

Guns and Older Adults: The Physician's Role

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In 2016, the American Medical Association¹ declared that gun violence is a public health crisis and called for repeal of the 1996 Dickey Amendment, which specified “that none of the funds made available for injury prevention and control at the Centers for Disease Control and Prevention [CDC] may be used to advocate or promote gun control.”² Despite concerted efforts by the Obama administration to dismantle the rule, the 2015 omnibus spending bill passed with the Dickey Amendment intact.

The 2018 omnibus spending bill passed with the following language inserted: “The Secretary of Health and Human Services has stated that the CDC has the authority to conduct research on the causes of gun violence.”³ This language was misinterpreted by some as a repeal of the original Dickey amendment. However, although the new language removes the tacit constraint, researchers note that it does not actually allocate funding for such research.⁴

Gun safety remains a public health crisis, as evidenced by several tragic school shootings and massacres involving high-powered, semiautomatic firearms. For individuals aged 15 to 34 years, suicide and homicide, often gun-related, rank as the second- and third-leading causes of death, respectively.⁵ Despite excess morbidity in adults aged 65 years or older, suicide ranks as the 16th leading cause of death.⁵ Older persons have 3 significant risk factors predisposing them to negative outcomes related to firearms: (1) the highest rates of gun ownership, (2) the highest rate of suicide, and (3) the greatest prevalence of depression.⁶

Older adults (aged 65 years or older) are less likely to be victims of violent and serious violent crimes at a rate of 5.2/1000 and 1.5/1000, respectively, compared with individuals aged 50 to 64 years, whose victimization rates are 14.2/1000 and 5.7/1000, respectively.⁷ In comparison, young adults aged 18 to 24 years have a violent crime rate of 25.1/1000.⁷ However, with age and debility,

there is an increased risk that a gun owner will become the victim of his or her own gun.

According to Hsieh et al,⁸ 27% of adults older than 65 years own 1 or more firearms, and more than 37% reside in a home where a firearm is present. In a cohort of 495 patients with dementia or related mental health issues, Hsieh et al⁸ found that 89 (18%) lived in a home with 1 or more firearms. Of these 89 patients, 62 (70%) had a diagnosis of dementia, 33 (37%) had delusions, and 15 (17%) had documented hallucinations. Moreover, 57 patients (65%) had a diagnosis of depression.

Hsieh et al⁸ noted that family members often did not volunteer information about the presence of guns in the home, nor did primary care providers or other health care workers routinely ask about the presence of firearms for patients with dementing diseases. These findings suggest an increased risk for both suicide and homicide in older adults at risk of dementia or psychiatric illness, as further discussed in the following sections.

Depression, Suicide, and Guns in Older Adults

Case Scenario

A 72-year-old white man admitted to the hospital after a fall had several thoracic and lumbar compression fractures. Imaging results revealed multiple lesions throughout the vertebral column and lungs that appeared to be metastases. Oncologic evaluation confirmed that the patient had metastatic prostate cancer.

The patient, a widower, lived alone in a small cottage with his cat, whom he described as his best friend. The care team met with the oncologist to discuss treatment options, which the patient immediately rejected. He stated that he wanted to get home as soon as possible; he felt that he had lived “long enough” and was “worried about the cat.”

A social worker, who met with the patient to discuss home care services, mentioned to the attending physician that the patient seemed quite despondent but focused on going home. Psychiatric evaluation found that he had major depressive disorder (MDD) but was competent to make his own decisions. Antidepressant medication was prescribed and the patient was discharged to home.

Two days later, he was brought to the emergency department, dead. He had shot himself in the head. Later, the resident on service admitted that he had known that the patient owned a firearm.

Case Discussion

This case highlights some risk factors (older widowed white male, new diagnosis of a serious illness, depression), which, in retrospect, were “red flags” that may have prompted a more thorough investigation into the patient’s suicidal ideation and a potential life-saving intervention.

Older adults, especially older white men, are the largest group of individuals to complete suicide.⁹ Westefeld et al¹⁰ noted that suicide rates are rising in adults aged 75 years or older, with those adults older than 85 years having the greatest prevalence of completed suicides at a rate of 65.3/100,000. Unlike adolescents or younger adults, older adults are also more likely to verbalize suicide intent and to use violent means such as guns.¹¹ Clearly, assessing an older person’s risk of suicide requires discussion as to whether he or she has access to or the intent to purchase a firearm.

A study by Conwell and Brent¹² that examined the completed suicides of older adults found that 50% to 66% of the decedents had a diagnosis of MDD. For suicidal patients, the precipitating factors often involve losses imposed by physical illness, such as chronic pain or loss of functional abilities, or psychosocial losses, such as death or divorce, loss of an occupation with which an individual closely associates his or her personal sense of value, or financial debt.

Studies^{13,14} found that significant numbers of potentially suicidal patients had contacted their primary care

physician in the weeks or months before a suicide attempt. Patients attempting suicide were twice as likely to see their physician as they were a mental health care provider, and nearly 50% visited their physician within 30 days of the attempt. This finding has prompted attention as to how health care professionals can intercede and to what extent they are appropriate gatekeepers for treating older adults with MDD and suicidal ideation.

Dementia and Guns in Older Adults

Case Scenario

An 80-year-old black man with longstanding type 2 diabetes mellitus, hypertension, and chronic kidney disease was experiencing cognitive decline from Alzheimer disease. He lived alone in a senior citizen high-rise apartment and was receiving personal care services 5 days per week through the Area Agency on Aging. To minimize his confusion, the agency had established a stable relationship for this man with the same home health aide for several months.

One morning, despite having known this aide for some time, the patient exhibited increased confusion and failed to recognize the aide. He perceived her to be an intruder. She attempted to calm him but was unable to reorient him. He became increasingly agitated and, after several minutes, he retreated to his bedroom. On return to the living area, he shot and killed her.

Case Discussion

This unfortunate case describes a double tragedy: the loss of an innocent life in the face of another person’s progressive dementing disease. In 2016, an estimated 5.4 million US adults had Alzheimer disease, a number that is projected to swell to 13.8 million by 2050 due to increased longevity and the “baby boom generation” reaching older age.¹⁵ Alzheimer disease alone is estimated to cause approximately 60%¹⁶ of all dementias, with the other 40% attributed to vascular events, Lewy body disease, frontotemporal dementia,

Parkinson disease, Huntington disease, Wernicke-Korsakoff syndrome, Creutzfeldt-Jakob disease, normal pressure hydrocephalus, and mixed causes. The diagnosis of Alzheimer disease or other dementia increases the risk of harm for the patient, as well as for family and caregivers.

In a 1999 study, Spangenberg et al¹⁷ administered a dementia screening questionnaire and checklist for family members regarding the number of loaded and unloaded guns in the older adult's home. They found that 60.4% of households of individuals with a diagnosis of dementia had 1 or more firearms.¹⁷ The presence of guns did not vary by the degree of dementia, with severely demented patients as likely to have firearms in their homes as those with mild cognitive impairment. Of respondents who identified having a firearm in the home, 44.6% reported that 1 or more of the guns was loaded; an additional 38% were unaware of whether the guns were loaded or unloaded. Fewer than 17% of family members reported that guns were maintained in an unloaded state.¹⁷

Family members often consult older adults' physicians with concerns of safe driving, wandering, medication misuse, or use of the stove, yet the issue of access to a firearm is not often discussed among older adults, their children, and the health care provider. The ability to handle a firearm safely in the past may not assure the ability to do so in the face of dementia, physical disability, or psychiatric illness. The negative effects of dementia on gun safety include the inability to safely handle a firearm, as well as the potential misperception of threats as a consequence of the disease. It is important to consider to what extent dementia or other disease affects an individual's ability to think logically and control emotion. In particular, individuals with dementia who no longer recognize family or caregivers and those persons with physically aggressive behaviors may pose an even graver danger to others if a firearm is in the home.

The Alzheimer's Association¹⁸ recommends the removal of firearms before major concerns arise. At the very least, the gun should be disabled and secured

separately from ammunition, ensuring that the person with dementia does not have access. However, removing ammunition may be as ineffective a solution as removing spark plugs from a car, as these may be replaced with minimal effort. Support should be given to the spouse or caretaker who may not have the same level of comfort in handling a gun. If the older adult refuses to allow such interventions, he or she may be more likely to let an adult child take the gun under the guise of borrowing it or removing it for professional cleaning. Additionally, the trigger mechanism may be professionally disabled, rendering it nonoperational. The Alzheimer's Association also suggests raising the issue of who will inherit the firearm, as with jewelry or other heirlooms. Finally, if the older adult with dementia is believed to be living in an unsafe environment because of gun access, the family should be encouraged to contact the local law enforcement agency to remove and destroy the gun and ammunition.

Patient–Health Provider Interactions

Lum et al¹⁹ analyzed data from a CDC telephone survey of gun safety that used a 5 L's interview approach:

1. Is there a **L**oaded gun in the home?
2. Is there a **L**ocked gun in the home?
3. Are there **L**ittle children in the home?
4. Has anyone been feeling **L**ow in the home?
5. Is there a **L**earned operator (someone with prior safety training) in the home?

For example, a physician might ask, "Were firearms kept loaded or unloaded while stored in or around your home?" These questions can be included in the same way that other safety-related issues are assessed in geriatric patient interviews.

In a *Medscape* article,²⁰ Hsieh reported a large variation (4%-60%) in the number of physicians who ask older patients about the presence of guns in their homes during the initial patient interview. Perhaps the

question is perceived as being too intimate or too alienating, a deterrent to a patient's return to the physician's practice. Perhaps the issue of guns is viewed as being not particularly important in the hierarchy of medical, functional, and psychosocial concerns faced by older adults. However, increased awareness of the high incidence of depression and dementia coupled with knowledge that older persons have the highest proportion of gun ownership should increase the perceived need and likelihood that physicians will ask questions about the presence of guns, gun storage, and firearm safety.

American Osteopathic Association Resolutions and Policy Statement

In 2015, the American Osteopathic Association (AOA) reaffirmed House Resolution 450-A/15 regarding firearm safety.²¹ The resolution supports the federal government's January 2013 statement "that no federal law in any way prohibits doctors or other health care providers from reporting their patients' threats of violence to the authorities, and issuing guidance making clear that the Affordable Care Act does not prevent doctors from talking to patients about gun safety."²¹ It also calls for funding for the CDC, the National Institutes of Health, and other research entities "to conduct research on firearm violence and to provide recommendations on reducing firearm violence."²¹ The promotion of policies that will increase access to mental health services, the appropriate coverage of mental health services by public and private health care insurers, and enhanced education of gun safety and safe handling of firearms, are further supported by HR 450-A/15.²¹ The associated policy statement details provisions for advancing research on gun violence and improving access to mental health services.

Other AOA resolutions (H427-A/13, H406-A/14) address the patient-physician relationship as related to proposed gun control laws and firearm safety.²¹ The AOA resolution H340-A/16 voices opposition to physician gag rules (such as Florida's now-repealed Firearms Owner's Privacy Act, known as "Docs

v. Glocks"), which limit the right of physicians to counsel patients about the potential dangers of guns in the home and safe practices. What is notably absent from the AOA Policy Statement on Firearm Violence and the attendant resolutions is the recognition that older adults may be at increased risk of gun violence owing to dementia, physical disabilities, or psychiatric illnesses.

Recommendations

In the United States, there exists a constitutional right to purchase unlimited numbers of firearms; however, there is no current legal framework for removing access to firearms owned by older adults with dementia, disability, or psychiatric illness. Until those laws are enacted, the responsibility to address gun safety in this at-risk population of older adults must fall to their physicians. Thus, discussions regarding gun safety must be viewed by physicians as a routine part of health care for vulnerable populations. Physicians should consider using a screening tool, such as the proposed gun safety checklist for clinicians ([Figure](#)), on a daily basis for at-risk patients and/or implement such a tool as part of the annual wellness visit.

Since 1996, as a result of lack of federal research funding, there has been no rigorous scientific study or unbiased analysis of data addressing the threat of gun violence. Funded research could enable a critical assessment of the problem and begin to formulate effective preventive actions. Full repeal of the Dickey Amendment as opposed to the "authority" granted to the CDC would help ensure adequate federal funding for research on gun violence. The AOA should consider strengthening the Policy Statement on Firearm Violence to include the risks for older individuals and continue to advocate for funding gun violence research.

Osteopathic physicians are trained to treat the whole patient—body, mind, and spirit. As osteopathic physicians, we are positioned to take the lead as advocates for legislation to secure appropriate federal research funding and the prompt development of rational laws

that restrict firearm access for those who, owing to advanced age and medical or psychiatric illness, place themselves, their loved ones, and the public in jeopardy. (doi:10.7556/jaoa.2018.169)

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Assess for “Red Flags”

- ☐ Cognitive impairment
- ☐ Psychiatric illness
- ☐ Recent or complicated bereavement
- ☐ Multiple comorbidities or terminal condition
- ☐ Post-traumatic stress disorder
- ☐ Male gender
- ☐ History of substance use disorder
- ☐ History of violence or trouble with the law
- ☐ Depression or despondency

Question the Patient and Caregivers

- ☐ The 5 L’s
 - ☐ Loaded gun?
 - ☐ Locked gun?
 - ☐ Little children?
 - ☐ Feeling Low?
 - ☐ Learned operator?
- ☐ Do you or someone in your home own a gun?
- ☐ Where/how is it stored?
- ☐ Have you ever thought about harming yourself or others?
- ☐ Have you thought of ending your life?

Action Plan

- ☐ Make gun safety part of each Medicare Annual Wellness Visit.
- ☐ If appropriate, make the following recommendations:
 - ☐ Consider less dangerous ways to keep your family and property safe, such as burglar alarms, window locks, dogs, etc.
 - ☐ Do not possess a gun unless you have the necessary knowledge, cognition, and physical function to use it safely.
 - ☐ Store firearms unloaded and in a locked place.
 - ☐ Bullets must be locked and stored separate from guns (trigger locks can be a helpful additional precaution for unloaded firearms).
 - ☐ Do not keep an unlocked gun under your pillow at night.^a
 - ☐ If there is reason for concern (eg, presence of one or more “red flags”), have family members remove the firearm from the patient’s home.
 - ☐ Enlist law enforcement when there is resistance from the patient or caregivers and your assessment reveals cause for concern.

Figure.

Clinician’s checklist for gun safety for older adults. ^aAdapted from the Injury Free Coalition for Kids Parent’s Firearm Safety Checklist (<https://www.injuryfree.org/resources/FirearmInjuryPreventionChecklist.pdf>).

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