Healthcare Professionals' Confidence in Promoting Secure Storage Strategies in Practice: Evaluation of Counseling on Access to Lethal Means (CALM) Training in Rhode Island

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INTRODUCTION

According to the Rhode Island Violent Death Reporting System (RVDRS), from 2020 to 2024, 38.9% of suicide deaths listed hanging, strangulation, and suffocation as the primary injury mechanism, followed by firearms at 30.1%.[1] RVDRS data also reveal that 89.9% of deaths by suicide with the injury mechanism of firearms were by Rhode Islanders who identified as male. Additionally, 27.3% of these deaths were by male Veterans/Service Members.

Based on these data and due to an absence of evidence-based interventions for hanging, strangulation, and suffocation in suicide prevention research and literature, the Rhode Island Department of Health's Violence and Injury Prevention Program (RIDOH VIPP) has prioritized firearms-related prevention strategies under their Centers for Disease Control and Prevention Comprehensive Suicide Prevention (CDC CSP) grant. Strategies include promotion of secure, offsite, firearms storage facilities, distribution of cable style gun locks and safes, and implementation of Counseling on Access to Lethal Means (CALM) training for healthcare and behavioral healthcare professionals.

Since May 2025, RIDOH VIPP has partnered with Care New England Health System to host eight CALM trainings for clinicians at Butler Behavioral Health, Kent Hospital, Women & Infants, The Providence Center, and other ambulatory clinics within their system. CALM is an intervention that aims to equip clinicians and others who work with individuals at risk of suicide with the tools to encourage patients to implement strategies to increase time and distance between themselves and the most common and lethal items in their environment, including firearms.[2] Research indicates that when individuals at risk of suicide are unable to access their preferred means, the likelihood of substitution of means is low. Additionally, many suicidal crises are temporary, meaning that when presented with a barrier that increases the time before the person at risk can access potentially lethal items, the crisis may pass.[3]

Given the burden of suicide deaths in Rhode Island and the evidence that exists in support of lethal means counseling as a prevention strategy, this article aims to further explore the impact of CALM on both the Rhode Island clinicians who have completed training and their patients at risk for suicide.

METHODS

Pre- and post-test surveys were administered via Microsoft Forms for participants of the 2025 and 2026 CALM trainings. Healthcare professionals were invited via email to participate in the trainings by Care New England. Responses were collected anonymously before and after the training. Although the populations of participants are the same, they will be treated as independent groups for the analysis. The pre-test survey participants are categorized as the not trained group, and the post-test participants are categorized as the trained group.

In both the pre- and post-surveys, responses on confidence about lethal means safety were collected to assess the difference between healthcare professionals trained in CALM versus healthcare professionals not trained in CALM [**Table 1**]. Participants were asked to rank their agreement on a 5-point Likert scale from Strongly agree (5) to Strongly disagree (1) for the following statements to assess their confidence: "I can explain why 'means matter' when it comes to preventing suicide"; "I have confidence in listing storage options to reduce at-risk patients' access to household firearms"; "I have confidence in outlining strategy to reduce at-risk patients' access to high-risk medications (including over-the-counter medication)"; and "I have confidence talking more comfortably and collaboratively with patients about reducing their access to lethal means". Questions were derived from CALM America, Inc.'s evaluation on the components of the training and modified to assess confidence for the Comprehensive Suicide Prevention grant evaluation tiered approach activity tailored towards healthcare professionals. A Mann-Whitney U test was conducted [**Table 1**] to compare groups. Data coding and all analyses were completed using SAS (version 9.4).

To evaluate impact from the CALM training, healthcare professionals were asked in the CALM training post-survey if they would be interested in participating in a key informant interview in a six-month follow-up period from the date of the training. Key informants were asked to describe a conversation they had surrounding listing storage options to reduce at-risk patients' access to household firearms and what happened during that conversation.

Table 1. Median CALM Evaluation Metrics Responses by Training Group

CALM Evaluation Metrics	Not Trained (Pre) N=113	Trained (Post) N=101	U	p-value[1]	r
	Median (IQR)	Median (IQR)			
I can explain why "means matter" when it comes to preventing suicide	4.0 (3.0–5.0)	5.0 (5.0–5.0)	9223.0	<.0001	0.62
I have confidence in listing storage options to reduce at-risk patients' access to household firearms	4.0 (2.0–4.0)	5.0 (5.0–5.0)	9907.5	<.0001	0.70
I have confidence in outlining strategies to reduce at-risk patients' access to high-risk medications (including over-the-counter medication)	4.0 (3.0–5.0)	5.0 (5.0–5.0)	9347.0	<.0001	0.62
I have confidence talking more comfortably and collaboratively with patients about reducing their access to lethal means	4.0 (3.0–5.0)	5.0 (5.0–5.0)	9167.0	<.0001	0.59

[1]Mann-Whitney U Test

Data Notes: Participants were asked to rank their agreement on a 5-point Likert scale from Strongly agree (5) to Strongly disagree (1).

IQR = interquartile range; U = Mann–Whitney U statistic; r = effect size calculated

RESULTS

In the 2025 and 2026 CALM trainings, 113 participants are in the not trained group (pre-test), and 101 are in the trained group (post-test). Healthcare professionals who participated in the training predominantly worked in an Outpatient setting, followed by Emergency setting (hospital intake/triage, emergency departments, etc.), and Inpatient setting (data not shown). When assessing the difference between groups, responses to lethal means safety statements were different between groups of healthcare professionals trained in CALM and healthcare professionals not trained in CALM, with a statistically significant increase in confidence for all CALM evaluation metrics and a large effect size, indicating a substantial difference between training groups (p-value <.0001, r=0.62, 0.70, 0.62, 0.59). The greatest effect size is seen for the metric question, "I have confidence in listing storage options to reduce at-risk patients' access to household firearms" (r=0.70).

Qualitative Results

Following the 2025 and 2026 CALM trainings, there were six key informant interviews conducted in six-month follow-up. Thematically across all interviews, informants felt that their ability to discuss lethal means safety pertaining to firearms and storage mechanisms was the highlight of the CALM training. When asked to describe a conversation they had surrounding listing storage options to reduce at-risk patients' access to household firearms and what happened during that conversation. One key informant shared a situation in their mobile crisis work where they responded to a suicidal male Veteran in his home. The patient was hesitant to share information, but when potential lethal means were discussed, he was more open to talking about the ideation and shared that he had a firearm. While there were many barriers to lethal means options presented to the patient, it would never have been discussed if not for the recent training. The informant was able to get the patient to put a photo of him and his sister next to the firearm so he would think of her to help de-escalate potential crises. Our informant learned this strategy from the CALM training.

Another key informant shared a conversation in their therapeutic practice where they were seeing an 18-year-old male client for his anxiety, and the informant brought up firearms during their regular treatment plan review. The informant approached the conversation about firearms without stigma or judgment to encourage their client to open up about his firearm ownership, where the firearms were stored in his home, and who has access to them. The client disclosed that they are in a safe with a passcode and the ammunition is stored separately. This lethal means safety strategy on asking questions about firearms was learned at the CALM training and will now be a regular part of their conversations as a suicide prevention tool during their sessions.

DISCUSSION/RECOMMENDATIONS

The quantitative and qualitative findings of this evaluation highlight the strength CALM training has in teaching secure storage strategies to healthcare professionals. The statistically significant difference in all evaluation metrics for healthcare professionals trained in CALM and the largest effect size on confidence listing storage options to reduce at-risk patients' access to household firearms emphasize the practical significance of the training. The use of secure storage strategies in a six-month follow-up period by participants interviewed further points to the effectiveness of CALM and how it can be used in practice in both crisis and pre-crisis situations.

Based on these findings, it is recommended that healthcare system leadership consider prioritizing CALM training for all clinical staff, with an emphasis on behavioral healthcare professionals. While best practice indicates in-person training should be utilized as the first option, in cases where financial limitations exist, online, self-paced training can be accessed at no cost through the Zero Suicide website: https://zerosuicidetraining.edc.org/enrol/index.php?id=20.

Additionally, to support implementation of CALM training, organizations are encouraged to consider allocating funds to the purchase of secure storage materials such as gun locks and lockboxes that have been vetted by industry professionals, such as those at CALM America, Inc., the organization responsible for the development, implementation, and dissemination of CALM.

While the data analyzed demonstrates a statistically significant difference in confidence amongst healthcare professionals trained in CALM versus healthcare professionals not trained in CALM, anonymous surveys prevented linkage of participant responses together to assess pre- and post-test results holistically as one group. When examining the successful use of CALM strategies in a six-month follow-up interview, informants were selected based on willingness to volunteer for interviews. This only represents a segment of all healthcare professionals who completed the CALM training during the 2025 and 2026 sessions. Despite these limitations, this study was able to utilize both qualitative and quantitative data collection and analysis to identify positive outcomes.

Based on these findings, RIDOH continues to work towards identification of further funding to expand CALM training and related interventions. For more information on RIDOH's CALM efforts or guidance on implementing CALM in your organization, please reach out to: RIDOH.suicideprevention@health.ri.gov.

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Disclosures

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