

In Opposition to the Ban on Gun Violence Research Funding

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Abstract

The purpose of this paper is to draw attention to the lack of federal funding toward gun violence-related research in the United States. Gun violence is a major cause of injury and death in our country, and should be studied, as with any public health concern. Unfortunately, its politicization has reduced federal funding toward its research to nearly zero. In our paper, we outline some of the social, health, and financial impacts of gun violence, and discuss the value in researching this epidemic. In doing so, we hope to encourage our generation of doctors to recognize gun violence as a public health issue that needs healthcare involvement. In addition, we call for research that could prevent many individuals from hospitalizations related to gun violence.

Firearms are used to injure more than 67,000 Americans and result in over 32,000 deaths in the United States every year (Fowler, Dahlberg, Haileyesus, & Annest, 2015). While some attribute these high levels of gun violence to the prevalence of gun ownership in America, others believe mental illness is to blame. One thing is certain: gun violence in America is a crisis. These statistics should qualify firearm-related injuries and deaths as a public health concern that deserves study, as was the case before 1996 (Kellerman & Rivara, 2013). In an effort by pro-gun members of Congress to completely eliminate the National Center for Injury and Control at the Centers for Disease Control and Prevention (CDC), the House of Representatives succeeded in cutting the

CDC's budget by \$2.6 million, equal to the agency's expenditures on firearm injury research in the previous year (Kellerman & Rivara, 2013). Since that point, the politicization of gun violence research has hamstrung any federal funding of this issue. As a result, research into the root causes and potential solutions of gun violence has virtually ceased from major academic institutions such as the National Institutes of Health (NIH) and the CDC (Leshner, Altevogt, Lee, McCoy, & Kelley, 2013). The lack of peer-reviewed research has left our policymakers with little to no evidence to act on, and has left the American people vulnerable to this epidemic. As future physicians and scientists, we must acknowledge that gun violence is a public

health crisis, and that the first step to reducing gun violence is understanding it (Fowler et al., 2015).

While federally-funded research into the root causes of gun violence has been limited, some independently-funded research has examined its negative consequences for communities and healthcare systems. The consequences of gun violence not only devastate victims themselves, but it also affects the mental health of our communities and siphons money from the hospitals that treat its victims, often without reimbursement (Lee, Quraishi, Bhatnagar, Zafonte, & Masiakos, 2014; Cook, 1999). Of note, research has shown that an incidence of gun violence in a community can cause serious long-term and short-term mental health effects regarding those who witness it, especially in terms of the youth population. Consequences may include inhibited brain development, post-traumatic stress, and desensitization to violence (Leshner et al., 2013). Additionally, the financial cost to treat an average victim of gun violence is over 75,000 dollars (Fowler et al., 2015). This adds up to nearly thirteen million dollars per day and close to five billion dollars per year—money that is allocated away from research or the treatment of other patients. While the human, social, and financial costs of gun violence are staggering, there are alternatives to simply resigning ourselves to this status-quo. Other large-scale societal problems have been greatly reduced through the process of conducting scientific research into root causes, sharing this information with the public, and using the information to inform

legislation. In the same manner, we propose a scientific approach to gun violence. We need to empower our scientists to better understand how guns can safely be incorporated into our society and enable our physicians to disseminate this information to their patients.

This kind of approach has been successfully employed for other causes, such as improving car safety. By analyzing car accident data, engineers were able to identify the underlying causes of car accident fatalities, and they devised safety precautions such as airbags, seatbelts, and compressible chaises to make car accidents less fatal (Keller, 2013). Additionally, risk factors such as the consumption of alcohol, sleep deprivation, and dementia were elucidated paving way for better policies and user awareness (Berger, Rosner, Kark, & Bennett, 2000). Ideally, similar strides could be made to reduce gun violence in America if data were collected and made public, and if physicians could assist in its dissemination.

The limited peer-reviewed research that exists on this issue has already demonstrated that, as with other health related issues, there are calculable risk factors that make certain individuals more likely to commit a firearm-related crime. These risk factors include socioeconomic status, a history of alcohol abuse, a juvenile criminal record, and a history of violent crimes (Vittes, Vernick, & Webster, 2013). Dr. Garen Wintemute, a leading researcher on the issue of gun violence, showed in a 1998 study that a person with one prior nonviolent misdemeanor conviction had a significantly

greater chance of committing a new offense involving firearms (Wintemute, Drake, Beaumont, Wright, & Parham, 1998). He later demonstrated in a 2002 California DOJ-funded study that denying handgun purchases to those with a history of violent misdemeanors reduced those individuals' risk of being arrested for a violent or firearm-related crime (Wintemute et al., 2002). These studies offer Californian politicians with clear evidence to make corroborated and impactful policy for their constituents, and they also offer a model for the nation to follow as well.

As with other healthcare risks, evidence has also shown that physician education can reduce the incidence of improper firearm care. A study by Albright and Burge (2003) surveyed 127 gun owners and discovered that 64% of those instructed in proper firearm safety made positive changes in gun storage, compared with 33% of those who received no counseling. Although this study used a small sample size, it nevertheless demonstrates the benefits of treating gun safety as a healthcare issue, and suggests the value of further research into gun violence. Physicians have a unique opportunity to reduce gun violence by asking their patients about firearm storage and proper use, identifying potential problems, and providing counseling to ensure the safety of both gun owners and others in their households who may gain access to these weapons.

As previous studies have shown, not only does gun violence directly impact the victims of gun-related injuries, but it also

affects society more broadly via potentially compromised childhood brain development, impaired mental health, post-traumatic stress, and a certain sensitization to violence in children exposed to gun violence. Thus, gun-related violence causes detriments to general public health and therefore deserves proper federal funding to better understand and develop safety measures and effective screening for risk factors. For future physicians, there should be a particular emphasis on the use of research to help make decisions in for everyday practice, which would thus include working closely with gun owners and related individuals regarding the potential risks, benefits, and safety measures, particularly in households with minors and patients with intellectual disabilities. Ultimately, it is critical for our politicians to understand the costs of continuing the 1996 ban on federal research into gun violence at the CDC and NIH. In other words, we advocate that this ban be overturned. With increased research from such institutions, the chances of attaining a safer environment and better health outcomes for the future generation are much greater.

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