

(22%). Over 17% of injuries resulted in death after hospitalization. These findings provide empirical bases for future studies. More research is needed to identify injury related factors useful for planning effective prevention strategies.

**Conclusion** The study was conducted with the goal of providing the baseline data to policy makers and other stakeholders to help guide future research, policy and funding agendas.

## TBI/Concussion injuries

### 0084 PEDIATRIC HEAD INJURIES TREATED IN CHILDREN'S EMERGENCY DEPARTMENT FROM CHISINAU

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**Statement of purpose** The purpose of this study was to explore the particularities of TBI among children in the Republic of Moldova.

**Methods/Approach** A prospective study was conducted among children patients with TBI at the Republican Municipal Children's Hospital 'Valentin Ignatenco'. We used data from the pilot TBI registry, from March, 1 – August 31, 2019. Data were uploaded using an electronic data collection tool - Red Cap and analyzed through Microsoft Excel, Epi Info 7. Data collection was performed by resident neurosurgery and a scientific researcher. The ethics committee's approval was obtained.

**Results** There have been identified 167 cases of TBI in children aged between 0–17 years old, of which 109 (65,3%) male and 58 (34,7%) female; most cases being in the age group 0–6 years old 59 (35,3%), followed by a group of 10–14 years old 48 (28,7%). Mostly, the injury appears in urban area 161 (96,4%). The major cause- falling 97(63,6%) and the most affected group- 0–6 years old 44 (26,3%). In the second place, there were road accidents 50 (16,4%) with the most cases in the age group of 10–14 years old 16 (9,6%), followed by assault/violence 19 (18,7%). Most injuries occurred at home 45 (26,9%), followed by transport area 41 (24,6%), school education area 24 (14,4%). Most cases registered in March 35 (21%), followed by June and August with 29 (17,4%), between 10.00- 18.00 (65,3%), 20.00–22.00 (16,2%).

**Conclusion** Data shows the most vulnerable age group, 0–6 years old, and 10–14 years old. The main mechanisms of TBI are falls and road accidents. The results of the study impose to develop prevention measurements for this target group.

**Significance** The main results obtained in the research will be included in the implementation of prevention actions and to development of specific activities for children.

## Occupational Safety

### 0085 CROSS-SECTIONAL STUDY – THE PREVALENCE AND EFFECTS OF WORKPLACE VIOLENCE AGAINST MEDICAL STAFF IN THREE HOSPITALS OF TBILISI, GEORGIA

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**Statement of purpose** Violence at work is present at all work environments however, healthcare workers are at greater risk and the vast majority of cases go unreported. Existing scientific literature reveals that Workplace Violence (WPV) in health sector is very problematic in developing and transitional countries. Georgia as a developing country faces loads of human rights violation, including workplace violence, especially in the health care sector, however at present time there are no accurate and reliable data available. The main aim of the study was to assess prevalence, magnitude, consequences and potential risk factors of WVP against Medical Staff in three hospitals of Tbilisi.

**Methods/Approach** The cross-sectional study was conducted from May 2020 to August 2020 in three hospitals of Tbilisi. We used adapted and translated version of 'Workplace violence in the health sector country case studies research instruments survey questionnaires'. After proving validity of the questionnaire, we distributed its online version. Statistical Analysis was performed in IBM SPSS Statistics 23. Fisher's Exact Test was used for finding associations

**Results** A total study population included 80 medical staff from three different hospitals of Tbilisi, Georgia. Medical staff had experienced different types of WPV, including: Verbal Threat or assault 61,5%, physical assault -7.5%, sexual harassment – 2.5% and sexual assault- 1.5%. 41% of study participants considered violence as part of their job and 29% considered as part of their profession.

**Conclusions** Our study has indicated overall workplace prevalence against healthcare workers to be high in three hospitals of Tbilisi, Georgia.

**Significance** Violence is preventable, first step in violence prevention is recognizing that WPV is real and is one of the safety and health hazards. Guidelines for preventing and managing WPV are essential, each hospital should have mandatory violence reporting system and violence prevention policy, medical staff should not feel that violence is tolerable.

## Health equity

### 0086 MENTAL HEALTH IN FORMERLY INCARCERATED BLACK MEN: A SYSTEMATIC MIXED STUDIES REVIEW

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**Statement of purpose** The disproportionate incarceration rate of Black men in the United States (US) is associated with a multiplicity of individual and community-level health outcomes. This review aims to evaluate the state of scientific knowledge on the mental health of Black men who have experienced incarceration and identify how Black men released from incarceration describe their mental health upon re-entry.

**Methods/Approach** This systematic mixed studies review used a sequential explanatory design incorporating quantitative and qualitative research. In June 2020, PubMed, CINAHL, PsycINFO, Social Work Abstracts, and Criminal Justice Abstracts were systematically searched. Of 538 articles identified, 22 met inclusion criteria as peer-reviewed original research, published in English from (2010–2020), relevant to the mental health of formerly incarcerated Black men in the US.

**Results** Quantitative findings demonstrated significant associations between incarceration history and poor mental health, operationalized as higher levels of psychological distress, increased severity of depressive and PTSD symptoms, and delayed treatment of psychosis. Factors associated with this relationship included discrimination, negative police encounters, solitary confinement, and difficulty finding housing and employment. Four themes emerged from the qualitative synthesis including: (1) Social Determinants of Mental Health (2) Pushing Through Emotional Despair (3) Challenges to Health Care Engagement and (4) Gender, Race, and Intersectionality. Black men recently released from incarceration also described neighborhood violence as a contributor to poor mental health and barrier to mental healthcare.

**Conclusions** This review affirms the pervasiveness of mental health concerns in formerly incarcerated Black men but illuminated several gaps in knowledge needed to support individual and community-level interventions.

**Significance** Unmet mental health needs are associated with a multiplicity of injury and violence concerns including substance abuse and suicidality. Addressing gaps in current understandings of the mental health of formerly incarcerated Black men will strengthen opportunities for evidence-based interventions.

## Suicide prevention

### 0087 SUICIDE IN THE TIME OF COVID-19: A PERFECT STORM

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**Statement of purpose** Suicide is a leading cause of death in the United States and Kentucky. Precipitating suicide circumstances in Kentucky between 2005 and 2017 most often included depressed mood; mental health, intimate partner, and physical health problems; and substance misuse. These known risk factors will likely intensify as the risk of spreading the virus continues, indefinitely.

**Methods/Approach** Finkel's I-cubed (I<sup>3</sup>) model, not previously applied to suicide, is a novel and validated meta-theoretical framework that can model multiple and interacting risk and protective factors. This theory allows for the incorporation of the pandemic dimension, in order to understand suicidal behaviors and guide future research in this new way [encompassing intrapersonal (eg, comorbid physical and psychiatric illnesses), interpersonal (eg, relationship), and extrapersonal (eg, community, cultural, geographical) determinants].

**Results** Preliminary data show that suicides in Kentucky during March were about 50% lower than the average of the previous four years. Overall, suicides have continued to be lower through August. The lower rate does not imply that the pandemic will not impact state and national suicide rates. Historically, suicide rates decrease during the early phase—or 'honeymoon' period—of a crisis and during periods of high community cohesion. Following the honeymoon period, however, rates will likely increase. According to the Substance Abuse and Mental Health Services Administration, the next phase in a disaster is disillusionment, as people realize the limits of assistance. As the crisis becomes chronic, increasing gaps between those that return to

business as usual and those that have continued needs lead to feelings of abandonment. This phase can last months and even years.

**Significance** As we acclimate to a new way of life, we must be proactive and innovative in understanding the effects of the pandemic and then developing targeted pandemic suicide prevention efforts and messages aimed at our most vulnerable populations.

## TBI/Concussion injuries

### 0088 BIDIRECTIONAL ASSOCIATION BETWEEN DAILY PHYSICAL ACTIVITY AND POSTCONCUSSION SYMPTOMS AMONG YOUTH

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**Statement of purpose** We investigated the longitudinal and bidirectional association between daily physical activity and postconcussion symptoms (PCS) among concussed youth aged 11–17 years.

**Methods/Approach** We prospectively enrolled youth aged 11–17 years with a physician-confirmed concussion within 72 hours of injury. We measured daily physical activity using an ActiGraph and daily PCS using the Postconcussion Symptom Scale from day 1 to day 7 postinjury. We grouped daily step count and PCS into three waves: days 1–3 (Wave 1), days 4–5 (Wave 2), and days 6–7 (Wave 3) postinjury. We examined the bidirectional associations between daily step counts and PCS in the 3-wave, longitudinal design using both a traditional cross-lagged panel model (CLPM) and a random-intercept cross-lagged panel model (RI-CLPM).

**Results** Participants included 83 concussed youth (54 boys [65%]; mean age 14.2 years; 59 White participants [72%]; and 70 sports-related concussions [84%]). The mean daily step counts were 9,167 at Wave 1, 10,143 at Wave 2, and 10,786 at Wave 3, while the mean daily PCS scores were 27.7, 21.0, and 15.9. In the CLPM, daily step counts and PCS scores showed significant positive autoregressive associations across all waves. In contrast, in the RI-CLPM, the only significant autoregressive association was the path for PCS scores from Wave 1 to Wave 2 ( $p=.002$ ). In the CLPM, only one cross-lagged path was significant, with higher PCS scores at Wave 1 being associated with lower daily step counts at Wave 2 ( $p=.047$ ). No cross-lagged paths were significant in the RI-CLPM.

**Conclusion** While youth who engaged in more physical activity reported fewer PCS, only one cross-lagged association was significant. Future randomized controlled trials are needed to better understand the effects of physical activity on PCS.

**Significance** This study is the first to assess the bidirectional association between physical activity and PCS using cross-lagged panel analyses.