


ORIGINAL ARTICLE

Voluntary, temporary, out-of-home firearm storage: A qualitative study of stakeholder views

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Funding information

The National Institutes of Health/National Institute of Mental Health (R61MH125754). NIH/NHLBI Grant Number K23 HL153892 (Knoopke), and American Heart Association Grant Number 18CDA34110026 (Knoopke). The contents of this work are the authors' sole responsibility and do not necessarily represent official funder views

Abstract

Background: Reducing firearm access during times of risk is a key component of suicide prevention, including the person at risk voluntarily, temporarily storing firearms outside the home. However, this approach relies on the participation of storage providers (ranges/retailers and law enforcement agencies (LEAs)). Our objective was to describe stakeholders' views and experiences surrounding voluntary, temporary out-of-home firearm storage for suicide prevention.

Method: We conducted individual interviews with (1) firearm ranges/retailers; (2) LEAs (in Colorado or Washington State); and (3) state/national organizations involved in policy development or enactment; public health; or firearm rights. Transcripts were analyzed using a team-based mixed inductive-deductive approach.

Results: Across 100 interviews (October–May 2021), potential storage providers were supportive of voluntary storage programs, often reporting a desire to help their customers and community. However, potential storage suppliers cited civil liability, regulatory, and legal concerns associated with storing and/or returning

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firearms (to people who had previously expressed suicide risk). Stakeholders offered suggested strategies meant to address liability and increase storage accessibility.

Conclusions: Understanding stakeholder views supports the development of acceptable, feasible programs for out-of-home firearm storage during times of suicide risk. Clarification of existing regulations or creation of new policies is necessary to address potential providers' concerns.

KEYWORDS

community-based interventions, lethal means, stakeholder engagement, suicide prevention

INTRODUCTION

Suicide remains a leading cause of death in the United States, with firearms used in half of all suicides (CDC, 2021). Home firearm availability increases the risk of suicide (Miller et al., 2002, 2007, 2013) because of firearms' high lethality (Spicer & Miller, 2000), the short deliberation time before many suicide attempts (Deisenhammer et al., 2009), and the association between access and method choice (Miller et al., 2013). "Lethal means safety" for suicide prevention is based on the concept that reducing access to highly lethal means during a high-risk time can prevent suicide deaths (Mann et al., 2005; Zalsman et al., 2016).

Out-of-home storage is preferred because it puts the most time and space between the at-risk person and firearms, providing an additional layer of safety over in-home storage methods of limiting access to the person at risk (e.g., locking firearms in a safe to which other household members control access). However, storing a firearm with another person—including friends, relatives, or other members of the at-risk person's social circles—can constitute a private transfer and be legally complicated, depending on the state (McCourt et al., 2017), leading to recommendations that individuals temporarily store their firearms with federally licensed ranges/retailers or law enforcement agencies (LEAs). Prior surveys found that many firearm retailers (48%) and LEAs (75%) in the Mountain West offer temporary, voluntary storage (Runyan et al., 2017). The costs and logistics of storage vary, including whether storage requires completion of a background check when the firearm is returned (i.e., when the storage constitutes a transfer). Some ranges/retailers offer lockers; since owners retain a key, the storage is not a full transfer.

Even when ranges/retailers or LEAs offer storage, family members and health professionals face questions about how to find them. In 2019, Colorado developed the first online, publicly accessible map displaying firearm ranges/retailers and LEAs willing to consider requests

for voluntary, temporary gun storage (Kelly et al., 2020). After the Colorado map release, multiple other states expressed interest; Washington completed its map in early 2020 (*Washington Firearm Safe Storage Map, 2020*) and Maryland, Mississippi, New Jersey, and New York have also released maps (Bongiorno et al., 2021; New York Firearm Storage Map, 2021; NJ Firearm Storage Map, 2021; Pitts, 2021). As evidence of growing attention to supporting voluntary, temporary, out-of-home storage, the 2021 White House Military and Veteran Suicide Prevention Strategy supports development of "multi-state storage maps to help individuals find where they can safely store firearms outside of their homes" (*Fact Sheet, 2021*); questions remain, however, concerning the feasibility of such storage.

Here, we sought to use individual qualitative interviews to examine the views and experiences of key stakeholder groups who might provide or conceptually support voluntary, temporary firearm storage in Colorado and Washington, as well as methods by which to expand availability of community-based storage for those in crisis.

METHODS

Study population and design

Eligible participants were English-speaking individuals associated with one or more stakeholder groups: (1) Colorado or Washington State firearm ranges/retailers; (2) Colorado or Washington State LEAs; and (3) relevant state or national organizations (e.g., administrative or legislative groups involved in policy development or enactment; public health organizations; firearm rights/safety organizations).

We recruited participants through by email, telephone, social media advertisements, listserv postings, and snowball sampling. One-on-one, semi-structured, 30–45 min interviews were conducted via Zoom about broad concepts related to voluntary, temporary firearm storage,

including participation in state map projects. Interviews were recorded, transcribed, and de-identified for analysis. Participants received a \$50 gift card. All participants provided verbal informed consent.

Interviews were led by study investigators (MEB, CEK) and professional research assistants (LR) with qualitative research experience and no pre-existing relationship with participants. The study team included physicians and public health researchers with experience in mixed-methods research in firearm safety, suicidology, and injury prevention. Field notes written during and immediately after interviews captured nonverbal cues and global impressions. Notes and emergent findings from interviews and coding were discussed at team meetings to ensure stakeholder perspectives were iteratively considered in subsequent interviews.

Analysis

We followed recommended guidelines for reporting qualitative research (Appendix S1) (Tong et al., 2007). We used a mixed deductive (hypothesis-driven) and inductive (emergent and descriptive) approach to coding of transcripts and notes, using Dedoose (v 9.0.17: SocioCultural Research Consultants, Los Angeles, CA) to facilitate a team-based approach. We developed the initial codebook from the interview guide and concepts that emerged through regular team meetings. Study team members (LB, AM, MM, LR, BS, KS) independently double-coded a sample of transcripts ($n = 32$, 34%) to finalize the codebook and ensure coding consistency. We analyzed coded data to identify dominant themes and compare them across content areas and group these themes or create sub-themes; discrepancies were resolved through discussion with the study team. We shared final themes with key informants for “member checking” (Creswell, 2009) to ensure authenticity of our findings. This project was deemed exempt from IRB review by both the Colorado Multiple Institutional Review Board and the University of Washington IRB.

RESULTS

Between October 2020 and May 2021, we completed 95 interviews with 100 participants (two interviews each included two people, and one interview included four; Table 1). Findings fell into three broad themes related to provision of voluntary, temporary firearm storage: (1) desire to help customers and community (Table 2); (2) liability and legal concerns (Table 3), and (3) strategies to address liability and increase storage accessibility (Table 4).

TABLE 1 Characteristics of interview participants ($n = 100$)

Characteristic	<i>n</i> (%)
Age group (years)	
18–34	9 (9.0)
35–54	56 (56.0)
55–64	14 (14.0)
65+	10 (10.0)
Prefer not to answer	11 (11.0)
Male (<i>n</i> , %)	65 (65.0)
Race (≥ 1 allowed)	
White	80 (80.0)
African American	5 (5.0)
Asian	2 (2.0)
American Indian	1 (1.0)
Other	4 (4.0)
Prefer not to answer	8 (8.0)
Hispanic	5 (5.0)
Primary stakeholder group affiliation	
Firearm range/retailer	31 (31.0)
Law enforcement agency	17 (17.0)
Organizations	
Administrative/legislative	13 (13.0)
Public health	
Firearm injury prevention	15 (15.0)
Suicide prevention	6 (6.0)
Firearms	
Firearm rights	10 (10.0)
Firearm retail/trade	3 (3.0)
Firearm training/competition	5 (5.0)

Desire to help customers and community

Across stakeholder groups, there was a consistent desire to provide service to communities, including for suicide and injury prevention (Table 2). When asked why they decided to provide storage and be listed on the map, a Washington firearm range/retailer said, “*Just another community service. ... I mean, yes, we sell guns, but we also want to make sure that they're in safe hands...*” A Colorado LEA explained why they provide storage: “*If it's reasonable and we can accommodate them, and we'd like to provide good customer service, we try to.*”

Stakeholders spoke of their specific commitment to helping those in crisis. A Colorado range/retailer said, “*If you could save a life wouldn't you want to?... If you saw somebody drowning, wouldn't you grab him?*” A Colorado LEA agreed, “*I absolutely will provide and would provide that [storage] service for – under certain circumstances, for certain folks who are in need of that.*” Another Colorado LEA official noted

TABLE 2 Representative quotes related to desire to help customers and community by providing voluntary, temporary firearm storage, by stakeholder type

	Firearm ranges/retailers	LEAs	Organizations
Serve community	<p>"I know the folks down at [gun store A] and I know the folks over at [gun store B], and I think they want to be a part of the community and they want to be a part of the community that is involving guns, and the safe ownership, and responsible use of guns. They're always talking about that. ... So I think they want to be part of the community like we would." (Washington range/retailer)</p>	<p>"I firmly believe the job of law enforcement is – it's one that works with the people and works for the people. We should be there to support in every possible way that we can. Not necessarily criminally, when there's criminal violations, but it takes a village and we're just there to really enforce the laws. But also, to really help mitigate some of those future occurrences that could happen within our communities." (Washington LEA)</p>	<p>"I think it's a great concept. I think that it is something that's needed in the space, especially in suicide prevention when it comes to especially service members, but really for anybody, but especially when it comes to veterans and folks struggling as we know that there's, I think famously on average about 22 suicides a day for those who have previously served and providing a resource that can be trusted for firearm storage is something that is fantastic to be a big plus. I think it faces some challenges." (Public health organization)</p>
Suicide prevention	<p>"Suicide is the largest cause of gun deaths. We're trying to reduce that. Number one way we can reduce it is limit access to the most common way people commit suicide – firearms ... I've had a lot of people say, well, if somebody is, if somebody is really going to do it, if they can't get a gun, they're going to find some other means. And maybe that's the case. I don't know. I mean, how do you ask somebody, um, you know, if they've committed suicide, you can't ask them, 'well, if he couldn't get a gun, would you still have gone through with it?'" (Washington range/retailer)</p>	<p>"If we can do something we should do something. ... It's easy to find one reason you can't do something. It's so much harder to say, 'yeah, it doesn't matter, we're gonna do it anyway.' And so, trying to really focus on where are the – we've got great people, we've got great facilities, we've got a couple of missing places – is where a lot of people seem to fall, and so how do we fill those gaps? And that's what we're trying to work through here." (Colorado LEA)</p>	<p>"Trust me, every person in the firearms industry, every gun 2A, you know, enthusiast, they want to do good. They don't want any of this. They don't like the heat that firearms get. If they could stop all of the violence and the suicide and everything like that, they would. It's important to them. Sometimes they just don't know how." (Firearm organization)</p>

TABLE 2 (Continued)

	Firearm ranges/retailers	LEAs	Organizations
Trust and voluntary action	<p>“The trust in the in the gun community is one of those things that’s it’s not given super easily, but it can also be once it’s there, it’s there. And it’s yeah, finding that because and establishing that trust I think is kind of the big thing. Because giving up your guns to a gun store, you know, to a customer is a big thing.” (Colorado range/retailer)</p>	<p>“I’m giving my guns to the ‘government’. I’m never going to get my guns back. So I think that that perception of turning over my property, my inherited firearms from grandpa... they hold that Second Amendment right very, very close to their heart. And have a strong passion for firearms. You know, if they’re looking for a safe place, I, I have to say that law enforcement is probably not going to be one of those sources of trust that they’re going to have because of whatever experiences or beliefs they have ... versus giving it to their cousin or, you know, their, their son who is an avid hunter or whatever. So just, just fighting that stigma of giving their guns to the ‘government’ is one of the drawbacks to [storage with LEAs].” (Washington LEA)</p>	<p>“A lot of people are definitely super concerned about where the government’s heading on the mental health issue and how easy it is to access medical records. I think a lot of people are just afraid that if they do go to a place that’s on a list, that’s on a map, that somehow that’s gonna end up in the government’s possession, and then they know this person’s got mental health issues. That’s another reason why we choose not to really ask any questions if [storage] ever happens, because I know there’s a large portion of the gun community that are just afraid of the Second Amendment rights being taken away from them.” (Firearm organization)</p>

appealing to this desire to serve those in crisis might help other LEAs become engaged: *“This is essentially one more form of providing first aid to your community.”*

Trust and voluntary action were identified as key components to successful storage programs. Specifically, participants noted that users would need to distinguish storage from that required by Extreme Risk Protection Orders (ERPOs, or “red flag laws” that allow family or law enforcement to temporarily restrict firearm access for someone at high risk of harm to self and/or others). A participant from a public health organization said, *“And then reassure them that... this isn’t a law enforcement action, that we aren’t disarming you. I think it’s important that it’s a choice that they’re making.”* A Colorado firearm range/retailer elaborated,

It needs to be really, really clear that there is absolutely no connection between this and red flag [laws]. That there’s no crossover of information so that people can trust that this really is a voluntary thing and it’s not going to turn into something else.

Participants noted that even if LEAs wanted to provide storage, a lack of trust might undermine utilization. An individual from a firearm organization explained,

I think for most folks, going to the police [for storage] is generally not a real comfortable situation. And especially for African

Americans. There’s just a level of tension... based on history and what had happened to a lot of us.

Liability and legal concerns

Although participants supported the concept of voluntary, temporary firearm storage, they identified many challenges, the biggest being liability during storage and upon return. Firearm ranges/retailers and LEAs often wondered whether they would be open to criminal or civil suits, especially if they knew that the storage had stemmed from a mental health crisis. A Colorado firearm range/retailer explained,

[Storage is] absolutely something that we would do. I just would like some confidence to know that I’m doing it in the right way, that I’m not going to get a legal ramification.

A firearm rights organization representative commented:

Well, I think it all comes down to liability. [Storage locations] would definitely need liability protection, and probably some guidelines as to when they can return firearms to somebody... You’re asking them to make a psychological judgment, and they have no psychological training.

TABLE 3 Representative quotes related to liability and legal concerns when providing voluntary, temporary firearm storage, by stakeholder type

	Firearm ranges/retailers	LEAs	Organization
Liability during storage	<p>“Obviously, you want to keep track of who’s gun you have and the person giving them up wants to know that they’re properly cared for. That they can get them back in a, readily, if there’s been, there’s time that things have changed for them, and they’re better.” (Washington range/retailer)</p>	<p>“[We need] some reasonable guidelines to take off some of the responsibility off of the agencies, maybe that there’s a max time that the agency has to hold this for, that would be under the time that it becomes abandoned property... Then maybe a backup facility so that once the police department says we’ve reached our max, we can’t find this person now, or they don’t want their guns back. That there has to be another solution somewhere for what you do with these things because, otherwise, I could see evidence rooms just filling up forever.” (Colorado LEA)</p>	<p>“If something happened to my guns while those guns were under their charge, back to the insurance problem. Okay, well something happened to all the guns that I was holding for [name] while he was dealing with his crisis and now they’re gone, stolen, fire, I don’t know whatever something happened and now they’re gone, what are, what’s... you know that’s a different liability.” (Firearm Organization)</p>
Liability upon return	<p>“If we are to take people’s guns on this temporary hold, in order to return them to them, at what point are we required to do a background check, if at all, and who gets to make the judgment call on whether that person is now either stable enough or healthy enough to return those firearms to that person? Is that going to be a legal liability for us as a business entity, is, is the owner going to take that on as a personal private responsibility? ...Those are all questions that I don’t think have been answered yet.” (Washington range/retailer)</p>	<p>“Where the hard thing that gets to is, if it’s just taken for safekeeping, how, and when do we return it?... it’s not our property. So, if somebody says, ‘<i>Hey today, I just don’t feel well. And I want to turn in my firearm,</i>’ and the next day they want to come pick it up. We don’t have any legal recourse to withhold it” (Washington LEA)</p>	<p>“And of course, the word is out that if you take your gun to the local police station, probably never get them back, for obvious reasons. If you do get them back and turn out to kill yourself or somebody else, then the police chief is on the hook, the press will crucify them and say, ‘<i>Why did you give this person back their guns?</i>’ And I questioned why a gun shop would do that, take on that liability too. In the current litigious climate, you’re just opening yourself up for all sorts of grief.” (Firearm organization)</p>

TABLE 3 (Continued)

	Firearm ranges/retailers	LEAs	Organization
Ownership	<p>“I have dealt with a parent whose son had gun stored with us and she wanted access. Like I said, we provide the space, but the owner of the guns provides the lock, which means we don't have access to that firearm, but mom wanted to remove those because she didn't want him to have access to them. We spent a lot of time talking with her about what was going on and how the best way we could help her accomplish her task... That was as close to the crisis we had gotten, and, in the end, it was a crisis for the family. He'd apparently had mental health issues for quite some time. She was a mental health provider who would tell you now, she didn't deal with the whole situation very well. He did take his own life a year or so after he picked firearms up from the lockers. Yeah, it was pretty awful for her.” (Washington range/retailer)</p>	<p>“And we determine who the owner [of record] is so that eliminates the, <i>‘if my dad starts getting dementia... and I sneak the guns out and I take them and turn them into the police department for safekeeping, I am the owner.’</i>... If I do that and my dad has a moment of clarity and I told him what I did with them and he goes down to the police department to get his guns back, he will not be the owner of record. And so, they won't give [them to him], they'll only give them back to me or if somebody changes the owner of record.” (Colorado LEA)</p>	<p>“It would be, who's turning the firearm in? Is it the owner or is it a ticked off ex-spouse or a cousin or was it a legitimate issue?” (Firearm organization)</p>
Logistics	<p>“I'd have to know what their procedure is as far as identification; do we log it into our A&D [acquisition and disposition] book for ATF... There's a tag that goes on that says not for sale, and that basically if ATF came in here, they would know that gun is not for sale, it's not our property it is someone else's. It would have to be the logistics of it.” (Washington range/retailer)</p>	<p>“No, we make sure they realize that even if they're going away overnight... if that were the case and they wanted, for some reason us to watch it just making sure they realize that even if it were that short a period, we have to then go through and do all the gun checks and everything background checks before we can give it back to them. Okay. So as long as we've made that clear and they're with that type of understanding that it's not just, <i>‘Oh, we'll put it in our closet and give it back to you when you come back’.</i>” (Washington LEA)</p>	<p>“Then probably storage space would be another thing, where they're going to put it if... I mean one gun or two guns, no big deal, but if you get everybody doing it, then where do they store all the guns safely?” (Firearm organization)</p>

A Colorado range/retailer added:

If someone is standing in front of me saying, 'I want my guns back and I think I'm just fine,' but I see someone who's jittery or teary-eyed, or just my gut is telling me you're not fine. Have I then stolen their guns?

Participants also raised questions about the legality of storage when it was requested by someone other than the firearm owner. A Washington firearm range/retailer explained:

I would definitely need clarification about the legality... to accept a firearm which from somebody who doesn't own it because they fear that their partner whoever is going to harm themselves or other people.

A Colorado firearm range/retailer noted that they might work-around this issue by specifically not asking about ownership:

It is really whoever drops it off. ... the way that it works for us is, you bring it in, and you give

TABLE 4 Representative quotes related to strategies to address liability and increase storage accessibility for voluntary, temporary firearm storage, by stakeholder type

	Firearm ranges/retailers	LEAs	Organization
Informal	<p>“...it would be nice to learn from other FFLs [licensed firearm retailers] that are doing this [voluntary firearm storage], how they are managing it. So, sharing in that network, I can learn from somebody else and then I can share with some of my more open-minded [colleagues].” (Washington range/retailer)</p>	<p>“Now, there may be work-around around that, for example if a business, any business, it'd be like a self-storage storage unit, you can, you rent the storage unit from whoever and what you put in that is up to you... there would actually be less scrutiny... I come to your business, I am going to rent locker number one from you for X amount of dollars per month. I put my lock on it, you have no idea what's in there... I could put guns in there, I could put valuables in there that I didn't want it my house or something, the renter could put anything in there. That would be a way of kind of circumventing the law, if you will.” (Colorado LEA)</p>	<p>“There's a way, a roundabout way of separating the person from their firearms, you know, during that time, for a minute, where it's not invasive. Especially if they know and trust you as a gunowner, as well, and sometimes you just, you know, need to 'clean the gun'. So, that's a little trick.” (Firearm organization)</p>
Policy	<p>“I would like some kind of legal protection that would say okay, it's like if I don't have the recourse to transfer back to them, that I have some means of disposing of the firearm or taking possession or compensating the person...or what would I do in that circumstance, when they try to get it back and they're no longer legally allowed to do so.” (Washington firearm range/retailer)</p>	<p>“I want to make sure they're a part of our community. I don't just want random people dropping off guns here. They need to tell us what's up. We usually grab their ID from them, fill out an evidence custody form, and talk to them about when they're going to be back. We can do clearances through CBI to give it back to them without a fee to us for law enforcement purposes. We can do that background check here through dispatch.” (Colorado LEA)</p>	<p>“[A storage law may say] You shall store that for 14 calendar days ... What that does is it cuts a little bit of the nuances and it makes it easier for the business to say, 'Hey, no, it's the law.' They can blame the law... at the end of that two weeks, absent a court order... they have to give the firearm back, right?... But, you know, if they created a safe storage law for, for gun dealers, there would be pushback because how are they going to store these right.” (Public health organization)</p>
Engagement	<p>“If it just kind of said like, 'Oh, hey, sure. Here's the voluntary temporary storage,' and it didn't say like suicide question mark on, at the top. These people would notice it and people would see like, 'Oh, what's this temporary voluntary storage program?' They might see that, and they might say, 'Oh. Oh, I get it.' That's for people, maybe I know someone like that, who maybe they could put their gun away for a couple months... Even if people don't think of it for themselves, I mean, it's still probably effective for them to think of it for other people or their family or something.” (Washington firearm range/retailer)</p>	<p>“The pros and the cons can be discussed. But I think it all starts with having a person or persons or a team who is directly engaged and involved with this and a supporter of the program who takes that in a very positive light and a positive form of this is the benefits, these the abilities that we can – the things that we can do to mitigate issues or future issues from happening. So, I think it starts with those folks going to the surrounding law enforcement executives.” (Colorado LEA)</p>	<p>“Hey, man, I know you're going through a lot, the divorce is crazy. The last thing you need to do, too, is clean your damn guns. Now, let me clean your guns, let's have some drinks, let's chill, let's talk about whatever-whatever.' Or insert drinks for, you know, whatever, 'Let's hit the gym,' whatever-whatever. But that's a good way to kind of do it in a nonabrasive, non-overreaching... the person doesn't feel like you're ratting them out, the person doesn't feel like you're cutting into their freedoms, you know?” (Firearm organization)</p>

us your information to check it in, as far as we're concerned it's yours.

Firearm ranges/retailers and LEAs identified additional challenges related to providing storage in a way that complies with regulatory guidelines, especially for the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) requirement to keep a firearm possession log. Multiple participants from firearm ranges/retailers noted these challenges; one from Colorado explained:

The ATF makes it really difficult to stay consistent with all of this stuff. Right now, we might be okay with storing firearms, but the ATF might [say], 'no, we just looked at another rule, and you can't store firearms anymore...' If the ATF says no more storage, and I have guns in storage, well, those people better hurry up and get in before the ATF makes all of us felons.

A Washington firearm range/retailer had asked for ATF guidance before beginning to offer storage: "*The agent that I deal with sent me instructions on how to do that.*" Logistical challenges included physical space or the availability of locking devices. A Colorado firearm range/retailer said,

depending on what types of guns and how I'm going to have to store them, I may have to do some kind of a fee for that. If it's a couple of handguns that I can put in the bottom of the safe and just basically forget about, they don't take up space, then that's one thing.

Some LEA participants also expressed concern about storage space, as well as other logistics:

I can't think of any [obstacles], just the space to do it, and the other piece is yeah, if someone's in crisis, we don't want them bringing up a firearm to a precinct... We would almost rather they come and say 'hey, listen I have a firearm in my house, I would like the police to take possession of it ... and we will be able to go and retrieve it.

Strategies to address liability and increase storage accessibility

Many participants identified temporary or permanent solutions to the challenges they faced. Some of these solutions were informal; a stakeholder from a firearm organization said,

A gun shop can refuse service... kind of like a bartender would refuse an intoxicated individual from ordering. They can always say, 'You know, it just seems like things are not right today for you. Can you come back another time?'

A Colorado firearm instructor said:

We've also in the past offered... an interesting workaround when locker space has been unavailable, that we can check a person's firearms into gunsmithing for cleaning services, and then simply wait for them to pick it up until after they're no longer in crisis.

Relatedly, many ranges/retailers and LEAs suppliers noted specifically not asking the reason for storage so as to reduce any potential liability stemming from knowing that the person was having a mental health crisis. A Colorado range/retailer said,

At the end of the day, that type of stuff is not my business, I don't ask questions about that... I handle the transfers, I run the background checks... I don't worry about what they come in for.

For liability concerns about damage during storage, interviewees generally felt it could be covered through signed waivers or insurance policies. A Washington firearm range/retailer described forms related to the firearm's condition: "*It's almost like you rent a car and then when it's time to give it back, someone has a form since they check for damage.*" A Washington LEA used the same workflow as for storage of evidence or court orders:

And then we take custody of that firearm. We ensure it's safe. And then we document it in a case report and submitted it into our evidence room, AKA property room, which holds both evidence and safekeeping and unclaimed property.

Participants noted the need for broader regulatory or policy changes. These included liability protection, and clarity and consistency for ATF regulations. A Colorado range/retailer explained,

You could have the ATF make a rule where the owner of a firearm (or maybe a close relative?) could come in and pick the gun up without having to go through the background check process.

Participants agreed that temporary, voluntary storage in times of crisis should be considered exempt from usual requirements, like background checks. A Washington firearm range/retailer explained:

There may need to be an exception to the rules about personal transactions... at most it's a loan, and it's a different kind of loan than saying, 'well, here, take it on your three week upcoming trip.'... So one would hope, exceptions for this purpose [temporary storage in crisis] would be written into any laws.

There were varying perspectives on their rights as FFLs to refuse to return a firearm, should they have concerns about the owner's safety. In addition, some expressed a desire for clarity around what to do if the firearm owner never returned or were no longer eligible to possess firearms. Thinking from the perspective of an individual seeking storage, a representative from a firearm organization said,

It's, who's legally able to take my firearm if I lose my rights during that holding period? I would want to make sure that, hey, if the gun shop is releasing my firearms to somebody, that's somebody that I trust. Worst-case scenario is, do my guns go to the local law enforcement agency?

Participants also discussed strategies to engage more locations in offering storage and being listed on statewide maps. They spoke of the need for clear and consistent messaging within and across states so that the program was clear. A representative from a firearm organization (who was also a firearm retailer), said,

I think social media marketing would be great because it's there, it's subtle, and it's not in your face. ... [We] hang posters up and have fliers available for people. Make it a gun store thing, not a government thing.

Participants emphasized keeping the storage provision voluntary, rather than requiring firearm ranges/retailers or LEAs to offer it, and engaging the larger firearm community in suicide prevention efforts. A firearm organization representative commented:

What if all the manufacturers had 'mental health, it's okay to talk about it,' slapped on every signage that goes out there? Instead of the government telling them, 'you must do

XYZ.' ... The distributors then ... go to the retail stores and the ranges... And they're like 'alright, cool, it's coming from you guys, not from the gun grabbers or whatever. Now I'm more on board.' And so it's going to have a much more organic effect.

Differences among stakeholder groups

Overall, there was board support across stakeholder groups for the idea of voluntary, temporary out-of-home firearm storage, and the themes presented above arose from sessions with each group (Tables 1–3). However, there were some differences among stakeholder groups on the practical translation of the theory to practice. One difference was variation in the primary barrier or key concern identified. For LEAs, the main barriers to voluntary, temporary firearm storage were practical issues like space and the process to store or return a firearm. Retailers/ranges noted questions of liability and staff training as the key issues, while firearm organizations cited questions about due process and threats to Second Amendment rights. Public health and suicide prevention organizations were primarily concerned with broad public access to suicide prevention resources.

DISCUSSION

Voluntary, temporary, out-of-home firearm storage is recommended for individuals at risk of suicide but has unproven feasibility. In this large qualitative study, there was broad support for the idea, but firearm ranges/retailers and LEAs face challenges that limit their enthusiasm. While the desire to help spurs creative work-arounds in individual situations, broader policy change or clarifications are needed for larger-scale uptake.

This study confirms and expands knowledge about liability concerns as a barrier to offering storage (Pierpoint et al., 2019); without addressing these concerns, uptake of temporary, voluntary, out-of-home firearm storage may be limited. Some questions—including whether background checks are required when returning firearms to owners, or whether firearm ranges/retailers can refuse to return firearms to owners when concerned—might be addressed through clarification of current laws or ATF regulations. Others—like the question of liability after returning a firearm should a subsequent suicide occur—may require new policies. This study did not examine feasibility of these solutions, but they are critical areas for further investigation.

Firearm owners are diverse in multiple ways, including their reasons for ownership, engagement in Second Amendment activism, frequency of firearm handling, and connection to the social aspects of “gun culture” (Boine et al., 2020, 2021; Schleimer et al., 2020). Firearm storage practices and views on voluntary, temporary out-of-home storage vary across groups of firearm owners (Bryan et al., 2020; Salhi et al., 2021). Our findings support this heterogeneity, including about the importance of trusting relationships and trusted messengers (Anestis et al., 2021). Even if LEAs offered storage, not all gun owners would feel comfortable using it, and the same may be true of firearm ranges/retailers. Temporary, voluntary storage with a trusted family member or friend may be preferred for many firearm owners; in states where such storage is legal and easy (McCourt et al., 2017), options for storage with firearm ranges/retailers or LEAs may be less important. Ideally, lethal means safety would incorporate options across the spectrum, from voluntarily changing in-home storage, to voluntarily storing firearms offsite, to other options when voluntary options fail; such options would include ERPOs were available (in 19 states and the District of Columbia as of late 2021) (*Extreme Risk Protection Orders*, 2021).

Dissemination of lethal means safety messaging should come from varied trusted messengers (Anestis et al., 2021) in the firearm community and through varied media, from podcasts and videos, to one-on-one interactions and raising awareness at point-of-sale. National initiatives from large organizations (Brassard, 2016; VA, 2021) offer broad reach, but smaller programs are also important because of the ability to tailor messages according to region (Polzer et al., 2020) or demographic population. Some of the participating ranges/retailers and LEAs had not learned much about or been asked to provide voluntary, temporary storage, highlighting an opportunity to raise awareness about out-of-home firearm storage during times of crisis.

A limitation of our study is that perceptions and practices may vary in other states; organizational stakeholders were working in states across the country, but further work should explore geographic differences. Participants may have been more supportive of the concept of voluntary, temporary storage than those who did not participate, and views of firearm owners, ranges/retailers, and organizations may vary among subgroups defined by non-geographic factors, such as Veteran status, military affiliation, or identification with particular demographic groups. In particular, voluntary, temporary storage at a range/retailer or LEA may not be acceptable among individuals with illegally obtained firearms or among individuals not legally allowed to possess firearms, as they may fear legal ramifications (including not being able to get their firearms back). In addition, our study included

only English-speaking participants, and we recognize that Spanish-speaking individuals may have unique insights on engaging undocumented individuals seeking temporary storage. We appeared to reach thematic saturation for our high-level study aims, but further work on messaging (Anestis et al., 2021) and engagement for different populations is warranted.

Despite these limitations, this large qualitative study of stakeholders revealed that, while many locations want to help their communities, specific challenges—especially related to liability—may limit broader participation by other firearm ranges/retailers or LEAs and require creative strategies to address them.

ACKNOWLEDGMENT

We appreciate the contributions of John Fortney, Emma Gause, Alex McCourt, and Ayah Mustafa.

CONFLICT OF INTEREST

The authors report no commercial or financial conflicts of interest.

AUTHOR CONTRIBUTIONS

Marian E. Betz: Conceptualization (lead); Data curation (lead); Funding acquisition (lead); Investigation (lead); Methodology (lead); Project administration (lead); Supervision (equal); Writing – original draft (lead); Writing – review & editing (equal). **Lauren A. Rooney:** Formal analysis (equal); Project administration (equal); Writing – review & editing (equal). **Leslie M. Barnard:** Formal analysis (equal); Project administration (equal); Supervision (equal); Writing – review & editing (equal). **Bonnie J. Siry-Bove:** Formal analysis (equal); Writing – review & editing (equal). **Sara Brandspigel:** Conceptualization (equal); Supervision (equal); Writing – review & editing (equal). **Megan McCarthy:** Formal analysis (equal). **Kate Simeon:** Formal analysis (equal); Writing – review & editing (equal). **Lauren Meador:** Funding acquisition (supporting); Supervision (equal); Writing – review & editing (equal). **Frederick P. Rivara:** Conceptualization (equal); Funding acquisition (equal); Writing – review & editing (equal). **Ali Rowhani-Rahbar:** Conceptualization (equal); Formal analysis (equal); Funding acquisition (equal); Investigation (equal); Supervision (equal); Writing – review & editing (equal). **Christopher E. Knoepke:** Formal analysis (equal); Investigation (equal); Methodology (equal); Writing – review & editing (equal).

DATA AVAILABILITY STATEMENT

De-identified study datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

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How to cite this article: Betz, M. E., Rooney, L. A., Barnard, L. M., Siry-Bove, B. J., Brandspigel, S., McCarthy, M., Simeon, K., Meador, L., Rivara, F. P., Rowhani-Rahbar, A., & Knoepke, C. E. (2022). Voluntary, temporary, out-of-home firearm storage: A qualitative study of stakeholder views. *Suicide and Life-Threatening Behavior, 52*, 655–667. <https://doi.org/10.1111/sltb.12850>