Gun Policy and Serious Mental Illness: Priorities for Future Research and Policy

Emma Elizabeth McGinty, Ph.D., M.S.
Daniel W. Webster, Sc.D., M.P.H.
Colleen L. Barry, Ph.D., M.P.P.

Objective: **In response to recent mass shootings, policy makers have proposed multiple policies to prevent persons with serious mental illness from having guns. The political debate about these proposals is often uninformed by research. To address this gap, this review article summarizes the research related to gun restriction policies that focus on serious mental illness.** ***Methods:*** **Gun restriction policies were identified by researching the THOMAS legislative database, state legislative databases, prior review articles, and the news media. PubMed, PsycINFO, and Web of Science databases were searched for publications between 1970 and 2013 that addressed the relationship between serious mental illness and violence, the effectiveness of gun policies focused on serious mental illness, the potential for such policies to exacerbate negative public attitudes, and the potential for gun restriction policies to deter mental health treatment seeking.** ***Results:*** **Limited research suggests that federal law restricting gun possession by persons with serious mental illness may prevent gun violence from this population. Promotion of policies to prevent persons with serious mental illness from having guns does not seem to exacerbate negative public attitudes toward this group. Little is known about how restricting gun possession among persons with serious mental illness affects suicide risk or mental health treatment seeking.** ***Conclusions:*** **Future studies should examine how gun restriction policies for serious mental illness affect suicide, how such policies are implemented by states, how persons with serious mental illness perceive policies that restrict their possession of guns, and how gun restriction policies influence mental health treatment seeking among persons with serious mental illness. (*Psychiatric Services* 65:50–58, 2014; doi: 10.1176/appi.ps.201300141)**

In recent years, a series of high-profile mass shootings have drawn public attention to an apparent link between serious mental illness and gun violence. Most persons with serious mental illness—which includes schizophrenia and bipolar disorder (1)—are not violent (2–5). However, several mass shooters—in the incidents at Virginia Tech University; in Aurora, Colorado; and in Tucson, Arizona—appear to have had serious mental illness (6–8), potentially reinforcing an already widely held connection in Americans' minds between serious mental illness and violence. Most recently, in December 2012, Adam Lanza fatally shot his mother, 20 children, and six adults at Sandy Hook Elementary School in Newtown, Connecticut. Despite little evidence to suggest that Lanza had a mental illness, the news media and policy makers were quick to suggest the presence of an undiagnosed mental health condition (9–11). In response to these mass shootings, policy makers at the state and federal levels have proposed multiple policies to prevent persons with serious mental illness from having guns.

Policies to restrict access to firearms among persons with serious mental illness are popular among politicians and the American public. When asked about gun policy in the second presidential debate in 2012, President Obama consistently focused his responses on preventing persons with serious mental illness from having guns (12). A national survey conducted in January 2013 found that majorities of Americans—including gun owners, members of the National Rifle Association, and Republicans—supported policies to restrict gun possession by people with serious mental illness (13).

Despite their popularity, such gun restriction policies have generated controversy in the public health community (14–19). Research suggests a complex relationship between serious mental illness and violence, and little is known about whether gun restriction policies that focus on serious mental illness are effective in reducing gun violence by this group. Furthermore, although many violence prevention experts view gun restrictions in cases of serious mental illness as part of an incremental approach to reducing gun violence, many mental health experts fear that such policies could have unintended consequences

The authors are with the Department of Health Policy and Management (DHPM), Johns Hopkins Bloomberg School of Public Health, Baltimore. Send correspondence to Dr. McGinty, who is also with the Institute for Health and Social Policy (within the DHPM), Johns Hopkins Bloomberg School of Public Health, Wyman Park Building, Room 523, 3400 N. Charles St., Baltimore, MD 21218 (e-mail: emcginty@jhsph.edu).

for persons with serious mental illness, in two areas. First, some experts have expressed concern that such policies could exacerbate the public misperception that persons with serious mental illness are likely to be violent, thereby strengthening negative public attitudes toward an already stigmatized group (15,20,21). Second, they have asserted that these policies may have a chilling effect on treatment seeking, reasoning that persons with serious mental illness may be less likely to seek treatment if health care providers have the ability to restrict patients' firearm rights (18,19).

These considerations play central roles in the ongoing political debates surrounding gun restriction policies for persons with serious mental illness. These debates are often uninformed by research, perhaps in part because the relevant research, stemming from both the mental health and violence prevention fields, is difficult to access and interpret. To address this gap, we provide a review of the available evidence related to the history and current context of gun restriction policies for persons with serious mental illness. We begin by providing an overview of gun restriction policies in the United States, including those currently under consideration at the state and federal levels, that pertain to persons with serious mental illness. We then summarize the evidence concerning the relationship between serious mental illness and violence, the effectiveness of policies restricting firearm possession among persons with serious mental illness, the potential for such policies to exacerbate negative attitudes about this population, and the influence of gun restriction policies on mental health treatment seeking. We conclude by identifying areas for future research.

Methods

We begin by providing overviews of federal and state gun restriction policies currently in place that address the population with serious mental illness. We then illustrate common types of proposed gun restriction policies for persons with serious mental illness currently under consideration at the state and federal levels. Information about gun restriction policies that apply to this population was collected from the THOMAS legislative database, which is the Library of Congress online database of all legislation in the current U.S. Congress; state legislative databases (available in some but not all states), which include legislation under consideration by state legislatures; prior review articles (22–25); and the news media.

In the second section of this review, we summarize the evidence regarding the relationship between serious mental illness and violence, the effectiveness of gun restriction policies for persons with serious mental illness, the potential for such policies to exacerbate negative attitudes about persons with serious mental illness, and the potential for gun restriction policies to have a chilling effect on treatment seeking among persons with serious mental illness. To identify the relevant literature related to each of these three issues, we searched the PubMed, PsycINFO, and Web of Science databases. Studies were identified with the following search terms: "mental illness" or "mental health condition" or "mental health disorder" or "psychiatric illness" or "psychiatric condition" or "psychiatric disorder" or "behavioral health condition" or "behavioral health disorder" AND "gun" or "firearm" or "violence" or "homicide" or "assault" or "gun policy" or "firearm policy" or "gun control policy" or "firearm control policy" or "public attitudes" or "stigma" or "treatment seeking" or "therapeutic alliance." On the basis of results of this search, we included 34 articles, published between 1970 and 2013, in our review of the literature related to the effectiveness and consequences of policies restricting gun access by persons with serious mental illness. We conclude our brief review of the evidence related to such policies by identifying gaps in the literature and suggesting areas for future research.

Results

U.S. gun restriction policies for serious mental illness

Federal policies. Although federal gun restrictions in cases of serious mental illness have existed since 1968, they were not implemented until the 1990s (22). The 1968 Gun Control Act made it a criminal offense for licensed gun dealers to sell a gun to persons "adjudicated mentally defective" or "committed to any mental institution" (26). However, licensed gun dealers had no way to identify persons prohibited from having a gun because of these (outdated and widely considered offensive) criteria until 1993, when Congress passed the Brady Handgun Violence Prevention Act (22,24). The Brady Act required the Federal Bureau of Investigation to create a background check system for gun sales (the National Instant Criminal Background Check System, or the NICS), which became operational for all firearm sales in 1998 (24). Identifying information for individuals who are prohibited from purchasing a firearm under federal law is entered into this system, which licensed gun dealers then check at point of sale—either by phone or electronically—to identify illegal purchases (24). Given the broad language related to serious mental illness in the 1968 Gun Control Act, in 1997 the Bureau of Alcohol, Tobacco and Firearms (ATF) issued regulations to define which persons with serious mental illness should be reported to the NICS (22). Under ATF regulations still in effect today, persons involuntarily committed to inpatient psychiatric care, persons found incompetent to stand trial or acquitted because of serious mental illness, and persons placed under legal conservatorship because of serious mental illness are prohibited from purchasing guns by federal law (22).

In 2007, nearly ten years after implementation of the background check system for gun sales, a majority of states did not report mental health records to the NICS (27). Reporting by states is voluntary, and in 2007 many states lacked the data systems necessary to connect information from mental health agencies, court systems, law enforcement, and the federal government (27). After the Virginia Tech mass shooting in 2007, Congress passed the NICS Improvement Act, which gave some states funding to develop the necessary data

systems to transmit records to the NICS (27). Although state reporting of mental health records to the NICS has improved since 2007, the most recent available data (2011) suggest that 17 states have submitted fewer than ten records and four states have submitted none (27).

In addition to lack of technical infrastructure, several states have cited concerns about data confidentiality as the reason for not reporting mental health records to NICS (27). Although names of persons prohibited from purchasing a gun because of serious mental illness are reported to the NICS, no diagnosis or other medical information is transmitted (27). The legal barriers to such reporting under the Health Insurance Portability and Accountability Act (HIPAA), which protects disclosure of confidential health information (28), are unclear. Although no private medical information is transmitted to the NICS, health care providers and facilities must access private health information in order to prepare and submit records to the NICS.

In January 2013, President Obama ordered his administration to gather information about the scope of the problem regarding confidentiality of mental health records, with the ultimate goal of remedying "unnecessary legal barriers that prevent states from reporting information about those [with serious mental illness] prohibited from having guns" to the NICS (29). In April 2013 the Congressional Research Service (CRS) released a report concluding that if state law requires health care providers or agencies to report mental health records to the NICS, the HIPAA privacy rule does not prohibit disclosure (30). If, however, state law does not mandate reporting of mental health records to the NICS, the CRS concluded that health care providers "do not appear to have permission under the [HIPAA] privacy rule to use or disclose protected health information for the purpose of preparing and reporting mental health records to the NICS" (30).

State policies. Policies to prevent persons with serious mental illness from having guns vary by state. Some state gun restrictions in regard to serious mental illness mirror federal law and prohibit gun ownership on the basis of involuntary commitment and adjudication of mental incompetence (22). However, involuntary commitment laws vary by state; a person involuntarily committed to inpatient psychiatric care in one state might not meet legal criteria for involuntary commitment in another state (31). In addition, some states have gun restriction laws that are stricter than federal law for cases of serious mental illness (22). For example, Virginia prohibits persons who have been involuntarily committed to either inpatient or outpatient care from having guns, and Maryland prohibits gun ownership among persons who have been either involuntarily or voluntarily hospitalized for serious mental illness for more than 30 days (22). These variations in state laws create variation in the types of records reported to the NICS for gun sales. For example, Virginia reports both inpatient and outpatient involuntary psychiatric commitments to the NICS, whereas other states report only inpatient commitments (27,32).

In practice, most gun restriction policies that concern serious mental illness prevent only the sale of guns from a licensed dealer. Several state policies also provide mechanisms for removal of guns from the possession of persons with serious mental illness. For example, Indiana passed a law in 2005 that allows police to seize guns without a warrant if they believe a person is dangerous as a result of serious mental illness or other reasons (33). In California, when a person is newly prohibited from having a gun because of serious mental illness, the person's name is checked against a database of handgun and assault weapon owners (34). If the individual owns a gun, police can seize the firearm (34). In an example of what may be the most expansive firearms restrictions for people with serious mental illness, New York passed a law in January 2013 to require medical providers to report patients whom they believe are likely to harm themselves or others to law enforcement authorities, who could then seize the individual's guns (35).

The duration of gun restrictions in cases of serious mental illness varies by state. Whereas some states permanently restrict firearm rights among persons meeting disqualifying mental health criteria, others have time-limited restrictions. In California, for example, persons determined in an emergency mental health evaluation to be a danger to self or others are prohibited from having a gun for five years (36). States also vary in terms of whether they have a policy to allow persons with serious mental illness to restore their legal firearm rights after being prohibited from having a gun (37). Although the details of these restoration policies vary by state, there are two main models in place. Some states, such as New York, have physicians certify that an individual's firearm rights can be restored (22). Other states, such as Virginia, restore firearm rights through judicial proceedings that do not require physician certification (22,37). Some states also employ a hybrid of these models, where persons petition a court to have their firearm rights restored but must meet specific criteria similar to those used in the physician certification process. For example, Washington State requires evidence that an individual "no longer presents a substantial danger to himself or herself, or the public" (38), "has successfully managed the condition related to the commitment" (38), and has met several additional criteria before firearm rights are restored (38).

To be eligible for federal funding to help build the data systems necessary to report mental health records to the NICS under the 2007 NICS Improvement Act, states must have a firearm restoration policy in place (37). To date, over 20 states have policies to restore firearm rights to persons prohibited from having a gun due to serious mental illness (37).

Proposed policies. Recent mass shootings have prompted policy makers to propose additional gun restriction policies in regard to serious mental illness. At the federal level, legislation to restrict firearm rights among persons required by a court to receive counseling or medication for mental illness has been introduced twice, in 2011 (39,40) and 2013 (41).

In addition, current bills under consideration by the U.S. Congress propose to cut federal funding to states that fail to report mental health records to the NICS (42), to fund state programs to remove guns from the possession of persons prohibited from owning guns due to serious mental illness (43), and to permanently prohibit gun ownership among anyone who has ever been determined by a judge to be a danger to others as a result of serious mental illness (44).

States are also currently considering a wide array of gun restriction policy proposals that stipulate serious mental illness. Although most proposals involve improving reporting of mental health records to the NICS (45–47), others aim to expand state-level gun restriction policies in regard to serious mental illness. For example, Hawaii, Virginia, Maryland, and Tennessee considered legislation in 2013 to require health care providers and other professionals to report persons who make credible threats to themselves or others to law enforcement, which could then seize an individual's guns (47,48). If passed, a New Jersey bill would require mental health screening by a licensed professional in order for individuals to purchase a firearm (49). Minnesota is considering legislation to create a system to allow persons to temporarily surrender their firearms if they have voluntarily requested to be prohibited from possessing guns for a specified period due to serious mental illness or other reasons (50). Although some or all of these proposals may never become law, the scope and variety of the gun restriction policies currently under consideration for cases of serious mental illness provide important context for the often heated political debates around the effectiveness and likely consequences of such policies.

Summary of research evidence

Relationship between serious mental illness and violence. Despite the proliferation of serious mental illness–related gun restriction policy proposals in response to recent mass shootings, few studies have examined the effectiveness and potential unintended consequences of these policies. Most persons with serious mental illness are not violent, and only about 4% of all violence in the United States is attributable to mental illness (5). In community populations, the prevalence of violence among persons with serious mental illness is similar to the prevalence of violence among persons without serious mental illness (2%–4% in a given year) (2). However, absolute risk of perpetrating violence is heightened among persons receiving inpatient treatment for serious mental illness (51) and persons with untreated psychoses (52), and research consistently shows that risk of committing violence is heightened among persons with serious mental illness with comorbid factors such as substance use and history of abuse or trauma (2,3). These risk factors for violence are more prevalent among persons with serious mental illness than the overall population: a 2009 study using a national sample found that 46% of persons with schizophrenia had a lifetime history of a comorbid substance use disorder (2), compared with about 15% of the overall U.S. population (53).

Effectiveness of gun restriction policies for serious mental illness. Existing risk assessment tools are reasonably accurate at predicting which persons with serious mental illness are unlikely to be violent but are poor at accurately predicting whether individuals are likely to perpetrate violence (54). Inability to accurately predict future violence makes it difficult to target policy interventions to the small subgroup of persons with serious mental illness who are at heightened risk of violence (55). A 2008 review concluded that using available tools, communities would need to detain "large numbers of patients who are potential offenders in order to prevent the actual offending of a few" (55).

Although some mental health experts have expressed skepticism regarding the effectiveness of gun restriction policies with a focus on serious mental illness (15), the difficulty of predicting violence by individuals with serious mental illness does not necessarily mean that gun restriction policies cannot prevent gun violence from this population. Until recently, no research existed to inform this question. In 2013, however, Swanson and colleagues (56) published findings from a study suggesting that current federal gun restrictions in cases of serious mental illness may reduce risk of violence from this population. In 2007, Connecticut began reporting to the NICS persons involuntarily committed to inpatient psychiatric care, persons found incompetent to stand trial or acquitted because of serious mental illness, and persons placed under conservatorship because of serious mental illness. To test the effects of the policy on violent crime, the authors assembled two cohorts of people with serious mental illness by using administrative records from Connecticut's mental health and criminal justice agencies for the period 2002–2009 (56). The first cohort included persons with a diagnosis of schizophrenia, bipolar disorder, or major depressive disorder who had been prohibited from buying a gun under federal gun restriction policy because of serious mental illness. The second cohort included persons with the same diagnoses who had a voluntary psychiatric hospitalization during the study period but who were not prohibited from buying a gun for any reason.

Swanson and colleagues (56) found that in Connecticut implementation of federal gun restriction policy for serious mental illness was associated with reduced risk of arrest for violent crime in the cohort prohibited from having a gun because of serious mental illness. As expected, implementation of the policy had no effect on risk of arrest for violent crime in the second cohort of persons with serious mental illness, who were legally allowed to buy a gun (56). This finding suggests that implementation of current federal gun restriction policy may reduce violent offending by persons prohibited from having guns due to serious mental illness. However, only a small proportion of people with serious mental illness in the Connecticut cohort (7%) were prohibited from having a gun under federal gun restriction policy, and the effect of the policy on overall violent

crime among the cohort with serious mental illness was minimal (56). Ninety-six percent of violent crime during the study period was committed by individuals who did not meet federal criteria for gun restriction as a result of serious mental illness (56).

Swanson and colleagues' (56) findings should be interpreted in the context of several important limitations. The authors measured the effects of federal gun restriction policy for serious mental illness on overall violent crime, rather than specific gun-related crime, by persons with serious mental illness. Importantly, study results suggested that implementation of federal gun restriction policy in cases of serious mental illness reduced risk of violence among persons prohibited from having a gun solely due to serious mental illness. In contrast, among individuals prohibited from owning a gun in Connecticut because of both serious mental illness and a criminal disqualification (such as a felony conviction), risk of arrest for violent crime increased after implementation of federal gun restriction policy (56).

In conclusion, although one study suggests that implementation of federal gun restriction policy in cases of serious mental illness may prevent violent crime among persons with serious mental illness (56), the study had important limitations, and additional studies are needed. Effects of federal gun restriction policy in regard to serious mental illness may differ across states because of variation in involuntary commitment criteria, differences in public mental health systems, and presence or absence of other gun policies.

Negative public attitudes about persons with serious mental illness. In addition to questioning the effectiveness of serious mental illness–related gun restriction policies, experts, advocates, and policy makers have expressed concern that such policies could strengthen negative public attitudes toward persons with serious mental illness by implicitly suggesting that this population is a threat to public safety (15). Negative public attitudes about persons with serious mental illness are pervasive and persistent in the United States. A national survey conducted in January 2013 found that 46% of Americans thought that people with serious mental illness are far more likely to be dangerous than the general population, and only 29% and 33% were willing, respectively, to have a person with serious mental illness as a work colleague or neighbor (13). Furthermore, whereas negative public attitudes toward common conditions such as anxiety and depression appear to have declined in recent years (57), negative public attitudes about serious conditions such as schizophrenia and bipolar disorder have remained steady (58) or, by some measures, increased (59). One study found that 31% of Americans viewed persons with psychosis as violent or frightening in 1996, compared with 13% in 1950 (59). In addition, results of a 2005 study showed that persons with serious mental illness, family members of persons with serious mental illness, and mental health clinicians held negative attitudes similar to those held by the general public (60).

Limited research exists regarding whether gun restriction policies in the case of serious mental illness contribute to these negative attitudes. A 2013 experimental study found that news media messages about gun restriction policies focusing on persons with serious mental illness did not exacerbate negative public attitudes toward persons with serious mental illness (61). Respondents in a nationally representative online survey panel were randomly assigned to a control group or to a group that read either a one-paragraph news story describing a mass shooting by a person with mental illness or a two-paragraph news story describing the same mass shooting by a person with mental illness as well as legislation to "require states to enter people with serious mental illness into a background check system used by gun dealers to identify people prohibited from buying guns, or face a penalty." The control group did not read any news story (61). The study found that the news story describing the details of mass shooting events strengthened negative public attitudes about persons with serious mental illness compared with the control group, but the additional message about gun restriction policy as it pertains to serious mental illness did not exacerbate widely held negative attitudes (61).

Treatment seeking. More than half of Americans with serious mental illness do not receive treatment in a given year, presenting a significant public health problem (62,63). Multiple factors appear to contribute to poor rates of treatment among persons with serious mental illness. In a national study, Kessler and colleagues (64) found that 55% of untreated persons with serious mental illness did not perceive a need for treatment. Among persons who perceived a need for care, reasons for failure to seek treatment included desire to solve the problem on their own (72%), thinking the problem would get better by itself (61%), high cost of treatment (44%), uncertainty about where to go for help (41%), and concern about what others might think (14%) (64). Mental health experts have identified stigma as a potentially important barrier to treatment seeking, but the research evidence is mixed. Some studies have shown that persons who perceive strong negative public attitudes about serious mental illness have poor treatment adherence and retention (65,66), but other studies show no link between negative public attitudes and treatment outcomes in college-age populations (67,68). In contrast, a recent review showed that negative personal attitudes—"personal stigma" or "self-stigma"—consistently deter mental health treatment seeking (68).

In the ongoing debate concerning gun restriction policy proposals related to serious mental illness, mental health experts and clinicians have expressed concern that such restrictions could have a chilling effect on treatment seeking in an already undertreated population with serious mental illness (18,19,35). Experts have worried that this population may be less likely to seek mental health treatment, and less likely to engage in meaningful therapeutic relationships during treatment, if health care providers have the ability to restrict patients' firearm rights (18). Our search, however, identified no

studies examining the effects of gun restriction policies on mental health treatment seeking.

Given that we found no studies directly examining the potential chilling effects of gun restriction policies on mental health treatment seeking, we considered relevant examples of chilling effects in other contexts. Immigration policies, for example, have been shown to prevent undocumented immigrants from seeking health care (69,70), but few examples related to mental health or violence prevention exist. Like gun restriction policies that cover serious mental illness, the *Tarasoff* duty-to-warn laws passed by many states in the 1970s—which require mental health professionals to warn potential victims when a patient expresses a credible threat (71)—prompted concerns related to treatment seeking (72). Mental health experts worried that duty-to-warn laws would discourage patients from seeking treatment, potentially increasing rates of violence by deterring from care patients at high risk of committing violence (72,73). A 2011 white paper by Edwards (74) suggests that states' implementation of mandatory duty-to-warn laws was associated with a small increase in homicides in those states, but our search found no studies in the peer-reviewed literature examining the effects of duty-to-warn laws on either mental health treatment seeking or violent crime.

Priorities for future research

Despite the proliferation of gun restriction policy proposals after the Sandy Hook Elementary School shooting in December 2012, we are faced with critical gaps in the research around these policies as they concern serious mental illness. The limited existing literature regarding the effectiveness of gun restriction policies targeting serious mental illness, the potential for such policies to exacerbate negative attitudes about persons with serious mental illness, and the potential for gun restriction policies to inhibit mental health treatment seeking among those with serious mental illness suggest a need for future research. Five key gaps in the existing literature should be addressed. To date, little is known about how implementation of federal gun restriction policy for serious mental illness affects violence by persons with serious mental illness in states with different policy, political, and demographic contexts; the effects of gun restriction policies on suicide; how to best implement gun restriction policies in cases of serious mental illness; attitudes about gun restriction policies in the population with serious mental illness; and the effects of gun restriction policies on mental health treatment seeking.

Although recent findings by Swanson and colleagues (56) indicate that federal gun restrictions in cases of serious mental illness appear to prevent arrests for violent crime in Connecticut, it is unclear how implementation might affect violence from this population in other states. State variation in factors such as criteria used for involuntary commitment, demographic characteristics, prevalence of gun ownership, gun policies, and availability of mental health services may influence the effects of federal gun restriction policy pertaining to serious mental illness. Future research should evaluate the effects of implementation of federal gun restriction policy in diverse states across the nation.

To date, no studies have examined how gun restriction policies for serious mental illness affect suicide. According to the Centers for Disease Control and Prevention Web-Based Injury Statistics Query and Reporting System database, 60% of all gun deaths in the United States are suicides, and although most suicide attempts do not involve guns, they are used in half of suicide fatalities (75,76). Firearm availability is associated with heightened risk of suicide (77–79), and suicide is the tenth leading cause of death in the United States and the second leading cause among young adults ages 25–34 (76). Studies show a consistent link between mental illness and risk of suicide (80–82), and depression is the mental health condition most strongly associated with suicide risk (80). Given that depression rarely leads to involuntary commitment to psychiatric care, however, it is unclear how existing federal gun restriction policy for serious mental illness might affect suicide (56). Innovative state-level gun restriction policies could also affect suicide: an evaluation of Indiana's law allowing police to seize weapons without a warrant if they believe an individual is dangerous because of serious mental illness or other reasons found that weapons were most commonly seized in cases related to suicide (33).

Although it is critically important not to criminalize suicide, carefully implemented gun restriction policies—for example, with voluntary components, with time-limited restrictions, and integrated with existing initiatives such as crisis response programs—have the potential to reduce suicides. Suicide rates have remained high in recent years (76), and the Surgeon General has identified suicide as a public health priority (83). Future research should consider how existing state and federal gun restriction policies focusing on serious mental illness may affect suicide.

Little is known about implementation of state gun restriction policies for cases of serious mental illness. One exception is Parker's 2010 study (33) of implementation of Indiana's law allowing police to seize firearms from dangerous persons without a warrant. Parker found that after two years of implementation of this law, suicide was the leading reason for gun confiscation (56% in 2006 and 71% in 2007) and that serious mental illness was a factor in only 10% of cases. In contrast, little is known about how other states, California for example, implement laws that allow or require law enforcement to seize the guns of persons with serious mental illness. How often are guns seized under each type of serious mental illness restriction? What is the process for seizing guns? What are the boundaries of legal authority to search for and seize guns of individuals prohibited from possessing guns due to serious mental illness? Answers to these questions are critical to understanding both the effectiveness and unintended consequences of proposed policies.

Stigma, in particular, can be both exacerbated and mitigated by the

details of policy implementation. For example, having a trained crisis response team call ahead and subsequently arrive in an unmarked car to seize firearms may be less stigmatizing than having local police arrive unannounced, with their lights flashing, for the same purpose. While multiple state and federal policies to seize firearms from persons prohibited from having a gun due to serious mental illness are currently under consideration, implementation of such policies is an important area for future research.

Research studying the implementation of gun restriction policies in the case of serious mental illness should be accompanied by studies examining the attitudes of persons with serious mental illness toward such policies. To our knowledge, only one relevant study exists. A 2012 study examined veterans' support for several gun restriction proposals as a means to prevent suicide (84). Study results suggested that veterans were potentially willing to support a policy that would temporarily remove guns during periods of high risk of suicide (84). However, veterans' tentative support for such a policy was contingent on characteristics of implementation, including having a trusted clinician make the determination of suicide risk (84). Although many veterans supported the idea of temporary gun removal to prevent suicide, they questioned where guns would be stored, who would have access, and how difficult it would be to have firearms returned (84). These findings suggest that implementation may play a critical role in whether persons with serious mental illness support gun restriction policies that pertain to them; this is an area that warrants future research. In addition, although one study suggests that gun restriction policies in the case of serious mental illness do not exacerbate negative public attitudes toward persons in that population (61), it is unclear how such policies influence the attitudes of the persons with serious mental illness. With literature showing that self-stigma is adversely related to treatment seeking (68), understanding how persons with serious mental illness perceive gun restriction policies that pertain to their condition is an important area for research.

Finally, to our knowledge no studies exist to inform the question of whether gun restriction policies have a chilling effect on treatment seeking by persons with serious mental illness. This issue plays a central role in political debates about gun restrictions in the case of serious mental illness, but to date no research exists to inform those debates. The potential for gun restriction policies or other reporting requirements to inhibit mental health treatment seeking should be a priority for future research.

Conclusions

Multiple state and federal gun restriction policies that pertain to serious mental illness have been proposed in response to recent mass shootings, but research related to such policies is limited. Although limited evidence suggests that current federal gun restriction policy may prevent violent crime among persons with serious mental illness, little is known about the potential for such policies to prevent suicide, how policy initiatives are implemented by states, and how persons with serious mental illness perceive these gun restriction policies. Future research should prioritize study of how such gun restriction policies influence mental health treatment seeking.

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