Mental health consequences of violence

198

MENTAL HEALTH CONSEQUENCES OF VIOLENCE IN MEXICO: A QUALITATIVE ANALYSIS OF PROVIDER PERSPECTIVES

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Background and Purpose Violence in Mexico has risen to epidemic levels, with far-reaching implications for mental health. Since 2007, violence associated with the Drug War in Mexico claimed the lives of over 200,000 people and resulted in more than 40,000 disappearances. This research focuses on mental health service access when extreme community violence occurs.

Methods Eighty semi-structured interviews were conducted with physicians (72%) and other health professionals (28%) in five states of Mexico selected for their high incidence of violence. Purposive sampling was conducted through local public health agencies. Recruitment was in person or by telephone. Interviews focused on how violence affects mental health of patients and providers' perception of mental health service needs/use. Interviews were in Spanish, recordings were transcribed, and coded thematically using ATLAS.ti.

Results Health professionals in all states reported an increase in mental health needs. Patients sought primary care services related to mental health for anxiety, stress, and shortness of breath, insomnia, headache and stomach aches. Psychologists in primary care centers are overbooked. In rural areas there are no psychologists; individuals travel longer distances to seek services. Tertiary psychiatric hospitals are regional and few in the country, referral diagnosis is required. Patients forgo mental health care due to an excess of demand, lack of services or referral, and long distances. Providers use words like 'psychosis', 'nerves', 'fear' and 'depression' to describe the mental health needs of patients.

Conclusions and Implications This study underscores the importance of understanding the impact of violence on mental health in vulnerable communities where health inequities exist. Trauma informed mental health services are needed at the primary care level. Greater information and communication of mental health consequences of violence exposure would likely help improve health outcomes and reduce inequities.

Firearm violence

201

RECIDIVISM AND CRIMINAL HISTORIES OF GUN OFFENDERS

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Purpose To explore predictors of engaging in gun violence amongst a sample of formerly incarcerated individuals attempting to transition back into their communities in 2009 (n=11,026). Information about predictors of gun violence perpetration committed by former prisoners could arm service

providers with a more nuanced understanding of how to formulate continuity of care models to decrease violence in at risk communities, and amongst at risk populations.

Methods Data reflecting the criminal histories, recidivism patterns, demographic information, and actuarial risk scores on a pre-release assessment instrument are compared between former prisoners that were (n=1,158) or were not (n=9,868) incarcerated or previously incarcerated for committing gun crimes. The analytic strategy culminates with the construction of a competing risks survival analysis that estimates the sub-hazard ratios of committing a gun-related offense during the approximate 4-year follow-up period.

Results Age, risk classification, and current or former conviction for a gun related offense are statistically significant predictors of committing a gun offense during the follow-up. Former prisoners labeled as current or former 'gun offenders' were at an approximate two-fold increased hazard of committing a gun crime when compared to former prisoners incarcerated for non-gun crimes.

Conclusions Policy makers, practitioners, and releasing authorities should attempt to better gear evidence-based rehabilitative services focusing on criminogenic needs towards current or former gun offenders, as post-release service provision did not significantly differ between gun and non-gun offending former prisoners. Gun violence may be decreased if effective programs and services can be better targeted towards those with an increased risk of committing gun crimes.

Significance This research leverages data that are routinely gathered by, and available to, state departments of corrections to increase our understanding of factors that are predictive of gun violence and the timing of crime commission by former offenders.

Motor vehicle injuries and policy

202

CELL PHONE USE AND A PATTERN OF RISK BEHAVIORS ASSOCIATED WITH CRASHES IN YOUNG ADULT DRIVERS: IMPLICATIONS FOR POLICY

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Statement of Purpose Young drivers under the age of 24 are involved in more fatal crashes featuring cell phone distraction than any other age group (NHTSA, 2019). Unfortunately, statewide policies prohibiting cell phone use while driving fail to show consistent reductions in motor vehicle crashes (MVC) (McCartt *et al.*, 2014). This study tested if cell phone use while driving is but one manifestation of a pattern of risk taking among young adult drivers.

Methods/Approach A sample of young drivers across the US aged 18–24 (n=384) completed an online survey capturing crash and citation history, engagement in risk-related driving behaviors (including intentional violations and driving errors from the DBQ, and additional cell phone use items), impulsivity, and demographic information. A confirmatory factor analysis tested a latent structure of risk-related driving behaviors identified in a prior study (Walshe *et al.*, 2018), along with alternative models. Associations between variables were examined with correlation coefficients and regression analysis.

Results Almost half of the sample (44.5%) reported involvement in at least one MVC as a driver. The majority also reported engaging in cell phone calls while driving (73.2%, $n=281$) and texting while driving (61.7%, $n=237$). A 2-factor structure was confirmed, revealing that cell phone use loaded highly on a latent factor largely consisting of intentional driving violations. A binary logistic regression revealed a significant association between the probability of reporting a crash and this reckless driving factor (Wald=4.058, $p=0.044$) as well as impulsivity (Wald=8.602, $p=0.003$).

Conclusions These findings suggest that cell phone use does not represent a unique source of reckless driving behavior associated with crashes.

Significance and Contributions Interventions for improving driver safety should adopt a holistic approach addressing patterns of risk-taking in young drivers.

Equity and methods

203 DATA COLLECTION/ABSTRACTION PROCESS IMPROVEMENTS TO ACHIEVE INJURY-RELATED HEALTH EQUITY IN OUR NATIONAL TRAUMA HEALTHCARE SYSTEM

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Statement of Purpose Identifying injury-related disparities requires accurate patient representation. Understanding data collection/abstraction staff perspective is critical to developing implementation models for integrating health equity data elements into electronic medical record (EMR) and trauma registry systems. To identify barriers/facilitators to collecting/abstracting accurate equity data, we assessed perspectives of national stakeholders in each U.S. region and Emergency Department (ED) registration and trauma registry staff locally.

Methods We conducted a Delphi process with 17 national experts in trauma care systems (included based on recommendations from local and national trauma care leaders) and focus groups with 14 ED patient registration and 9 hospital trauma registry staff. Topics included process of data collection/entry into EMR and data abstraction into trauma registries and barriers/facilitators to accurate collection/abstraction of equity data elements. Audio-recorded focus groups and Delphi recommendations were qualitatively analyzed, and the latter findings were joint-ranked based on feasibility scores and Kappa-based score consistency. Findings were triangulated with ED patient registration observations and trauma registry staff workflow. We developed an implementation model addressing identified barriers/facilitators.

Results Delphi results indicated staff time/investment in process changes as the biggest barriers; facilitators were simplicity and brevity (self-report), and quality improvement checks. ED staff barriers included experiences with patients reacting negatively, and misunderstanding data collection purpose. Cultural-sensitivity training, script for explaining importance of equity data collection, and required data entry for a minimum dataset

were facilitators. Trauma registry staff barriers involved needing to search notes for information (e.g., injury address/housing status); staff preferred auto-populated and designated EMR discrete fields.

Conclusions Barriers/facilitators identified differed among national stakeholders, ED registration staff, and trauma registry staff. Successful implementation will involve ongoing staff training, opportunities for patient self-report, and frequent quality improvement checks.

Significance Improved data collection and abstraction processes can increase accuracy of equity measures, facilitating better identification of injury-related disparities.

206 A RANDOMIZED TRIAL TESTING REMUNERATION PROTOCOLS TO MAXIMIZE CONCUSSION PATIENT RETENTION FOR REAL-TIME SYMPTOM AND ACTIVITY MONITORING

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Statement of Purpose We are honing the ReCoUPS (Recovering Concussion Update on the Progression of Symptoms) protocol to monitor concussion patients using ecologic momentary assessment (EMA), and accrue data revealing the relationship between physical and cognitive rest and clinical outcomes in the days and weeks post-injury.

Methods/Approach Our randomized trial uses behavioral economics to identify a remuneration strategy that enhances retention. Staff at one pediatric and one adult ED enroll concussion patients using the ReCoUPS platform, that assigns participants to one of four treatment arms that dictate the remuneration scheme. Participants receive a Fitbit, download the ReCoUPS app onto their smartphone, receive 3 prompts daily, and respond over 3 weeks. The EMA data collected include concussion symptoms and cognitive rest/activity (self-reported time reading, time at work/school) reported at each prompt, screen time, and step count (Fitbit). The maximum possible remuneration for three arms is \$300 for adults (age 18–64 years) and \$50 for children and adolescents (13–17 years), whereas in one arm only a Fitbit is given to keep.

Results Fifteen participants were enrolled in the EDs. The proportion of responses completed was 87% in the loss-based arm and 86% in the streak accrual arm, compared to 47% where the FitBit was given as remuneration, and 46% in the control arm where the maximum given regardless of number of responses completed. Enrollment will continue to 20 in each arm to determine whether these differences remain.

Conclusions Loss-based and streak remuneration were equally effective to prevent study attrition in this longitudinal follow-up study, whereas the Fitbit remuneration and flat-fee control were not effective.

Significance and Contributions to Injury and Violence Prevention Science Remuneration plays a key role in retention and can help accomplish the longterm follow-up required to obtain data on concussion recovery.