FIREWELL

Adaptation and evaluation of the implementation of a protective mental health intervention (Resilient Minds) for Canadian volunteer firefighters

Joy C. MacDermid^{1,2,3}, Shannon Killip^{1,3}, Amanda Brazil⁴, Margaret Lomotan³, Steve Fraser⁵, Dianne Bryant¹, Heidi Cramm⁶, R Nicholas Carleton⁷

KEY FINDINGS

- Resilient Minds was successfully adapted, implemented, and delivered for volunteer firefighters, as participants had positive perceptions of the course such as high levels of perceived learning and information usefulness, and positive behavioural and workplace culture changes.
- Scaled delivery of the training across Canada is supported and will require stakeholder collaboration to adapt the content and implementation procedures
 based on different contextual factors such as the nature of the firefighting work.

Learning Objectives

At the conclusion of this activity, participants will be able to:

- 1. Describe the Resilient Minds' adaptation and implementation process for volunteer firefighters in Prince Edward Island (PEI).
- 2. Identify the benefits of mental health training reported by volunteer firefighters in PEI.
- 3. Discuss implementation challenges and potential improvements in the content and delivery of Resilient Minds for other firefighting contexts across Canada.

Background

- Psychologically traumatic exposures are common among firefighters.¹
- Mental health training is needed for firefighters.²
- Resilient Minds was developed as a peer-led mental health and resiliency training for career firefighters in Vancouver, British Columbia.³

Objective

To assess the adaptation, implementation, and delivery of the Resilient Minds program for volunteer firefighters in PEI.

Methods

- Concurrent triangulation mixed-methods approach.⁴
- Quantitative: PEI volunteer firefighters, who participated in the training, completed baseline and feedback surveys.
- Qualitative: Peer trainers, members of leadership and volunteer firefighters participated in semi-structured interviews.
 - Qualitative data was analyzed using inductive coding and thematic analysis.⁵
- The Consolidated Framework for Implementation Research (CFIR) guided our data collection and analyses.⁶

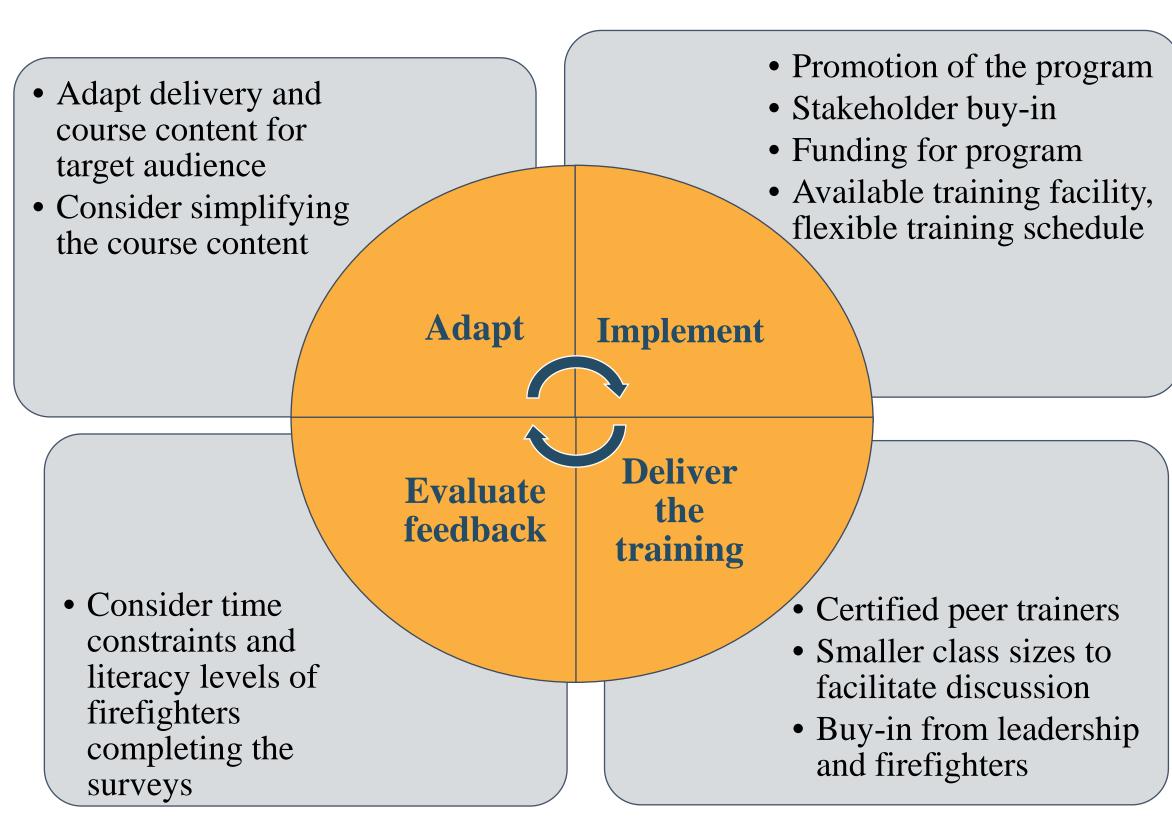


Figure 1: Facilitators and considerations for successful adaptation, implementation, delivery, and feedback collection.

Results

- Quantitative: 434 volunteer firefighters completed at least one portion of the surveys (190 men, 22 women completed baseline demographic survey).
- Qualitative: 18 volunteer firefighters (13 men, 5 women)
 participated in the interviews.

Qualitative findings based on CFIR constructs

- Relative advantage: firefighter-specific, peer-led training.
- Adaptability: content is adaptable based on firefighting context and mental health literacy levels.
- Partnerships and connections: stakeholder collaboration is important for successful implementation.
- Mission alignment: high priority need in PEI fire departments for mental health training.
- Overall program benefits: Reported positive behavioural changes (Figure 3).

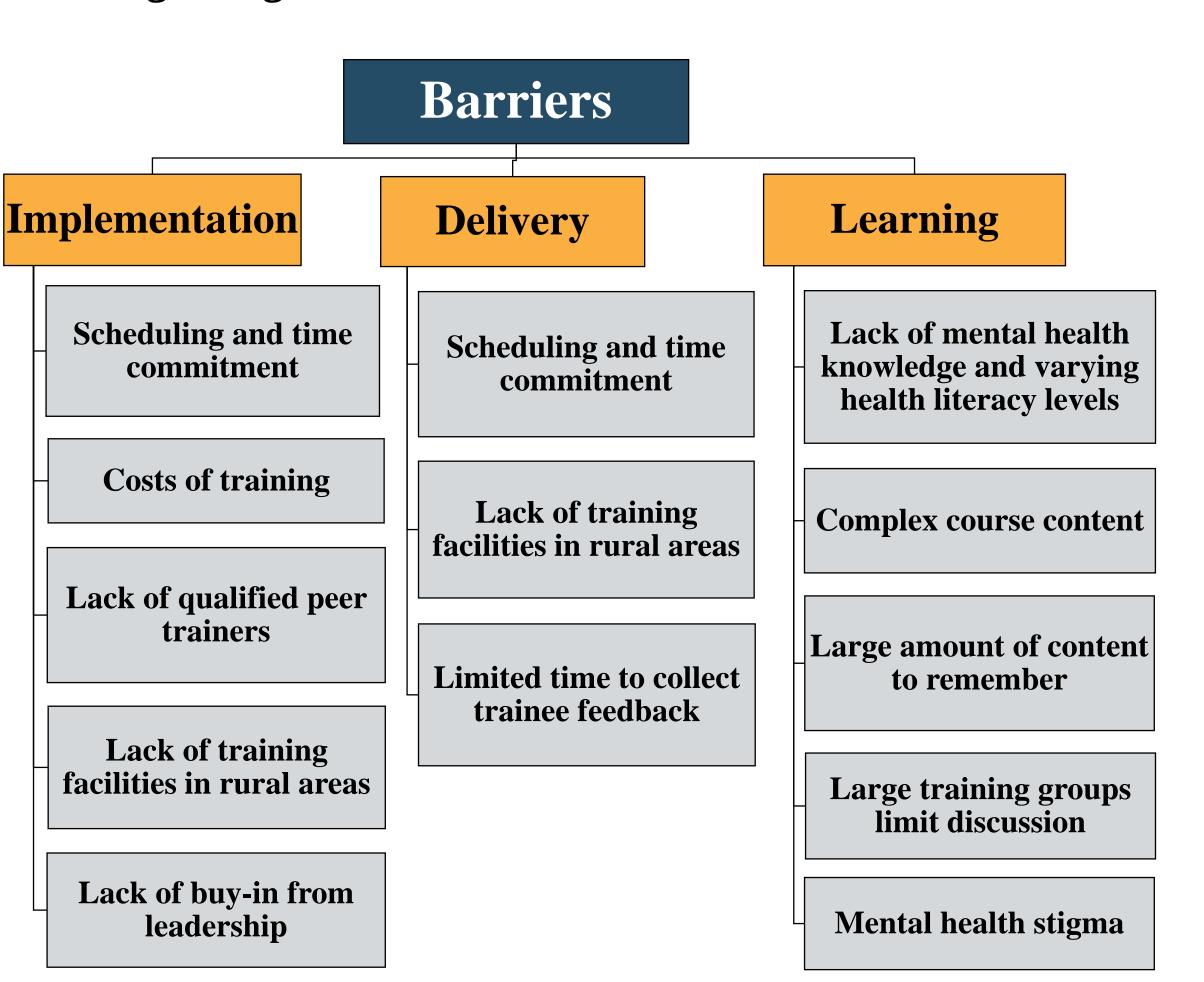


Figure 2: The barriers to the implementation and delivery of the training, and the barriers that impact the learning process for volunteer firefighters.

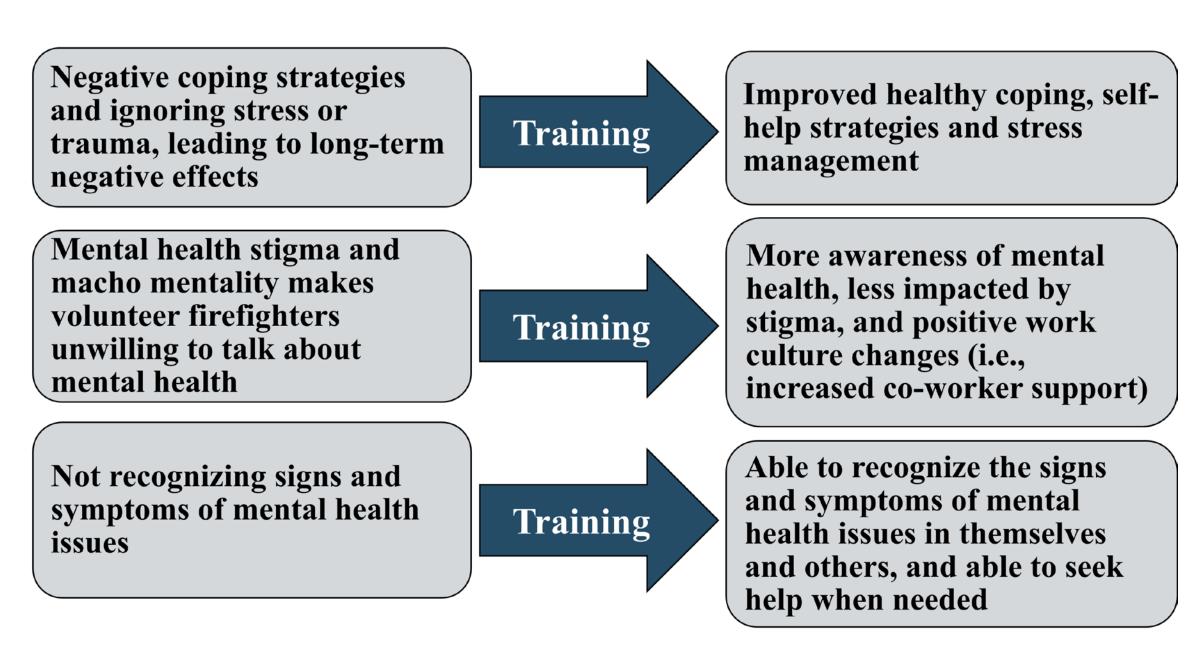


Figure 3: The behaviours of volunteer firefighters before receiving the training, and the impacts of the training on their behaviours after taking the training.

Quantitative: Positive changes post-training

- High intention to use the information in the future (86%, n=166 / 203).
- Increased reported mental health knowledge (Figure 4).
- High information retention as 83% (n=45 / 54) reported being able to recall the training content at the 3-month follow-up.

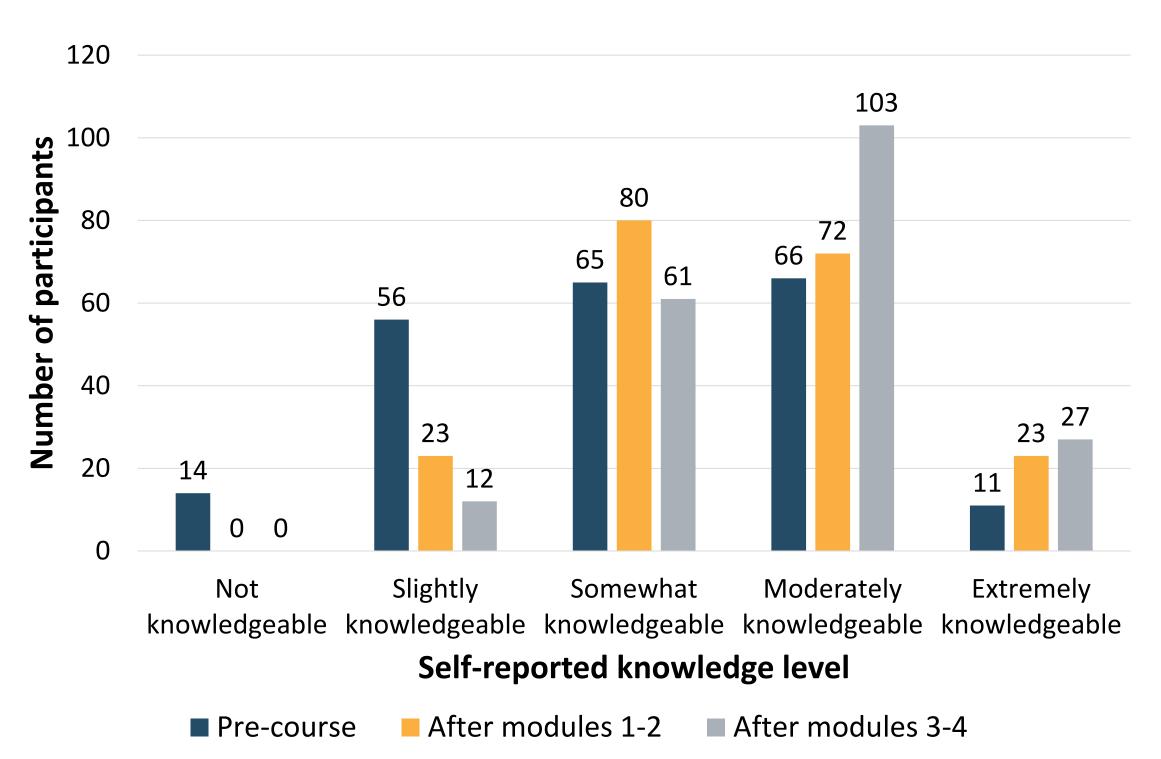


Figure 4: The self-reported knowledge of mental health challenges of volunteer firefighters before and after participating in the training.

Conclusion and Discussion

The findings support the scaling of this program across Canada. Adapting and implementing the training in other provinces and firefighting contexts is important:

- Adapt training based on firefighting context, community differences and mental health literacy.
- The content could be simplified and condensed, refresher courses could be provided, or more engaging activities could be performed during the training to promote information retention.
- Stakeholder buy-in, collaboration, and promotion of the program is critical for the adaption and implementation.
- Government stakeholders should be engaged early to obtain funding to cover program costs.
- More peer trainers across Canada need to become certified to scale up and successfully deliver the program.
- **Future research:** Randomized control trial to determine effectiveness of the program.

Disclosures

In relation to this presentation, I declare the following, real or perceived conflicts of interest: Steve Fraser is a co-author of Resilient Minds and gave the program's intellectual property rights to the Canadian Mental Health Association. He is compensated for delivering the training. All other authors have no conflicts of interest to declare.

References & Affiliations

Acknowledgments



