Trauma systems

0057 EVALUATION OF TRAUMA INFORMED CARE TRAINING AT A LEVEL I PEDIATRIC TRAUMA CENTER (PTC)

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Statement of purpose To evaluate baseline attitudes and confidence related to providing Trauma Informed Care (TIC) and quality of professional life of Emergency Department (ED) Staff at a Level I PTC, and to examine pre-post changes after a training session. We hypothesize that TIC training will improve attitudes and confidence in delivering TIC.

Methods/Approach A total of 76 healthcare professionals completed a pre-post survey as part of a TIC training at an urban, midwestern Level I PTC. The training consisted of one 3-hour session covering the impact and pervasive nature of trauma, recognizing traumatic stress, and benefits of providing a healing environment. The survey included demographic questions, the Attitudes Related to Trauma-Informed Care Scale (ARTIC) measuring trauma-informed knowledge and attitudes, and the Professional Quality of Life Scale (ProQOL) measuring burnout and secondary trauma.

Results Overall, participants demonstrated relatively high compassion levels, and over half of the participants indicated low levels of burnout and secondary trauma. Compared with pre-training (n=76), participants demonstrated a statistically significant increase (p <0.05) in TIC knowledge and attitudes post-training (n = 35).

Conclusions Though ED staff began with relatively high levels of trauma-informed attitudes and beliefs, the training yielded a positive increase in those attitudes. Given the small sample size and the fact that less than half of all participants who received training completed the survey, the attitudes captured may be skewed towards participants who had higher baseline attitudes and were more motivated to deliver TIC. This provides an opportunity to adjust the training to improve engagement.

Significance Applying TIC has the potential to benefit patients who experience traumatic injuries as well as healthcare professionals who may experience secondary traumatic stress through providing care. Improvement in staff attitudes after the training session suggests possible benefits of continued TIC training.

Prescription drug overdose/opioids

0058 CHANGES IN SUSPECTED OVERDOSES FOLLOWING THE START OF THE COVID-19 PANDEMIC: RESULTS FROM THE MICHIGAN SYSTEM FOR OPIOID OVERDOSE SURVEILLANCE

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Statement of purpose To use data from a state-wide opioid overdose surveillance system in Michigan to evaluate changes

in opioid overdose frequency during the COVID-19 pandemic.

Methods/Approach The System for Opioid Overdose Surveillance (SOS) is a near real-time overdose surveillance system in the state of Michigan run out of the University of Michigan Injury Prevention Center, in collaboration with the Michigan HIDTA. SOS receives daily data feeds containing all EMS encounters involving naloxone administration, and daily data on suspected fatal overdoses from medical examiners covering ~80% of the state's population. We used SOS data to compare spatial and temporal changes in suspected opioid overdoses after 3/1/20, the approximate timing of the intensification of the COVID-19 pandemic, and compared those changes to those seen at the same time in 2019.

Results From 3/1/20–9/16/20, suspected fatal overdoses were 15.0% higher than during the same time in 2019, and naloxone administrations by EMS were 28.8% higher; a majority of counties and cities saw analogous changes, though the magnitude varied. Rates of both suspected fatal overdoses and EMS naloxone administrations were higher in 2020 prior to March, but the difference increased following the start of the pandemic. By late August, rates of suspected fatal overdoses returned to 2019 levels, but EMS naloxone administration rates remained nearly 40% higher than the same time in 2019.

Conclusions Evidence suggests that overdose and the COVID-19 pandemic are interwoven crises, and resources are required to address both the isolation and stress of the pandemic, and the medical system excess burdens, which all may intensify substance use, and reduce the likelihood of seeking treatment.

Significance Overdose remains a leading cause of death, and that burden has increased during the pandemic in Michigan. Approaches are needed to address secondary effects of the COVID-19 pandemic.

Occupational safety

0059 DEVELOPMENT AND USE OF A HIGH-FIDELITY TRACTOR DRIVING SIMULATOR TO EXAMINE THE EFFECT OF AGE ON CRASH RISK

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Statement of purpose The purpose of this research was to build a tractor-driving miniSim, describe its perceived realism, and use it to examine associations between age and tractor-driving performance among farm-equipment operators (FEOs).

Methods/Approach FEOs completed a simulated drive and a survey scoring four realism domains (i.e., appearance, user interface, control, and sound) of the tractor simulator using a Likert scale (from 0 = not at all realistic to 6 = completely realistic). Overall realism and domain scores were calculated. FEOs provided suggestions for improving the simulator before completing a second drive where they encountered a driving hazard. Driver's perception response time was analyzed for association with age and selected covariates.

Results The simulator received favorable realism scores for all domains with 'appearance' receiving the highest average realism score (4.58, SD = 1.03) and 'sound' receiving the lowest (3.86, SD = 1.57). The most suggested improvements were to tighten the steering wheel (27%), make the front tires visible (19%), and that no improvements were needed (18%). FEOs 65+ responded 5.00 [95% CL=-1.23, 11.24] seconds slower than younger FEOs when adjusted for medical diagnoses, labeled medication use, tractor generation, and tractor horsepower.

Conclusion The realism scores and suggestions from the FEOs demonstrated that the tractor miniSim is a viable approach to studying tractor driving. When examining the association between age and driving performance, it demonstrated that older FEOs have slower perception response times and therefore greater crash risk than younger FEOs.

Significance Farm equipment crashes represent the nation's leading cause of work-related death within the deadliest occupation. As farmers continue to grow older, the need to understand their age specific risk factors for injury will continue to rise. Trends demonstrated in this study have the potential to become more significant as tractors increase size and velocity thereby increasing stopping distances.

Domestic & intimate partner violence

0060

SOCIAL SUPPORT, MARGINALIZATION, AND TEEN DATING VIOLENCE AMONG NEW MEXICO YOUTH

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Statement of purpose This study uses data from the 2015 New Mexico Youth Risk Behavior Survey to determine whether perceived support is associated with lower prevalence of teen dating violence among marginalized youths.

Methods/Approach I conducted hierarchical linear regression to predict the effect of social support in three domains (at home, at school, and in community) on teen dating violence when controlling for the effects of marginalized identity, including sexual orientation, race/ethnicity, parent education, physical disability, nativity and homelessness.

Results Marginalized identities predicted higher prevalence of dating violence, with girls, homeless students, students with disabilities or long-term health problems, students born outside the U.S.A. and LGB students and those unsure of their sexual orientation experiencing more dating violence than their peers. When evaluated independently, social support at home, at school, and in the community each significantly predicted lower prevalence of teen dating violence. In multi-variable modeling, however, only home support and community support remained significantly predictive of less dating violence when controlling for marginalized identities.

Conclusion Social support in this study accounted for a small amount of the total variability in teen dating violence, while marginalization explained much more. Even so, these findings suggest that positive relationships with adults at home and in the community may help to protect marginalized young people from dating violence victimization.

Youth violence

0061

BARRIERS AND FACILITATORS TO SUCCESSFUL RECRUITMENT AND ENGAGEMENT OF BLACK AND LATINX YOUTH IN HOSPITAL-BASED VIOLENCE INTERVENTION PROGRAMS

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Statement of purpose Black and Latinx youth bear an unequal burden of adversity and trauma with an overrepresentation in violent injury and gunshot wound hospital admissions. To address the long-reaching developmental impacts on health and wellbeing, hospital-based violence intervention programs (HVIPs) have emerged to provide case management services after discharge. Recruitment and engagement of youth are primary barriers to program success, yet little research exists on best practices. By convening a sample of representatives from established HVIPs, this study illuminates barriers and facilitators to successful recruitment and engagement of youth.

Methods/Approach Drawing from four HVIPs based in Midwest and Northeast cities of similar demographics in the United States, a purposive sample of representatives (n = 7) participated in a focus group (90 minutes). Content analysis was conducted in three phases. First, two researchers separately completed open and focused coding resulting in preliminary categories. Second, a researcher reviewed these codes for accuracy, and revisions were made after consensus was reached. Third, preliminary themes were vetted and finalized by the full research team using consensus. A code book was created documenting all changes.

Results Two themes emerged related to barriers and facilitators: 'Individual/Relational' with categories such as Patient and Parent-Specific Characteristics, Building Rapport, Enhancing the Teachable Moment, and Building Relational Health; and 'Structural/Systemic' with categories including Hospital Investment, Structural Racism, Workflow, Training and Preparedness of Staff, and Trauma Informed Procedures.

Conclusions The findings illuminate barriers and facilitators relevant to structural, programmatic, familial, and youth-focused aspects of HVIPs. Strategies to address these barriers are discussed.

Significance This is the first study to examine facilitators and barriers to recruitment and engagement of clients in HVIPs. As the emerging standard of care for violent injury in hospitals, studies advancing the practices of HVIPs are critical to ending the cycle of violence experienced by youth of color.

Domestic & intimate partner violence

0062

IN THE MIDST OF COVID-19: CHALLENGES AND CREATIVE SOLUTIONS TO CONDUCT A RANDOMIZED TRIAL WITH IMMIGRANT RELIGIOUS LEADERS TO PREVENT INTIMATE PARTNER VIOLENCE

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