Editorials

Primary Care Physicians' Role in Counseling About Gun Safety

ANUPAM B. JENA, MD, PhD, Harvard Medical School, Boston, Massachusetts VINAY PRASAD, MD, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, Maryland

News stories of gun violence have ignited the debate about what public health measures are appropriate for reducing the epidemic of gun injury and death. Although critics of stricter gun policies cite data showing stable rates of gun-related homicide over the past decade, these statistics ignore the increased rate of shootings and that improved trauma care has stabilized the death rate. With the shooting rate climbing, primary care physicians may reasonably ask what role they can play in reducing injuries.

Looking to the existing evidence base provides some insights, but research on gun violence has generally been scarce, in part because of controversial restrictions on research funding for this topic.² A case-control study that examined risk factors among adolescents with a self-inflicted injury or who unintentionally injured another person with a firearm found that guns and ammunition were less likely to be locked up, and guns were less likely to be stored unloaded and separately from ammunition.3 Findings from this and related research have implications for physician counseling: guns, if kept in the household, should be unloaded, locked up, and stored separately from ammunition.

Early studies of community-based efforts suggested that this advice could be leveraged for change. One before-and-after study in North Carolina used a multimedia campaign to invite 112 gun owners to a firearm safety seminar. The group demonstrated that tailored counseling could improve the rate of locking up guns and ammunition, and storing firearms unloaded.⁴ This study was limited by the self-selected nature of participants and the lack of a control group.

When similar counseling interventions have been tested in a clinical setting, the results have been mixed. In a study of 56 health care professionals randomized to a counseling intervention, there was no difference in the rate of new gun purchases, existing gun disposal, or the use of gun locks.⁵ In contrast, another randomized study found that counseling with or without a gun safety brochure improved the rate of safe gun practices.⁶

To some extent, physician attitudes mesh with these findings. For example, in a 2013 survey of internists, 85% of those surveyed believed firearm injury is a public health issue and 66% believed that physicians should have the right to counsel patients about firearm safety.7 However, 58% reported never discussing firearm safety with their patients. Similarly, a 1995 survey of pediatricians and family physicians showed that nearly one-half of physicians surveyed believed that they have a duty to counsel patients about firearm safety, although few found the time to do so in practice.8 The question then becomes: aside from time constraints, why don't primary care physicians counsel patients about gun safety more often? Some evidence suggests that physicians believe that advice to remove guns from the home is rarely well received by patients who own guns, although advice about locking up guns and ammunition is better received.8 An important consideration that is commonly overlooked is that counseling about gun safety competes with other clinical care priorities, such as counseling about weight loss, smoking, and exercise, and the diagnosis and management of chronic medical conditions. Whether counseling patients about gun safety is a good idea is not the correct question. It is whether the benefits of this counseling outweigh the benefits of other services and types of counseling that primary care physicians must provide.

In our view, for physicians to effectively and efficiently counsel patients about gun safety, they must be able to identify patients who are at highest risk of gun-related injury.

Editorials

This is no different than spending more time counseling the overweight patient with diabetes mellitus about the importance of a healthy lifestyle than the four-time marathon runner.

Vulnerable persons represent an important at-risk category that may benefit from targeted counseling, especially during vulnerable time periods. Emerging data suggest that there are certain vulnerable periods during which patients are at elevated risk of suicide. Studies consistently show higher rates of suicide after psychiatric hospitalization^{9,10} and after medical hospitalization among older patients.¹¹ According to the Centers for Disease Control and Prevention, firearms account for more than 50% of suicides among adult men and nearly 30% among adult women.¹² Among adolescents, suicide ranks as the second leading cause of death, and firearms account for between 40% and 50% of all suicides in this population.¹³

Among adolescents hospitalized for firearm-related injuries in a nationally representative sample, most injuries were related to assault. It seems reasonable to inquire about access to guns among adolescents and parents of adolescents in an effort to reduce firearm-related suicide and assault risk. The same is true of hospitalized adults being discharged from psychiatric inpatient facilities, particularly those who are older, male, and unemployed, and those with poor social support systems. Physicians should also consider counseling patients with depression or other mental illness. A review of systems for all of these patients may include questions about the availability of guns in the household and tailored advice thereafter.

Despite the potential benefits, several states have attempted to pass legislation that would prohibit physicians from talking with their patients about firearm ownership and safety (commonly referred to as gag laws). At least nine states have introduced gag legislation since 2011. Although most states have failed to enact these laws, Montana and Minnesota have had them in place since 2013.¹⁵

Reducing gun injury is not only amenable to action at the level of policy and public health initiatives, but that of individual physicians. While this editorial restricts its approach to gun safety based on the best evidence available, an advocacy approach such as the one put forth in the American College of Physicians' recent position paper has merit in galvanizing attention to gun violence, as it addresses a range of legal and policy issues that are an essential part of the broader discourse on gun safety. In addition to this broad advocacy approach, we believe that an efficient use of scarce time and resources among physicians should result in emphasis being placed on the identification of high-risk patients who would benefit from targeted gun safety counseling. Clinical trials are needed to identify these patients and determine what

interventions are effective. In the meantime, physicians must decide which patients will benefit most from a few minutes of discussion about diet, exercise, workplace safety, or gun safety, among the many possible topics available. A better understanding of who is at highest risk may help prioritize this choice.

The views and opinions are of the authors and theirs alone. They do not reflect those of the organizations with which they are associated.

AFP editorials do not reflect policies of the AAFP, unless otherwise stated.

Address correspondence to Anupam B. Jena, MD, PhD, at jena@hcp. med.harvard.edu. Reprints are not available from the authors.

Author disclosure: No relevant financial affiliations.

REFERENCES

- Jena AB, et al. Does the declining lethality of gunshot injuries mask a rising epidemic of gun violence in the United States? [published ahead of print January 23, 2014]. J Gen Intern Med. http://link.springer.com/ article/10.1007%2Fs11606-014-2779-z/fulltext.html. Accessed April 17, 2014.
- Kellermann AL, Rivara FP. Silencing the science on gun research. JAMA. 2013;309(6):549-550.
- 3. Grossman DC, et al. Gun storage practices and risk of youth suicide and unintentional firearm injuries. *JAMA*. 2005; 293(6):707-714.
- 4. Coyne-Beasley T, et al. "Love our kids, lock your guns": a community-based firearm safety counseling and gun lock distribution program. *Arch Pediatr Adolesc Med.* 2001;155(6):659-664.
- 5. Grossman DC, et al. Firearm safety counseling in primary care pediatrics: a randomized, controlled trial. *Pediatrics*. 2000;106(1 pt 1):22-26.
- Albright TL, Burge SK. Improving firearm storage habits: impact of brief office counseling by family physicians. J Am Board Fam Pract. 2003; 16(1):40-46.
- 7. Butkus R, Weissman A. Internists' attitudes toward prevention of firearm injury. *Ann Intern Med.* 2014;160(12):821-827.
- Grossman DC, et al. Firearm injury prevention counseling by pediatricians and family physicians. Practices and beliefs. Arch Pediatr Adolesc Med. 1995;149(9):973-977.
- 9. Appleby L, et al. Suicide within 12 months of contact with mental health services: national clinical survey. *BMJ.* 1999;318 (7193):1235-1239.
- Crawford MJ. Suicide following discharge from in-patient psychiatric care. Adv Psychiatr Treat. 2004;10:434-438.
- 11. Erlangsen A, et al. The effect of hospitalization with medical illnesses on the suicide risk in the oldest old: a population-based register study. *J Am Geriatr Soc.* 2005;53(5):771-776.
- Centers for Disease Control and Prevention. Percentage of suicides among persons ages 10 years and older, by sex and mechanism, United States, 2005-2009. http://www.cdc.gov/violenceprevention/suicide/ statistics/mechanism01.html. Accessed March 14, 2014.
- Centers for Disease Control and Prevention. Percentage of suicides among persons ages 10-24 years, by race/ethnicity and mechanism, United States, 2005-2009. http://www.cdc.gov/violenceprevention/ suicide/statistics/mechanism03.html. Accessed March 14, 2014.
- 14. Leventhal JM, et al. Hospitalizations due to firearm injuries in children and adolescents. *Pediatrics*. 2014;133(2):219-225.
- Law Center to Prevent Gun Violence. Tracking state gun laws: 2014 developments. http://smartgunlaws.org/tracking-state-gun-laws-2014-developments. Accessed April 17, 2014.
- 16. Butkus R, et al.; Health and Public Policy Committee of the American College of Physicians. Reducing firearm-related injuries and deaths in the United States: Executive summary of a policy position paper from the American College of Physicians. *Ann Intern Med*. 2014;160(12):858-860. ■