

population in Sri Lanka. Our project aimed to assess psychiatric morbidity and quality of life in these patients, and the correlation with demographic and illness-related variables. Data on the psychosocial parameters in these patients could enhance management of the disease and inform more comprehensive treatment interventions.

**Methods:** A cross-sectional descriptive study was conducted at the National Thalassemia Unit at the University of Kelaniya Teaching Hospital in Sri Lanka, the only adult treatment facility for thalassemia in the country. Patients with thalassemia major, minor or intermedia (E $\beta$ ), above 12 years of age, and in stable medical condition (n=120) were recruited. Participants were assessed using a general demographic questionnaire, the Beck Depression Index and the WHO Quality of Life BREF. Statistical analysis was conducted using linear regressions, Chi squares and ANOVAs. Ethics approval was obtained from the Faculty of Medicine at the University of Kelaniya and written consent was obtained from all participants.

**Results:** Lack of family support, longer clinic admission, and the female gender were significant determinants ( $p < 0.05$ ) of higher depression scores and reduced physical health quality of life in our patient population. In addition, psychological and social quality of life were positively correlated with levels of peer support ( $p < 0.05$ ). However, there was no association between type of thalassemia and depression scores or quality of life.

**Conclusions:** Overall, study results show that several factors influence depression and quality of life among patients with thalassemia in Sri Lanka, with gender playing an important role. Development of psychosocial interventions that address these factors and the gender differences could be highly useful in improving function and reducing disability in this population.

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### Gynecologic needs among a population of survivors of torture in New York City

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**Background:** The United States has an estimated 400,000 residing survivors of torture. The Program for Survivors of Torture (PSOT) at Bellevue Hospital is the only comprehensive torture treatment center in New York City. PSOT offers both medical and mental health treatment to its clients, who are ethnically diverse. There has to date been no comprehensive assessment of the gynecological needs of this population. This study affords a novel opportunity to investigate reproductive health needs of women who have experienced torture.

**Methods:** This is a cross-sectional descriptive study conducted through structured interviews. All women enrolling in PSOT were eligible for inclusion. Data was collected in a REDCap database and analyzed using Stata v14. Outcomes were evaluated using descriptive statistics. Outcomes of interest include obstetric history, contraceptive knowledge and use, and prevalence of prior gender-based violence (GBV) and female genital cutting (FGC).

**Findings:** The majority (71.4%) were French-speaking West Africans. All participants reported prior experience of GBV; perpetrators were more likely to be from outside the family (64.3%), but violence from an intimate partner (35.0%) or family member (33.3%) was also common. Prior sexual violence and history of FGC was reported in 66.7% and 25.0% of subjects, respectively. The mean gravidity was 2.1 pregnancies (SD = 1.1) and, of those who have been pregnant (64.3%), 77.8% reported having received antenatal care at some point in pregnancy. While 85.7% reported any prior pregnancy-related complications, 57.1% of them reported seeking medical attention. Current contraception use was only reported in 15.4%, even though over half of women expressed a desire to delay pregnancy (spacers). Moreover, among all spacers, current use of contraception (28.6%) is lower than past use (78.6%). Participants had a better basic knowledge of traditional contraceptive methods (77.5%) compared to modern ones (56.1%).

**Interpretation:** This is the first comprehensive review of gynecologic needs of survivors of torture in NYC. Prior history of GBV is common. It appears that while many have had prenatal care, overall knowledge and use of contraception in this population is very low compared to the general population.

**Funding:** Transportation reimbursement was provided to participants from PSOT program funding.

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### Community barriers to emergency care utilization in rural Uganda: Review of current literature and proposed research

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**Program/Project Purpose:** In Africa, capacity development has resulted in significant improvements in health indicators. Timely emergency care (EC) has potential to further these gains. Estimates project that EC can prevent 41% of deaths and 39% of disability in sub-Saharan Africa. Impact however, is contingent on widespread access and utilization.

Karoli Lwanga Hospital, in rural southwest Uganda, operates an Emergency Department in collaboration with an NGO, Global Emergency Care Collaborative. Despite high-quality care, unacceptable levels of preventable morbidity and mortality occur since patients often delay care seeking. Understanding of sociocultural barriers to EC is needed to foster appropriate utilization of services, particularly as availability increases.

**Structure/Method/Design:** A narrative literature review was performed. PubMed, Scopus and Google Scholar were searched with keywords of: Barriers, Emergency Care and Uganda. Studies related to accessing healthcare in rural Uganda and bordering countries were included if ED care was specifically addressed. Citations used in the resulting studies were also reviewed.

**Outcome & Evaluation:** Knowledge of barriers to EC is limited, and most literature specific to rural Uganda focuses on obstetric and pediatric emergencies, making generalizations imperfect. However, this review suggests that cost and transportation are not the sole

barriers. Barriers may be more complex, relating to: healthcare decision-making, perceptions of quality and traditional culture and beliefs. It is noted that many patients die before reaching care at the facility level.

**Going Forward:** Multiple methods will provide perspectives from the community on barriers to optimal EC access.

- Case studies: Cases that present to the ED late in the course of illness will be utilized to understand aspects such as recognition of symptoms and severity, first aid administered and deliberations of the patient or caregivers.
- Focus Groups: Emergency scenarios will be utilized to explore the course of action that would be taken by community members.
- Community Survey: Hypothesis will be drawn from the qualitative data and tested with a quantitative survey implemented in locations frequented by a wide cross-section of the community.

This program has potential to increase understanding of rural Ugandan sociocultural factors in EC seeking, impact EC implementation and increase mutual understanding between providers and similar underserved populations.

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### Assessing diabetes knowledge and prevalence in Nevis, WI: A type 2 diabetes surveillance initiative

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**Background:** A multi-university team investigated the prevalence of type 2 diabetes (DM) and its risk factors in Nevis, WI, the second leading cause of death in the country.

**Methods:** We used a mixed methodological approach of randomized chart reviews and surveys. The randomized chart review of the six publicly funded health centers yielded 439 examined charts (4% of the island population). Metabolic screenings, medical history and general health information were analyzed using descriptive statistics. The World Health Organization's STEPwise instrument was used to survey 110 Nevis residents (~1% of the island's population) focusing on diabetes knowledge, risk factors (such as diet, exercise, risk-factors), and open-ended questions targeting perceived DM risk.

**Findings:** Approximately 17% of the clinical records noted a diabetes diagnosis. Distribution of diabetes between males and females was 16% and 17% respectively. Seven percent of 18-49 years olds (n=279) and 34% of 50 – 75 years olds (n=160) are diabetic. Evidence of a family history that included T2D was evident in 62% of records with a family history notation. While not recorded in every file, risk factors of hypertension, elevated cholesterol and fasting blood glucose were evident in 46%, 72% and 51% of the files respectively. Surveys revealed a similar prevalence of diabetes (14%) and persons indicated that clinicians had within the last three years advised them to reduce salt intake (24%), reduce fat in their diet

(34%), reduce their weight (48%) and increase physical activity (43%). Surveys revealed understanding that diet contributed to diabetes (78%) but only 14% indicated inadequate physical activity contributed to DM. While the severity of DM was clear to respondents (e.g. potential amputations), over 1/3 of respondents were not aware of the DM support services offered by the Ministry of Health.

**Interpretation:** Results suggest that educational materials and interventions targeting DM risk factors would be beneficial if they were widely advertised. Persons in this study also confirmed the MOH's suspicions that type 2 diabetes prevention, early detection and management is a population health concern.

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### The burden of orthopaedic disease presenting to a referral hospital in northern Tanzania

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**Background:** In low and middle-income countries, country specific data is scarce regarding the burden of surgical disease, with most estimates extrapolated from indirect methods. Kilimanjaro Christian Medical Center (KCMC) is the only tertiary referral hospital for a population of over 11 million in Northern Tanzania. This study aims to directly quantify the current orthopaedic burden of disease at KCMC and provide a foundation to estimate the magnitude and potential benefit of improving access to orthopaedic surgical care in the northern regions of Tanzania.

**Methods:** Prospective data was collected during June 2015 for 113 patients admitted to the Orthopaedic Surgery ward at KCMC. Retrospective review of available hospital records for 11,678 patients presenting to the KCMC Emergency Medicine Department, Orthopaedic Clinic, and Orthopaedic Ward over the previous 12 months was also performed to obtain a more complete picture of the burden of orthopaedic disease seen at this tertiary referral center.

**Findings:** KCMC treats an average of 11,172 orthopaedic patients each year. Approximately 57.1% of these patients are seen as outpatients in clinic, 30.1% are seen in the emergency department and 12.8% are admitted as inpatients in the orthopaedic ward. Road traffic accidents (RTAs) represented the most common etiology of injury requiring ward admission at 63.7%, followed by falls at 29.2%, and assaults at 4.4%. Of admissions between ages 15-45, 73.5% were from RTAs. The majority of RTAs, 52.8%, involved a motorcycle and 30.56% involved pedestrians. Femur fractures were the most common injury seen (39.0%), followed by tibia (27.2%) and radius (17.7%) fractures. Patients used a wide variety of transportation methods and took 2.3 hours on average to arrive at KCMC from the location of their injury. Once in the hospital, patients averaged a length to surgery of 10.2 days and a hospital length of stay of 13.5 days. Of all admissions, 96.5% had indications for surgical fixation, while only 57.9% received surgery. KCMC is the only tertiary referral center for a five state region; however, 65.7% of patients originated from the same state in which the hospital resides.