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On December 14, 2012, a young man, little more than a child himself, with an arsenal of firearms and ammunition, shot and killed his mother. He then drove to Sandy Hook Elementary School in Newtown, Connecticut, shot and killed 20 children and 6 adults, and then shot and killed himself. The Newtown tragedy propelled the topic of gun violence back into national discussion. Unfortunately, this discussion is often precipitated by horrific but sensational mass shootings and focuses on preventing individuals with severe mental illness from committing such crimes.

Legislative initiatives in the wake of these heartbreaking tragedies typically call for measures to identify people with dangerous mental illnesses and somehow prevent them from accessing firearms. The public and the media ask psychiatrists and other mental health professionals what more we can do to stop disturbed individuals before they commit these crimes. Sometimes, we are also blamed for not predicting and preventing mass killings. Although it seems that such events have increased in frequency over the past years, mass shootings are in fact infrequent events that could not be predicted with any degree of accuracy, even if predicting any individual’s future behavior were possible.

Effective interventions to decrease the prevalence of destructive gun violence in the United States can be implemented only if national discussion is driven by emotion and more by a rational understanding of the tragic epidemic of gun violence. Psychiatrists, especially forensic psychiatrists, are in a unique position to change the direction of the debate as our society seeks to find solutions to this public health crisis. Our training and experience place us at the center of the Venn diagram of violence risk assessment, mental illness, and public safety. We can reframe the discussion, helping the public and our legislators move from unproductive rhetoric that stigmatizes people with mental illness to constructive suggestions for implementation of evidence-based violence risk assessments and public health interventions.

Gun Violence and Stigmatization of Mental Illness in Policy-Making

Our participation in addressing the problem of gun violence is essential in decreasing the stigma associated with mental illness, which often prevents individuals from seeking needed treatment or reaching out for social support. This stigma is reflected and reinforced in public discussion and codified in statutory language. For example, Federal law includes a “mental health prohibitor,” which bars the sale or possession of firearms to individuals “adjudicated as a mental defective [sic]” or “committed to any mental institution” (18 U.S.C. § 922(d)(4)). Unbelievably, one of the National Instant Criminal Background Check System (NICS) indices that stores information about individuals disqualified from purchasing or possessing firearms on the basis of mental illness is called “the Mental Defective File.”

The mass shootings that break our hearts are not representative of the behavior of most people with mental illness. Similarly, mass shootings are not representative of the much broader problem of gun violence in the United States. Despite the media attention that such incidents attract and the horror they cause, mass shootings by individuals with or without mental illness are a statistically rare event. There have been 78 public mass shootings in the United States since 1983, resulting in about 547 deaths. In contrast, in the past decade alone, firearms-related violence has claimed the lives of more than a quarter of a million people. Mass shootings account for signif-
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significantly less than one percent of all gun-related deaths in any given year; in 2012, for example, mass shootings accounted for .003 percent of all firearms-related deaths.\(^4\) In a March 2013 report focused on mass shootings and their implications for federal policy in the areas of public health and safety, the Congressional Research Service acknowledged that potential risk and protective factors related to mass shootings are more usefully identified if the broader phenomenon of gun violence is examined.\(^2\)

Media coverage of mass shootings exacerbates negative attitudes toward people with serious mental illness.\(^5\) The perpetrator’s mental status and the role mental illness played in the tragedy are examined in excruciating detail, reinforcing the widely held belief that mental illness and dangerousness go hand in hand. Pundits and politicians describe mass shooters as mentally ill, deranged, evil monsters,\(^6\) thus reinforcing the negative stigma. These polemics often conclude with the simplistic and equally mistaken premise that the problem of gun violence can be resolved if we can keep guns out of the hands of mentally unstable individuals.

Federal and state legislative measures proposed since the Newtown shootings follow this pattern, reflecting the mistaken belief that all those with mental illness are dangerous. As of March 2013, legislators had introduced at least 66 gun bills in 23 states pertaining to gun ownership by certain people with mental illness.\(^7\) Some of these have already been signed into law. On January 15, 2013, the State of New York passed the SAFE Act (S2230-2013), which, among other provisions, requires mental health professionals to report patients who are “likely” to harm themselves or others to local authorities. In Connecticut, as per legislation passed on April 4, 2013 (Senate Bill No. 1160, Public Act No. 13-3, § 2), mental health providers will have to report individuals who have been voluntarily admitted for psychiatric care. Such individuals will not be able to purchase or possess firearms for six months following their release from a hospital. In April 2013, responding to concerns that too many states fail to report directly to the NICS database individuals subject to the federal mental health prohibitor, the Department of Health and Human Services (HHS) proposed changing the Privacy Rule. This change would “expressly permit” HIPAA-covered entities to disclose directly to NICS the identities of individuals subject to the mental health prohibitor.\(^8\)

Legislation that mandates increased reporting of individuals with mental disorders and expanding categories of “mental defectives” in attempts to address the epidemic of gun deaths is not likely to be more effective than extremist social proposals to create a so-called lunatic database. Such legislative attempts serve only to stigmatize those with mental illness further. The American Psychiatric Association (APA), in response to HHS’s proposal to change the Privacy Rule, has indicated that it will urge states not to require direct reporting of firearms-related adjudication by physicians, hospitals, and other HIPAA-covered provider entities.\(^9\) The National Association of State Mental Health Program Directors, the American Medical Association, and the American Psychological Association expressed similar concerns, including the shared concern regarding increased stigmatization of the mentally ill.\(^10\)

Media coverage and legislation based on the false premise that individuals with mental illness are a root cause of gun violence dehumanize patients, compromise patient privacy, threaten confidentiality, and interfere with the therapeutic relationship. As psychiatrists, we have an obligation to fight these obstacles to seeking treatment. Most people with mental illness are not dangerous, and most dangerous people do not have a severe mental illness. Individuals with severe mental illness constitute only three to five percent of perpetrators of incidents of violence, not all of which involve guns.\(^11,12\) Moreover, violence perpetrated by persons with serious mental illness but without substance use does not characteristically involve firearms.\(^12\) The relationship between violence and mental illness is complex, but much of the violence risk in the population of the seriously mentally ill is attributable to the comorbidity of substance use.\(^13,14\)

Suicide: The Real Link Between Guns and Mental Illness

When discussing gun violence, the public and media seem unaware that the real link between mental illness and guns is suicide. Firearms are the most common method of suicide in the United States. More than 90 percent of persons who commit suicide have mental illness,\(^15\) and over the past decade, firearms have accounted for 50 percent or more of all deaths by suicide and for almost twice as many suicides as homicides. In 2010, for example, of the 31,076 deaths by firearms in the United States, suicide was responsible for 19,392 (62%) and homi-
Suicide has consistently ranked as the 10th or 11th leading cause of death in the United States in the past decade. In contrast, homicide, with or without firearms, ranks 16th. Moreover, a suicide attempt with a gun is more likely to be fatal than an attempt by almost any other means.17

**Gun Violence: A Public Health Problem**

The complexity and frequency of firearms-related violence, including homicide, suicide, accidental deaths, and injuries, and the impact on the health and safety of Americans, suggest that a public health approach should be adopted to decrease the toll gun violence takes on our society. Gun violence is without doubt one of the most significant public health crises of our time. In the United States, firearms have caused an average 32,300 deaths annually between 1980 and 2007. Guns are second to motor vehicle crashes in causing injury death. Firearms are involved in 67 percent of homicides, 43 percent of robberies, and 21 percent of aggravated assaults, and, as noted above, at least 50 percent of all suicides. Injury by firearms is one of the top three causes of premature mortality. Many people are killed each year by firearms, but even more are injured nonfatally. In 2008, there were 78,622 nonfatal firearms-related injuries in the United States, 73 percent of which were the result of interpersonal violence. In addition, injury by firearms disproportionately affects young people. Among the leading causes of death for those aged 15 to 24, homicide ranks second and suicide ranks third, with the number of firearms-related homicides and suicides outnumbering the next nine leading causes of death combined.18

A public health approach toward reducing gun violence mandates a focus on prevention, the use of scientific methodology to identify risk and protective factors, and multidisciplinary collaboration to address the problem. Prior public health successes have demonstrated that changing the social attitudes, prevalence, and cultural meaning of harmful behaviors is possible. The significantly reduced morbidity and mortality associated with tobacco use, unintentional poisoning, and motor vehicle fatalities are examples of successful public health interventions.19

Public health preventive interventions are based on research identifying risk and protective factors. Unfortunately, efforts to design interventions to reduce the morbidity and mortality of the gun violence epidemic have been significantly hampered by the federal government. Starting in 1996, Congress eliminated or sharply reduced government funding for federal research on gun violence, concerned that it might be used “to advocate or promote gun control.”20 In addition, the 2003 Tiahrt Amendments, provisions attached to federal spending bills, restricted the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) from releasing data on firearms that had been used for both law enforcement and research purposes.

These legislative efforts effectively created a moratorium on research into firearms and firearm violence. Over the past 40 years, the National Institutes of Health (NIH) has provided 486 research awards to the study of cholera, diphtheria, polio, and rabies, and just 3 to study gun violence. During the same period, there have been more than four million gun-related injuries, almost 2,000 times more than the number of documented cases of those diseases.21 Counting all academic disciplines together, no more than a dozen active experienced investigators in the United States have focused their careers primarily on firearm violence. Over the past two decades, no Centers for Disease Control (CDC) researcher has done more than occasional work in this field.22

**Risk Factors for Gun Violence: Prevalence of Firearms, Not Mental Illness**

That more research is needed to identify causal factors of gun violence and the effects of interventions to reduce or prevent it is undeniable. Nevertheless, available data point the way toward effective public health interventions to reduce gun violence. These data indicate robust correlations, not between mental illness and gun violence, but between the prevalence of guns and gun violence. This research has consistently demonstrated that where there are fewer guns, there is less gun violence. For example, a 2003 report suggests states that restrict weapons have the lowest per capita homicide rates.23 A recent state-by-state study using data from the CDC, Federal Bureau of Investigation (FBI), and ATF found that many states with the weakest gun laws have the highest rates of gun violence.24 Another study found that states with the strongest gun laws had a lower overall firearms-related fatality rate, both before and after controlling for other state-specific socioeconomic factors, and that states with stronger gun laws...
also had lower gun-related suicide and homicide rates.

Additional evidence supporting the correlation between the availability of guns and the incidence of gun violence is available from studies of suicide, an area of research not affected by the politics of firearms legislation. A systematic review of the evidence in suicide prevention studies concluded that decreasing access to firearms decreases deaths by suicide. For example, following the 1996 ban on private gun ownership in Australia, the incidence of suicide by firearm decreased. Although there was an increase in hanging, the second most common method of suicide, the increase was not substantial enough to prevent the overall postban suicide rate from declining. Legislation restricting ownership of firearms has been associated with a reduction in suicide rates by firearms in countries besides Australia, including Austria, Brazil, Canada, the United Kingdom, and New Zealand.

Additional correlational data can be found by comparing gun ownership and firearms-related fatalities worldwide. Australia and the United Kingdom intensified restriction of firearms and gun control laws following mass murders, resulting in a drastic reduction in injuries and deaths from firearms to levels a fraction of those in the United States. The United States has the highest per capita rate of gun ownership in the world, with 88.8 of 100 people owning firearms. It also has the highest overall firearms-related mortality rate and the highest proportion of suicides by firearms in the world. The United States rate of homicide by firearms is 3.21 per 100,000, compared with the next highest, Canada, at 0.51 per 100,000, and the third highest, Australia, at 0.14 per 100,000.

Designing Public Health Interventions: Psychiatry and Assessments of Dangerousness

The cumulative implication of this evidence is that the prevalence of guns is a high risk factor for gun violence, and restricting access to firearms decreases firearms-related morbidity and mortality. Most of this evidence demonstrates correlation and not causation. Because of the federally mandated moratorium on research, correlative evidence is the best we have at the moment. However, the correlation between the prevalence of guns and gun violence, including homicide and suicide, is so consistent and robust that it cannot be dismissed.

In contrast, there is little evidence of any kind to suggest that gun restriction policies for the seriously mentally ill actually prevent the small subgroup of dangerous individuals with mental illness from committing acts of violence. Attempts to identify people with mental illness because of a presumption of dangerousness are indiscriminate and both over- and underinclusive. Many high-risk individuals will go unidentified, as did the Newtown shooter. Conversely, many people with mental illness will be restricted from owning or purchasing firearms, even if they have no elevated risk of dangerous behavior. Thus, steps that indiscriminately expand the mental health prohibitor to purchase or possess firearms, including requiring mental health professionals to report patients directly to local authorities or the NICS database, are unlikely to reduce the incidence or prevalence of gun violence.

Therefore, public health interventions to reduce the risk of gun violence should focus, not on mental illness, but on dangerousness, with or without mental illness. Psychiatrists can be helpful in shaping policies that incorporate violence risk assessments in the assessment of dangerousness, by virtue of their training and expertise in this area. Violence risk assessment is a requisite part of clinical training and a necessary part of providing safe and effective clinical psychiatric care and forensic psychiatric evaluation and treatment. Based on the evidence available, violence risk assessment in which mental illness is only one of several factors evaluated in the effort to determine dangerousness is an essential aspect of a public health approach to reducing the unacceptable number of firearms-related deaths and injuries in our country.

Instead of legislation that identifies categories of people as inherently and forever dangerous because of mental illness, we should encourage legislators to enact measures that restrict the ability to purchase or possess firearms based on a demonstrable risk of dangerousness. A variety of interventions can reduce the risk posed by individuals in crisis with impulses or thoughts to harm themselves or others, including removing their access to firearms at the time that they present a high risk of violence. Even temporary restrictions can reduce firearms-related injury or death, since many acts of violence, including many suicides, are impulse driven and fueled by substance use, both
conditions subject to changing relatively quickly. Therefore, we should also encourage statutes that expand the current civil restraining order process to allow law enforcement and family members to petition a court to authorize seizure of firearms and issue a temporary prohibition on the purchase and possession of firearms based on specific, substantiated threats of harm to self or others.

As part of multidisciplinary efforts to reduce gun violence, evidence-based, circumstance-specific assessments of dangerousness with or without mental illness, based on principles of violence risk assessment, are likely to be a more effective strategy for reducing firearms-related morbidity and mortality than categorical restriction of individuals with histories of mental illness from possessing firearms. Social policies and legislation that focus on dangerousness rather than mental illness move our society away from stigmatizing people with mental illness.

In addition, an evidence-based risk assessment process can also be used in discussions of restoration of firearms, a topic increasingly raised in debates regarding gun law reform. Individuals who have had their firearms removed or who have been denied a purchase based on a match to a record in NICS can appeal the decision through a process outlined in the NICS regulations or through relevant state laws. Risk assessments again can be part of an evaluation to determine whether the risk factors that led to removal of firearms or listing in the NICS database have been resolved.

Psychiatrists and Public Policy to Reduce Gun Violence

Some states have begun incorporating violence risk assessments into criteria for removal or restriction of firearms. California permits removal of firearms from people during mental health emergencies and restricts access during periods of commitment, which are periods of high risk, primarily for suicide. Indiana and Connecticut allow law enforcement officers to remove firearms from imminently dangerous individuals, regardless of whether they have mental illnesses or a history of involuntary commitment. A review of the application of the firearms removal statute in Indiana showed that although this intervention had a relatively limited impact due to the infrequency of its use, active symptoms of psychosis were in fact rarely a cause for confiscation. Instead, risk of suicide and substance abuse were the predominant reasons for gun seizure.

Recent movement toward understanding the need for a multidisciplinary, public health approach to reducing gun violence is encouraging. In his response to the Newtown tragedy in January 2013, President Obama called gun violence “a serious public health issue” that requires a “comprehensive multifaceted approach.” He also called for an end to the freeze on gun violence research and called on the CDC and other federal science agencies “to conduct or sponsor research into the causes of gun violence and the ways to prevent it.” In response to the President’s request, the Institute of Medicine issued a detailed report identifying research priorities and emphasizing the need for a public health approach to prevent firearms-related violence.

President Obama’s response to the Newtown shootings called for increased funding for mental health programs. His proposed budget, released in April, included $235 million in funding for new mental health programs for initiatives to help schools detect early warning signs of mental illness and train thousands of new mental health professionals. Increased resources for the chronically underfunded mental health system are urgently needed and are always welcome. Beefing up mental health resources alone, however, will not prevent another mass shooting or decrease the number of homicide and suicide fatalities and injuries associated with firearms.

Adopting a public health approach to the problem of gun violence destigmatizes mental illness, avoids unproductive political debate, and offers hope that we can find interventions that reduce the burden of firearms-related violence. Of course, even the most sophisticated and well-informed public health initiatives to reduce gun violence will not completely solve the problem or eliminate the possibility of another tragic mass shooting. Despite public health successes in reducing the morbidity and mortality related to smoking and drunken driving, for example, some people still smoke and some people still drive while intoxicated.

Nevertheless, psychiatrists should take an active role in a multidisciplinary public health initiative to reduce the rates of firearms-associated morbidity and mortality and decrease the stigma associated with mental illness. By sharing our expertise in violence risk assessment, the treatment of mental illness, and issues of public safety, we can play an important role...
in educating the public and our legislators. By supporting a focus on dangerousness and violence risk assessment rather than on mental illness, we can help steer the national discussion toward nondiscriminatory approaches to reducing gun violence. Our participation can help our society discuss the problem of gun violence in nonpartisan terms and move the discussion away from polarizing rhetoric that results in the inability to effect any change at all. We should look for opportunities to shape social policy and legislative initiatives so as to include a role for violence risk assessment, with or without mental illness, in the effort to reduce firearms-related death and injury.

References

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