Violence research and prevention in healthcare settings

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A PILOT IMPLEMENTATION STUDY OF SAFERTEENS-PC: A VIOLENCE INTERVENTION FOR ADOLESCENT PRIMARY CARE PATIENTS

Meredith Kotov, Golfo Tzilos, Andria Eisman, Eric Sigel, Carrie Bourque, Patrick Carter, Rebecca Cunningham, Maureen Walton. *University of Michigan, Ann Arbor Michigan*

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Statement of Purpose Youth violence is a leading cause of morbidity and mortality. Adolescent primary care visits provide an opportunity for violence screening and delivery of interventions, which are not typically offered in this setting. Thus, we examined implementation of an evidenced-based behavioral intervention (SafeERteens) in primary care.

Methods/Approach Adolescents (ages 14–18) reporting past year aggression on a screening survey were eligible. A quasi-experimental design was used, enrolling a comparison sample (e.g., resource brochure) and an intervention sample, which consisted of clinic staff delivering a 30-minute Motivational Interviewing-based brief intervention, followed by automatic text message boosters over 8 weeks. Follow-up surveys were complete at 3-months.

Results Overall, about half (50.0%; 56.6%) of youth screened positive, with 110 enrolled ($n=49$ comparison; $n=61$ intervention). Intervention delivery characteristics varied by clinic, including completion (75.9%; 62.5%), modality (100% telehealth; 60% telehealth/40% in-person), and enrollment in text messages (81.8%; 55.0%). In analyses comparing relative changes over time (using an intent-to-treat approach), the intervention group showed significantly greater reductions in severe peer aggression ($p<0.05$), anxiety ($p<0.05$) and substance use consequences ($p<0.05$) relative to the comparison group. Other outcomes examined were in the expected direction, with greater reductions in intervention vs comparison groups in peer victimization, substance use, intention to avoid fighting, and depression (all $p's<0.10$). Participant and staff feedback was positive, identifying challenges to long-term implementation.

Conclusions Findings support the feasibility and preliminary effectiveness of delivering violence interventions in primary care, with key lessons learned informing future translation of behavioral interventions into routine care in primary care.

Significance/Contribution to Injury and Violence Prevention Primary care is a useful setting to identify adolescents involved with violence, and deliver interventions, which could reduce injury and improve health outcomes.

Violence prevention policy and advocacy

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ASSOCIATION BETWEEN FIREARM LAWS AND HOMICIDE AMONG EMERGING ADULTS

Cassandra Crifasi, Alexander McCourt, Daniel Webster. *Center for Gun Policy and Research, Johns Hopkins Bloomberg School of Public Health*

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Statement of Purpose To assess the impact of firearm laws on homicides among emerging adults (age 18–20) as they are disproportionately victimized in firearm homicide.

Methods/Approach We conducted an interrupted timeseries using negative binomial regression with state and year fixed effects to assess the impact of firearm laws on homicide among those age 18–20 between 1989–2015. Homicide was stratified by firearm and nonfirearm to test for specificity of the laws' effects. Laws were coded as 0 pre-implementation and 1 for the first full year post-implementation. Models controlled for several state demographic characteristics. Age appropriate sub-populations were used to calculate Incident Rate Ratios (IRR).

Results Among emerging adults, handgun purchaser licensing laws ($IRR=0.62$, 0.50–0.77), large capacity magazine bans ($IRR=0.80$, 0.69–0.92), and prohibitions for violent misdemeanors ($IRR=0.86$, 0.76–0.96) were associated with reductions in firearm homicide. Background check alone ($IRR=1.12$, 1.02–1.24) and shall issue laws without discretion ($IRR=1.18$, 1.05–1.31) were associated with increases in firearm homicide. Compared to current may issue concealed carry, no issue of permits was also associated with increases in firearm homicide ($IRR=1.15$, 1.02, 1.29). No policies were associated with changes in nonfirearm homicide.

Conclusions Laws requiring background checks are conducted as part of a licensing system, banning ownership among those convicted of a violence misdemeanor beyond domestic violence, and limiting magazine size are associated with reductions in firearm homicide among emerging adults. Laws that make it easier for civilians to carry guns in public are associated with increases in firearm homicide.

Significance and Contributions of Injury and Violence Prevention Science Emerging adults experience disproportionately high rates of firearm homicide. This is the first study to estimate the impact of firearm laws on homicide of emerging adults and offers specific policy solutions to reduce gun violence in this age group.

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URBAN–RURAL TRAUMATIC BRAIN INJURY MORTALITY DISPARITIES BY AGE AND MECHANISM OF INJURY

Lindsay Womack, Jill Daugherty, Kelly Sarmiento, Dana Waltzman. *Centers for Disease Control and Prevention*

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Statement of Purpose Traumatic brain injury (TBI) mortality rates have been shown to be higher in rural versus urban areas. Variation by age and intent/mechanism of injury has not been assessed. Urban–rural TBI mortality rate differences were quantified by age and intent/mechanism of injury.

Methods/Approach National Vital Statistics System mortality data (2015–2017) were analyzed by three urban–rural county classifications: large urban, medium/small urban, and rural. Excess TBI mortality rates were calculated relative to large urban areas (rate differences), which had the lowest TBI mortality rates. The proportions of deaths attributable to differences in urbanization (population attributable fraction) were estimated by dividing excess deaths by total TBI deaths. The