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Suicide and Life-Threatening BEHAVIOR

ORIGINAL ARTICLE

Threat perceptions, defensive behaviors, and the perceived suicide prevention value of specific firearm storage practices

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Abstract

Introduction: Secure firearm storage has been proposed as a suicide prevention method within the military; however, secure storage practices are uncommon. Service members may perceive limited value in secure storage as a suicide prevention tool and threat-related factors may influence such perceptions.

Method: A nationally representative sample of firearm-owning military service members ($n = 719$) was recruited between December 3, 2021 and January 4, 2022 to complete a self-report survey by Ipsos using their KnowledgePanel calibration approach to optimize representativeness.

Results: Threat sensitivity was associated with less perceived suicide prevention value across all within-home storage practices as well as out-of-home storage. Defensive firearm ownership was associated with less perceived out-of-home storage value. Contrary to expectations, PTSD symptoms were associated with greater perceived suicide prevention value across all storage practices and intolerance of uncertainty was associated with greater perceived out-of-home storage value.

Discussion: Perceptions of, sensitivity to, and reactions to threat represent a complicated confluence of factors that may influence firearm views and behaviors in disparate ways. Viewing the world as dangerous and other people as a threat may limit perceived suicide prevention value for secure storage and increase the drive for firearm access.

KEYWORDS

firearms, means safety, threat perception

INTRODUCTION

In any given year, approximately half of all US suicide deaths and approximately two-thirds of military suicide deaths result from self-inflicted gunshot wounds (e.g., Department of Defense, 2023). Since the onset of the unprecedented firearm purchasing surge that began in early 2020, this percentage has further increased, with an 8.5% increase in the US firearm suicide rate from 2020 to 2021 and an additional 3.5% increase from 2021 to 2022, ultimately resulting in firearms accounting for 55% of all US suicide deaths in 2022 (Centers for Disease Control and Prevention, 2023). Although firearm access exhibits a robust association with risk for suicide death (Anestis & Houtsma, 2018; Brent, 2001; Simon, 2007), the sheer amount of privately owned firearms already in circulation and the political climate regarding regulation of firearm access render any notion of systematically reducing access to firearms within the US unrealistic. This is compounded further by the tendency of service members and veterans to own firearms at a higher rate relative to civilians (e.g., Cleveland et al., 2017). As such, the field of suicide prevention has largely adopted a harm reduction model, identifying firearm storage practices across communities of firearm owners and seeking methods to promote secure storage of firearms within the home and temporary storage away from home during times of stress (e.g., Kelly et al., 2020; Kposowa et al., 2016). Indeed, within the Department of Defense, the promotion of secure firearm storage has been highlighted as a pivotal step toward reducing the military suicide rate (Suicide Prevention & Response Independent Review Committee, 2023).

Despite evidence that broad adoption of secure firearm storage practices could reduce the burden of suicide within the United States (Monuteaux et al., 2019), large epidemiological studies have repeatedly demonstrated that secure firearm storage is generally the exception rather than the norm both among civilians and service members (Anestis et al., 2023; Azrael et al., 2018; Carter et al., 2022). One potential explanation for the disconnect between the potential life-saving value of secure storage and the limited uptake of such behavior is a general sense that secure firearm storage practices may offer limited value as a suicide prevention tool. Consistent with this possibility, Anestis et al. (2024) recruited a representative sample of ($n = 3510$) adults from five US states and compared firearm owners who stored at least one firearm loaded and unlocked ($n = 223$) to firearm owners who stored all of their firearms unloaded and/or locked ($n = 718$) on the degree to which they perceive specific firearm storage practices to have value as suicide prevention tools. The authors reported that those who store firearms loaded and unlocked perceived less suicide prevention utility in storing firearms unloaded, separate from ammunition, in a locked location (e.g., gun safe), and with a locking device (e.g., cable lock) installed. The two groups did not differ on the perceived value of storing firearms away from home, with both groups reporting similarly low levels of perceived value.

Identifying this gap in perceived value is useful scientifically, but to provide actionable clinical guidance, it is vital to understand the mechanisms that might drive such perceptions. Along these lines, a growing line of research has examined the role of threat perception and defensive behaviors in driving firearm-related behaviors. For instance, research has repeatedly demonstrated that the most common reason for firearm ownership is defense (e.g., Simonetti et al, 2018) and that defensive firearm ownership is associated with less secure firearm storage practices and less willingness to adopt secure storage practices in order to prevent suicide (Anestis, Butterworth, & Houtsma, 2018).

Relatedly, multiple studies have examined the association between threat and firearm-related behaviors. For instance, Anestis and Bryan (2021) recruited a national sample ($n = 3500$) of adults in mid-2020 and found that both threat sensitivity—the belief that the world is dangerous and other people are not trustworthy—and intolerance of uncertainty—discomfort with uncertain situations and events—were associated with intentions to purchase firearms in the subsequent 12 months. Perceived neighborhood safety, on the other hand, did not distinguish between those planning to purchase and those planning not to purchase, which the authors posited might indicate that perceptions of abstract danger may influence firearm purchasing behaviors more readily than actual environmental threat. More recently, Anestis, Bandel, Bond, and Bryan (2023) recruited a sample of adults ($n = 6404$) from three US states in early 2021 and found that both threat sensitivity and intolerance of uncertainty were associated with actual firearm purchasing behavior between early 2020 and early 2021 and that both variables were particularly elevated among individuals who became first time firearm owners during that timeframe. To our knowledge, no research to date has examined the extent to which threat sensitivity, intolerance of uncertainty, or perceived neighborhood safety are associated with firearm storage behaviors or the perceived utility of secure storage as a suicide prevention tool.

An additional set of findings related to threat and firearm behavior stems from studies examining lethal means counseling, an intervention designed to promote secure firearm storage. Anestis, Bryan, Capron, and Bryan (2021) demonstrated that a single session of a lethal means counseling intervention—Project Safe Guard—significantly

outperformed a control condition in promoting increased use of secure firearm storage practices among National Guardsmen, with effects holding at 3- and 6-month follow-up assessments. Stanley et al. (2023), however, reported that those with elevated levels of PTSD hyperarousal symptoms exhibited a less robust treatment effect, indicating that an overactive sensitivity to threat may impede uptake. Indeed, Stanley and Anestis (2021) had previously demonstrated that, among firearm-owning members of the Army National Guard, those with greater levels of PTSD hyperarousal symptoms endorsed less secure firearm storage practices.

Taken together, these findings indicate a potentially meaningful role for perceptions of and responses to threat in the adoption of secure firearm storage practices and the perception that such practices may protect against death by suicide. To expand upon existing research and focus our efforts on a community at particularly elevated risk for firearm sucide, we recruited a nationally representative sample of firearm-owning US military service members and examined the extent to which each of the threat-related factors noted above are associated with a diminished perceived value in specific firearm storage practices as suicide prevention tools. Findings consistent with our hypotheses would indicate that resistance to secure storage may be meaningfully driven by perceptions of threat—immediate or abstract—and that such perceptions represent a vital target for both clinical interventions and public health efforts aimed at promoting secure firearm storage as a suicide prevention tool.

METHOD

Participants and procedures

All procedures were approved by the relevant ethics review boards. Participants ($n = 719$) were current US military service members who endorsed currently owning at least one firearm. Ipsos facilitated recruitment via their KnowledgePanel (KP) calibration approach (Fahimi et al., 2015), in which participants from the probability-based KP panel ($n = 45$) were used to calibrate the remaining participants ($n = 674$), recruited via opt-in panels, to optimize representativeness. The large majority of the sample (75%) were Active Duty at the time of the study, with all five branches represented and the remaining participants serving in the National Guard or Reserves. The KP sample was recruited between December 3 and December 27, 2021 and the opt-in participants were recruited between December 7, 2021 and January 4, 2022. All participants provided informed consent prior to beginning the protocol.

Data weighting was performed for screened completed protocols (e.g., US service members, regardless of firearm ownership status) to represent the current military population. Qualified cases were then assigned weights for their specific subpopulation of the military. Due to the small base size of the KP sample in this study, calibration benchmarks for the opt-in sample were derived from the broader KP profile data rather than the participants in this study.

Measures

Demographics

Demographic information was derived from KP member profiles. For participants recruited via opt-in samples, demographic items utilized the same wording as was used in KP profiles.

Defensive firearm ownership

Participants were asked "Which of the following is your primary reason for having a firearm?" Those who endorsed "Personal safety or protection at home" or "Personal safety or protection away from home" were categorized as defensive firearm owners.

Intolerance of uncertainty

The seven-item prospective subscale of the Intolerance of Uncertainty Scale—12 (Carleton et al., 2007) was used to assess the extent to which participants experience discomfort when future outcome are unknown. Items are scored using a five-point Likert scale ranging from "Not characteristic of me" to "Entirely characteristic of me," with higher scores representing greater intolerance of uncertainty. The α coefficient in this sample was 0.87.

Threat sensitivity

The three-item negative cognitions about the world subscale of the nine-item Posttraumatic Cognitions Inventory (PTCI; Bryan, Bryan, & Anestis, 2020) was used to assess the extent to which individuals perceive the world and other people as dangerous and unworthy of trust. Items are scored utilizing a seven-point Likert scale, with higher scores indicating greater threat sensitivity. Consistent with prior research utilizing this scale for this purpose, language instructing participants to specifically think

about a traumatic event was removed to encourage general threat sensitivity rather than a response to a specific traumatic event. The α coefficient in this sample was 0.84.

Perceived neighborhood safety

The three-item safety subscale of the Perceived Neighborhood Safety Scale (Sampson et al., 1997) was used to examine the extent to which participants believe their neighborhood is a dangerous place. Items are scored using a five-point Likert scale, with higher scores indicating perceptions that the neighborhood is safer. The α coefficient in this sample was 0.86.

Posttraumatic stress symptoms

The eight-item version of the Post-Traumatic Stress Disorder Checklist—Military Version (PCL-M; Weathers et al., 1993) established by the Military Suicide Research Consortium Common Data Elements (Ringer et al., 2018) was utilized to assess PTSD symptoms. Items are scored in a five-point Likert scale, with higher scores indicating greater traumatic stress. This version of the PCL-M includes four items assessing intrusions, two assessing avoidance, and two assessing hyperarousal. The α coefficient in this sample was 0.94.

Perceived value of secure firearm storage as a suicide prevention tool

To assess the extent to which participants viewed specific firearm storage approaches as helpful in preventing suicide, the research team developed a scale that instructed respondents to "please indicate to what extent you believe each of the following firearm-related behaviors could prevent suicide." Options included "Storing firearms unloaded," "Storing firearms separately from ammunition," "Storing firearms in a locked location (e.g., gun safe, lock box)," "Storing firearms with a locking device in place (e.g., trigger lock, cable lock)," and "Storing firearms temporarily away from home." Answer choices ranged from 0 (Not at all helpful) to 4 (Extremely helpful).

Data analytic plan

To assess the association between fear-related factors and the perceived utility of secure firearm storage practices, we utilized a series of hierarchical linear regressions. In each case, age, sex, White race, Black race, Hispanic/Latin(x), education level, and annual household income were entered as covariates. Defensive firearm ownership, neighborhood safety, threat sensitivity, intolerance of uncertainty, and PTSD symptoms were then entered as the independent variables. In each regression equation, the perceived suicide prevention value of a specific firearm storage practice served as the dependent variable. The storage practice list included four within-home options (unloaded, separate from ammunition, in a locked location, with a locking device installed) as well as storage away from home, resulting in five total regression equations.

RESULTS

Sample descriptive data can be found in Table 1. Degree of perceived suicide prevention utility of specific firearm storage practices are described in Table 2.

Within-home storage

Individuals who identified as White perceived less value in storing firearms unloaded ($\beta = -0.15$, $p = 0.027$, $f^2 = 0.01$). Those who identified as Hispanic/Latin(x) perceived less value in all within-home storage options, including unloaded ($\beta = -0.15$, $p = 0.004$, $f^2 = 0.02$), separate from ammunition ($\beta = -0.17$, $p = 0.001$, $f^2 = 0.03$), in a locked location ($\beta = -0.19$, $p < 0.001$, $f^2 = 0.03$), and with a locking device installed ($\beta = -0.25$, $p < 0.001$, $f^2 = 0.06$).

Threat sensitivity was associated with less perceived value in all within-home storage options, including unloaded ($\beta = -0.11$, $p = 0.048$, $f^2 = 0.01$), separate from ammunition ($\beta = -0.12$, $p = 0.023$, $f^2 = 0.01$), in a locked location ($\beta = -0.16$, $p = 0.003$, $f^2 = 0.02$), and with a locking device installed ($\beta = -0.13$, $p = 0.014$, $f^2 = 0.01$). PTSD symptoms were associated with greater perceived value in all within-home storage options, including unloaded ($\beta = 0.21$, $p < 0.001$, $f^2 = 0.03$), separate from ammunition ($\beta = 0.29$, $p < 0.001$, $f^2 = 0.06$), in a locked location ($\beta = 0.17$, $p = 0.003$, $f^2 = 0.02$), and with a locking device installed ($\beta = 0.18$, $p = 0.002$, $f^2 = 0.03$). These results are displayed in Table 3.

Out-of-home storage

Greater educational attainment was associated with greater perceived value in out-of-home storage ($\beta = 0.14$, $p = 0.018$, $f^2 = 0.01$).

Defensive firearm ownership ($\beta = -0.13$, $p = 0.006$, $f^2 = 0.02$) and threat sensitivity ($\beta = -0.23$, $p < 0.001$,

TABLE 1 Sample characteristics.

	M (SD)	Affiliation (lifetime)	% (*n*)
Age	33.64 (11.01)	Army—Active Duty	35.3 (254)
		Army—Reserve	10.5 (75)
	% (*n*)	Army—National Guard	17.7 (127)
Sex		Air Force—Active Duty	15.2 (109)
Male	80.4 (578)	Air Force—Reserve	7.2 (52)
Female	19.6 (141)	Air National Guard	6.2 (45)
Racial Identity		Navy—Active Duty	15.1 (109)
American Indian/Alaskan Native	6.4 (46)	Navy—Reserve	6.1 (44)
Asian	6.8 (49)	Marine Corps—Active Duty	9.9 (71)
Black	20.4 (146)	Marine Corps—Reserve	5.6 (40)
Pacific islander	1.9 (14)	Coast Guard—Active Duty	3.3 (23)
White	71.7 (515)	Coast Guard—Reserve	2.6 (18)
Other	4.0 (29)	Public Health Service	4.9 (35)
Ethnicity		Highest/Current rank	
Hispanic/Latin(x)	67.4 (485)	Enlisted	49.0 (352)
Education		Non-Commissioned Officer	21.9 (157)
High school or less	19.3 (138)	Warrant officer	11.9 (86)
Some college	20.4 (146)	Officer	17.3 (124)
Bachelor/Associate degree	38.2 (275)	Primary reason for firearms	
Advanced degree	22.1 (159)	Defensive ownership	61.0 (259)
Annual household income		Neighborhood safety	
<$10,000	2.2 (16)	Mean (SD)	6.12 (2.95)
$10,000–$24,999	3.4 (24)	Range	3–15
$25.000–$49,999	12.7 (91)	Threat sensitivity	
$50,000–$74,999	15.8 (113)	Mean (SD)	11.85 (4.55)
$75,000–$99,000	16.6 (119)	Range	3–21
$100,000+	49.4 (355)	Intolerance of uncertainty	
Marital status		Mean (SD)	20.83 (6.68)
Married	64.8 (466)	Range	7–35
Single	29.0 (209)	PTSD Symptoms	
Widowed	0.1 (1)	Mean (SD)	10.84 (8.91)
Divorced	6.0 (43)	Range	0–32

$f^2 = 0.05$) were associated with less perceived value in out-of-home storage. Intolerance of uncertainty ($\beta = 0.18$, $p = 0.002$, $f^2 = 0.02$) and PTSD symptoms ($\beta = 0.18$, $p = 0.002$, $f^2 = 0.02$) were associated with greater perceived value in out-of-home storage.[1] These results are displayed in Table 3.

DISCUSSION

The primary aim of this study was to examine the extent to which threat-related factors were associated with a diminished perceived value of specific firearm storage practices as suicide prevention tools. The rationale for examining this question was to consider threat-related experiences as possible mechanisms driving perceived value and thus potentially influencing firearm storage decisions. Although some of our results supported our hypotheses, others were contradictory to expectations, resulting in more complicated and nuanced interpretations.

Our demographic results largely indicated that demographic factors played a minimal role in perceived value of secure storage practices. The one notable exception was Hispanic/Latin(x) ethnicity, which was associated with less perceived value in each of the four within-home

TABLE 2 Perceived suicide prevention value of specific firearm storage practices.

	Perceived degree firearm storage methods are helpful in preventing suicide				
	Not at all	Not particularly	Moderately	Very	Extremely
	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)
Within-home					
Unloaded	20.4 (147)	12.4 (89)	20.7 (149)	18.8 (135)	27.7 (199)
Separate from ammo	14.9 (107)	15.4 (110)	22.2 (160)	17.2 (124)	30.3 (218)
Locked location (e.g., gun safe)	13.4 (97)	13.4 (96)	17.1 (123)	20.8 (150)	35.2 (253)
Locking device (e.g., cable lock)	12.1 (87)	14.1 (101)	19.8 (142)	20.0 (144)	33.7 (243)
Out-of-home	18.7 (134)	15.3 (110)	19.4 (140)	22.7 (163)	24.0 (172)

firearm storage practices. Nearly 70% of our sample identified as Hispanic/Latin(x), which distinguishes our sample from most other comparable research in this area. To our knowledge, no prior research has posited that Hispanic/Latin(x) ethnicity is associated with views related to firearm safety; however, Miller, Zhang, and Azrael (2021) noted that individuals who identify as Hispanic/Latin(x) are overrepresented among new firearm owners since 2019. It may be that circumstances in recent years have shifted views within this community regarding the value and purpose of firearms and the degree to which firearm access increases and decreases various forms of threat. That said, this particular finding may benefit from subsequent qualitative research that directly assesses this question using a more in depth and nuanced measurement approach.

With respect to threat-related factors, two findings stand out as consistent with our expectations and aligned with prior research in this area. With respect to within-home storage, those who endorsed greater levels of threat sensitivity indicated that they perceived less suicide prevention value across all four firearm storage methods—unloaded, separate from ammunition, in a locked location, and with a locking device installed. With respect to out-of-home storage, both threat sensitivity and defensive firearm ownership were associated with less perceived suicide prevention value. A plausible interpretation of this set of findings is that individuals who perceive the world as dangerous and who do not trust the intentions of others may be prone to seeing firearms as an effective tool for mitigating threats in their home and thus perceive storing firearms away from home as ineffective not only for suicide prevention, but for the primary purpose for which they acquired the firearm in the first place: home defense. Furthermore, if threat sensitive individuals tend to perceive threat primarily from sources other than themselves, it may be that suicide is not as salient a source or risk and that, because it feels remote and unlikely relative to home invasion, threat sensitive individuals see less utility in rendering firearms more difficult to access and discharge.

Results related to PTSD symptoms and intolerance of uncertainty, on the other hand, are somewhat more complicated to interpret. Across all four within-home storage practices as well as out-of-home storage, individuals with greater levels of PTSD symptoms endorsed higher perceived suicide prevention value. Similarly, those with higher levels of intolerance of uncertainty endorsed greater perceived suicide prevention value in out-of-home storage. Given prior findings indicating that PTSD hyperarousal symptoms mitigate the treatment effects of Project Safe Guard among firearm owning service members, this set of findings appears to be in direct contrast to prior research. Perhaps the simplest explanation is that perceived value is not equivalent to actual behavior and that, while suicide may be salient enough for those with elevated PTSD symptoms to see value in secure storage, this general perception may not be strong enough to influence actual storage behavior. Furthermore, it may be that those with greater PTSD symptoms have encountered more messaging regarding the utility of secure storage—perhaps through treatment for their trauma symptoms—and that this messaging has resonated enough for the service members to conceptualize the risk associated with unsecured firearms, even as they remain hypervigilant for threat. Lastly, it may be that the measure of PTSD symptoms utilized in this study—which features only two items directly assessing hypervigilance—simply assesses a different construct than the tool used in the Project Safe Guard analysis. Indeed, that prior study utilized the full PTSD checklist and found that the interaction of treatment group and overall PTSD symptoms was non-significant, highlighting that the hypervigilance symptoms may be particularly important, a possibility we could not adequately test with the measure included in our protocol. When we re-ran our analyses including

TABLE 3 Hierarchical linear regressions examining the association between fear-related factors and perceived suicide prevention value of specific firearm storage methods, covarying for demographic characteristics.

	Unloaded			Ammo separate			Locked location			Locking device			Away from home		
	β	p	f^2	β	p	f^2	β	p	f^2	β	p	f^2	β	p	f^2
Age	−0.01	0.836	0.00	−0.01	0.906	0.00	0.04	0.399	0.00	−0.01	0.890	0.00	−0.10	0.056	0.00
Sex	−0.01	0.901	0.00	0.02	0.682	0.00	0.02	0.698	0.00	0.00	0.966	0.00	0.01	0.814	0.00
White	−0.15	0.027	0.01	−0.12	0.077	0.00	−0.02	0.790	0.00	−0.08	0.257	0.00	0.01	0.944	0.00
Black	−0.06	0.395	0.00	−0.02	0.774	0.00	−0.04	0.586	0.00	−0.07	0.326	0.00	0.09	0.174	0.00
Latin(x)	−0.15	0.004	0.02	−0.17	0.001	0.03	−0.19	0.000	0.03	−0.25	0.000	0.06	−0.01	0.832	0.00
Education	0.09	0.125	0.00	0.10	0.085	0.00	0.07	0.243	0.00	0.06	0.295	0.00	0.14	0.018	0.01
Income	0.00	0.987	0.00	−0.05	0.356	0.00	0.00	0.954	0.00	0.00	0.940	0.00	0.06	0.258	0.00
Defensive firearm ownership	−0.09	0.079	0.00	−0.01	0.788	0.00	0.06	0.238	0.00	0.01	0.769	0.00	−0.13	0.006	0.02
Neighborhood safety	0.01	0.858	0.00	−0.02	0.783	0.00	0.03	0.659	0.00	−0.01	0.919	0.00	0.07	0.214	0.00
Threat sensitivity	−0.11	0.048	0.01	−0.12	0.023	0.01	−0.16	0.003	0.02	−0.13	0.014	0.01	−0.23	0.000	0.05
Intolerance of uncertainty	−0.03	0.676	0.00	−0.05	0.418	0.00	0.04	0.550	0.00	0.04	0.544	0.00	0.18	0.002	0.02
PTSD symptoms	0.21	0.000	0.03	0.29	0.000	0.06	0.17	0.003	0.02	0.18	0.002	0.03	0.18	0.002	0.02

only the two available PTSD hypervigilance items, the results followed the same pattern; however, the viability of utilizing those two items a proxy for that subscale is unknown. Although we believe these interpretations are plausible, we also recognize that post hoc interpretations of unexpected results are prone to error and, as such, strongly encourage replication in independent samples before drawing firm conclusions.

The intolerance of uncertainty finding was also surprising; however, the interpretation may be simpler than that of the PTSD symptom results. It may be that individuals intolerant of uncertainty, but not necessarily particularly sensitive to threat or hypervigilant, may simply see complete removal of firearms from the home as more comprehensively addressing any uncertainty related to the effects of potential future suicidal crises. In other words, out-of-home storage may represent a conclusively effective method of limiting the plausibility of suicide even as intolerance of uncertainty may prompt firearm acquisition in response to prolonged tumultuous periods of time (e.g., Anestis et al., 2023). Here again, however, given the unexpected nature of the results, we would encourage independent replication to enhance confidence in the results and clarity in the meaning.

Taken together, our findings indicate that perceptions of and sensitivity to various forms of threat may have differential impacts on the perceived suicide prevention value of secure firearm storage and, as such, individual storage decisions may be driven by a complicated interaction of related constructs not always obvious in clinical risk assessments. The sample was relatively evenly split between those who did and did not see value in various secure storage options, highlighting that a substantial number of at-risk individuals undoubtedly remain skeptical that secure storage is an important point of reducing their risk for suicide. Helping individuals resolve elevated levels of threat sensitivity and working to promote accurate cost-benefit analyses with regard to potential utility of secure (e.g., suicide prevention) and unsecured (e.g., protection during home invasion) firearm storage may prove vital in increasing the uptake of this potentially life-saving behavior.

Firearm storage decisions are made within the context of an environment in which the firearm industry has spent recent decades relentlessly promoting the notion that having ready access to firearms is an effective method for individuals to keep themselves and their loved ones safe (e.g., Berryessa et al., 2022; McGinty et al., 2013). The notion that a "good guy with a gun" is the only thing that can stop a "bad guy with a gun," has thus likely shaped the risk calculations of individual firearm owners in a manner that emphasizes speed over security, a point backed up by epidemiological surveys noting the importance of quick access when considering storage options (e.g., Betz et al., 2023). Furthermore, neither the scientific community nor the media have broadly emphasized the fact that a meaningful majority of firearm deaths in the US are suicides and that firearm access—particularly when firearms are stored unsecured—dramatically increases the risk of death for suicide (e.g., Monuteaux et al., 2019; Shenassa et al., 2004). The salience of a potential home invasion requiring defensive firearm use thus appears to have overshadowed that of a suicide crisis requiring time and distance from a firearm. With little sense that firearm storage is related to suicide risk and with threat perceptions enflamed by an environment promoting the need for quick access to deadly force, secure firearm storage has thus historically faltered as a broad community level suicide prevention approach. Our findings provide additional insight into how perceptions and responses to threat have been leveraged—intentionally or not—to impact how firearm owners perceive the utility of storage practices in the prevention of suicide.

This study is not without limitations. First, although understanding these factors within a military sample is important, our results cannot necessarily be used to draw inferences regarding how the same model applies to civilians. Additionally, although our model is certainly consistent with the possibility that perceptions of value drive storage decisions, our data were not equipped to explicitly test this notion. As such, the clinical and public health relevance of such perceptions remains untested. Third, our use of self-report introduces the possibility of responses biases that might result in spurious findings. Finally, it is worth noting that the effect sizes in our analyses were all relatively small and, as such, our other factors not considered in our model undoubtedly play a pivotal role in impacting perceptions regarding the suicide prevention value of specific firearm storage practices.

Despite these limitations, we believe our results represent an incrementally valuable contribution to the literature. A surge of recent studies have emphasized the potential role of threat sensitivity in firearm-related behaviors. Although our findings do not dispute this, they highlight that threat is a heterogenous construct and that different facets of an individual's perception of, sensitivity to, and response to various sources of threat may have different impacts on their views related to secure firearm storage.

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CONFLICT OF INTEREST STATEMENT

Authors MA and CB report personal income in the form of book royalties, speaking fees, training fees, and consulting fees on projects related to secure firearm storage.

DATA AVAILABILITY STATEMENT

Data can be made available upon request to the corresponding author.

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ENDNOTE

[1] We re-ran each regression equation, replacing the PTSD total score item with a sum of the two available PTSD hypervigilance items. The hypervigilance results mirrored those from the total score in direction and statistical significance.

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