



## Commentary: Easy home gun access and adolescent depression

David Hemenway

Harvard TH Chan School of Public Health, United States

### ARTICLE INFO

#### Keywords:

Firearms

Depression

Fear

Adolescents

Suicide

### 1. Introduction

Many public health issues are classic “prisoner's dilemma” problems: individual actions are good for the individual but bad for society. Thus, while I may willingly take my groceries home in plastic bags, run my gas-powered leaf blower, and heat my house with oil because it is easiest and cheapest for me, these choices destroy the environment that belongs to everyone.

The public health problems caused by the proliferation of guns is not initially a prisoner's dilemma problem, so one might think it should be easier to solve. Virtually every gun in the United States begins as a legal gun, bought by a legal gun owner—someone able to pass the national background check. Virtually all guns are brought into the community lawfully. About one third of households contain firearms. Yet the scientific evidence increasingly shows that acquiring a gun not only imperils others in the community, but it also increases the risk of death for the gun owner and the gun owner's family. The Newtown shooting illustrates the point—Adam Lanza not only killed many innocent children in the community, but he also killed his mother and himself.

Many previous studies have shown that a gun in the home substantially increases the risk of suicide, accidental gun death, and intimidation and murder of the women in the home (Hemenway, 2011). While gun ownership can confer satisfaction from hunting, sports shooting, collecting, carrying on a family tradition, feeling (if not actually being) safer, and so on, I know of no study that shows actual health benefits of having a gun in the household. Kim's (2018) study suggests an additional cost—a gun in the home may increase mental health issues for girls in the home.

### 2. Main findings

In Kim's (2018) large longitudinal cohort study of adolescents, gaining easy access to a firearm in the home is associated with increased depression among girls and increased fear in school. Kim suggests that increased fear in school may be the reason for the increased levels of depression, though there is no direct evidence in the study for that type of causation. A survey of adolescents *does* indicate that, among girls, low perceived levels of safety is a predictor of suicidality (i.e., suicidal ideation and suicide attempts) (Juan and Hemenway, 2016), and that, among all adolescents, depression is associated with an increased likelihood of taking guns to school (Juan and Hemenway, 2017). Kim also suggests in passing that in-home firearm access may increase the adolescent's beliefs about the number of classmates taking guns to school. This suggestion is plausible, although Kim's study provides no direct evidence concerning this conjecture. Nonetheless, a study of Boston adolescents did find that those who had carried a gun estimated that a higher percentage of their classmates were carrying than those who had not carried (Hemenway et al., 2011).

The key finding of the current study is that access to guns in the home may reduce the psychological well-being of gun owners' children. Of course, even though this study is careful, competent, and longitudinal, it is still only one study, and no one should jump to the conclusion that these findings would be similar in other populations, or that the associations are causative. It is one of the first studies to investigate this possible relationship (and its data are over 20 years old) and the only one to use longitudinal data to investigate changes in gun access and changes in the psychological well-being of the children in the household.

Studies of adults have found that those living in a home with a gun are no more or less likely than adults living in homes without guns to have recent (Miller et al., 2009) or lifetime (Ilgén et al., 2008) mental

E-mail address: [hemenway@hsph.harvard.edu](mailto:hemenway@hsph.harvard.edu).

<https://doi.org/10.1016/j.socscimed.2017.12.031>

Received 7 December 2017; Received in revised form 22 December 2017; Accepted 22 December 2017  
0277-9536/© 2017 Elsevier Ltd. All rights reserved.

health problems, or sadness and depression (Sorenson and Vittes, 2008). Nor are they more or less likely to report suicidal thoughts or plans (Betz et al., 2011; Miller et al., 2009; Ilgen et al., 2008). However, those who live in homes with guns are more likely to have made a recent suicide attempt (Miller et al., 2009; Ilgen et al., 2008).

Studies have also compared the mental health problems of adolescents living in homes with and without guns. A cross-sectional analysis, also using the Add Health data set, found that ease of access to guns at home was somewhat associated with suicidality (Resnick et al., 1997). By contrast, a cross-sectional analysis using data from the adolescent supplement of the National Comorbidity Study found that while adolescents living in homes with guns had a higher prevalence of alcohol abuse and drug abuse than adolescents living in home without guns, they were no more likely to have a history of mental illness or suicidality (Simonetti et al., 2015). In terms of firearm storage, a cross-sectional analysis using data from a managed care plan found that there was no significant difference in storage practices between gun-owning households with adolescents with mental illness and households with adolescents without mental illness (Simonetti et al., 2017). These prior studies were all cross-sectional, while Kim's (2018) current study has the advantage of looking at changes in mental health as access to firearms in the home changes. Another strength of the current study is its sample size and the use of various approaches to analyze the data, including fixed effect regression analyses as well as propensity-score matching. That these approaches give similar results gives more confidence in the findings.

Previous studies suggest that households with firearms and households without firearms are no different in terms of mental health risk factors for suicide so that the key difference in their suicide rates appears to be due to the firearm. The Add Health data indicate that compared to girls living in homes without firearms, those living in homes with firearms may be more depressed—but that the higher levels of depression might be due to the accessibility of the firearm.

### 2.1. Does the “gun pull the trigger”?

Kim's (2018) result that increased access to a gun in the home was associated with increased depression and fear among adolescent girls is reminiscent of other studies of the psychological effects of guns. One type is the large series of psychological studies that indicate that “the gun may pull the trigger”—that just seeing a gun can increase both aggressive thoughts and behavior. A recent meta-analysis of 78 studies on this issue concluded that the mere presence of weapons increases (a) aggressive thoughts, (b) hostile appraisals, and (c) actual aggression (Benjamin et al., 2017). The finding from the meta-analysis is that the “weapons effect” is quite robust—it occurred in both laboratory and non-laboratory settings, for males and for females, for college students and for non-students, for individuals who were provoked and those who were not provoked, for seeing actual weapons and for viewing photos. Most relevant to Kim's (2018) study is the suggestion that a gun might increase hostile appraisals, which seemingly could influence whether one feels fear in various situations and locations, including school. There does not appear to be much literature concerning a possible weapons effect for feeling depressed or fearful.

### 2.2. Fear

Another somewhat related literature concerns guns and fear. For example, fear may be engendered by others having, or carrying, guns. Surveys of urban adolescents in the United States find that (too) many carry guns, that a main reason they carry is because they are afraid, and the reason they are afraid is because other urban adolescents are carrying firearms. In this instance, it is somewhat less clear whether they are trapped in a prisoner's dilemma game; what is certain is that what too many perceive is better for themselves (gun carrying) is clearly worse for society. When these adolescents are asked about the kind of

world they would want to live in: one where it is (a) easy, (b) difficult, or (c) impossible for teens like themselves to gain access to firearms, the overwhelming majority (and even most teens who have reported illegally carrying a firearm) would like to live in a world where it is impossible for teens like themselves to gain access to firearms (Hemenway et al., 1996, 2011). This world is not what adults have created for them.

While most US guns were bought initially for hunting or target shooting, recently acquired guns have been increasingly obtained for protection—almost always for protection against strangers (Azrael et al., 2017). The literature on guns and fear suggests that fear is a reason that people buy guns, that having a gun makes the owner feel safer, but that it makes others in the community feel less safe (Hemenway et al., 1995; Miller et al., 2000). Note that such studies may have only limited relevance to the specific issue at hand since they focus on adults rather than adolescents.

### 2.3. Girls

Kim's (2018) study finds different effects of bringing a gun into the home for girls compared to boys. Studies find that males and females have very different attitudes about and behaviors concerning guns. Females are far less likely to own a gun, less likely to believe a gun in the home makes it a safer place, and more likely to support gun control measures (Marie Claire magazine, 2016). Females are far less likely than males to be the shooter or victim of a gun accident, far less likely to commit suicide with a gun, and far less likely to be either the perpetrator or victim of a gun homicide (Hemenway, 2017a). The Add Health adolescent data used in Kim's study find that girls generally report higher levels of depressive symptoms and feel less safe at school than boys. It is thus not terribly surprising that, as found in the current study, adolescent girls may have somewhat different psychological responses to a gun in the home than adolescent boys.

### 2.4. Research needs

Kim's (2018) findings cry out for additional research. It would be good to know much more about the effect, if any, of a gun in the home on the attitudes and behaviors of adolescents living in the home. There are studies that—not surprisingly—find that a gun in the home increases the likelihood of adolescent gun carrying outside the home (Molnar et al., 2004) but not about the psychological effects on adolescents of having a gun in the home.

What are the positive as well as negative effects on adolescents of having a gun in the home? Might it depend on why the gun was brought into the home, how it is stored, how it is used, and by other dynamics in the home environment? Might the link between changes in gun access and depressive symptoms be due to a third factor (e.g., a threat to the family that led to the acquisition of a firearm)? Kim's (2018) study only asked whether a gun was easily available to the adolescent—it did not determine whether any change over time in the response to that question was due to a change in household gun ownership, gun storage, or some other factor. It also only examined changes in adolescent gun access and depressive symptoms and did not examine other mental health issues such as anxiety disorders. In addition, it looked only at a one-to two-year period; it provided no information about possible long-term effects. We need more studies to determine, at minimum, if the reported phenomenon is likely causal and a truly significant concern for gun owners.

### 2.5. Research dissemination

If other studies also find that household guns can lead to mental or emotional problems for adolescents, then we not only have to understand why, but also how to effectively disseminate the information to the public. We are not currently doing a very good job of disseminating

Download English Version:

<https://daneshyari.com/en/article/7328000>

Download Persian Version:

<https://daneshyari.com/article/7328000>

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