

'Gun shop projects' for suicide prevention in the USA: current state and future directions

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INTRODUCTION

ABSTRACT

Objectives To describe community-driven suicide prevention partnerships between firearm retailers and public health officials ('gun shop projects'), including common elements and challenges.

Methods We conducted qualitative interviews with leaders from state-level and national-level partnerships to determine common features, challenges and strategies used by these groups. Data were coded via theme analysis; two independent coders followed a shared codebook developed in an iterative fashion and with high inter-rater reliability.

Results Across 10 interviews, data revealed four main themes: (1) community building was a cornerstone of these efforts; (2) appropriate messaging and language were vital to successes; (3) groups employed various educational and outreach campaigns and (4) groups identified common challenges and obstacles.

Conclusions Gun shop project partnerships between firearm retailers and public health officials show promise, with thematic data demonstrating common trends and steps towards successful programme implementation. Evaluative data are needed to determine the impact of these efforts on suicide prevention in local communities.

INTRODUCTION

Suicide is the 10th leading cause of death within the USA. In 2018, 48 344 people died as a result of suicide,¹ with firearms accounting for approximately half of these deaths. Various studies have examined the effects of access to firearms on suicide risk and deaths²⁻⁴; firearm access has been shown to be a risk factor for suicide,^{5,6} in large part because of the high mortality rate (85%–90%) of firearm suicide attempts.⁷ Reducing access to lethal means, particularly firearms, is an evidence-based and recommended strategy to prevent suicide.^{8,9} To encourage safer firearm storage during times of suicide risk (ie, inaccessible by the at-risk person, whether locked at home or stored elsewhere), public health professionals and firearm retailers and organisations have mobilised collaborative suicide prevention partnerships colloquially known as 'gun shop projects' (GSPs). GSPs are collaborative and voluntary efforts between public health officials and firearm retailers that engage local firearm owners through: education on warning signs of suicide risk and the importance of reducing access during times of risk; facilitation of safer firearm storage by distributing materials or devices; and generally promoting efforts to prevent firearm suicides within their communities.

The first collaboration between firearm retailers and public health professionals began in New Hampshire in 2009 when a suicide prevention researcher and a local firearm retailer connected after a series of three suicides in 1 week that all involved guns purchased from a single store.¹⁰ They began to explore whether gun stores could have a role in preventing suicide, working through the New Hampshire Firearm Safety Coalition.

Based on the promise of this initial effort, a 2012 report by the surgeon general called for health officials to 'partner with firearm dealers and gun owner groups to incorporate suicide awareness as a basic tenet of firearm safety and responsible firearm ownership'.¹¹ In the years since the New Hampshire initiative, numerous other states have created similar partnerships using strategies of outreach, education, and engagement, including Washington, Colorado and Virginia.¹² To date, there are programmes scattered across the country varying in scale and complexity, many creating materials for retail outlets to educate consumers about suicide prevention and the importance of safe firearm storage.

Prior studies on GSPs' implementation and impact, however, are limited. Vriniotis *et al* assessed the impacts and acceptability of programme efforts in the New Hampshire GSP; they found that roughly half of all surveyed firearms retailers promoted GSP materials and were accepting of these techniques and materials, with others wanting more industry backing before joining.¹⁰ In a recent study in Washington state, Walton and Stuber found similar results.¹³ These represent some of the only sources of publicly reported evaluative data. The present study aimed to use in-depth qualitative interviews with existing GSPs to describe programme elements, challenges and opportunities to inform future research and programme development.

METHODS

The study team conducted a series of semistructured informational interviews with key informants (directors or others in leadership roles) from selected state and national GSPs around the USA, framed as a qualitative description study.¹⁴ Selected GSPs included those found in states with high firearm ownership and suicide rates (based on national data),^{15,16} along with programmes in states with high active-duty military populations. These criteria were used in order to learn more about both the current state of GSPs around the USA and how these programmes interact or collaborate with existing military suicide prevention programmes.



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Key informants from these groups were contacted and invited to participate in an interview after hearing and reading a description of the study and providing verbal consent. At the conclusion of this interview, future participants were identified via snowball sampling, using existing networks within GSP organisers to identify new informants. Interviews continued until thematic saturation was reached and no new themes were generated.

The interview guide was developed in an iterative fashion,¹⁷ including questions about the GSP and personnel, programme and policy details, successful strategies and recommendations, areas of conflict or barriers to successful implementation, and other features of these programmes. One interview (with the New Hampshire GSP) served as a preparatory interview to refine the initial interview guide for length, acceptability and content. No data were collected from this interview. Interviews were led by members of the research team with extensive experience in collecting qualitative data (EP/SB). Interviews were recorded, transcribed verbatim via a third-party resource and analysed through qualitative data analysis software (Dedoose V8.3.17). Data collection, analysis and reporting follow guidelines were established by Consolidated criteria for Reporting Qualitative Research.¹⁸ Textual data were then analysed through a collaboratively driven, abductive theme analysis.^{19 20} Two researchers (EP/SB) iteratively developed a codebook using both deductive and inductive approaches based in grounded theory. Deductive codes were generated based on predetermined materials (namely the interview guide and the limited, existing literature on the topic), while inductive codes followed a grounded theory approach, wherein codes emerged organically from the texts.²¹ Researchers analysed a sample of transcripts to create an initial codebook. Similarities, differences and conflicts were resolved through team discussions and consensus meetings. Inter-rater reliability assessments were performed by both qualitative coders for this analysis, resulting in a Cohen's kappa (κ) value of 0.85 across all codes, indicating strong agreement in code creation and application.²² The remaining transcripts were analysed by these coders using this coding schema.

RESULTS

Analysis included transcripts from interviews with directors, community organisers and volunteers of nine state-level and one national-level GSPs found across the USA (table 1). Multistage coding revealed a series of dominant themes and subthemes; table 2 outlines their description, usage and application throughout the dataset. The dominant themes were: (1) community building and bridging gaps, (2) culturally appropriate

messaging and objectives, (3) programme outreach and engagement and (4) barriers and obstacles.

Community building and bridging gaps

GSP representatives described an earnest desire to work with local firearms owners and retailers in creating collaborative approaches to preventing firearm suicides. This core principle was apparent throughout these interviews and was a guiding force that steered many of these programmes in their activities. By working within the local firearms and suicide prevention communities, GSPs were able to navigate the various cultural, political and knowledge gaps that exist between the two groups. As one organiser put it, 'we're creating a collaborative of like-minded individuals, who come from a broad array of views and perspectives about guns and suicide, to help us to grow the message to reach a broader audience beyond gun shops and shooting ranges'.

All GSPs identified the importance of working with highly influential people or groups within the local firearms community to help bridge this gap. These individuals could be industry partners, community firearms groups (pistol and rifle clubs, outdoorsmen groups), or socially connected individuals in the firearms world. One subject stated: 'there's always going to be a local gun group that has the respect, has the ear of the gun-owning community that is trusted. Get them on board, take all the time that is necessary to get them on board with a huge degree of trust'. By engaging these key individuals, GSPs could gain entry into larger community engagements and sources of knowledge.

This community building was described as contingent on a number of factors, most importantly trust and honesty. Previous attempts by public health officials to engage the firearms community or industry have often encountered serious issues and barriers related to developing rapport with these groups. For the organisers of participating GSPs, being direct about their goal to combat firearm suicide—but also open to the concerns and critiques of their firearm partners—was essential in maintaining trust, developing resilient partnerships and side-stepping divisive issues. This was most evident in how much emphasis these groups placed on the language they use. All groups were acutely aware of how slight changes in language, tone or framing of issues could impact the trust and honesty that they exercise with these local firearm retailers, as discussed next.

Table 1 General features of interviewed gun shop projects

Organisation	Level	Funding source	Workforce	Year established	Evaluation data?	Military contact?
California	State	No active funding	Volunteers	2019	No	No
Colorado	State	State funding	Volunteers+salaried	2014	Yes	No
Missouri	State	National/state funding	Volunteers+salaried	2018	No	No
Montana	State	State funding	Volunteers+salaried	2016	No	No
NSSF	National	National/private	Salaried	2016	Yes	No
Tennessee	State	State funding	Volunteers+salaried	2012	Yes	Yes
Texas*	State	State funding	Volunteers+salaried	2020	No	Yes
Utah	State	State funding	Volunteers+salaried	2014	No	No
Virginia	State	State funding	Volunteers+salaried	2014	No	No
Washington	State	State/private funding	Volunteers+salaried	2016	Yes	Yes

*Interviews with coordinators from this program revealed that while they had not presently made any formal attempts to collaborate with firearms retailers, they were planning to do so within the 4 weeks following the interview.

Table 2 Themes, subthemes and representative participant quotes

Theme	Subtheme	Example(s)
Community building and bridging gaps	Origination and activities	'We all have a role to play. We can all learn and work together on how to end suicide in our community or how to save a life, or learn how to talk about these things...If I'm a mom, or if I'm a fireman, if I work at a gun shop, we all have that role'. 'The quicker we make it clear that we're not trying to infringe upon your rights, we're focused on safety, we get less pushback'
	Recruitment strategies	'There's always going to be a local gun group that has the respect, has the ear of the gun-owning community that is trusted. Get them on board, take all the time that is necessary to get them on board with a huge degree of trust'.
	Trust	'This project created that trusting relationship, like, 'We can call these people, they're on our side, they'll support us''
Culturally appropriate messaging and objectives	Messaging	'(We're)very clear to steer clear of debates on gun control, really stick to the message of firearm safety...We're just talking about, you know, 'This is just firearm safety. This is already what you guys do. Here's another angle on it''.
	Community connection	'Connecting with the firearms community and learning from them is the best kind of way to educate yourself on what their needs might be or how they can support the project'.
	Recommendations	'Get comfortable with the idea of talking to people that don't necessarily move in the same circles as you do...you're not going to get more intelligent about allocating resources to solve the problem until people can agree what the problem is'.
Programme outreach and engagement	Materials	'There were the posters, there was kind of some frequently asked questions flier, there was some kind of—I think it's like a tips sheet. There was a version for ranges, and there was a version for retailers. So, the frequently asked questions in the tips sheets are more internal-facing for the shop or range, so those were often the items discussed first. And then if they were receptive, then there's those customer-facing materials like the posters, a rack card that has those kind of ten commandments for firearm safety based on the NRA rules, and the NSSF rules'.
	Trainings	'The CIT officers, the crisis intervention-trained police, have specifically asked for incorporating the conversations on access to lethal means into our advanced training'. 'We put that [suicide prevention material] in statute to include that in the concealed firearm permit training. So all instructors have to do that'.
	Events	'I have a peer mentoring program. In order to get certified as a peer mentor, one of the training classes they have to take is a suicide prevention training. So historically I have provided that training to them as part of that so that's one of the things that I do. And the other is in the form of the Safer Homes event. So we'll go to a community setting, we're most famous for our work in gun shows and we'll put on an event where we'll be giving away locking equipment for medications and firearms, medication disposal kits, things of that nature'. 'We'll be giving that away for free and then when people come to get that, we'll have them fill out the paperwork, including a survey so we can sort of study what their behavior patterns are and if they change after the interaction along with filling out a liability release which basically says if I lock my hand to the gun safe you're not gonna sue me, yeah, along those lines.'
Barriers and obstacles	Funding	'We'd love to formally evaluate outcomes related to the projects, but have very limited funding to implement the project to begin with, and no funding for evaluation of the project.'
	Concerns	'It goes back to that attitude of 'you have a right to suicide, adults have a right to suicide'. That's how I would classify the biggest barrier'. 'That's what a lot of the gun community thinks is that, 'Well suicide's not a gun problem, it's a mental health problem'—there's automatically a stigma associated with it'.
	Military interactions	'We reached out to some of the installations, they had suicide prevention coordinators who, you know, couldn't commit to anything but were interested in learning more'.
	Political interactions	'I learned my first lesson probably within the first six months of my job when the governor's office was approving something and said something about gun control. The staff said 'If this governor's ever going to be supporting your cause, you're gonna have to get rid of that language''.

Culturally appropriate messaging and objectives

Another major theme was a need to use culturally appropriate messaging and objectives. Part of this messaging entailed avoiding any 'gun control' language, an area of apprehension for many firearms owners. Many GSP organisers found that using data and statistics was a better way to communicate messages with their intended audience. One organiser explained: 'Our goal here is not to ban guns, our goal is not to be engaged in that space whatsoever. We're here to reduce suicide, and by the way, suicide is a really serious problem and here are the statistics on it...Most people are really amazed at what those statistics are because people do not understand the problem'. Other groups found that evidence-based approaches could be bolstered by connecting emotionally with the impacts of suicide. Another organiser recalled: 'By and large, people have their own stories about suicide, they know someone who's been affected by suicide, and they're 100 percent supportive of what we do'. Others noted similar interactions—retailers that have experienced suicides on their ranges, or have been personally impacted

by losing someone to suicide, may be more receptive to these messages.

Messaging was such a critical component of these GSPs that many of the recommendations from these organisations focused on this fact. One group explained how 'connecting with the firearms community and learning from them is the best kind of way to educate yourself on what their needs might be or how they can support the project', calling on any future groups to listen and learn from their target audience. Many interviewees noted the need to find the right person to act as a messenger or a 'champion' of these causes. Ideally, this person would be a member of the firearms community, given the importance of their insights into appropriate language and their social ties with local firearm groups and retailers. Retail owners, industry representatives and firearms instructors were all referenced as potential champions. These champions enabled organisers to connect suicide prevention strategies with existing cultural norms and ethics of firearm owners (such as safe and responsible handling of firearms). Programme organisers found that by aligning suicide prevention

efforts with notions of safety and responsibility, GSP programming could have greater acceptability.

Program outreach and engagement

Programme outreach and engagement activities were other common elements identified through these interviews. The most common effort was encouraging local firearm retailers to display suicide prevention content, given their nexus as a point of sale for lethal means and their potential to stem the impact of suicide firearm deaths. Nearly all of the GSPs interviewed described some process by which they created posters, brochures, leaflets, wallet cards or magnets that aimed to educate consumers on various risk factors for suicide. Keeping with the theme of messaging, these materials were vetted by the local communities where they were marketed, often incorporating local imagery or language. This process seemed to have the widest reach and was practically and financially feasible for most GSPs interviewed. These materials were mailed to participating retailers, delivered by hand as volunteers canvassed their regions, or printed by retailers.

In addition to disseminating printed materials for display in local retailers, a number of GSPs created training modules to educate retail associates, range safety officers and other professionals on firearm suicide prevention. One GSP created a 5 min training module that discussed warning signs in the context of a shooting range, while another developed a tool for sales associates to determine whether a customer was safe to sell firearms or ammunition to. Other groups found these training modules to be especially important for teaching instructors and range safety officers warning signs of suicide, given these individuals have the most expertise and contact with firearms. As one group explained, 'if you can get people that work in the training space onboard, I think there's a really big opportunity there...the weight carried by the person speaking to you is gonna be significant because you have paid for that person's time and expertise'.

Some GSPs also used community events as a venue for their suicide prevention efforts. Many found it easy to reach the public through community health events, local firearm retail shows or firearms expos. At these events, programme coordinators would deliver educational materials, engage interested attendees on issues of suicide prevention and distribute firearm safety devices (such as cable locks or trigger guards). Additionally, GSPs were keenly aware of the power of advertising and media influence, developing TV, radio and internet advertising campaigns that promoted the message of suicide prevention and firearms access. GSPs found these campaigns to be a strategic method of outreach given the limited budget and personnel available, reaching firearm owners in distant regions. These public outreach efforts helped both to spread the message of suicide prevention in the community and to establish the GSP as a trustworthy entity.

Barriers and obstacles

Interviews with the GSPs revealed several common barriers and obstacles. Funding represented a prime challenge for GSPs, and oftentimes a lack of funding had dramatic impacts on the scope and successes of these organisations. Without enough resources, groups found that they were limited in the scope of the programming they could offer and in how many salaried workers they could assign to projects. Various organisations found funding through federal or state suicide prevention grants. As state needs, priorities and perceptions of issues changed, however, so did state funding for GSPs. Many GSPs noted that a reliance on local legislators to incorporate GSP-specific funding into state budgets was risky. One group stated how they were told "Don't worry about

funding. You'll have this gigantic thing built into the governor's proposed budget. Don't worry about it. You'll be fine'. Well, that wasn't true. That didn't pan out'.

Interviewees also noted some common concerns they encountered in bridging gaps and forming connections with their local firearms communities. While many found their local groups accepting and interested, there were a number of firearm retailers or groups that could not be swayed. For many, the issue came as a result of them not seeing or believing in the connection between firearms access and suicide, a central tenet for many of the efforts organised by these groups. One national organisation explained that with some retailers, 'they don't see a connection between suicide and their work'. Another echoed this: 'the retailers don't realize that suicide prevention is something that they could be a part of'.

Recruitment and engagement of retailers was also identified as a challenge. Very few GSPs had made connections with local military installations, although many were eager to form these relationships. Lack of information and confusion regarding military hierarchies thwarted many planned civilian-military GSP collaborations. Recruiting civilian retailers and community members was also a common struggle for these GSPs. Participants noted difficulties cataloguing firearm retailers or ranges in their state as states generally lack central, up-to-date listings of firearm ranges or retail establishments, leading many organisations to use sometimes outdated and overly broad federal firearms licensing lists. Groups called this process of tracking firearms retailers using this method '*woefully inadequate*' and '*almost comedic*', leading many to use cold calls, blind mailing lists or door-to-door approaches to find eligible partners. Once identified, GSPs had other issues in approaching these establishments due to limited funding (as mentioned above). Some groups, predominantly smaller ones, found that they were only able to process their efforts on a county-wide basis, oftentimes focusing exclusively on networks of 10 or fewer retail partnerships. Many of these issues resulted in very limited evaluative data being recorded by these organisations; the combination of limited funds, lack of personnel and differing programme goals all prevented evaluative data from being recorded and shared. Despite these issues, many interviewed GSPs were still optimistic about their current efforts and plans moving forward into the future, some even planning on expanding their efforts to include more outreach, engagement and community building.

DISCUSSION

Our findings highlight some of the common features, dimensions and components of GSPs found around the USA. These initiatives work to engage local communities in firearm suicide prevention through grassroots activism, education and awareness campaigns, and distribution of materials and safety devices to firearms owners. Our findings can shape and support future efforts to grow and evaluate GSPs, and they provide specific areas for improvement.

Our interviews suggest that state leaders seeking to prevent suicide with these promising programmes should address several important issues. First, a defined funding structure should be identified and the details of the scope and longevity of the resources should be clarified. A consistent funding source would enable future projects to allocate funds to both public health and community partners in order to facilitate the many connections needed to achieve prolonged success. Consistent funding would also allow for better programme evaluation.

Second, future GSPs should establish clearly defined measures for reporting, collecting and evaluating data generated from these programme efforts. GSP coordinators interviewed for this report

What is already known on the subject

- ▶ Reducing access to lethal means such as firearms has been shown to prevent suicide.
- ▶ Partnerships between firearm and suicide prevention communities, or gun shop projects, are promising approaches to increase suicide awareness and prevention.

What this study adds

- ▶ Gun shop projects frequently engage in community collaboration, bridging of gaps and culturally competent messaging in order to provide firearm-specific suicide education campaigns, information about safe firearm storage and distribution of firearm storage devices, among other initiatives.
- ▶ Obtaining adequate funding streams and engaging in evaluative data collection may prove beneficial for gun shop projects moving forward.

noted that evaluative data were not generated or accessible due to several factors, including a lack of evaluation parameters, tools and personnel. Evaluative data might include preassessments and postassessments on the impacts of educational sessions, rates of firearm storage utilisation (such as cable locks or gun safes), raw data on the number of safety devices distributed to firearm owners, data on the number of participating firearm retailers and the reach and impact of public awareness campaigns.

Third, enhanced networking across GSPs could support future programme expansion. Many of the GSPs interviewed in this report noted informal relationships with one another, oftentimes engaging with others at conferences or other suicide prevention events. What was not apparent was whether these relationships extended into more formal connections or collaborations. A potential area of growth for these groups would be to use existing channels to share information, materials, resources and insights for the mutual benefit of a collective network of GSPs. The American Association of Suicidology and its listservs represent one academic/neutral possibility to facilitate these efforts, and the National Shooting Sports Foundation/American Foundation for Suicide Prevention partnership could also support bridging networks. Further implementation of programme goals alongside existing military-specific suicide prevention campaigns represent another area of potential growth.

There were several limitations in this study. GSPs were selected for interviews based on criteria developed in study planning (placing more focus on efforts in states with both high firearm ownership rates, suicide deaths and high military populations). Due to this, findings may not be representative of the experiences of all GSPs found throughout the USA. The absence of evaluative data was another limiting factor. As previously stated, while these programmes show much promise, the lack of substantive evaluative data documenting their efficacy in preventing firearm suicides makes it difficult for future programmes to be implemented and analysed. Future studies should seek out these data in order to ascertain the effect of these programmes on suicide prevention in local contexts.

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