Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Abstract:

Firearms remain a common cause of injury in children. Advocacy is a tool that can be useful in effecting systemic change. Yet for firearm injury prevention, traditional methods of effecting change face unique barriers not experienced in other areas of pediatric injury prevention. As pediatric emergency medicine physicians, we are on the front lines, and as part of the receiving end of the trauma inflicted on our communities by firearms, ours is a powerful voice well suited to overcome these barriers. Current firearm advocacy efforts include raising awareness via social media or editorials, organizing larger advocacy groups for support, challenging legislation, and implementing hospital-based violence intervention programs. Future advocacy directions should include collaborating with unique partners, teleadvocacy, direct action, and finding common ground with gun regulation opposition. Physician advocacy is essential to firearm injury prevention. Continuing to innovate around our advocacy efforts will be vital to the health and safety of our patients.

Keywords:

firearms; advocacy; pediatrics; pediatric emergency medicine

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Never Just a Shot in the Dark: Pediatric Firearm Advocacy

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Firearms are a common cause of injury-related death in children, accounting for a quarter of all fatalities. They were the second leading cause of injury death among all Americans in 2018.[1] In 2019, there were 419 mass shootings, the most since 2013 when the Gun Violence Archive started recording these events.[2,3] Furthermore, the direct and indirect costs of gun violence tally up to almost 230 billion dollars each year.[4] Despite the significant toll of firearms on American lives, legislation is stalled and research on firearms trails behind other leading causes of death.[5]

Among children, being male, older, and black puts you at the highest risk of injury or death by firearm. Although assault remains the most common intent for both deaths and injuries from firearms, suicide is the second leading cause of death by firearm. Accidental shootings are the second leading cause of firearm injury (Figures 1 and 2).[1,6] Younger children are more likely to be killed or injured in an accidental shooting. White and Native American children are more likely to die by suiide by firearm.[7]

As pediatric emergency medicine physicians, we see firsthand the damage a gun can do, with roughly 20 000 emergency department (ED) firearm-related visits each year.[8] We are the doctors running the trauma response for the teenager with a large vertical abdominal scar who presents with a gunshot wound to the head. What could we have done for him the first time he came to us for help? Although the essence of emergency medicine is acute care, it is not lost on us that much of what we see is the result of missed opportunities for

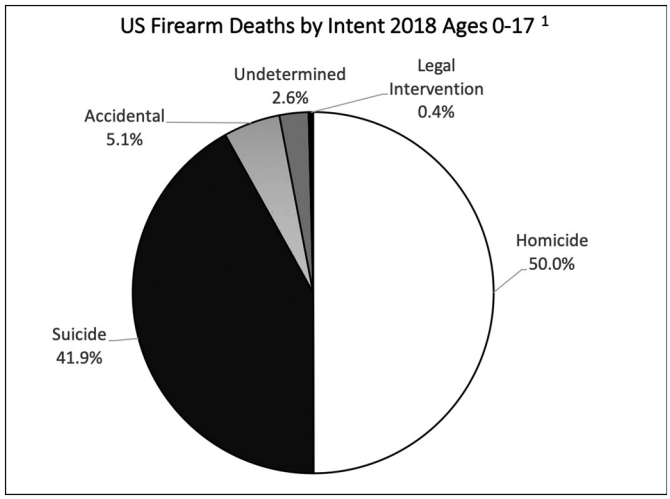

Figure 1. US firearm deaths by intent, 2018, ages 0-17 years.[1]

prevention. We are in a unique position of influence; we see children and families during times of crisis. What we say and do carries weight. Asking about the presence of a firearm in the home for a child could be just as life-saving as removing an airway foreign body just in time. Think of the child who wants to retaliate against that bully or the teen who admits to you that they just do not want to live. As pediatric emergency medicine physicians, it is imperative that we own firearm safety.

BARRIERS

How to stem the rising tide of firearm deaths and injuries remains a contentious topic in America. Federal legislative action has been slow moving in recent years (Figure 3). Most Americans support gun safety regulations such as background checks and red flag laws, yet legislation has failed to pass through Congress.[9] In 2019, for example, of the bills introduced into Congress, 110 included the word *gun*. Of these, the only one to become law was the spending bill that ended the government shutdown and provided 20 million dollars to "reduce crime and gun violence." None of the others, including laws pertaining to background checks, assault weapons, gun violence research, or red flag laws, have made it out of committee.[10] Lobbying efforts of the National Rifle Association and other gun rights groups have stymied the passage of new regulations.[11] Furthermore, details of the laws, such as what constitutes an "assault weapon," have led to more challenges related to interpretation and execution.[12]

Research into how to best prevent morbidity and mortality from firearms also lags behind. Much of the stifling of research can be attributed to the Dickey

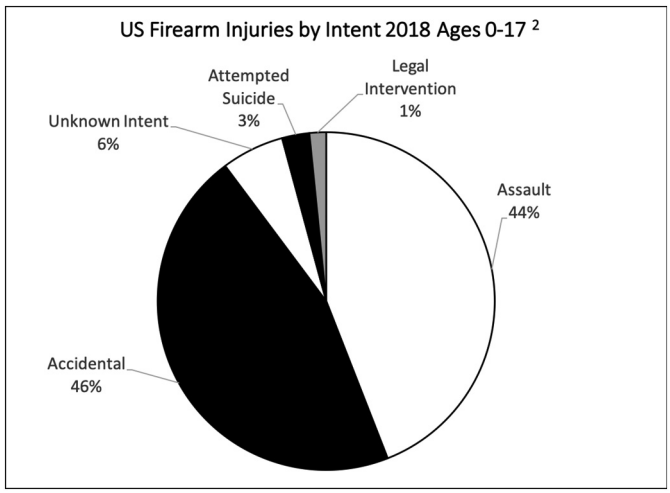

Figure 2. US firearm deaths by intent, 2018, ages 0-17 years.[2]

Figure 3. US firearm legislation impacting children.[40-46]

Amendment, a requirement in the 1996 appropriations bill mandating that "none of the funds made available to the Centers for Disease Control and Prevention (CDC) for injury prevention and reduction may be used to advocate or promote gun control."[13] Until very recently, this directive drastically limited the amount of funding available for firearm research.[14,15]

The culture of gun ownership in America has led to difficulty in finding evidence-based solutions to curb firearm-related death and injuries. Americans on both sides of this issue have firmly held beliefs that are difficult to change.[16] These passionate beliefs can derail attempts to have honest conversations about the issue. Researchers in firearm injury and prevention are more likely to experience threats due to their research, likely stemming from these same passionate beliefs.[17] With the gridlock in Congress, the dearth of research, and the split in culture, advocacy may be the best way to achieve the reduction in firearm injuries we desire.

ADVOCACY

Although there are barriers to our work, effective advocacy can be successful. Social media can be a

powerful tool for advocacy. Movements can be organic, as was with the #ThisIsOurLane response. In response to a statement from the American College of Physicians, the National Rifle Association tweeted that "Someone should tell self-important anti-gun doctors to stay in their lane."[18] Subsequently, numerous physicians and other health care partners shared their personal stories of caring for victims of gun violence, accompanied by gripping photos.[19] This grassroots movement led to the creation of an advocacy pledge on the American College of Physicians' Web site, position statements from the American College of Surgeons and the American Medical Association, and a press conference on Capitol Hill.[20,21]

Opinion editorials (op-eds) can also influence change in the positions of readers, especially the lay public.[21,22] Medical professionals underestimate the impact they can have by publishing an op-ed. Health care providers are generally regarded as trusted sources of information. The combination of scientific knowledge and personal experiences can lead to effective and emotionally appealing editorials. In recent years, a number of physicians have written op-eds on the gun violence epidemic.[23-25] Writing an op-ed might seem intimidating, but resources like the Op-Ed Project have helped to amplify previously underrepresented voices.[26]

Overcoming barriers can be easier if you have colleagues who share similar beliefs. Those shared feelings and support are likely why we have seen a recent increase in groups organizing around firearm injury prevention, such as the American Foundation for Firearm Reduction in Medicine and Firearm Safety Among Children and Teens. These groups have held academic conferences, supported grants, and produced consensus statements that push beyond individual advocacy.

Advocacy can start locally as well. What began in 2015 as a small group of pediatrician moms seeking advice from each other on how to ask about firearms in the home prior to play dates grew into a hospital-wide gun violence prevention group, Safer through Advocacy, Firearm Education, and Research (SAFER). Currently, SAFER is comprised of almost 40 members working together to promote gun safety. This group has been active in: (1) research endeavors, having published more than 5 articles related to firearm injuries in children; (2) both local and national educational efforts, holding workshops at national society meetings; and (3) advocacy through testifying on the Hill, meeting with local members of Congress, and authoring op-eds advocating for gun safety. Examples of the high-impact work that has arisen from SAFER include a comprehensive review of pediatric firearm injuries that was published in *Hospital Pediatrics* in 2017 and a cross-sectional analysis of the association of pediatric firearm-related deaths with strictness of gun laws in *Pediatrics* in 2019.[27,28] Furthermore, SAFER has participated in a 3-year consecutively accepted workshop on pediatric firearm injury prevention at the Pediatric Academic Societies national meetings.

Challenging laws that interfere with the health of patients can also provide a pathway to advocacy. In 2011, Florida passed a "physician gag law" that prevented doctors from asking their patients if they had a gun in their home.[29] Successful passage of the Florida law inspired other states to introduce similar legislation in their own jurisdictions. Because of advocacy by individual doctors and larger organizations, including the American Academy of Pediatrics, gag laws around the country were successfully challenged and repealed.[30] Physicians must be aware of the laws where they practice and be willing to challenge them if they impact the health of our patients or constrain our duties as doctors.

Hospital-based intervention programs are a unique way that physicians, especially emergency medicine physicians, can help prevent gun violence. A number of these programs have sprung up across the United States to address the trauma we are seeing in our communities. Programs like the Philadelphia Violence Intervention Program or Oakland's Caught in the Crossfire have demonstrated that timely, patient-centered programs can improve outcomes and decrease retraumatization for assaulted youth. These programs also share best practices through the National Network of Hospital Based Violence Intervention Programs,[31] which has a best practices primer available on its Web site for starting a violence intervention program based in an ED.[32]

FUTURE DIRECTIONS

The future pediatric emergency medicine voice for firearm safety advocacy needs to be more unified. Having more people stand with you means your voice is louder and your reach is longer. The power of many results in an amplified message with greater depth. This collaboration may happen within our walls, as hospitals form multidisciplinary networks to implement programs or advocate for change. Now is also the time to look for creative partnerships outside our walls with local health departments, businesses, or schools. Community groups are already doing this work. How can we fit in to that framework to meet the needs of the community and be accountable to those we serve?

The ongoing COVID-19 pandemic is an excellent example of how breaking down walls fosters innovation; COVID-19 has shown us the power of telehealth and telework. Why not teleadvocacy? Organizing across institutions or state lines is not the barrier it once was. We can reach at-risk communities as well. The recent explosion in affordable technology allows more and more of our patients to have access to smart phones.[33] From virtual home visits that allow us to gain direct insight into our patients' lives to interactive webinars that allow us to reach and connect with multidisciplinary audiences, teleadvocacy has exciting potential. Let us unite, amplify, and support each other; break down walls, both physical and figurative; innovate; and reach beyond what we thought was possible so that the future of our youngest patients is one without gun violence.

We also should consider embracing other strategies we may not have considered in the past. Direct action aims to "achieve our goals through our own activity rather than through the actions of others."[34] These actions look to disrupt "business as usual" and work to actively create the world we want to see. Groups such as AIDS Coalition to Unleash Power, Code Pink, and Green Peace have all used direct action to push for change, whether it is interrupting a political conference, dropping banners to disrupt shipping lanes, or blocking traffic. The impact of medical professionals risking arrest to fight for causes they believe in is powerful. Doctors have engaged in direct action over climate change and immigrant detention centers.[35,36] It is time that gun violence is added to that list.

Finally, we must adapt our messaging to meet our communities where they are. Americans have diverse reasons for owning a gun, yet they all agree that they want to keep their children safe. Our job as clinicians, educators, and advocates is to understand their motivations and provide safer options in line with their beliefs. For too long have we said that the only safe house is a gun-free house. Given the injuries we see as pediatric emergency care providers, many of us have sworn to never have pools or trampolines or jungle gyms in our backyards. Yet we still talk to families about safety around those common items because we want to help families keep their kids free from harm. We have to treat guns and gun safety the same way and embrace tailored harm reduction strategies that speak to all of our families.

Focusing our advocacy efforts may also increase the efficacy of our work. One of the more palatable interventions is safe storage of firearms. Many unintentional shootings of children occur when improperly secured firearms are picked up and played with by children.[37] Parents that own firearms are more likely to consider safely storing their firearm as opposed to removing their firearm from their home entirely.[38] From simple gun locks to biometric safes, we need to advocate for effective and affordable gun storage options for every family.

Targeting suicide prevention is another topic that has bipartisan support and could be a good target for advocacy. Emergency Protective Orders or "Red Flag" laws allow for the removal of guns from someone deemed a threat to themselves or others and are backed by about three quarters of Americans.[9] At least 17 states have Emergency Protective Orders laws. Hawaii and Nevada are the 2 latest to go into effect, both on January 1, 2020.[39] The universal desire to prevent suicides could garner additional support for advocacy around firearm safety legislation or programing. Already, advocates are forming unique partnerships with firearm dealers and firing range owners to better reach gun owners or purchasers who may be suicidal. Ultimately, innovative ideas may be what moves our advocacy forward.

SUMMARY

Gun violence harms people every day, from the person injured or killed to the person pulling the trigger and all those left behind. There is no magic bullet or quick fix for this public health crisis. While we continue to provide care to the victims of firearm injury from the front lines, let us also use our collective voice to advocate for safety and prevention. Our goal is that, one day, the announcement "trauma stat, 7 year old GSW" will be just a memory on our ED shifts.

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