

VA



U.S. Department
of Veterans Affairs



Suicidal Self-Directed Violence among Women Veterans

Lindsey L. Monteith, PhD
Ryan Holliday, PhD

*VA Rocky Mountain Mental Illness, Research, Education & Clinical Center
for Veteran Suicide Prevention*
University of Colorado Anschutz Medical Center, Department of Psychiatry

VA HSR&D Cyberseminar
July 13, 2020



Disclosure Statement

This presentation is supported, in part, by the Department of Veterans Affairs and the Rocky Mountain Mental Illness Research, Education and Clinical Center for Veteran Suicide Prevention. Views expressed do not necessarily represent the views or policy of the Department of Veterans Affairs or the United States Government.

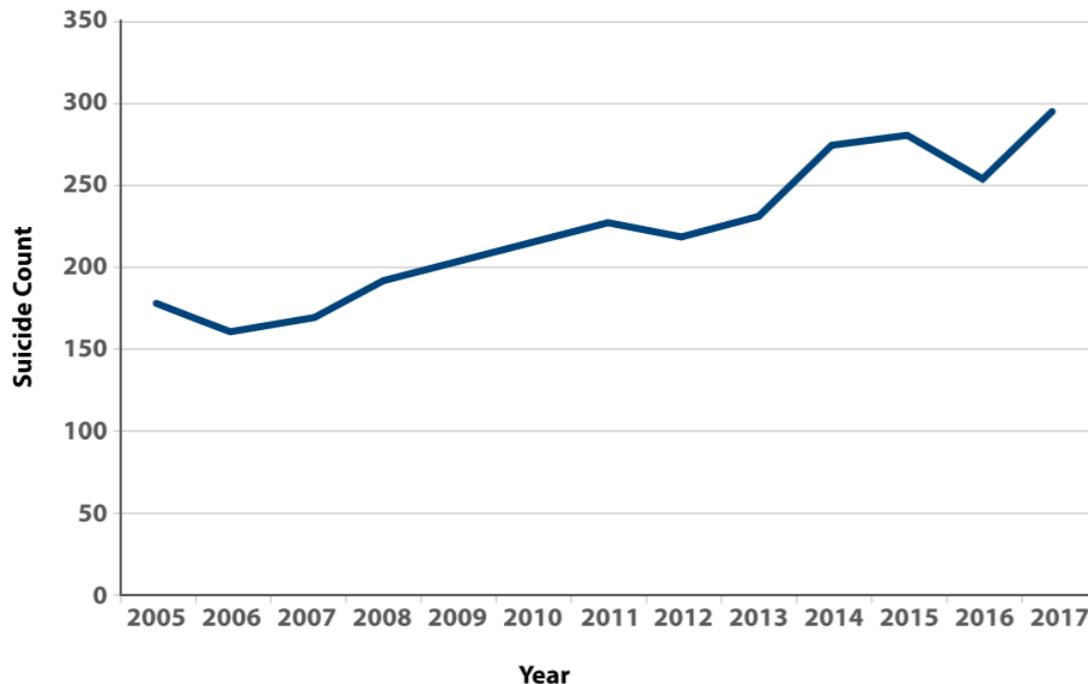


Suicide among Women Veterans: Rates and Risk

Suicide among Women Veterans

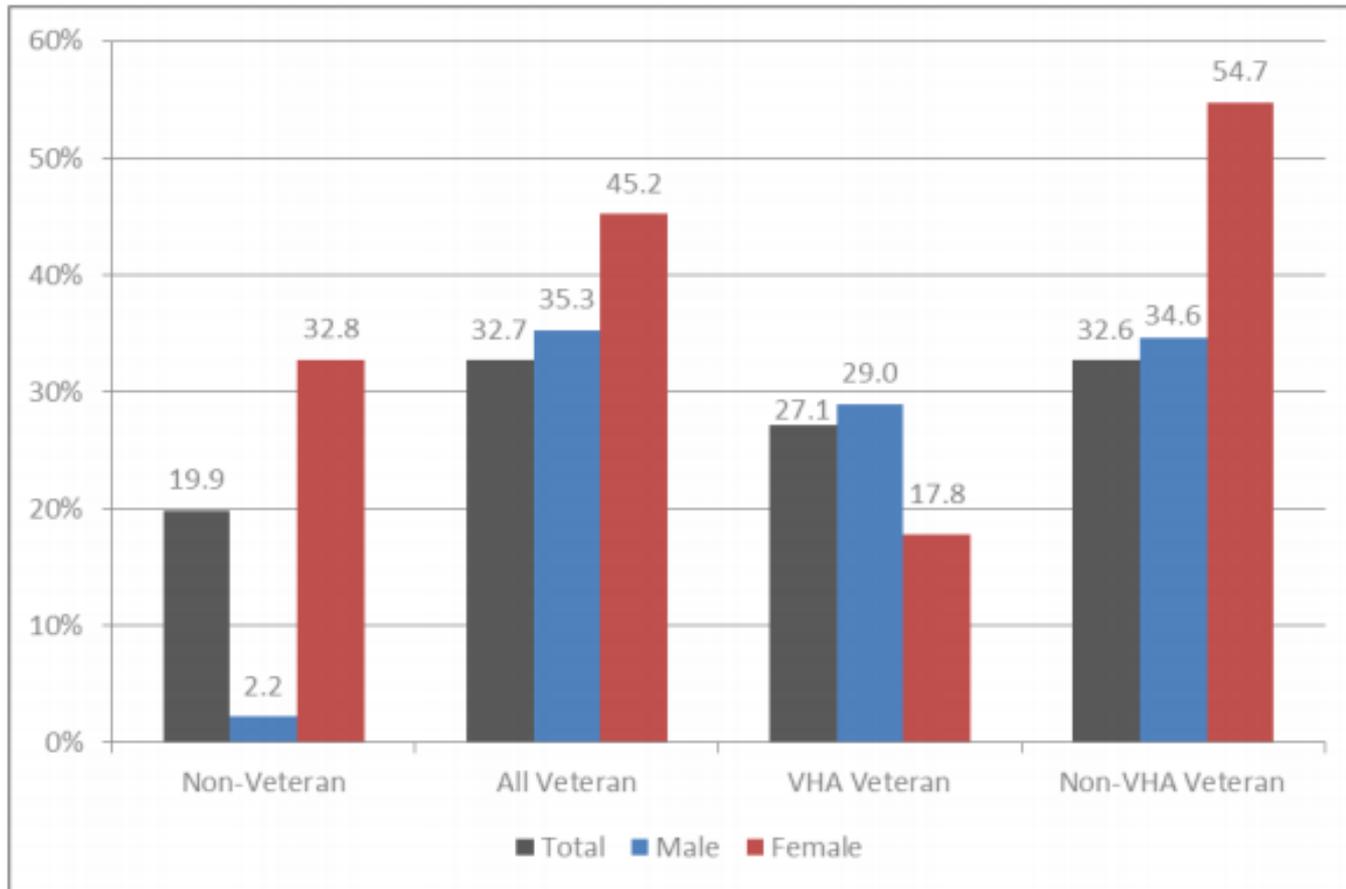
In 2017, the age-adjusted rate of suicide for women Veterans was **2.2 times greater** among women Veterans relative to U.S. adult women non-Veterans

Graph 9. Total Count of Suicides Among Women Veterans, 2005–2017



By Veterans Health Administration (VHA) Use

Non-VHA women Veterans have experienced particularly substantial increases in their suicide risk



Gaps in Understanding

Nonetheless, suicide-related research specific to this subset of the Veteran population has historically been limited, although this is rapidly changing.



U.S. Department of Veterans Affairs
Veterans Health Administration
Health Services Research & Development Service



CALL FOR PAPERS: Supplement Issue of *Medical Care*

Advancing Knowledge of Suicide Risk and Prevention among Adult Women

Extended Submission Deadline: February 29, 2020

The Editors of *Medical Care*, the Department of Veterans Affairs (VA) Health Services Research & Development (HSR&D), and the VA Women's Health Research Network (WHRN) invite manuscripts reporting original findings from research addressing suicide risk, resilience, surveillance, and prevention among adult women. Suicide risk has increased markedly in recent years among women in the U.S., with increases particularly salient among women Veterans. As such, this supplement aims to disseminate knowledge relevant to improving both clinical and public health-oriented suicide prevention strategies and research among women, with a special interest in women Veterans and active duty servicewomen.

Moreover, research has overwhelmingly focused on those using VHA care, although many women Veterans do not use VHA services.

As such, there is a need for ongoing research aimed at understanding suicide risk and how it can be mitigated among the broader population of women Veterans.

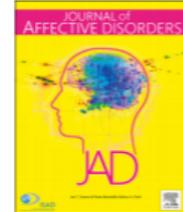
Study 1: Suicidal Self-Directed Violence (S-SDV) among Women Veterans



Contents lists available at [ScienceDirect](#)

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad



Research paper

Suicidal ideation, suicide attempt, and non-suicidal self-injury among female veterans: Prevalence, timing, and onset

Lindsey L. Monteith^{a,b,*,1}, Ryan Holliday^{a,b}, Christin Miller^a, Alexandra L. Schneider^a,
Claire A. Hoffmire^{a,c}, Nazanin H. Bahraini^{a,b,c}, Jeri E. Forster^{a,c,d}

^a Rocky Mountain Mental Illness Research, Education and Clinical Center for Suicide Prevention, United States

^b Department of Psychiatry, University of Colorado Anschutz Medical Campus, United States

^c Department of Physical Medicine and Rehabilitation, University of Colorado Anschutz Medical Campus, United States

^d Department of Biostatistics and Informatics, Colorado School of Public Health, United States





Background

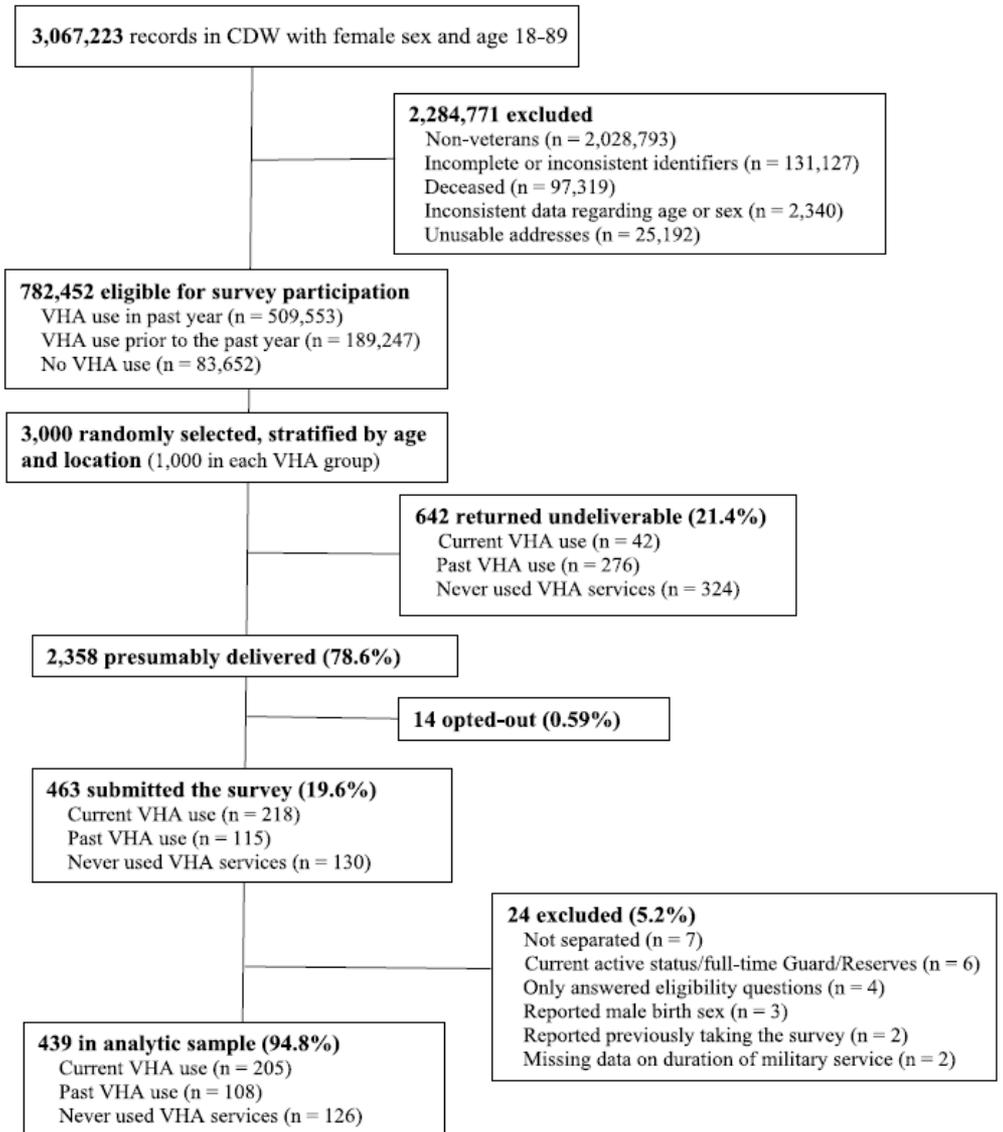
Despite understanding of rates of suicide among women Veterans, knowledge regarding the prevalence of suicidal ideation (SI) and suicide attempt (SA) among women Veterans, and when these are most likely to occur, remains limited.

Aims

- Examine the prevalence and onset of SI, SA, and non-suicidal self-injury (NSSI) in relation to military service among women Veterans
- Compare current, past, and never VHA users on SI, SA, and NSSI prevalence

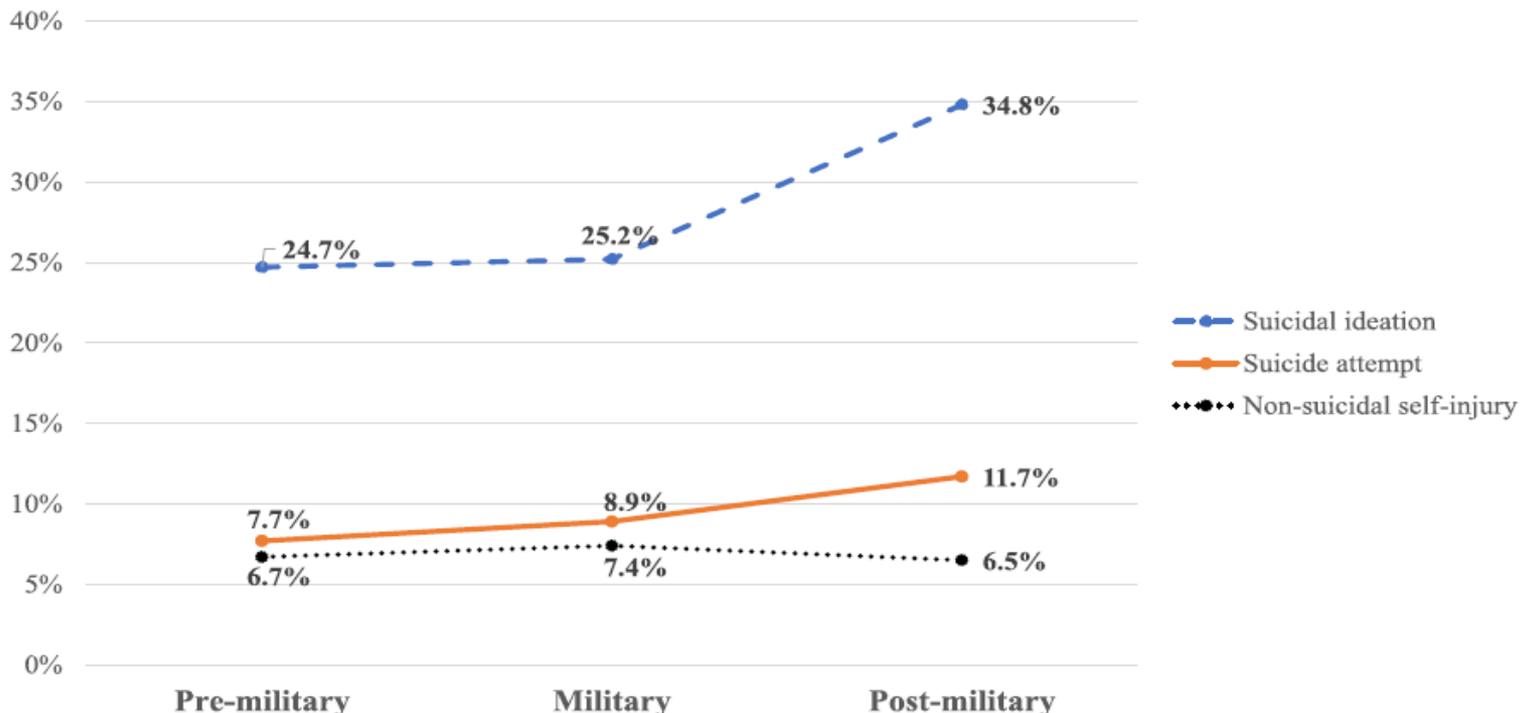
Methods

- Anonymous 2018-2019 national survey of 439 women Veterans
- Stratified random sample pulled from CDW based on age and VISN
- Targeted:
 - Current VHA users
 - Past VHA users
 - Never VHA users
- Abbreviated version of the Self-Injurious Thoughts and Behaviors Interview (SITBI)



Prevalence of SI, SA, and NSSI by Time Period

- Lifetime rates of SI (47.9%), SA (17.7%), and NSSI (13.2%)
- Controlling for time at risk, women were more likely to report experiencing
 - **SI following separation** (vs preceding or during military service)
 - **SA following separation** (vs relative to preceding military service)
- No significant differences in NSSI



Onset of SI, SA, and NSSI Relative to Military Service

- Onset most commonly occurred pre-military
- However, adjusting for time at risk, odds of onset were higher:
 - **Pre-** (vs during) military service for **SI**
 - **Pre-military** (vs post-separation) for **SI, SA, and NSSI**
 - **During military service** (vs post separation) for **SA**

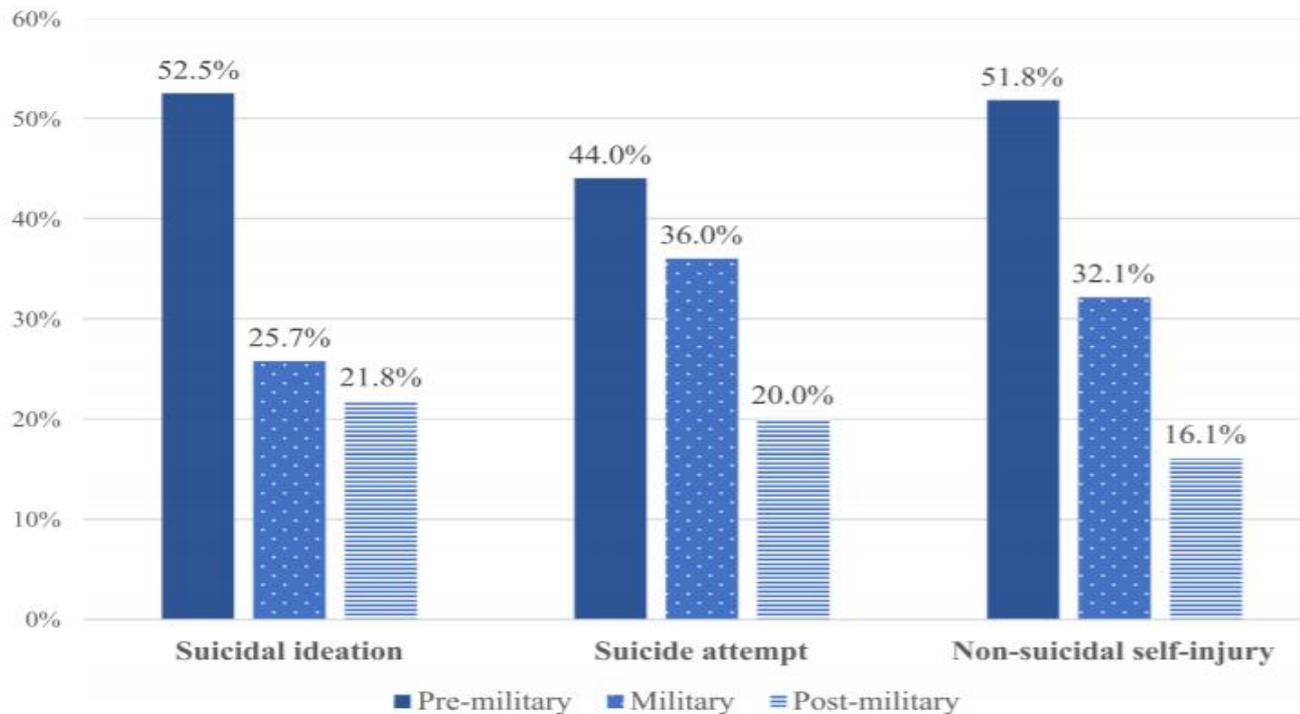


Fig. 3. Timing of suicidal ideation, suicide attempt, and non-suicidal self-injury onset among female veterans (Aim 2a).



Does Prevalence of Lifetime SI, SA, & NSSI Differ based on Use of VHA Care?

- **Current and past (vs never)** VHA users were more likely to report experiencing lifetime **SI** than never users, adjusting for age
- Results did not significantly differ for **SA** and **NSSI**.
- Results were not significant in a sensitivity analysis focused on **post-separation SI**.



Implications and Necessary Next Steps

- This was among the first studies to document rates of SI, SA, and NSSI, among women Veterans.
- Results suggest SI and SA are common among women Veterans and often originate prior to their military service (i.e., initial onset), but were most prevalent following separation.
- As SI and SA are risk factors for subsequent S-SDV, a portion of women Veterans may already be at risk upon entering military service.
- Findings support the continued import of assessing for SI and SA when working with women Veterans.
- Delineating specific factors which may be driving risk is essential.



Study 2: Interpersonal Violence and Suicide Risk among Women Veterans

Holliday, Forster, Schneider, Miller, and Monteith (under review)



Background

- While the initial study facilitated understanding rates of SI, SA, and NSSI among women Veterans, we sought to understand why rates may be elevated among this population
- We hypothesized that interpersonal violence (i.e., sexual and physical violence) throughout the lifespan may be one factor driving risk
- Indeed, prior research has found associations between specific facets of interpersonal violence (e.g., military sexual assault, childhood sexual or physical abuse) and SI and SA
- Nonetheless, few of these studies included non-VHA using Veterans or examined how prior violence may be associated with subsequent SI or SA



Method

- Using the same sample from Study 1, we examined the prevalence of physical and sexual violence throughout the lifespan (i.e., pre-military, during military service, and post-military).
- Moreover, we examined the association of prior interpersonal violence to subsequent SI and SA:
 - Military SI/SA models: Examined pre-military violence
 - Post-military SI/SA models: Examined pre-military and military violence
- *We did not conduct a pre-military SI/SA model or assess the role of post-military violence due to temporality*



Rates of Interpersonal Violence Exposure

Nearly 2/3 of women in our sample reported:

- At least one experience of physical violence
- At least one experience of sexual violence

Interpersonal Violence, Suicidal Ideation, and Suicide Attempt Across the Lifespan within the

Sample (N=407)

Variable	<i>n</i>	%
Physical violence (lifetime)	250	65.1
Pre-military physical violence	202	49.6
Military physical violence	99	24.3
Physical violence following separation ^a	94	23.1
Sexual violence (lifetime)	251	65.4
Pre-military sexual violence	212	52.1
Military sexual violence	115	28.3
Sexual violence following separation	44	10.8

Associations of Interpersonal Violence to SI and SA

- Sexual violence was associated with both SI and SA across models.
- In contrast, physical violence was associated with SI, but not SA.
- Both pre-military and military violence were significant.

	Suicidal ideation		Suicide attempt	
	OR (95% CI)	<i>p</i> -value	OR (95% CI)	<i>p</i> -value
<u>Suicidal ideation/suicide attempt during military service</u>	<u>Model 1</u>		<u>Model 3</u>	
Pre-military physical violence	1.64 (.99, 2.71)	.053	.86 (.41, 1.79)	.684
Pre-military sexual violence	2.39 (1.44, 3.98)	.001	2.32 (1.06, 5.08)	.036
<u>Suicidal ideation/suicide attempt following separation</u>	<u>Model 2</u>		<u>Model 4</u>	
Pre-military physical violence	2.06 (1.30, 3.28)	.002	1.08 (.55, 2.09)	.827
Pre-military sexual violence	2.38 (1.49, 3.79)	<.001	2.38 (1.16, 4.89)	.018
Military physical violence	1.88 (1.12, 3.16)	.018	1.83 (.92, 3.67)	.087
Military sexual violence	2.57 (1.57, 4.23)	<.001	2.55 (1.29, 5.01)	.007

Note. All models accounted for age and were significant ($ps < .05$). Significant values are bolded.



Implications and Necessary Next Steps

- Interpersonal violence is unfortunately common among women Veterans and may be an important factor driving risk for SI and SA
- Sexual violence (at various periods) is particularly important to assess in relation to risk for SI and SA
- Routine assessment of interpersonal violence across the lifespan (e.g., pre-military, MST, IPV) is important, especially since many survivors may not feel comfortable initially disclosing a history of trauma



Study 3: Firearms and Women Veterans



RESEARCH ARTICLE |  Full Access |

Understanding female veterans' experiences and perspectives of firearms

Lindsey L. Monteith , Ryan Holliday, Brooke A. Dorsey Holliman, Lisa A. Brenner, Joseph A. Simonetti

First published: 30 March 2020 | <https://doi.org/10.1002/jclp.22952>



Study Context

- While informative, neither of the prior studies focused on understanding how women Veterans die by suicide.
- Thus, while conducting Studies 1-2, we were concurrently conducting a qualitative examination of women Veterans' experiences with, and perspectives of, firearms, which are the most common means of suicide among women Veterans.

Firearms and Suicide among Women Veterans

Differing from non-Veteran women, women Veterans are more likely to use firearms as a means of suicide.

Table 3. Method of Suicide Among Veteran and Non-Veteran Adults Who Died from Suicide, 2017

Method	Percentage of Non-Veteran Adult Suicide Deaths	Percentage of Veteran Suicide Deaths	Percentage of Male Non-Veteran Adult Suicide Deaths	Percentage of Male Veteran Suicide Deaths	Percentage of Female Non-Veteran Adult Suicide Deaths	Percentage of Female Veteran Suicide Deaths
Firearm	48.1%	69.4%	53.5%	70.7%	31.3%	43.2%
Poisoning	14.9%	9.9%	9.2%	8.9%	32.3%	28.7%
Suffocation	28.7%	15.8%	29.3%	15.6%	26.6%	19.9%
Other	8.4%	5.0%	7.9%	4.8%	9.8%	8.1%

The proportion of suicide decedents who used firearms as their means of death has also increased among women Veterans (VA, 2018b)

Nonetheless, knowledge of factors that influence firearm access among women Veterans remains limited. This information is critical for understanding how to prevent firearm suicide among WV.



Aims

Understand WV's firearm-related experiences and perceptions, as well as their preferences for conversations about firearm access.

Method

Participants

- N = 16 WV who own(ed) firearm(s) or reside(d) in a household with firearm(s)
- Ages 20-70; eligible for VHA care

Qualitative interviews

- Firearm experiences and perspectives
- Facilitated by timeline of life events
- Preferences for firearm conversations

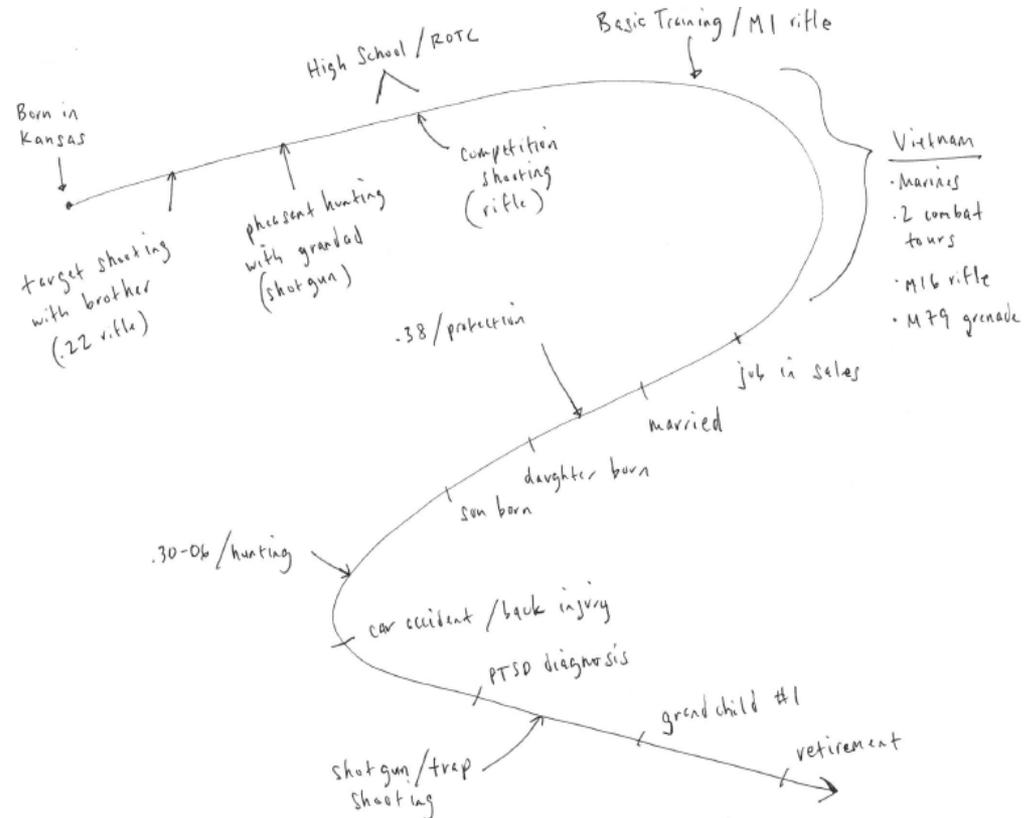


Figure. Mock Timeline (Simonetti et al., 2020)



Results

A number of themes were identified, some of which were **consistent** with a parallel analysis conducted with older male Veterans (Simonetti et al., 2020)

- Early exposure to firearms
- Military service as a context for increasing familiarity and exposure to firearms

However, there were several **unique** themes as well:

- Access to firearms through other household members
- Role of interpersonal violence in firearm ownership and unsafe storage practices

I'd say I probably have 30 guns.... my husband, if he bought something, he had to buy me something

Firearms and Interpersonal Violence

DURING MILITARY SERVICE: Firearms perceived as important to protect oneself in a male-dominated environment in which sexual harassment and assault were experienced or threatened

The men were establishing their dominance and authority in a very like threatening and fearful manner...And so I learned to become an expert at weapons... I become like better than everybody else. And like, almost I think maybe it was for my own safety.

POST-MILITARY: Women who acquired their own firearm(s) described doing so for protection, often following prior interpersonal violence

I mean everything that had happened previously. Especially with the assault and things like that...I felt like I never wanted to be put in those kind of situations again...like having something to be able to protect me, like I think made me feel better. You know, like about being future sexually assaulted or whatnot...

STORAGE: Firearms for protection were stored nearby, readily accessible

They're all in the gun safe. Minus my 9 millimeter, that's usually on me at the house... and my 17...It's usually in my waistband

My little P22 stays out of the safe because how in the world am I going to stop somebody if it's locked up in a safe?

Preferences for Conversations about Firearm Access

Family, especially partners/spouses

My husband...I would probably tell him I want him to put the weapons away. To put them out of my access.

If I was going through a depression and I didn't really realize it, and [my husband] sat me down and is like 'hey, you know, you probably shouldn't be around certain guns' or whatever, I would actually think twice about it

Providers were rarely mentioned spontaneously, and trust and rapport were considered essential for open discussions

Maybe I would listen to them, but then I'd go home and maybe kind of just do my own thing

I have an amazing relationship with my [primary care provider], and if he brought it up, I believe I could be honest enough with him...



Implications and Necessary Next Steps

- Household members may play a key role in women Veterans' access to firearms
- Potential interrelationship between trauma exposure and firearm access among women Veterans
- Quantitative research remains necessary to examine these hypotheses



Study 4:

Firearm Access among WV using
VHA Reproductive Healthcare (RHC) Services



Study Aims

We sought to build upon Study 3 findings by examining:

- The extent to which WV in VA RHC report having personal and household firearms, as well as specific firearm storage practices
- The role of interpersonal factors in WV's personal and household firearm access and storage behaviors



Method

Procedures

- **2018-2019 survey of 350 OEF/OIF/OND WV who used VA RHC in FY 2018** ([1I21HX002526-01A1](#); Hoffmire)
- **Self-report measures to assess:**
 - Firearm access and storage
 - Sociodemographics and military service
 - Military sexual trauma (VA MST Screen)
 - Intimate partner violence (HITS; past 12 months and lifetime)
 - Probable PTSD (PCL-5)
 - Suicidal ideation and attempt (C-SSRS)

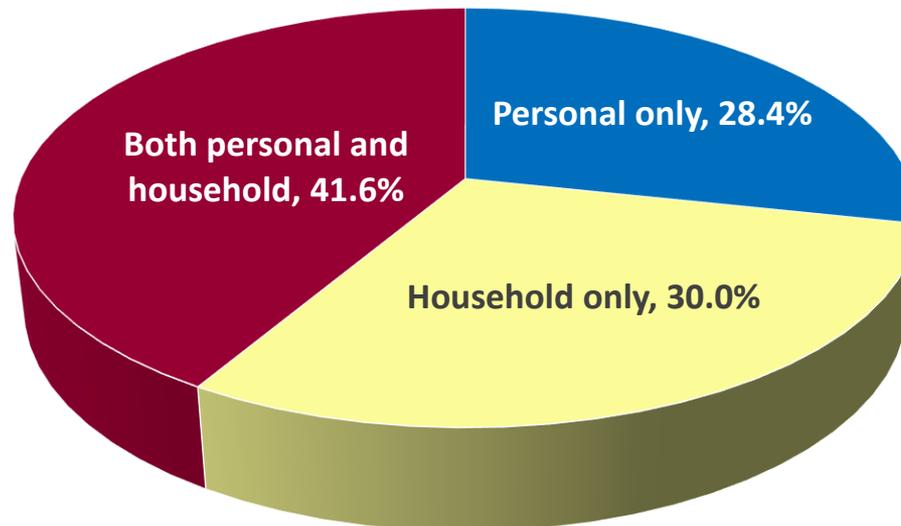
Preliminary Results

The majority (54.3%) reported firearm access

- **38.0%** reported having personal firearm(s)
- A similar percentage (**38.9%**) reported having household firearms that they did not personally own

	n	%
Firearm access		
Yes	190	54.3%
No	160	45.7%
Personal firearm(s)		
Yes	133	38.0%
No	217	62.0%
Household firearm(s)		
Yes	136	38.9%
No	214	61.1%

Figure 1.
Percentages with personal and/or household firearms among WV with firearm access



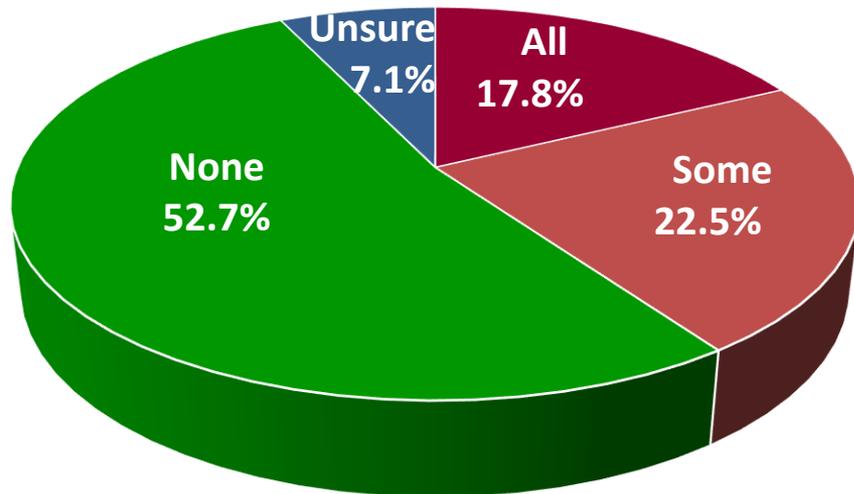


Preliminary Results

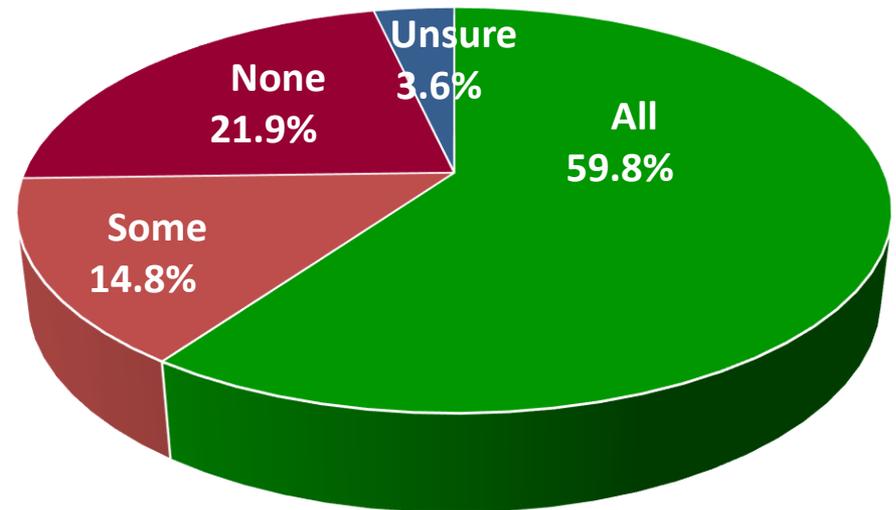
Among WV with personal and/or household firearms stored in or around their home...

- 40.2% reported that all or some were stored loaded
- 36.7% reported that none or some were stored locked

Are guns in or around your home currently stored loaded?



Are guns in or around your home currently stored locked?



**Asked of those who indicated that their personal/household firearms were stored in or around their home*



Preliminary Results

- Women Veterans who were currently married, who had current parenting responsibilities, and who reported a history of military sexual harassment were more likely to report having **household firearms**.
- Those who had experienced suicidal ideation (lifetime or in the past month) were more likely to report having **loaded firearms**.



Implications

- Assessing firearm access, including both personal and household firearms, is crucial when working with women Veterans.
- Results suggest an ongoing need for interventions to increase safe firearm storage among women Veterans, particularly those who have experienced SI.
- Incorporating women Veterans' partners into firearm-related suicide prevention efforts may be important to bolster the effectiveness of lethal means safety initiatives for women Veterans.
- Women who have experienced specific types of violence (e.g., military sexual harassment) may also be important to target in such efforts.
- **Research is needed to determine optimal ways of achieving this.***



Summary



Synthesizing these Findings

- Women Veterans report high rates of SI, SA, interpersonal violence exposure, and firearm access.
- The factors that place individuals at risk for S-SDV are complex and multi-faceted
 - Potential drivers of suicide risk (e.g., interpersonal violence)
 - Capability for suicide (e.g., access to lethal means; familiarity with lethal means)
- Interpersonal violence (especially sexual violence) may play an important role in risk for S-SDV
 - Potential impact on firearm access and storage
- By examining factors and experiences across the lifespan, these findings suggest various opportunities for prevention and intervention (e.g., during military service, following separation).
 - Efforts to screen for SI and SA following separation may be particularly important



Clinical Implications

Patient-centered methods of assuaging suicide risk are needed and may differ in key ways for women Veterans:

- Women Veterans may inherently differ in the function of their firearm access
- While access to firearms is associated with risk for suicide, some women may perceive the benefit of protection from re-victimization to outweigh this
- Thus, providers should work carefully to understand the function of access and potential impact of changing access
- Providers can then work to ensure methods of enhancing safety-related perceptions are discussed
- Further, providers can work to integrate this process into appropriate evidence-based treatment

Some Additional Resources

SUICIDE RISK MANAGEMENT Consultation Program

FOR PROVIDERS WHO SERVE VETERANS

Why worry alone?

The Suicide Risk Management Consultation Program provides free consultation for any provider, community or VA, who serves Veterans at risk for suicide.

Common consultation topics include:

- Risk Assessment
- Conceptualization of Suicide Risk
- Lethal Means Safety Counseling
- Strategies for How to Engage Veterans at High Risk
- Best Practices for Documentation
- Provider Support after a Suicide Loss (Postvention)

#NeverWorryAlone

To initiate a consult email:

SRMconsult@va.gov

www.mirecc.va.gov/vsn19/consult

Suicide Risk Management Consultation Program Lecture Series

A Patient-Centered Approach to Lethal Means Safety with Veterans

Please register by July 7, 2020 ([VA Registration](#) and [Non-VA Registration](#))

Overview

Program Description:

Lethal Means Safety (LMS) is a strategy for preventing suicidal self-directed violence by reducing access to lethal means (e.g., excess medication, firearms) when suicide risk is elevated. Following the recommendation of the VA/DoD Clinical Practice Guideline (CPG) for the "Assessment and Management of Patients



Lecturers Drs. Holliday and Monteith

Questions?

EES Contacts:

Lauran Hardy
Project Manager
Lauran.Hardy@va.gov
(314) 894- 6450
St. Louis, MO

Laurie Gamble



APA PsycArticles: Journal Article

Safety planning to prevent suicidal self-directed violence among veterans with posttraumatic stress disorder: Clinical considerations.

© Request Permissions

Holliday, R., Rozek, D. C., Smith, N. B., McGarity, S., Jankovsky, M., & Monteith, L. L. (2019). Safety planning to prevent suicidal self-directed violence among veterans with posttraumatic stress disorder: Clinical considerations. *Professional Psychology: Research and Practice*, 50(4), 215–227.

For more information or if you have any question or comments...

Rocky Mountain MIRECC:

<http://www.mirecc.va.gov>

Lindsey Monteith, Ph.D.

Lindsey.Monteith@va.gov

Ryan Holliday, Ph.D.

Ryan.Holliday@va.gov