first-aid rose from 37% to 100%. Interactive and hands-on skills practice was effective at both teaching and acquiring new first-responder skills.

Interpretation: By utilizing existing patient transportation trends in rural Peru, the current project has successfully developed and implemented a low cost trauma first-responder course to improve prehospital patient care. Future project goals include expanding training capacity, transitioning to in-country leadership, and correlating course implementation with an ultimate reduction in patient morbidity and mortality in the Cusco region of Peru.

Funding: None.

Abstract #: *2.070_NEP*

Is eve teasing a public health problem? Public sexual harassment in rural India and its association with common mental disorders and suicide ideation among young women ages 15-24

S. Talboys[1], M. Kaur[2], J. VanDerslice[1], L.H. Gren[1], H. Bhattacharya[1], A.K. Sandhu[3], S.C. Alder[1]; [1]University of Utah, Salt Lake City, UT, USA, [2]Post Graduate Institute of Medical Education and Research, School of Public Health, Chandigarh, Punjab, India, [3]Mehar Baba Charitable Trust, Bassi Pathana, Punjab, India

Background: Eve teasing is a culturally specific phenomenon in south Asia that entails sexual harassment in public spaces by men against women. We characterized eve teasing in rural India, developed a measurement tool, and estimated its prevalence and association with common mental disorders (CMD) and suicide ideation (SI) among young women.

Methods: Mixed methods were used including focus group discussions and qualitative and quantitative data gathering with a novel questionnaire. Current CMD was measured using the SRQ-20 with a 7/8 cut point and SI was measured with a single 'yes/no' question in the SRQ-20. Females ages 14–26 were recruited through purposive sampling in nine villages for an initial pre-test (N=89). We administered the finalized questionnaire (ETQ-MH) to 198 women ages 15-24 using a randomized cluster sample of 19 villages and house to house probability sampling.

Findings: Eve teasing was described as staring, stalking, passing comments, and inappropriate physical touch. Perceived consequences included restricted mobility, victim blaming, and family problems. The ETQ-MH instrument garnered moderate to high internal reliability for key measures (Cronbach's alpha: .65 to .84).Nearly 30% of participants reported eve teasing victimization, 21% screened positive for a CMD, and 27% reported suicide ideation in the past 30 days(N=198). CMD was significantly associated with eve teasing victimization, but only among participants who also reported adverse childhood events (ACEs) (OR 4.5 (CI: 1.18-11.43) p=0.003). Eve teasing was significantly associated with SI among participants who reported ACEs, including controlling for CMDs (OR: 3.1 (CI: 1.119-8.472) p=0.032).

Interpretation: This is the first study to assess the association between eve teasing victimization and mental health outcomes in a community setting. Eve teasing may negatively impact the mental health of young women, especially victims of child abuse. Our findings support evidence from other studies that that gender disadvantages may explain the disproportionate risk of suicide for young women in south Asia. This is particularly important as suicide is now the leading cause of death among young women globally. Furthermore, culturally relevant manifestations of gender disadvantage must not be overlooked in the research.