Epidemiology of substance abuse and overdose

A MIXED METHODS COMPARISON OF A NATIONAL VS. STATE OPIOID OVERDOSE SURVEILLANCE DEFINITION

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Statement of Purpose In 2018, federal opioid epidemic funding doubled to $7.4 billion. National case definitions have been created to expand state-level surveillance efforts; we analyzed a CDC surveillance definition (Opioid V.1) to determine whether or not a state definition (NC DETECT) should be expanded to include additional ICD-10-CM codes and/or chief complaint keywords.

Methods/Approach Two clinically-trained independent reviewers retrospectively reviewed North Carolina (NC) ED visits to identify false positives generated by components of the Opioid V.1 definition not currently included in the NC DETECT definition. False positives were defined as any visit where available evidence, including triage notes and disposition diagnosis codes, supported an alternative explanation for patient presentation that reviewers deemed more likely than an opioid overdose. Following individual assessment, reviewers met to reconcile disagreements.

Results From 1/01/2018–7/31/2018, 2,296 ED visits were identified by Opioid V.1 but not NC DETECT criteria. Reviewers initially disagreed on 312 observations (13.6%); reconciliation led to 100% agreement. False positive rates ranged from 2.6%–41.4% for codes/keywords uniquely identifying at least 10 visits. Based on uniquely identifying 10+ visits and a false positive rate ≤10.0%, 4 of 16 (25.0%) ICD-10-CM codes evaluated were identified for NC DETECT definition inclusion. Only 2 of 25 (8%) keywords evaluated, ‘OD’ and ‘overdose’, met inclusion criteria.

Conclusions A detailed comparison of the CDC Opioid V.1 and NC DETECT opioid overdose case definitions showed significant variability in accuracy of keywords/diagnosis codes used in the federal surveillance definition.

Motor vehicle injuries and policy

THE ENFORCEMENT OF TEXTING WHILE DRIVING LAWS: A NATIONAL SURVEY OF POLICE

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Statement of Purpose While virtually all states have passed testing while driving (TWD) legislation, there is evidence that these laws may be difficult for police to enforce. Thus, a national survey of police was conducted to determine if barriers to cellphone law enforcement exist.

Methods/Approach A web-based survey was developed using Qualtrics software. The survey was assessed for content validity, pilot-tested, and verified for test-retest reliability prior to its release. Police departments from all 50 states were randomly selected and sent an electronic link to the survey via the department’s email or social media pages beginning in mid-November 2019. Frequencies and percentages of responses were assessed.

Results Despite its recent release, several officers (N=27) from numerous states (N=9) have responded. Among respondents, 85% (N=23) claimed that TWD is a serious threat to road user safety. Several officers (44%) report that they issue citations for TWD less than they issue speeding tickets. Nearly 48% reported that TWD citations are difficult to adjudicate (N=13). The largest barriers to enforcement are: narrowly focused laws (56%), laws which permit drivers to engage in some behaviors but not others (85%; e.g. driver is not permitted to text, but allowed to dial a phone number). Many officers (70%) felt drivers do not understand current distracted driving laws. The officers felt that making laws applicable to all licensed drivers (96%), a primary offense (93%), eliminating legal loopholes which permit some behaviors but not others (85%), and making one general law that eliminates any type of hand-held cell phone use could improve TWD enforcement (89%).

Conclusions Numerous barriers to TWD enforcement exist among police. Current legislation could be improved to facilitate enforcement.

Mental health consequences of violence

VARIABLE TRAJECTORIES OF POSTTRAUMATIC STRESS SYMPTOMS AMONG VIOLENTLY INJURED YOUTH

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Statement of Purpose It is common for posttraumatic stress symptoms (PTSS) to decline after a traumatic event; symptom distribution to areas most in need. Findings from this analysis show the importance of this type of investigation and may prove helpful for further state or national evaluations.
Of Social Support and Post-Injury Depression and Anxiety Among College Student-Athletes

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Purpose To examine the effects of different sources of social support (team vs. family/friends) during recovery from injury on post-injury depression and anxiety symptoms among college student-athletes.

Methods College student-athletes from two Big 10 universities were prospectively enrolled at the beginning of the 2007–2008 through 2011–2012 sport seasons and followed for injury. Depression and anxiety scores were assessed at baseline and at multiple time points post-injury until return-to-play. Linear mixed models were used to examine the effects of social support from family/friends or from the team (coaches, athletic trainers, and teammates) during recovery, along with satisfaction with the support received, on changes in post-injury depression and anxiety scores.

Results A total of 597 injuries (sustained by 397 athletes) were included in the analysis. Of these injuries, 67% occurred in males, 39.9% occurred during football, and 11.9% were concussions. Average depression and anxiety scores at baseline were 10.7 and 41.3, respectively. Results showed that the quantity of social support received from family/friends during recovery significantly influenced post-injury depression scores (β=0.60, p=0.028). No such relationship was found between social support received from the team and depression scores. Furthermore, overall satisfaction with social support received during recovery, regardless of the source of social support, was negatively associated with post-injury depression in both depression (p<0.01) and anxiety (p<0.01).

Conclusions Youth who experience violent injury exhibit moderate levels of PTSS; whether these improve or worsen in the weeks following injury is not associated with age or gender. Significance and Contributions to Injury and Violence Prevention A large proportion of violently injured youth report worsening PTSS over time suggesting a need for early intervention. Future efforts are needed to identify youth at greatest risk for escalation of PTSS.

Sports injury

Violence prevention policy and advocacy

MOVING BEYOND ‘SO WHAT?’ INTO ACTION

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National conversations about gun deaths are largely framed as community violence or mass shootings. However, gun suicides disproportionately contribute to the increase of gun deaths. Pennsylvania’s gun deaths and suicides outpace national rates, with rural communities disproportionately bearing the burden. Laws reducing gun access (e.g., ERPOS and Child Access Prevention) reduce gun suicides and overall gun deaths. Despite the evidence, Pennsylvania lawmakers fail to pass gun safety laws due to special interest pressures, ideology, and incorrect perceptions of the problem and corresponding solutions. The purpose of the study was to explore Pennsylvania lawmakers’ perceptions and understanding of gun suicides, if/how they use science to identify solutions, and their perceptions of legislative impasse. We conducted semi-structured interviews with a sample (n=9) of members of the Judiciary Committees from the Pennsylvania House of Representatives and Senate. Rural and suburban lawmakers identified suicide as a top concern in their districts. Few lawmakers relied on injury scientists to identify solutions or use it for framing the issue to colleagues and constituents. Some lawmakers relied on news stories or special interest groups, very few reported contacting researchers, despite robust local/regional expertise. Participants identified two roadblocks to law passage: 1) key colleagues captured by the NRA, and 2) rural constituents’ lack of understanding of the issue. They identified the need to message to constituents on gun suicides. Regardless of party, all lawmakers wanted to address this pressing health issue, with Republicans searching for answers outside of scientific communities due to fears of bias. Moving the impact out of journals and into the hands of constituents and lawmakers is critical.