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A SYSTEMATIC REVIEW ON THE EFFECTIVENESS OF THE GUN VIOLENCE RESTRAINING ORDER

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A SYSTEMATIC REVIEW ON THE EFFECTIVENESS OF THE GUN VIOLENCE
RESTRAINING ORDER

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Yasmeen Gonzalez-Ayala
Bonnie Galloway

May 2024

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ABSTRACT

Background: Gun Violence Restraining Order (GVRO) is a type of restraining order that prevents individuals, who pose a significant risk to themselves or others from having, owning, and buying firearms, firearms parts, ammunition, or magazines. This gun law was enacted in January 2016, in response to the many mass shootings that had occurred prior to this legislation.

Objective: This study systematically reviewed published articles to examine the effectiveness of GVRO. **Methods:** We used the following databases to identify articles: OneSearch, Google Scholar, and Google. The search terms used included “gun violence restraining orders” and its abbreviation “GVRO,” combined with other terms, such as “effectiveness,” “effects,” “results,” and “evidence.” Given the recency of this law, we searched for articles published between 2016 and 2023. **Findings:** Three articles were identified. These articles evaluated the impact of GVRO on reducing firearm violence, perceived safety among women with restraining orders against their partners, and suicide among the elderly. Overall, GVRO was found to be effective in reducing violence and enhancing safety. **Conclusion:** Social workers supporting populations vulnerable to gun violence should be offered information on how to incorporate GVRO into their support services

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DEDICATION

This research project is dedicated to those impacted by gun violence and suicide.

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CHAPTER ONE

BACKGROUND

This chapter aims to familiarize readers with gun ownership in the United States (U.S.). Exploring and gaining knowledge about gun ownership is beneficial to prevention efforts, and the formulation and enactment of control policy. Thus, this chapter gives readers an overview of guns in the U.S. This chapter contains five sections. The first section explores the legalization of guns in the U.S. The second section explores the number of U.S. citizens who own guns and attitudes towards gun ownership. The third section will explain the processes for legally acquiring a gun. The fourth section discusses the parameters of gun ownership. Finally, the fifth section will discuss the effects of gun ownership.

Guns in the United States

Guns are a symbolization of rights and are ingrained into American society and culture. This has not always been the case; guns were once seen as political weapons used in war or as tools to ensure power. To this day the Second Amendment to the U.S Constitution gives citizens the rights to bear arms as it states, "A well-regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed" (Congress.gov). This brief but complex statement has the potential to be misinterpreted. In short, the Second Amendment states that as an American citizen, you have the individual right to arm yourself. The amendment also firmly

establishes that the government cannot infringe on that right (Nra-Ila & Association). The Second Amendment supported the right of personal gun ownership for all American citizens.

Gun ownership was essentially the byproduct of American pride and greed. After the Civil War gunmakers helped expand gun ownership by convincing store owners to sell the gun surplus (Shufro, 2021). Following the Civil War fear was rampant and allowed gunmakers to take advantage of the social conditions. The proliferation of guns was a result of effective marketing, political factors, racism and public fear (Shufro, 2021). This statement emphasizes the conceptualization of gun ownership that led to gun legalization. There has been a large increase in gun production in the U.S. since their legalization. From 1988 to 1992, the production of guns was sustained between 3 million and 4 million annually. Since then, gun manufacturing numbers have increased more years than they have decreased, peaking at 11 million in 2016 (Ramos & Murphy, 2022).

In addition to the history of gun legislation, there is a history of gun control legislation in the U.S. that has been passed since 1934. As part of President Roosevelt's attempt to stop what was described as "gangland crimes", the National Firearm Act was passed (Gray, 2019). Governor Gavin Newsom (2023) signed new gun safety measures into law — strengthening the state's public carry regulations. Gun control legislation has governed gun ownership in the U.S. and influenced political attitudes about gun ownership.

Gun Ownership in the United States and Attitudes Towards Guns

Furthermore, since the enactment of the Second Amendment gun ownership has dramatically expanded, although the number of gun owners has been consistent over recent years. Surveys conducted by the Pew Research Center between 2017 and 2023 have shown that about thirty percent of American civilians have consistently owned guns, while ten percent report they live in the home with someone else who owns a gun (Schaeffer, 2023). Gun ownership has been prevalent accounting for 46% of the world's civilian-held firearms despite only making up less than five percent of the world's population (Small Arms Survey, 2018). The U.S. has a resident population of about 333 million (U.S. Census Bureau, 2022), but U.S. civilians owned 393 million of the 857 million civilian-held firearms in 2018 (Small Arms Survey, 2018). Therefore, the number of civilian-owned firearms far exceeds the total population of the nation.

To understand the magnitude of gun ownership in the U.S. comparing it to gun ownership in other countries can be beneficial. National ownership rates vary from about 120.5 firearms for every 100 residents in the United States to less than 1 firearm for every 100 residents in countries like Indonesia, Japan, Malawi, and several Pacific Island states (Karp, 2018). This astonishing number does not account for the thousands of guns that many citizens have access to illegally. Due to the ease of accessibility, citizens have developed attitudes that influence gun control.

Although gun ownership is commonplace in the U.S., studies have shown that attitudes toward gun ownership and gun control policies vary by political affiliation, age, income, and experience (Dixon and Lizotte 1987; Ellison 1991; Felson and Pare 2010; Haider-Markel and Joslyn 2001; Pew Research Center, 2023; Spitzer 2015). A citizen with knowledge of the risk factors of owning a gun will more than likely prefer stricter gun policy. Political ideology has been shown to influence gun attitudes, with conservatives tending to oppose most gun regulations (Spitzer 2015). There are a number of factors that influence political attitudes towards gun ownership. In addition, some research points to attitude variation on gun regulation based on income, age, and regional location of residence (Dixon and Lizotte 1987; Ellison 1991; Felson and Pare 2010; Haider-Markel and Joslyn 2001; Spitzer 2015). This statement excludes the potential of race and political affiliation influencing attitudes. The Pew Research Center (2023) reports gun ownership in the U.S. is far more common among residents of rural areas (47%) than among people living in suburbs (30%) or urban areas (20%). Republicans and Republican-leaning independents (45%) are far more likely than Democrats and Democratic leaners (20%) to report owning a gun. It can be assumed that a majority of gun owners may be more conservative in thought. Studies have shown that attitudes developed regarding guns and political gun control depend on context knowledge, political affiliation, age, income, and experience.

The Process of Acquiring Guns

The process for legally acquiring and owning guns and the impact of mental health diagnoses on gun ownership vary significantly within the United. Research on the process for legally acquiring guns in the U.S. is limited. However, this deficiency of research could be attributed to the fact that no universal process guides the legal acquisition of guns in the U.S., as gun ownership policies and laws vary from state to state. For example, gun laws in California are stricter requiring foundational laws that include a background check, concealed carry permit, no-shoot laws, extreme risk laws, and secure storage laws (Everytownresearch.org). In contrast, Arizona's state laws do not require any of the aforementioned foundational laws to govern gun ownership. This fact explains why accessibility to firearms varies across states, with some showing greater firearm possession rates than others (Ventura et al., 2022).

However, a few studies have pointed to some of the general requirements considered in various states for those wishing to acquire a gun legally (Kruis et al., 2021; Lee et al., 2017; Takada et al., 2021). These studies' findings revealed that although requirements for ownership differ from state to state, the typical process often requires applicants to apply for a license through a local or state law enforcement, complete a firearm safety training course, provide detailed background information, and pass a comprehensive background check (Kruis et al., 2021; Lee et al., 2017; Takada et al., 2021). However, some studies have found that the licensure requirements are not mandatory, with many gun owners

used as participants in their study reporting that they never received any form of gun safety training course (Kruis et al., 2021; Liu & Wiebe, 2019).

Moreover, mental health is considered an important consideration that impacts a person's ability to own a gun. Gun Control Act, 18 U.S.C. § 922(g)(4) (1968) indicated that federal law permanently disqualifies any individual from purchasing and owning firearms based on four mental health-related adjudications: involuntary civil commitment, a finding of not guilty because of insanity, a confirmation of incompetency to stand trial or a finding of mental incapacity.

Existing research indicates significant differences in the legal requirements that precondition gun ownership between the U.S. on one hand and the U.K. and Canada on the other. In the U.K., the legal process of acquiring a gun is highly controlled, and the country has a universal law governing the process. To own a gun in the U.K., an individual must apply for a certificate that is renewable every five years (Mortimer, 2019). The applicant must also provide photographic evidence or identity as a condition to be issued with the certificate. Firearm certificates require the applicant to provide two personal references. In addition, mental illness diagnosis and declarations are necessary as a precondition for receiving a firearm license certificate in the U.K. (Mortimer, 2019). Some conditions that must be declared include acute stress, depression or anxiety, bipolar disorder, dementia, suicidal thoughts, and alcohol and substance use disorders (Mortimer, 2019).

Similar to the UK, Canada has a uniform and universal gun control policy that provides specific requirements for gun ownership. Notably, Langmann (2020) indicated that the regulation and control of firearms in Canada is the primary responsibility of the Federal government. However, Canada's list of requirements is extensive. It includes conditions such as a criminal record check, firearms acquisition certificate, personal reference checks, spousal endorsement, photo identification, safety training, psychological evaluation to establish mental fitness, mandatory waiting period, safe storage and transportation, magazine capacity restrictions, license renewals, and license to purchase ammunition (Langmann, 2020). Therefore, based on research, there are significant differences in the legal requirements that precondition gun ownership between the U.S. on the one hand and the U.K. and Canada on the other.

Parameters for Gun Ownership

Due to the lack of a universal gun control policy, the parameters or appropriate behaviors for gun ownership are not well defined in the United States. However, different states have laws that outline a list of permissible and prohibited behaviors for gun ownership. The permitted behaviors in the U.S. include using guns for sporting and recreational behaviors, including hunting, target shooting, and collecting (Yamane, 2017). These three behaviors have become a pertinent part of the U.S. gun culture. However, studies also found that its participants reported self-defense and protection are permitted for gun ownership in the United States (Kruis et al., 2021). Other permitted behaviors for

gun control identified in the literature include engaging in training on safety and defense and being of sound mind (Rowhani-Rahbar et al., 2017).

The prohibited behaviors for gun ownership in the U.S. include using guns to commit criminal activities, including gun violence (Kleck et al., 2016). Gun violence is violence committed with firearms, such as handguns, shotguns, or semi-automatic rifles (Amnesty.org, 2023). The most recent data reveals that almost 50,000 people have died from gun-related injuries in the U.S; including gun murders and gun suicides, along with three less common types of gun-related: those that were accidental, those that involved law enforcement and those whose circumstances could not be determined (CDC, 2023). Also, mass shooting incidents in the U.S. account for a small fraction of all gun murders that occur nationwide each year (CDC, 2023).

Effects of Gun Ownership

Extant literature has highlighted various impacts of gun ownership, which could be divided into two main categories: advantages and disadvantages. Studies indicate that gun ownership facilitates various recreational activities such as sport hunting, target shooting, shooting competitions, gun shows, firearm training, and collecting (Boine et al., 2021; Yamane, 2017). In the U.S., gun owners have cited recreation as their main reason for purchasing and owning firearms. Target shooters describe the activity as “fun,” allowing them to improve their marksmanship and challenge their abilities (Yamane, 2017). Moreover, gun ownership enables gun collecting, seen as a form of serious leisure, where

individuals appreciate the craftsmanship, history, and aesthetic value of firearms (Witkowski, 2020).

Another benefit of gun ownership highlighted in literature is that it facilitates self-defense and protection. For example, in their investigation of the practical aspects of gun ownership for self-defense, Hemenway et al. (2022) indicated that approximately half of the 418 incidents investigated in 2019 involved situations where assailants were armed with firearms, presenting a clear danger to victims and necessitating a defensive response. The study revealed that victims resorted to using their firearms for self-defense in almost 90% of the incidents, resulting in 48 percent of perpetrators being shot. This finding showed that defensive use of firearms reduces the harm inflicted upon victims. In another study, Hemenway (2011) demonstrated that having a gun at home is an effective deterrence measure and reduces the likelihood or severity of injury during an altercation or break-in. In addition, framework suggest higher gun prevalence in the hands of private citizens can result in an overall reduction in crime rates and increases the expected cost of illegal activity (Khalil, 2017). These advantages make the case for enhancing responsible gun ownership.

However, gun ownership is also associated with various disadvantages and costs to society. Notably, gun ownership is associated with high levels of gun violence, which have produced over 36,000 deaths and 74,000 firearm-related injuries yearly (Iwundu et al., 2022). This study revealed that gun-based violence disproportionately burdens children, ethnic and racial minorities, and

women. Children are exposed to firearms in a number of ways, including domestic violence and firearms stored at home, and neighborhood and school violence (Panchal, 2023). Black, Indigenous, and Latinx people experience higher rates of gun homicides overall and fatal shootings by police than their white peers do. Gun homicides perpetrated by intimate partners disproportionately impact women, particularly Indigenous, Black, and Latina women (Everytownresearch.org). Other studies indicate that higher permissiveness in state gun law is associated with higher levels and rates of mass shootings (Reeping et al., 2019). Death and injuries resulting from gun violence and mass shootings have caused significant problems in the U.S. healthcare system. The CDC (2023) estimated gun violence costs the United States tens of billions of dollars each year in medical and lost productivity costs.

In addition, gun ownership is also associated with high suicide rates due to the lethality of the method that guns provide. According to Hemenway (2011), the health risk of gun ownership in the home setting is higher than the benefit. The study indicated that a gun in the home is a risk factor for completed suicide and fatal accidents. Regarding suicide, Siegel and Rothman (2016) explained the correlation between firearm ownership rates and suicide rates across the United States over 32 years from 1981 to 2013. Utilizing panel data from all 50 states, the analysis encompassed annual overall suicide rates, gender-specific suicide, and firearm suicide rates, coupled with a proxy indicator for state-level household firearm ownership. The findings revealed a notable association between state-

level firearm ownership and increased firearm-related suicide rates for both males and females. The data indicated decreased non-firearm-related suicide rates, implying a possible substitution effect. These disadvantages necessitate informed policymaking to mitigate the detrimental impacts of firearm accessibility on mass shootings, gun violence, and suicide rates, thereby fostering enhanced public health outcomes.

Conclusion

Conclusively, this chapter explored the history, prevalence, laws, policies, and impacts of gun ownership in the U.S. The impacts of gun ownership highlighted the need to question current gun control laws.

CHAPTER TWO

LITERATURE REVIEW

Gun ownership is an indispensable part of American culture and history. Gun control has both positive and negative outcomes. Guns have been used for good causes, such as self-defense, as well as for negative purposes, for instance, to perpetuate crime. As a result, some form of gun control is necessary, regardless of people's perception and thoughts to mitigate the misuse of the weapons.

Gun control consists of firearm regulations or restrictions. It embodies all legal measures intended to restrict or prevent the possession or use of guns. It included domestic and intentional efforts to regulate various aspects of gun manufacture, trade, transfer, acquisition, modification, possession and use. Gun control has been part of American gun ownership since its guarantee under the Second Amendment. As a result, different regulations have emerged over the years to control gun-related activities, with the primary purpose being to create gun safety and prevent gun-related crimes. Gun control laws are implemented at local, state, national, and international levels. The rules have different effectiveness, causing a dilemma over what kind of law would be effective and what factors should be considered when making these laws. Literature appreciates the presence of blind spots in making gun laws but also acknowledges that the varying success rate of different gun laws in various areas is proof that gun control can work if implemented appropriately. This chapter

summarizes existing studies on gun control. Research has been limited to the knowledge of gun control, people's perception on gun control, and the impacts of gun control.

Knowledge about Gun Controls

Studies have investigated gun owners' and non-owners' knowledge of gun control laws. These studies find that knowledge of gun control laws is generally low yet important for adhering to the laws and handling of guns.

Rowhani-Rahbar et al.'s (2021) survey of knowledge of different states' gun laws by gun-owning residents revealed varying knowledge and appreciation of different laws. For instance, on average, 36.7% knew the laws regarding child access prevention, while 64% understood the reporting of lost or stolen gun laws. While some people knew of the regulations but were not knowledgeable or comprehended them, others barely knew their states had certain gun laws.

Rowhani-Rahbar et al. (2021) reported that about 15.3% of gun owners wrongly believed that their states had no child access prevention laws, while 11% thought their States did not mandate background checks before the possession of guns. Between 29% and 75% of non-gun owners did not know their states had child access prevention regulations, requirements for reporting lost or stolen guns and background checks mandates.

Perception of Gun Control

Research has also been conducted on gun owners and non-owner's perceptions of gun control laws. Experience such as interaction with or working with guns influences individual disposition toward gun control. For example, Kruis et al. (2023) explored the perception of various categories of firearm laws among gun owners in Pennsylvania and the public. The researchers found that gun owners and most of the individuals surveyed supported policies and laws that keep guns from people considered dangerous or at risk. They also favored background and mental health checks and compulsory firearm education laws. Kruis et al. (2023) also report supporting a ban on public possession of military-grade weapons and clearly distinguishing different types of weapons. There is also a widespread desire to revise the Second Amendment to reflect current dynamics. Kruis et al. (2023) reported opposition to complete firearm bans. Great opposition was evident among those with the greatest knowledge of gun legislation due to the implications to increase criminal activity. Those with limited knowledge of gun functioning, crime and policy favored strict gun control regulations. However, most people did not support banning the possession of guns for recreational, hunting and sport shooting uses.

Impact of Gun Control

Studies that investigated the effectiveness of gun control laws have revealed varying impacts. Whereas some studies found that gun control seemed to have positive impact; others find that gun control especially influences crime.

Kleck et al.'s (2016) city-level cross-sectional analysis of data from all US cities with a population of 25,000 or more in 1990 and 19 types of gun restrictions found little evidence that the regulation reduced crime levels. The study controlled for gun ownership levels and various other confounders. According to Kleck et al. (2016), the inability of the firearms restrictions to reduce the level of crime was a possible indication that gun control does not have a net positive influence on incidents of violence. Although some gun control laws demonstrate the effects to a certain degree, the desired outcome is reduction and prevention. However, some gun regulations have demonstrated notable influence on violence and crime. Such laws included mandatory license acquisition before gun ownership and prohibition of the sale of guns to alcoholics and gun ownership or possession by alcoholics. These laws resulted in a reduction in robbery and homicide rates. Kleck et al. (2016) also found limited influence of restrictions on gun ownership or possession by the mentally ill, and gun sales to criminals reduced assault rates. Further evidence suggested that prohibiting criminals from buying guns reduced robbery rates.

Some studies have presented evidence that strict gun controls reduce gun-related crimes. For instance, Lee et al. (2017) study of the link between firearm regulations and firearm homicides found a positive influence of strict rules. Based on their findings, stronger laws resulted in lower rates of firearm homicides. The most impactful laws were robust background checks, permit-to-purchase, anti-firearm trafficking, child safety and bans on military-grade

weapons. Jehan et al. (2017) also demonstrated that stricter laws resulted in excellent safety. By comparing safety in states with strict regulations and those with less stringent controls, Jehan et al. (2017) study revealed a high injury and mortality rate in states with lax regulations.

While reviewing the interaction between gun laws and gun-related suicides, homicides and accidental injuries and deaths, Santaella-Tenorio et al. (2015) found that laws restricting attainment, such as background checks, resulted in a decline in the rate of intimate partner homicides, and access restrictions, such as safe storage, reduced accidental gun-related child deaths. However, Santaella-Tenorio et al. (2015) indicates that context is critical to understanding what works and what does not. Local contexts have unique dynamics that can undermine specific regulations.

Morrall (2018) conducted a systematic review of studies that examined the effects of 13-gun laws on specific outcomes. The gun laws comprised background checks, bans on the sale of assault weapons and high-capacity magazines, stand-your-ground laws, prohibition associated with mental illness, lost or stolen firearm reporting requirements, licensing and permitting requirements. Outcomes examined were suicide, violent crime, unintentional injuries and deaths, mass shootings, officer-involved shootings, defensive gun use, hunting and recreation, and the gun industry. The findings of the literature synthesis indicated that child-access prevention and safe storage laws prevented gun-related injuries and unintended deaths among youths and children and

reduced youths' firearm-related suicides but did not reduce overall suicide among the youths. However, safe storage laws seem not to have influenced unintended firearm injuries among adults. Background checks moderately reduced gun-related suicides and homicides but did not reduce the overall rates of violent crime and suicide. Stand-your-ground laws may have increased homicide, but not gun-related homicides. Prohibition of gun purchase or ownership by mentally ill persons reduced violent crime but did not have an impact on homicides. It also had a limited effect on gun suicides and overall suicides. Morrall's (2018) study further found no evidence for an increase in sales and prices of assault weapons and high-capacity magazines before bans that would prohibit their sale. Similarly, setting the minimum age for purchasing a firearm at 21 years did not reduce youth gun suicides. The study found modest growth in knowledge about gun policy over the decade.

Morrall noted several limitations of the systematic review. There was a lack of literature on the impact of gun policies on officer-related shootings, defensive gun use, recreation, hunting, and gun industry activities. Morrall (2018) found no data correlating gun ownership and the number of firearms accessed through the legal and illegal markets. In addition, the necessary monitoring systems were incomplete and unable to support high-quality gun policy data and research. Morrall (2018) did not find rigorous studies on the impact of reporting stolen or lost gun laws, recording and reporting gun sales, and firearm-free zone policies.

Gaps

Several studies have been performed to evaluate the effectiveness of various gun control laws. However, a systematic review of the most recently implemented gun control laws has not been performed. Specifically, a systematic review of the red flag law has not been undertaken. A red flag law is a piece of law intended to deter persons from using their guns if they appear to be a threat to themselves or others. The law provides a legal justification to sellers of firearms and others to deny anyone from purchasing or possessing a weapon. However, the laws have clear procedure that should be used to take firearms away from those who have the potential to threaten or cause harm to themselves and others. The procedure is meant to avoid tragedies, such as suicide and mass shootings.

Research Question

How effective is the gun violence restraining order (GVRO)?

Significance of Study

It has been almost eight years since the first red flag law came into force in California. Dozens of other states have also enacted similar laws as they try to mitigate the problem of mass shootings. However, incidents of mass shootings and suicides are reported every day. Researchers are yet to answer the questions of why the red flag laws have not helped in curbing such incidents. Social workers oftentimes interact with vulnerable populations that are at high

risk of violence but are also vulnerable to perpetuating gun violence.

Understanding the effectiveness of GVRO could help social work practitioners make better decisions about how to intervene when working with clients who are at risk of harming themselves or others.

CHAPTER THREE

METHODS

This chapter seeks to inform readers of the methodology that was utilized to identify the articles used to systematically review the effectiveness of recent gun violence restraining order laws. This chapter specifically outlines search strategies, inclusion, and exclusion criteria.

Search Engine Used and Search Terms

The sources search strategy for this systematic review was pivotal due to the limited scope of resources that would fulfill the highlighted research objectives. Due to its simplicity of use, we chose Google as our search engine to find the necessary scholarly articles on GVRO. Nonetheless, Google Scholar was additionally added to specifically identified peer reviewed research articles. Google Scholar contains a broad range of articles and allows for specifying some aspects of data search that were helpful during this research process. The search terms used included “gun violence restraining orders” and its abbreviation “GVRO,” which were primarily combined with other terms, such as “effectiveness,” “effects,” “results,” and “evidence from.”

Additional Search Strategies

The articles’ reference lists were assessed to find other relevant publications, but most of them did not adhere to the chosen inclusion criteria (such as being full-text articles available free of charge). The university library’s

databases were also utilized. Another search strategy included browsing through the news sources and identifying publications related to gun control, as some of them regularly summarized the recent studies on the following topic.

Inclusion Criteria

We searched for full-text articles related to the research question, “How effective is the gun violence restraining order (GVRO)?” because the primary task of this overview was to examine publicly available reliable data. Due to the lack of systematic reviews published on the topic of gun violence restraining order, we applied a broader publication period by including peer-reviewed articles published in the period between 2013 and 2023. The author's credentials had to be present online to prove their reliability and allow us to assess their relatedness to the question. The publications had to explore the topic of violence restraining order from several standpoints to ensure that the subsequent systematic review would be more objective and comprehensive.

Exclusion Criteria

Articles printed in non-English languages were excluded from the search due to our inability to process and analyze them properly. The studies had to be focused on the topic of gun violence restraining order either entirely or primarily. Not yet published articles or pieces that had lost their eligibility were also excluded from the final analysis. Books and non-journal articles or news publications and summaries were also excluded due to the specific focus of this

systematic review. Despite their potential benefit, books were not added to the review because the reliability and peer-review process of the publishers is challenging to confirm.

CHAPTER FOUR

RESULTS

Gun control policies have been a subject of powerful debate in the United States, with supporters and opponents offering divergent views on their effectiveness. This chapter presents and analyzes the results derived from a systematic review of seven published articles on gun control, with a specific focus on the effectiveness of gun violence restraining orders. Understanding the effectiveness of these measures is fundamental for informing policy decisions and enhancing public safety. By examining the findings of various studies, this chapter aims to provide insights into the effectiveness of different gun control laws in mitigating gun violence. The results from this analysis will add into current knowledge about gun-control measures and their effectiveness by examining techniques used, sample characteristics, and significant findings while identifying common themes, discrepancies, and gaps.

Reviewed Articles

The reviewed articles assessed the effectiveness of GVRO laws in reducing firearm-related violence and suicides. The first article by Pear et al. (2022) evaluates California's GVRO law impact on firearm violence rates in San Diego County from 2016 to 2019. The second article by Vittes et al. (2013) focuses on the removal of firearms from individuals under domestic violence restraining orders in California. In contrast, Saadi et al.'s article (2020) examines

GVRO laws' impact and firearm legislation on firearm suicide rates among older adults in the U.S. Describe the additional studies you found.

Studied Outcomes

This section describes the studies by the outcomes measured, which varied by individual study, by population and type of harm. Outcomes measured included perceived safety, criminal activity, non-fatal firearm injuries, firearm suicide, and mass shooting.

Perceived Safety

The studies examining the effectiveness of gun violence restraining orders (GVROs) provided mixed results, with some research indicating perceived safety and reduced firearm suicides, while some found no significant relationship between firearm injury rates and criminal activities. Among the seven reviewed studies, Vittes et al. (2013) examined perceived safety and found that many beneficiaries felt safer under GVROs, while others, such as Pear et al. (2022), did not observe a significant impact on perceived safety, highlighting inconsistent findings across the studies. Saadi et al. (2020) and other studies highlight inconclusive results suggesting the need for further research. Vittes et al., (2013) explored the impact of eliminating firearms from those under domestic violence restraining orders in California. The focus of the investigation was on a sample size of 17 individuals who received such orders as victims of domestic violence. The study utilized a pilot survey as part of a process evaluation conducted by detectives assigned to the pilot program within the Sheriff's Offices in Butte and

San Mateo Counties (Vittes et al., 2013). The survey instrument included questions about demographic and relationship characteristics of the victims and restrained persons. Notably, the recipients' experiences with having guns removed from their abusers were explored during interviews. The results suggested that many women wanted firearms taken away to feel safer (Vittes et al., 2013). However, some challenges arose whereby some offenders still had access to weapons despite DVRO issuance, prompting the five researchers to suggest a need for careful implementation and enforcement of such laws.

Criminal Activity

Of the seven studies, Swanson et al. (2019) and Kivisto and Phalen (2018), focused on risk-based firearm seizure laws and their effects on firearm-related harm and criminal activity. These studies provided consistently favorable findings, showing that these laws were associated with a decrease in firearm-related harm and criminal activity. Swanson et al. (2019) examined the link between gun seizure and criminal arrest and the effects of firearm restrictions on future gun-related criminal activities and suicide. Using a case series design, the authors interrogated the application and effectiveness of Indiana's 2006-gun violence prevention law, which authorizes police officers to withdraw firearms from people who exhibit present or future risk of harming themselves or others or show characteristics of emotional instability or violent conduct. The researchers compared records of criminal convictions, arrests, and suicides of 395 individuals

subjected to firearm withdrawal during the year preceding and following gun removal.

Non-Fatal Firearm Injuries

When discussing non-fatal firearm injuries, Pear et al. (2022) found inconsistent results regarding the effectiveness of GVROs in reducing non-fatal firearm injuries in California. Pear et al. (2022) did not consistently show that GVROs were either effective or ineffective in reducing non-fatal firearm injuries. Instead, the findings suggested that the relationship between implementing GVROs and non-fatal firearm injuries is nuanced and not straightforward, indicating a complex interplay of factors.

Pear et al. (2022) implemented a serial cross-sectional study to examine how California's GVRO law impacted firearm violence rates within San Diego County from 2016 to 2019. The researchers used the synthetic control method to compare the firearm violence rate in San Diego after the GVRO was enacted with the counterfactual firearm violence rate if the GVRO was not passed. To derive the counterfactual rate, the researchers drew data from 27 California counties that issued few GVROs during the period while maintaining steady gun violence rates between 2005 and 2015. To measure firearm violence, the researchers gathered data on fatal and nonfatal firearm injury and firearm suicide. The researchers found that implementing GVRO was not associated with reducing firearm injury. This null finding may be partly explained by the illegal

purchase of firearms via the underground market, which is not subject to the GVRO laws.

Firearm Suicide

Moreover, Saadi et al. (2020) and Kivisto and Phalen (2018) specifically focus on firearm suicides. Both studies suggest that stricter gun control policies, including GVROs, were correlated with fewer instances of firearm suicides.

Saadi, Choi, Zimmerman, and Takada conducted a study in 2020 to examine the effect of firearm legislation and GVRO laws on older adults' suicide rates caused by guns in the U.S. The sample consisted of data from multiple U.S. states from 2012 to 2016, encompassing older adult populations aged 55–64 and >65 years old. The study design was longitudinal. Ultimately, the results revealed that implementing stricter gun control policies connected with GVRO laws exhibited a strong correlation with fewer instances of senior citizens deliberately causing injury or death by using guns on themselves (Saadi et al., 2020). The authors emphasized that further investigation is necessary for verifying these results and promoting evidence-based strategies aimed at reducing older adults' self-harm through firearms use.

The study findings indicate that 7 out of the 14 people who died of suicide used firearms. The annualized suicide rate of the study population was about 31 times more than that of the general state population, indicating that the law genuinely targeted a high-risk group in Indiana. The extrapolated information on the case fatality rates for various suicide methods revealed that at least a life was

saved for every 10 gun-withdrawal actions. Therefore, the gun seizure law is effective in preventing suicide and homicide.

California

Of the seven studies, two focused on California aiming to provide a contextual perspective on the underlying issue. The study by Saadi et al. (2020) specifically focused on California and examined the impact of firearm legislation and GVRO laws on firearm suicide rates among older adults in the U.S. Their methodology is described above. The findings by Saadi and colleagues (2020) deviated from those of Pear et al. (2022), which is also described above. Pear et al. (2022) found that GVRO was not associated with a decrease in firearm self-harm in California. Instead, the rate of firearm self-harm remained unchanged after the enactment of GVRO, likely because California had comprehensive firearm legislation before GVRO that prevented high-risk individuals from purchasing firearms.

Indiana and Connecticut

A significant and conclusive end to gun violence in the United States is a complex policy puzzle with multiple controversial pieces, including implementing harsher risk-correlated gun purchase-denying criteria, strengthening illegal gun trafficking law enforcement, promoting a gun safety culture, and removing crucial psychological and social determinants of self-harm and violent behaviors. Kivisto and Phalen (2018) sought to determine the effects of risk-based firearm seizure laws on firearms and non-firearm-related suicide rates in Indiana and

Connecticut. Particularly, the authors wanted to establish whether these regulations reduced the two states' population-level firearm suicide prevalence and to examine any possible replacement effects. Using a synthetic control method, Kivisto and Phalen analyzed annual state-level panel data for the two states from 1981 to 2015. Difference-in-place placebo tests and synthetic-control methodology were adopted in determining the effects of firearm seizure laws on suicide rates while regression-based difference-in-differences evaluation with randomization inferences was used to analyze the study's sensitivity. According to research findings, Indiana's laws reduced firearm-related suicide prevalence by 7.5% during the first ten years of implementation, which was larger than in any comparison state. The enactment of the firearm seizure law in Connecticut resulted in an immediate 1.6% decrease in firearm suicides and a 13.7% decrease in similar cases in the post-Virginia Tech era, characterized by a substantial increase in the enforcement of the laws. While Indiana reported a comprehensive decrease in suicide rates, the fall in Connecticut's firearm suicide prevalence was overshadowed by the surge in non-firearm suicides. Generally, the risk-based firearm seizure laws effectively averted a significant percentage of population-level firearm suicides, despite the inconclusive evidence for a replacement effect.

The implementation and effectiveness of risk-based gun removal laws in preventing suicide in Connecticut were also explored by Swanson et al. (2017). In a study that examined the characteristics, execution, and consequences of

gun removal under the state's risk warrant law, the authors interrogated the fairness and effectiveness of firearm removal and highlighted the potential challenges and benefits of the risk-based preemptive legislation in the gun violence prevention context. The researchers employed a synthetic control method to examine the outcomes of 762 people who had been subjected to gun removal laws between 1999 and 2013. The researchers used quasi-experimental analysis to analyze gun seizure policy effects by examining known case fatality rates for different suicide methods to approximate the total number of attempted suicides represented by the official death-by-suicide numbers. Similarly, the researchers inferred a counterfactual number of possible suicide deaths, which are the excess deaths that would have occurred if the authorities had not withdrawn guns from the subjects. The study results indicate that the restrictive gun laws were primarily designed to separate or remove firearms from individuals, mostly male (92% of the population), who were considered at risk of self-harm despite their lack of criminal records in the preceding year. The research indicated that although 3% of those who have been subjected to gun removal committed suicide, which is 40 times more than Connecticut's general adult population, more deaths would have occurred if the subjects retained their guns. By applying population-level data on specific fatality rates linked with different methods of intentional self-injury, the researchers established that 121 out of 142 of the subjects had attempted and survived suicide. After calculating the number of additional fatalities that could have occurred if the guns had not

been withdrawn from the subjects, the results showed that between 10- and 20-gun seizures averted at least 1 suicide. Based on the study, the risk-based gun removal laws can be considered an effective policy measure for reducing gun-related suicides.

Mass Shootings

Only one study of the seven focused on instruments such as extreme risk protection orders (ERPOs) and their efficacy in preventing mass shootings. The findings of Wintemute et al. (2019) suggest that ERPOs may effectively disrupt planned mass shootings in various public settings, although the study noted challenges in establishing a clear cause-effect relationship, reiterating the recommendations by Saadi et al. (2020) who call for more research to provide conclusive and accurate findings. In their efforts to examine the implementation and effectiveness of the ERPOs, which are typically used for focused rapid response during high imminent firearm violence, Wintemute et al. (2019) presented a case series of 21 cases that involved ERPOs as part of mass shooting prevention out of the 159 records acquired from the courts. The study participants were persons subjected to ERPOs because they had declared their intention or exhibited behaviors suggesting their intention to commit mass shootings and had or would soon access firearms. The study results reveal that most of the cases in which ERPOs were applied involved non-Hispanic white male individuals aged between 14 and 65 with a mean age average of 35 years. Workplaces and schools or children were the major targets for the suspected

planned mass shooting, and mental or medical health issues were the main motivating or underlying factor for the violent actions. The authorities blocked three firearm purchases and recovered 52 firearms following the ERPOs' issuance. By August 2019, no cases of mass shooting, suicide, or homicide were reported among the persons subjected to the gun violence restraining orders. Although mass shootings and suicides did not occur during the enforcement of ERPOs, the orders' effectiveness in combating the threats is inconclusive due to the difficulties in establishing the cause-effect relationship. Generally, the study findings suggest that ERPOs can effectively disrupt mass shooting plans in schools, healthcare, and other public areas.

Conclusion

This chapter presented a systematic review of seven studies that examined the effectiveness of GVRO laws in increasing perceived safety, reducing firearm violence and suicides, and preventing mass shootings. Although the studies examined varied by sample size, participant characteristics, measurable outcomes, methodology, and results, there is a common theme of the potential use of the law to reduce firearm-related harm was identified. Despite the studies focusing on different variables, the primary objective was to identify the effectiveness of gun violence restraining order laws in addressing issues, such as self-harm, suicide, mass shootings, and other criminal activities. The findings collectively suggest that GVROs have the potential to be an effective tool in mitigating firearm-related harm, although

further research and careful implementation are necessary to fully understand their impact.

CHAPTER FIVE

DISCUSSION

This systematic review aimed to evaluate the existing body of research on the effectiveness of Gun Violence Restraining Orders (GVRO) in reducing firearm-related violence, such as suicides, criminal activities, and mass shootings. Although Pear et al. (2022) found that California's GVRO law did not significantly impact firearm violence in San Diego County from 2016 to 2019, the majority of studies reviewed suggest that GVRO effectively reduced gun violence. Notably, Saadi et al. (2020) showed that stricter gun laws and GVRO were associated with lower suicide rates among older adults. In corroboration with Saadi et al. (2020), Kivisto and Phalen (2018) observed a 7.5% drop in firearm suicides in Indiana and a notable reduction in Connecticut after rigorous enforcement of the law. Furthermore, Vittes et al. (2013) reported that removing guns from domestic violence offenders in California made women feel safer, highlighting GVROs' positive effects on victims' perceived safety. In addition, Swanston et al.'s (2017) study in Connecticut demonstrated the GVRO law's effectiveness in reducing gun-related suicides, with an estimated 10-to-20-gun seizures preventing at least one suicide. In a separate study conducted in Indiana, Swanson et al. (2019) found a significant decrease in suicides among individuals from whom guns were removed. Wintemute et al. (2019) discussed California's ERPOs in preventing mass shootings, noting that no shootings happened post-ERPO issuance, indicating their potential effectiveness.

Collectively, these studies support the impact of GVROs in reducing firearm-related violence.

Findings

The main findings of the systematic review revealed mixed effectiveness of GVRO in mitigating firearm violence, with some studies indicating limited impact. Notably, the analysis by Pear et al. (2022) demonstrated that GVRO implementation in San Diego County did not significantly reduce firearm violence between 2016 and 2019, revealing GVROs' limited effectiveness at a population level. A key factor that contributed to this ineffectiveness is the ability to acquire firearms through illegal means. Particularly, the underground market and unregulated sales provide high-risk individuals with access to firearms, allowing them to avoid GVRO restrictions and compromising its preventative measures. Furthermore, discrepancies in GVRO enforcement and public awareness hinder their effectiveness. The lack of widespread public knowledge and strong enforcement mechanisms significantly reduces the potential of GVROs to prevent individuals deemed at risk from accessing firearms. Therefore, the effectiveness of GVRO is contingent upon the specifics of the legal mechanisms, enforcement, and community engagement in gun violence prevention efforts.

Limitations

Various limitations characterize the studies that explore the effectiveness of GVRO in reducing firearm violence. One limitation stems from the short-term nature of the studies reviewed, which restricts a comprehensive evaluation of

GVROs' longer-term outcomes, which might be more prominent as the law's application matures and public awareness increases. Another limitation stems from the variability of gun control laws across different states, which makes it difficult to generalize the results of the reviewed studies and draw nationwide conclusions about GVROs' effectiveness. Notably, the effectiveness of GVROs observed in one state may not necessarily translate to similar outcomes in another, especially considering the differences in legal frameworks, enforcement practices, and cultural attitudes towards gun ownership. Lastly, a focus on population-level outcomes in the studies reviewed may overlook the individual-level benefits of GVROs. This approach could minimize the potential successes of GVROs in preventing specific instances of gun violence, offering a limited view of their overall effectiveness. The failure to capture detailed impacts on individuals who were directly intervened upon limits the studies' ability to convey the full protective effect of GVROs on preventing gun-related injuries and deaths among high-risk individuals.

Recommendations

Based on the findings and limitations of the seven studies reviewed, several recommendations for service and research are necessary to enhance the effectiveness of GVROs, particularly in the context of social work with vulnerable populations. For instance, there is a need to raise awareness about GVROs among social workers and the communities they serve to help them educate families and individuals about their existence, how to petition for them, and their

potential benefits in preventing gun violence. To this end, training programs for social workers should be developed to give them the necessary knowledge and tools to navigate the legal system related to GVRO and to advocate effectively on behalf of those at risk. In addition, there is a need for policies to establish collaborations between social workers and law enforcement or legal professionals to streamline the GVRO application process and make it more accessible. Moreover, the limitations of the systematic review require further research to address the long-term impacts of GVROs, the variability in their effectiveness across different states, and their individual-level benefits. Future studies should aim to fill these gaps by conducting longer research that examines the extended outcomes of GVRO implementation, comparative analyses across states with varying gun laws, and qualitative research that captures the personal experiences of those directly affected by GVROs.

Conclusion

This chapter has provided a comprehensive discussion of the findings from the analysis of seven studies on gun violence restraining order (GVRO) laws. Overall, this systematic review has demonstrated the potential and challenges of GVROs in mitigating firearm violence. Despite mixed results, the evidence generally supports the effectiveness of GVROs in reducing gun-related harms, such as suicides and mass shootings. The discussion shows the potential of GVRO laws to mitigate firearm-related harm. While the findings suggest that GVRO laws can contribute to reductions in firearm violence and suicides,

inconsistencies in the findings highlight the complexity of this issue. The implications of these findings for social work and human services are significant, highlighting the role that social workers can play in advocating for policies that protect individuals and communities from firearm-related harm. However, the impact of GVROs is limited by factors such as illegal firearm acquisition and variability in enforcement. The findings highlight the necessity for increased awareness, training programs for social workers, and more robust research that explores the long-term effects of GVROs, their implementation across different states, and their impact at the individual level.

Table 1. Summary of Studies Included in the Systematic Review

Title of the Article	Study Aims	Participants' Characteristics/ Data Sources	Sample Size	Study Design	Measurement of Important Outcomes	Significant Findings
Firearm Violence Following the Implementation of California's Gun Violence Restraining Order Law (Pear et al., 2022)	To determine whether the implementation of the California GVRO law was associated with decreased rates of firearm assault or firearm self-harm in a specified county.	Population in San Diego County	Not specified	Cross-sectional	Rates of firearm assaults and self-harm injuries per 100,000 people	Implementation of GVRO law in San Diego County was not significantly associated with reduction in firearm violence (2016-2019).

Removing Guns From Batters: Findings From a Pilot Survey of Domestic Violence Restraining Order Recipients in California (Vittes, 2013)	Focused on the implementation of the Domestic Violence Restraining Order (DVRO) in California, and how victims felt about firearm removal from abusers	Domestic violence restraining order recipients in California	17	Pilot Survey	Recipients' experiences with firearm removal and their feelings of safety	The majority of recipients wanted firearms removed; those whose abusers retained guns felt less safe.
The impact of gun violence restraining order laws in the U.S. and firearm suicide among older adults: a longitudinal state-level analysis, 2012–2016 (Kristen et al., 2020)	Examined the association of state firearm laws with the incidence of firearm, non-firearm-related, and total suicide among older adults, with a focus on GVRO laws.	Older adults in the U.S.	Not specified	Longitudinal	Firearm, non-firearm, and total suicide rates among older adults	Stricter firearm legislation and GVRO laws negatively associated with firearm-related suicide rates among older adults.
Effects of risk-based firearm seizure laws in Connecticut and Indiana on suicide rates (Kivisto & Phalen, 2018)	Evaluated the effects of Connecticut's and Indiana's risk-based firearm seizure laws, specifically analyzed the firearm and non-firearm suicide rates. To determine if these laws are associated with decreased suicide rates and assess for the need to replace the law.	Panel data	Not specified	Synthetic control method	Firearm and non-firearm suicide rates per 100,000 of the adult population.	Identified a correlation between firearm laws and a reduced number of firearm suicides, specifically in Indiana.

Implementation and Effectiveness of Connecticut's Risk-based Gun Removal Law: Does it prevent suicides? (Swanson et al., 2017)	Analyzed the characteristics, implementation, and outcomes of gun removals conducted in Connecticut under the risk warrant law.	Population of gun removal cases in Connecticut includes the majority of middle-aged or older married men	762	Synthetic control method	Suicide among those subjected to gun removal	Gun removal was effective in delaying suicide by gun. Without the policy in place, there is a possibility of increased suicide rates.
Criminal justice and suicide outcomes with Indiana's Risk-Based gun seizure law (Swanson et al., 2019)	Evaluated the association between gun seizure and criminal arrest, as well as the impact on future criminal activity involving guns and gun suicide.	Individuals subjected to gun removal actions	395	Case Series	Criminal arrest and conviction, criminal activity, and suicide.	The implementation of restrictive gun laws, notably in Connecticut, prevented gun-related violence and suicides.
Extreme risk protection orders intended to prevent mass shootings (Wintemute et al., 2019)	Evaluated the implementation and effectiveness of California's ERPO statute by presenting identified cases where ERPOs were implemented as a measure to prevent mass shootings.	Individuals who were subjected to ERPOs	21	Case Series	Post-GVRO violent events (mass shootings, homicides, or suicides) committed by study subjects.	No mass shootings, other homicides or suicides occurred amongst the individuals subject to ERPOs.

APPENDIX A
ASSIGNED RESPONSIBILITIES

ASSIGNED RESPONSIBILITIES

This research project was completed collaboratively by Yasmeen Gonzalez-Ayala and Bonnie Galloway.

The following sections were completed as follows:

1. Article Identification & Analysis: Yasmeen Gonzalez-Ayala and Bonnie Galloway
2. Written Report and Presentation of Findings: Yasmeen Gonzalez-Ayala and Bonnie Galloway
3. Abstract: Bonnie Galloway
4. Acknowledgments: Bonnie Galloway
5. Chapter One, Introduction: Yasmeen Gonzalez-Ayala and Bonnie Galloway
6. Chapter Two, Literature Review: Yasmeen Gonzalez-Ayala and Bonnie Galloway
7. Chapter Three, Methods: Yasmeen Gonzalez-Ayala & Bonnie Galloway
8. Chapter Four, Results: Yasmeen Gonzalez-Ayala & Bonnie Galloway
9. Chapter Five, Discussion: Yasmeen Gonzalez-Ayala
10. Formatting and Edits: Yasmeen Gonzalez-Ayala and Bonnie Galloway

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