Alcohol and substance abuse

0046 OVERDOSE DEATHS INVOLVING ALCOHOL IN US VETERANS

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Statement of purpose Alcohol-involved overdose deaths have increased in recent years and often occur in combination with other substances. To inform overdose prevention efforts, this study assessed patient characteristics and treatment utilization among Veterans who died from alcohol-involved overdoses nationally.

Methods/Approach Using Veterans Health Administration (VHA) records linked to National Death Index data from 2012 to 2017, trends in overdose mortality were examined and patient characteristics and treatment receipt were compared across alcohol overdose categories (alcohol alone, alcohol+opioids, alcohol+other substances).

Results Across the study period, 1497 Veterans died from alcohol overdose alone, 1078 Veterans died from alcohol+opioids and 289 died from alcohol+other substances. Veterans who overdosed on alcohol+opioids and alcohol+other substances were more likely to be homeless, live in urban areas, and more likely to have comorbid depressive disorder and stimulant use disorder. Only a minority of patients who died from alcohol-involved overdose were seen in substance use disorder treatment settings within a year before their death, but the majority were seen in either mental health or primary care settings. Only about 7% of Veterans who died from alcohol overdose received any medication treatment for alcohol use disorder in the year prior to their deaths.

Conclusions The vast majority of patients who died from alcohol overdose did not receive treatment in substance use disorder settings or effective medication treatments.

Significance This study is the first to examine treatment characteristics of people who died from alcohol-involved overdose and suggests further efforts are needed to prevent the spectrum of alcohol overdose deaths including implementing alcohol use disorder treatment in settings outside of substance use disorder settings.

Firearms

0047 INVESTIGATING THE FEASIBILITY AND ACCEPTABILITY OF FIREARM SAFETY COUNSELING AND DISTRIBUTION OF SAFE STORAGE DEVICES IN THE PEDIATRIC EMERGENCY DEPARTMENT

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Statement of purpose To assess feasibility and caregiver acceptability of providing firearm safety education and free safe-storage devices in the ED.

Methods/Approach Prospective feasibility study of caregivers in a pediatric ED. Participants completed electronic surveys on firearm safe-storage knowledge and practices, and received video-based firearm-safety education. We offered those with firearm access free cable locks and device education. We contacted subjects two weeks post-ED visit to assess firearm safety practices, cable lock use, and acceptability of the intervention.

Results We enrolled 307 participants. 43 participants (14%) reported a firearm in the home at some point during the week. 16/43 (37%) of families with guns had never received safe-storage information prior to this ED visit. Among those with handguns, 17% reported not using a safety device and 17% reported storing the gun loaded. 47 (15%) of all participants received one or more cable locks from the study team. 240 (78%) subjects completed the 2-week follow-up survey. 182 (75%) participants had shared the firearm-safety information they received with others, 213 (89%) felt the ED was an appropriate place to discuss firearm safety, and two participants had removed a firearm from their home. Of the 163 participants who had the opportunity to ask about firearms in the homes where their children visit, 111 (68%) did ask, compared to only 61/163 (37%) at time of ED intervention, ($p<0.01$). Amongst those with guns, 31/43 (89%) reported using a safe storage device for their firearm.

Conclusions It is feasible to provide firearm-safety education and cable locks to caretakers in the ED. Caretakers considered these practices acceptable and appropriate. The education and device distribution led to a change in intended and actual practices of firearm safety.

Significance Providing firearm safety education in the ED can lead to improved firearm safety practices.

TBI/concussion injuries

0048 VISIO-VESTIBULAR FUNCTION OF PEDIATRIC PATIENTS PRESENTING WITH THE FIRST CONCUSSION VS. A RECURRENT CONCUSSION

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Statement of purpose The purpose of this study was to investigate visio-vestibular examination (VVE) outcomes in high school-aged patients presenting with their first concussion vs. recurrent concussion.

Methods/Approach This study was performed by querying data collected prospectively in the electronic health record for patients aged 14–18 years old presenting for their initial injury visit to specialty concussion care centers within 28 days of injury between January 2018 and August 2020. Demographic information including lifetime concussions were self-reported prior to the start of the exam. The VVE consisted of 9 maneuvers: smooth pursuit, horizontal/vertical saccades and gaze stability, binocular convergence, left/right monocular

accommodation, and complex tandem gait. Primary outcomes included self-reported lifetime concussions (1 vs. 2+), VVE subtests (normal/abnormal for each), and total VVE score (abnormal= 2+ abnormal subtests). A multivariable logistic regression was employed to determine if recurrent concussion was associated with abnormal VVE outcomes while controlling for age.

Results One thousand fifty-two patients were included in analysis (age=15.6±1.2 years). Five hundred and nineteen (49.3%) presented with a recurrent concussion (median lifetime concussions=3, IQR=2,3). When controlling for age, there were no significant associations between first vs. recurrent concussion and VVE outcome on any of the 9 subtests or total VVE score ($P>0.05$).

Conclusion First vs. recurrent concussion is not associated with abnormal VVE outcomes in high school-aged patients. Our findings suggest that patients with a concussion history present with similar visio-vestibular function to those with no concussion history at initial visit following injury.

Significance Recurrent concussions have been associated with cumulative clinical deficits and longer recovery in collegiate athletes. This study provides novel insight into the initial presentation of pediatric concussion patients with and without a previous concussion history. Additionally, our study adds formative data regarding cumulative clinical effects of concussion in younger athletes.

Alcohol and substance abuse

0049

WITHIN-PERSON PREDICTORS OF SAME DAY ALCOHOL AND PRESCRIPTION OPIOID USE AMONG YOUTH PRESENTING TO AN URBAN EMERGENCY DEPARTMENT

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Statement of purpose To use longitudinal data collected from youth presenting to an urban emergency department to determine predictors of within-person changes in alcohol and prescription opioid same day use frequency.

Methods/Approach Research assistants recruited youth age 14–24 reporting past-six-month substance use into the Flint Youth Injury study from 11/2009–9/2011 ($n=599$; 349 violently-injured at baseline). Participants self-administered validated measures of alcohol use severity, cannabis use severity, mental health symptoms, social support/influences, and violent injury at baseline and four biannual follow-ups. In addition, participants completed Time Line Follow Back calendars (baseline: 30-days; follow-ups: 90-days) which allowed ascertainment of same day use of alcohol and prescription opioids. We calculated the prevalence of same day alcohol and prescription opioid at each follow-up, and used negative binomial regression with person-level fixed effects to isolate within-person predictor effects on same-day use frequency.

Results Between 2.0% (baseline) and 5.7% (18-month follow-up) of youth reported same-day use of alcohol and prescription opioids across follow-ups, with 19.9% reporting same-day use in at least one follow-up. Within-person increases in alcohol use severity, cannabis use severity, and depression and

anxiety symptoms all corresponded to increases in same day alcohol and prescription opioid use frequency. Increased exposure to positive peer influences, and decreased exposure to delinquent peers, both coincided with lower same day alcohol and prescription opioid use frequency.

Conclusions Same day use of alcohol and prescription opioids is common in this population, and within-person changes are predictable. Interrupting worsening trajectories of substance use severity and mental health symptoms, and enhancing social support and reducing delinquent peer exposures, may reduce same day use frequency.

Significance Co-use of alcohol and prescription opioids dramatically increases acute risks (e.g., overdose) associated with each; understanding within-person predictors of same day use may point to catalysts for behavior change.

Alcohol and substance abuse

0050

DESCRIPTIVE NETWORK ANALYSIS OF CO-OCCURRING DRUG USE DISORDERS AND ASSOCIATED PREDICTORS AMONG ADOLESCENTS AND EMERGING ADULTS PRESENTING TO AN URBAN EMERGENCY DEPARTMENT

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Statement of purpose Estimate frequency of drug use disorder (DUD), multiple substance co-diagnosis network characteristics, and predictors of DUD among youth entering an urban emergency department (ED).

Methods/Approach Drug-using youth age 14–24 ($n=599$; 349 assault-injured) presenting to a Level-1 ED were recruited. Participants were contacted at baseline and at 6-, 12-, 18-, and 24- months post-baseline and administered validated measures of peer/parental behaviors, violence/crime exposure, drug use self-efficacy, and alcohol use. Participants were administered the MINI neuropsychiatric interview to diagnose use disorder (abuse/dependence) with nine substances. Dependencies between co-DUD diagnosis were estimated using Ising network models. Repeated measures logistic regression models were used to determine predictors of DUD.

Results Among 2,630 assessments, 1,128 (42.9%) were DUD diagnoses; 21.7% were co-diagnoses with multiple drugs. Cannabis use disorder was the most frequent diagnosis ($n=1,050$), with the cannabis/prescription sedative combination the most common co-diagnosis ($n=112$). The cocaine/prescription opioid combination showed the strongest partial correlation and was the most central element in the network. Regression models show positive peer behaviors and parental support to be protective factors for DUD diagnosis, while interpersonal violence exposure, community violence/crime exposure, alcohol use quantity, other mental health diagnoses, and drug use self-efficacy were DUD risk factors.