Firearm Safety and Injury Prevention

Description

Firearm injuries in the United States have caused more than 30,000 deaths each year since 2005. 1 Although often thought of as a single issue, firearm injuries have many different etiologies, each of which has a variety of causes and contributing factors. 1-2 Effective firearm injury prevention has long eluded the United States in spite of widespread agreement across ideological lines on many issues related to firearm safety – for instance, that unlawful purchasers and violent offenders should be restricted from accessing firearms, that safe firearm ownership is a common goal, and that gun deaths can and should be decreased. 3-10

At the heart of this inability to reduce firearm injuries lies a scarcity of data and little research. 11-13 Simply put, scientists today don’t know enough about firearm injuries to have a very good idea of how to reduce them. 11-16 In 1996, after 10 years of “high-quality, peer-reviewed research into the underlying causes of firearm violence,” 14 Congress defunded the Centers for Disease Control and Prevention (CDC) firearm injury prevention budget and passed a law that effectively shut down federal research into firearm injuries. 17-19 As a result, although firearms and sepsis killed nearly the same number of people between 2004 and 2015, federal funding for firearm injury prevention was approximately 0.7% of what sepsis initiatives received and publication volume was approximately 4%. 20-22

Research into issues of importance to firearm owners is also lacking. 13 America’s division over issues related to firearms often breaks along lines of gun ownership, 23 with one side tending to view firearms as beneficial, necessary, and a protected right, and the other tending to view them as harmful, unnecessary, and a threat to personal safety. 3 Virtually no firearm research to date has studied arguably beneficial aspects of firearm ownership, nor has it studied the effects that proposed firearm legislation will have on firearm owners. 13 Such research is important not only for a full and balanced understanding of firearms in America, but also because partnerships between firearm violence prevention researchers and pro-gun communities are a vital part of effective firearm injury prevention interventions. 2,3,13,24-27

The current state of knowledge about firearm injuries does not mean that we know nothing. Screening suicidal and homicidal patients for access to firearms in the emergency department – and enacting safety measures to decrease the chances that they will gain access to a firearm 22,124,125 – can reduce firearms deaths among these patients. 28-30 It is important that emergency nurses know (1) that such screening is protected by the First Amendment, 42 and (2) that firearm owners might be concerned that their answers to such questions could constitute a record of firearm ownership that might be used against them in the future, especially as medical records become increasingly permanent and portable in the digital era. 32-34 Emergency nurses, as professional, non-judgmental parties who understand that the effectiveness of this intervention is dependent on their patients feeling comfortable sharing with them, should be explicit with patients about the degree to which they will document firearm ownership information in the medical record.

In addition, always storing firearms safely – that is, locked in a firearm safe and/or with a trigger lock or a cable lock that passes through the firearm’s chamber or barrel – has consistently been shown to decrease not only deaths from accidental discharge among children, but also suicide among both adolescents and adults. 13,35-38 Perhaps more important, safe storage of firearms is an intervention that has been embraced by both pro-firearm and violence prevention groups. 5,25,39-45 Clinicians can play an effective role in educating people about safe storage practices, although such interventions appear to be more effective when a free lock is provided. 46-48 Child access prevention laws – which place responsibility for a child accessing a firearm on its owner and therefore presume the safe storage of firearms – also have been shown to reduce firearm injuries and deaths in children and young adults, and are broadly popular across ideological lines. 49

Homicide is a leading cause of death for American women less than 45 years old. 54 Nearly half of these homicides are committed by a former or current intimate partner. 1,31-54 Intimate partner violence (IPV) homicides can be reduced by
removing firearms from – and prohibiting the purchase of firearms by – individuals who have domestic violence restraining orders against them or who have been convicted of domestic violence misdemeanors.\textsuperscript{50} Evidence also suggests that these laws are associated with not just fewer IPV and family homicides, but also fewer firearm homicides in general.\textsuperscript{50,55-56}

Finally, background checks – which are designed to prevent the purchase of guns by prohibited individuals (e.g., convicted felons, minors, fugitives from justice, etc.)\textsuperscript{57} – are currently required under federal law for all purchases transacted through a licensed firearm dealer.\textsuperscript{57} However, these background checks are not required for private sales in most states.\textsuperscript{57,58} It is estimated that 22% of firearm purchases occur through private transactions that do not require this background check that screens for prohibited possessors.\textsuperscript{59} So-called “universal” background checks (i.e., background checks for both private and licensed firearm purchases) have been shown to reduce not only suicides by firearm, but also violent crime and homicides.\textsuperscript{55,60-62} In addition, polls have consistently found that the vast majority of Americans – both Democrats and Republicans, firearm owners and non-firearm owners – support universal background checks.\textsuperscript{59,63-66}

**ENA Position**

It is the position of the Emergency Nurses Association that:

1. The Dickey Amendment’s effective ban on firearm research and Congress’s annual decision to restrict funding for firearm research over the past 22 years has greatly hindered our nation’s ability to understand not only firearm injury and evidence-based public health interventions, but also issues of importance to firearm owners.

2. Federal funding for data collection and research into public health questions related to firearm injuries and injury prevention is necessary in order to understand the problem and to implement effective firearm injury prevention strategies.

3. It is possible to conduct scientific research into the prevention of firearm injuries and deaths, and to implement effective firearm injury prevention strategies, without encroaching on the Second Amendment rights of firearm owners.

4. Evidence-based screening tools be implemented in emergency departments to assist in the identification of individuals at high risk for death or injury from firearms.

5. Emergency nurses serve as healthcare consumer advocates, educating the public about firearm safety measures and supporting evidence-based programs that target the prevention of firearm injuries.

6. Emergency nurses, regardless of their personal opinions about guns or gun control, recognize their ability to effect positive outcomes with regard to firearm injuries, and treat this issue in the exercise of their professional duties in the same non-judgmental way that they would any other topic on which people have strong opinions or feelings.

7. The Emergency Nurses Association supports the screening of patients at danger to themselves or others for access to firearms; safe storage of firearms; childhood access prevention laws; laws that prohibit access to firearms by those who have domestic violence restraining orders against them or have been convicted of domestic violence misdemeanors; and the expansion of background checks in accordance with 18 U.S.C. 922[g][1-9] such that they be required for the purchase of all firearms, whether sold by a licensed firearm dealer or a private party.
Background

More than 38,000 Americans were killed by guns in 2016, the last year for which data are available.1 “Firearm violence,” broadly defined, is not one problem; it is many problems.2,67 For example, suicide, homicide, and unintentional deaths each have very different etiologies and contributing factors. Suicide accounts for the bulk of firearm deaths, and also the bulk of racially white firearm deaths (83%), but suicide accounts for less than 2% of non-white firearm deaths.1,68 Homicide, which accounts for less than 40% of all firearm deaths, accounts for the majority of racially non-white firearm deaths (80%) but only 15% of white firearm deaths.1,69 “Mass shootings” are at least three very different problems: mass public shootings, familicide mass shootings, and other felony mass shootings.78 They account for less than 0.3% of annual firearm deaths, and more than half of mass shootings between 2009 and 2016 fell into the category of familicide mass shootings.1,70-77

Scientists don’t have the rudimentary data needed to answer some of the most basic questions about firearm injuries.11-14,79 In 1996 Congress passed the Dickey Amendment which, when combined with a defunding of the CDC’s firearm injury prevention budget, has effectively shut down CDC research into firearm injuries for more than twenty years.14,17,19,21,22,80,83,131 It also sent a clear message to researchers that studying firearm injuries could imperil their careers.84 In 2011Congress expanded the Dickey Amendment’s prohibitions to apply to the National Institutes of Health as well.55,86 In 2013 the President directed the CDC to develop a research agenda for firearm-related violence97 and requested $10 million each year between 2014 and 2017 to do so,98-92 but Congress denied that funding.99-101 (As a point of reference, Congress allocated $240 million to traffic safety and $331 million to studying the effects of tobacco — together more than 50 times the request — in 2015 alone.)102,103 In 2018 Democrats and Republicans reached a compromise to explicitly state that the CDC “has the authority to conduct research on the causes of firearm violence,”103 but still has not allocated funding for such research. Notably, Jay Dickey, the Republican Congressman who proposed the Dickey Amendment, has since argued strongly for publicly-funded research on firearm injuries.14

As a result of this lack of funding and research, causative factors and effective interventions — which are well understood for other forms of violent injury and death in the U.S. — are largely unknown for firearm injuries.13 When a runner is hit by a car in the pre-dawn darkness we know from data and research that contributing factors included an uncontrolled intersection with crosswalk lines worn to near-invisibility, a lack of speed bumps, and the runner not wearing reflectors or lights.14 The same goes for many aspects of vehicle collisions, motorcycle collisions, drownings, etc.14,96,97 The National Violent Death Reporting System (NVDRS), which was created in 2002 and is the only federal database to provide contextual data for firearm deaths (non-fatal shootings are excluded), was only fully funded in September, 2018.135 As a result of a lack of funding over the preceding 16 years it only collects data from 40 states and only provides data for 32 of them.11,13,51 The NVDRS website explicitly states that its data “are not nationally representative.”51 The so-called Tiahrt Amendments, passed by Congress in 2003 and 2004, prohibit scientists from studying data related to guns used in crimes.13,99 The division of the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) that traces guns used in crimes is prohibited by federal law from using a computer or creating any kind of searchable database (even handwritten).100 There is no government database that tracks mass shooting events, so depending on which non-governmental database one consults, there were 7, 65, 332, or 371 mass shootings in 2015.101 There is also no agreed-upon definition — whether among scientists or the media — as to what constitutes a “mass shooting.”101 By law, nobody knows how many guns — or how many gun owners — there are in the U.S., nor the distribution of gun types, how people acquire them, or what they use them for.12,102,103 The vast majority of laws that lawmakers, media pundits, and the general public believe to be good ideas for reducing gun violence have no evidence to support them.13 (That isn’t to say that the laws are ineffective, but rather that we are not collecting the data that would tell us which laws work and which do not.) As the director of Johns Hopkins’ Center for Gun Policy and Research has said, “I think that people assume that we have a lot more information than we really do when it comes to guns.”104

There has also been almost no research into issues of importance to the more than 97 million firearm owners in the U.S.,13 half of whom say that owning a gun is important to their overall identity and 74% of whom say that owning a firearm is tied to their personal freedom.9 It is estimated that there is a gun in 42% to 47% of American households (that number is well over 60% in some states),9,103,105,106 and self-protection is self-reported as a reason for firearm ownership among 67% of firearm owners.
owners. However, rigorous studies of the effects that firearm injury mitigation strategies would have on self-protection have rarely been conducted.\textsuperscript{9,13,132} The same can be said for the effect of concealed carry laws on crime prevention, the effects that firearm policies have on gun owners and the segment of the economy that they support, and more. Effective public health interventions require not only understanding all aspects of gun ownership and use, but also creating partnerships with advocates of firearm ownership.\textsuperscript{2,3,13,24-27}

Studies over the past 30 years have consistently shown that households with firearms have higher suicide rates, although the data problem highlighted above has hidden the precise cause(s).\textsuperscript{105,107,108} Some conclusions about impulsivity in suicide have been mixed, in large part due to a lack of consistent definition of “impulsivity” in suicide research,\textsuperscript{109} but it is clear that many suicide decisions occur suddenly after a trigger event, with little planning.\textsuperscript{110-113} Consequently, they can often be thwarted by reducing access to the means of carrying out the suicide until the crisis has passed.\textsuperscript{110,114-118} This is a particularly salient point in the case of suicide by firearm, which is more likely to be fatal than any other method.\textsuperscript{119,120} Many who are contemplating suicide do not substitute another method when the primary means becomes inaccessible,\textsuperscript{110} however, even in cases in which substitution occurs, the alternate means is nearly always less likely to be fatal than using a firearm. Delaying access to firearms or making firearm access difficult for people in a suicidal crisis can decrease the number of firearms-related deaths.\textsuperscript{110,114-118} This so-called “means restriction” has been shown to be effective both with firearms and other suicide means in other parts of the world.\textsuperscript{110,114-118} That said, ED providers generally report confidence in screening for suicide, they also express weaknesses in further assessment, counseling, and referral skills.\textsuperscript{121-123} Nevertheless, resources are available.\textsuperscript{124,125} It is important to note that the 11\textsuperscript{th} Circuit Court of Appeals ruled in 2017 that such questions fall within clinicians’ First Amendment right to free speech, and states cannot prohibit healthcare professionals from asking about firearm access and safe storage practices.\textsuperscript{31,124,126}

Firearm access is associated with increased severity of intimate partner homicide, and firearm prohibitions for those under domestic violence restraining orders (DVRO) significantly reduce rates of intimate partner homicide.\textsuperscript{59,127} Congress enacted the Violent Crime Control and Law Enforcement Act in 1994\textsuperscript{128} and the Lautenberg Amendment to the Firearm Control Act of 1968 in 1996,\textsuperscript{129} which together prohibit the possession of a firearm by anybody who (1) has a restraining order against him/her that protects an intimate partner or his/her child, or (2) has been convicted of a misdemeanor crime of domestic violence.\textsuperscript{50} Some individual states also have additional laws intended to protect people from intimate partner homicide. Evidence shows that these laws save lives.\textsuperscript{50,55-56}

Currently 11 states and the District of Columbia require background checks for all firearm purchases – i.e., both purchases from firearm dealers and from private parties.\textsuperscript{130} Universal background checks are not a panacea – there will always be illegal ways of obtaining a firearm – and states are not required to submit information to the National Instant Criminal Background Check System (NICS).\textsuperscript{58} However, background checks decrease suicides and homicides by firearm, as well as violent crime in general,\textsuperscript{55,60,61} and there is good reason to extend that which is already required of commercial sales to private sales as well.\textsuperscript{2,79}

Firearms constitute the 14\textsuperscript{th} leading cause of death for Americans and the second highest cause of violent death after motor vehicle collisions. Emergency nurses can play an active role in educating the public about firearm safety and injury prevention, screening suicidal patients for access to firearms and enacting safety measures to limit the likelihood of suicide by firearm and promoting the need for more research.
Resources


References


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Position Statement

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