



## Original article

## Access to a Loaded Gun Without Adult Permission and School-Based Bullying



Maayan S. Simckes, M.P.H.<sup>a,\*</sup>, Joseph A. Simonetti, M.D., M.P.H.<sup>b,c</sup>,  
Megan A. Moreno, M.D., M.S. Ed., M.P.H.<sup>d,e</sup>, Frederick P. Rivara, M.D., M.P.H.<sup>d,e,f</sup>,  
Barbara A. Oudekerk, Ph.D.<sup>g</sup>, and Ali Rowhani-Rahbar, M.D., M.P.H., Ph.D.<sup>a,d,e,f</sup>

<sup>a</sup> Department of Epidemiology, University of Washington, Seattle, Washington

<sup>b</sup> Division of General Internal Medicine, University of Colorado, Denver, Colorado

<sup>c</sup> Rocky Mountain Mental Illness Research, Education and Clinical Center, VA Eastern Colorado Healthcare System, Denver, Colorado

<sup>d</sup> Department of Pediatrics, University of Washington, Seattle, Washington

<sup>e</sup> Center for Child Health, Behavior and Development, Seattle Children's Research Institute, Seattle, Washington

<sup>f</sup> Harborview Injury Prevention and Research Center, University of Washington, Seattle, Washington

<sup>g</sup> Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice, Washington, D.C.

**Article history:** Received January 28, 2017; Accepted March 28, 2017

**Keywords:** Adolescent; Bullying; Schools; Firearms

## A B S T R A C T

**Purpose:** Gun access and bullying are risk factors for sustaining or perpetrating violence among adolescents. Our knowledge of gun access among bullied students is limited.

**Methods:** We used data on students, aged 12–18 years, from the 2011 and 2013 School Crime Supplement to the National Crime Victimization Survey to assess the association between self-reported bullying victimization (traditional and cyber) and access to a loaded gun without adult permission. Prevalence ratios (PRs) and confidence intervals (CIs) were obtained from multivariable Poisson regression using the Taylor series after controlling for student age, sex, family income, public/private school, and race.

**Results:** Of 10,704 participants, 4.2% (95% CI: 3.8%–4.6%) reported gun access. Compared with nonbullied students, those who reported traditional bullying (PR = 2.2; 95% CI: 1.7–2.4), cyberbullying (PR = 2.8; 95% CI: 1.6–4.9), and both (PR = 5.9; 95% CI: 4.6–7.7) were more likely to also report gun access.

**Conclusions:** Adolescents who experience bullying, particularly those who report both traditional bullying and cyberbullying, are more likely to report access to a loaded gun without adult permission. These findings highlight the importance of developing interventions focused on these modifiable risk factors for preventing self-directed or interpersonal violence among youth.

© 2017 Society for Adolescent Health and Medicine. All rights reserved.

IMPLICATIONS AND  
CONTRIBUTION

This study found that school-aged adolescents who reported bullying victimization were more likely to report access to loaded guns, making them particularly vulnerable to self-inflicted injury and perpetration of interpersonal violence. Targeted training for parents of bullied children, teachers, and administrators may help improve health outcomes and school safety.

**Conflict of Interest:** The authors have no conflicts of interest to disclose.

**Disclaimer:** Any views expressed are those of the authors and do not necessarily represent the official opinion and policies of the Bureau of Justice Statistics or the Department of Justice.

\* Address correspondence to: Maayan S. Simckes, M.P.H., Department of Epidemiology, School of Public Health, University of Washington, 1959 NE Pacific Street, Seattle, WA 98195.

E-mail address: [msimckes@uw.edu](mailto:msimckes@uw.edu) (M.S. Simckes).

Gun use is a leading cause of interpersonal and self-inflicted injury and death among youth in the United States [1,2]. In 2014, there were 1,700 fatal and 9,231 nonfatal gun-related injuries among youth aged 12–18 years [3,4]. Several potentially modifiable contextual (e.g., gang presence at school) and individual (e.g., prior victimization) factors can influence the risk of gun violence among this age group [1].

Access to guns is a well-established risk factor for injury and death [5]. Among adolescents, simply being able to access a gun can increase the risk for gun violence, including suicide, homicide, and unintentional injury or death [5–10]. Much of prior research on gun access among adolescents has been limited to in-home access [5–10]. However, previous studies have also shown that adolescents may have access to guns in school, friends' homes, or other settings [6,11,12]. Regardless of the source, gun access might increase the risk of occurrence or the severity of violent injury and crime, especially among youth who are already at high risk of these outcomes [6,13]. One such high-risk group is youth who have been bullied at school [14–17].

School-based bullying behavior, including traditional bullying (e.g., verbal and physical) and cyberbullying (e.g., email, SMS, and social media), is a pervasive public health concern; national prevalence estimates of bullying victimization among school-aged youth range widely from 8% to 31% [18–20]. Known correlates of bullying victimization include sexual orientation, sex, race, physical disabilities, weight, and socioeconomic status [18,21]. Youth bullying targets are more likely to suffer from depression, anxiety, loneliness, and low self-esteem and are more likely to sustain injury, attempt suicide, and report recent substance use (alcohol, tobacco, marijuana, and inhalants) during adolescence and later in life [1,17,18,22–25]. Experience of multiple forms of interpersonal victimization strongly predicts symptoms of trauma (e.g., depression, anxiety, and aggression) among children and adolescents [26–28]. While traditional bullying and cyberbullying are sometimes described as similar yet independent constructs, the relative differences in impact between traditional bullying and cyberbullying are unclear [18]. Many adolescents report experiencing both, which may suggest a particularly vulnerable subgroup [29].

Little is known about gun access among bullied students and implications for outcomes such as self-inflicted injury or interpersonal violence. Much of prior evidence has been limited to weapon carrying and bullying victimization [30]. Multiple studies have examined gun carrying among youth and identified its correlates, such as demographic characteristics (e.g., male sex) and risky behaviors (being victimized, getting into physical fights at school, school avoidance, lower academic achievement, and substance use) among other factors. Previous evidence suggests that bullied students report gun carrying more frequently than nonbullied students [17,31]. What is less understood is whether bullied students' increased likelihood of gun carrying is in part due to greater access to guns compared with nonbullied students. Some research has examined how youth who carried guns had gained access to them; however, not all adolescents who have access to guns necessarily carry them [6,32]. The relationship between gun access and gun carrying is nuanced, as access precedes carrying, although access may take different forms for different students, just as the reasons for carrying can differ. Having access to a gun is a modifiable precursor to carrying a gun, and knowing who is most likely to have gun access is important for tailoring prevention resources to adolescents at the highest risk. Therefore, a broader view of "gun exposure" that includes gun access can improve our understanding of how it is associated with health outcomes among adolescents and those around them [20].

In the 2013 "Priorities for Research to Reduce the Threat of Firearm-Related Violence" report, the National Academy of Medicine called for researchers to "identify factors associated with juveniles and youths having access to, possessing, and carrying

guns [1]." Studying the joint presence of access to loaded guns without adult permission and bullying victimization among adolescents may shed light on a fraction of youth at particularly high risk of perpetrating or sustaining violence. Among a nationally representative sample of youth in the United States, the goals of this study were to determine the prevalence of access to a loaded gun without adult permission and compare the prevalence of access by bullying victimization status and type (traditional, cyber, and both). We hypothesized that, after controlling for sociodemographic characteristics, youth who experienced bullying victimization would be more likely to also report access to a loaded gun without parental permission compared with those who had not experienced bullying victimization.

## Methods

### *Data source and study sample*

We aggregated data from the 2011 and 2013 School Crime Supplements (SCSs) to the National Crime Victimization Survey (NCVS) to assess the association between self-reported bullying victimization and access to a loaded gun without adult permission. The NCVS is a nationally representative sample of U.S. households identified using a stratified multistage cluster sampling method. Adolescents aged 12–18 years who attended school for any duration in the 6 months before the survey administration and who lived in households participating in the NCVS were eligible to participate in the SCS. Response proportions for the SCS can be calculated based on student percentage of participation in the SCS alone or in combination with percentages of household participation in the NCVS. Considering SCS participation alone, the response proportions for the SCS were 63% and 60% in 2011 and 2013, respectively. Including nonresponse at the NCVS household level, the total response proportions for the SCS were 57% and 51% in 2011 and 2013, respectively [33,34]. The National Center for Education Statistics conducted nonresponse bias analysis and concluded nonresponse bias had minimal influence on SCS results. The SCS is conducted every other year, generally between January and June, and collects interview data from around 5,000 adolescents about their experiences during the current school year including bullying and perceptions of the school environment, such as school security, adult involvement, exposure and access to weapons and illicit substances, and presence of gangs. The protocol for in-person and telephone-interviewing eligible SCS participants has been described elsewhere [35]. This analysis of previously collected deidentified data did not require the institutional review board approval by the University of Washington Human Subjects Division.

### *Sociodemographic variables*

We abstracted the following sociodemographic variables for each respondent: age, sex, race, household income, and school type (public/private).

### *Access to a loaded gun without adult permission*

The main outcome of this study was self-reported access to a loaded gun without adult permission (yes/no/do not know) during the current school year, which was assessed using the

Download English Version:

<https://daneshyari.com/en/article/5121246>

Download Persian Version:

<https://daneshyari.com/article/5121246>

[Daneshyari.com](https://daneshyari.com)