Pediatric injuries

0094 AN INVESTIGATION OF RISK & PROTECTIVE FACTORS FOR SCHOOL-AGED CHILD INJURIES: THE INFLUENCE OF SIBLINGS

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Statement of purpose Previous research has identified a variety of risk and protective factors for injuries in school-aged children, including age, sex, number of siblings, and child risk taking behaviors. The goal of the present study was to go beyond these known risk factors and investigate if and how siblings influence the frequency and severity of childhood injuries.

Methods/Approach Seventy-nine families with two school-aged children aged seven and ten years old on average were recruited from the community; 54% were female. Parents were 38 years old on average and self-identified as multiracial (8%), Indigenous (18%), and European-Canadian (75%); 92% were female. Parents reported on the frequency of minor and medically-attended child injuries within the past three months. They also reported on child risk-taking behavior and sibling supervision. Children reported on warmth and hostility in their sibling relationships.

Results Larger sibling spacing but not number of siblings was significantly associated with more minor injuries for younger siblings. Boys with older brothers experienced significantly more medically-attended injuries than boys or girls with older sisters. Greater risk taking was related to significantly more minor injuries for both younger and older siblings. Younger but not older sibling minor injuries were negatively related to sibling warmth and positively related to sibling hostility. Sibling supervision was not associated with injury frequency or severity, but was negatively related to warmth reported by both younger and older siblings.

Conclusions In addition to well-known demographic characteristics, siblings played an influential role in both elevating and mitigating injury risk for school-aged children, with older siblings having a greater influence on safety.

Significance Siblings are often not taken into account in injury research, their influence on child safety is understudied. The present study highlighted some of the important aspects of sibling influence that could inform future injury prevention programs.

Epidemiology/surveillance

0095 2020: THE PANDEMIC, SOCIAL JUSTICE, POLITICAL CLIMATE, AND LAW ENFORCEMENT STRESS

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Statement of purpose Evaluate how external, national events in 2020 (i.e. COVID-19 pandemic, social justice, and the political climate) impacted law enforcement officer (LEO) stress.

Methods/Approach In September 2020, 18 patrol officers with at least one-year post-academy experience were recruited from

two police departments (urban and suburban) for semi-structured interviews. The purpose of the interviews was to explore if and how LEO stress changed due three specific external, nationwide stressors: 1) global pandemic; 2) social injustice; and 3) political climate. Interviews were conducted virtually and lasted approximately 1 hour. Emergent findings were grouped into categories of themes using an immersion-crystallization approach.

Results The average participant was 34 years old and 83% of officers were non-Hispanic White. The COVID-19 pandemic contributed to officer stress in three ways: 1) fewer, but more serious calls for service (i.e. homicides); 2) vulnerability of COVID-19 infection and fear of transmission to immediate family; and 3) financial instability from changes in side jobs (outside police work) and spouses' incomes. The political climate and social justice movements also contributed to officer stress through: 1) negative perceptions from the media and the public; 2) concerns about departmental support if force is exercised; and 3) concerns for own safety not directly related to calls for service (i.e. being ambushed). Additionally, officers reported stress overall due to changing guidance from administration. Together, the compound stress led to less proactive policing to avoid civilian encounters.

Conclusions LEOs experienced heightened levels of multifaceted stress due to 2020 events. Additional resources or interventions should immediately be implemented to combat mental health among LEOs.

Significance LEOs deal with chronic stress due to unique occupational duties. While high baseline levels of stress have been identified, the impact of 2020 events on stress had yet to be examined.

Partnerships for prevention

0096 SOCIAL SUPPORT IN FAMILY TREATMENT COURTS

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Statement of purpose Family treatment courts (FTC) are specialized courts that are meant to increase family reunification and treat substance use disorders. This intervention is targeted for parents/caregivers with child welfare cases of abuse and neglect in which substance use has been identified as a contributing factor. Although there are over 3000 drug treatment courts there are differences among them across the U.S. and little is known about the permanency of reunification among the program. Social support networks have played a large role in the recovery of substance use disorders, yet there is a gap in what kind of role these social supports play in permanency and reunification efforts in FTC's.

Methods/Approach The two phased study includes (1) observations of FTC's and (2) semi-structured interviews with participants and alumni of the FTC program. For phase one of the researchers will observe 12 weeks of FTC sessions and find themes within the sessions that speak to the caregiver/parent's social support systems. Phase two of the study will require participants to complete a toxic social network survey and a social support survey in addition to participation through a semi-structured interview. Both observations and interviews will be recorded and transcribed by a third-party service. After

reviewing transcripts, a codebook will be developed and used to analyze the data using Atlas t.i. Coding will be done independently and intercoder reliability will be assessed.

Results Re-occurring themes in the data analysis will inform the significance of social supports and what social supports are available to this population. Data collection is underway and preliminary study results will be available by April 2021.

Conclusions This research will inform what healthy relationships are supporting long-term recovery and appropriate parenting practices that could prevent child injury and abuse as well as increase permanency outcomes.

Transportation safety

0098 COMMUNITY ENGAGEMENT AND THE DEVELOPMENT OF A RURAL ROAD SAFETY CAMPAIGN

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Statement of purpose Evaluation of community engagement in the development and dissemination of a rural roadway safety campaign.

Methods/Approach We implemented 'We're On This Road Together,' a health communication campaign that targeted rural drivers' interactions with farm vehicles and had three main messages: Slow Down, Leave More Space, and Avoid Passing. Campaign development and implementation was guided by a community advisory board (CAB) who gave input and direction on campaign message design and dissemination at monthly meetings. They also led campaign activities (hanging banners, distributing swag-totes, car air fresheners, etc.).

To guide our future collaborations with CABs, we conducted in-depth, semi-structured telephone interviews with CAB members (n=8) in the summer of 2020. Interviews were recorded and audio files were transcribed by a third-party service. After transcription, a research team member coded the interview transcripts. Codes were then organized by common themes: 1) overall experience, 2) responsibilities & commitment, 3) perceived campaign success, 4) resources needed for project implementation, and 5) recommendations for improvement.

Results Interview length averaged 25 minutes (range: 16–41). CAB members reported overwhelmingly positive experiences, reasonable time commitment, and successful format and frequency of communication. They viewed the overall project a success and valued our team's community engagement efforts. However, the CAB had recommendations for improving campaign impact and reach, including adding online/social media campaign elements, expanding diversity of CAB membership (age, occupation/industry), and team-building activities to increase group bonding.

Conclusions Formation of a community advisory board was successful and critical in message development, implementation, and overall impact of our rural road safety campaign.

Significance This project demonstrates how to engage community advisors in development and delivery of a road safety campaign, which can be applied to other injury and violence prevention campaign activities.

TBI/Concussion injuries

0099 VALIDITY OF ICD-10-CM DIAGNOSIS CODES FOR TRAUMATIC BRAIN INJURY IN VA ADMINISTRATIVE DATA

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Statement of purpose International Classification of Diseases, Tenth Revision (ICD-10), Clinical Modification codes are used to identify Veterans with traumatic brain injury (TBI) for surveillance and research. We examined the validity of using ICD-10 codes in Veterans Health Administration (VA) administrative data to identify Veterans with TBI.

Methods/Approach Clinician-confirmed TBI cases and non-cases after October 1, 2016 were extracted from the VA Comprehensive TBI Evaluation (CTBIE) database, a standardized TBI evaluation tool, and used as the criterion standard. Accessing VA administrative healthcare data, we compared three series of TBI-related ICD-10 codes recommended by the Centers for Disease Control and Prevention (CDC), the Defense and Veterans Brain Injury Center (DVBIC), and the VA TBI Program Office (VA) to clinician-confirmed TBI diagnoses. Sensitivity, specificity, and concordance were calculated. The validity of distinguishing TBI severity (mild versus moderate/severe), using DVBIC-recommended codes, was also examined.

Results Among 29,767 Veterans who received a CTBIE between 2016 and 2019, 20,670 (69.4%) received a clinician-confirmed TBI diagnosis and 20,760 (69.7%) had at least one TBI-related ICD-10 code assigned from any series. The CDC series had low sensitivity (40.8%) but high specificity (80.7%; 53.0% concordance). The DVBIC series had moderate sensitivity and specificity (71.7% and 63.9%, respectively; 69.3% concordance). The VA series had high sensitivity (81.8%), but moderate specificity (58.8%; 74.7% concordance). The sensitivity of DVBIC-recommended codes to distinguish TBI severity was high (83.4%), but specificity was low (21.5%; 76.4% concordance).

Conclusion We found that all three series of ICD-10 codes for TBI resulted in considerable misclassification of clinician-confirmed TBI cases and non-cases. The potential misclassification in studies using ICD-10 codes to examine TBI prevalence and outcomes among Veterans should inform surveillance and research efforts.

Significance Examining the validity of methods used for enumerating TBI cases allows researchers to interpret and translate their findings in the context of potential error.

Social determinants of health

0101 COMMUNITY GREENING, FEAR OF CRIME, AND MENTAL HEALTH OUTCOMES IN FLINT, MICHIGAN

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