



# Evidence-Informed Workplace Policies & Practices for PTSD Disability Prevention

Emma Irvin & Emile Tompa

OHCOW - Activating Knowledge for Workplace Mental Health

May 15, 2024

Funding: Alberta Supporting Psychological Health in First Responders Grant

# Presentation overview

---

1. Project team and stakeholders
2. Background
3. Research project goals and methods
4. Preliminary findings
5. Discussion



# Team

## Research Team

### *IWH:*

Dwayne Van Eerd (Co-PI)

Emile Tompa (Co-PI)

Emma Irvin (Director Research Ops)

Sabrina Tonima (KTE Associate)

Joann Varickanickal (Project Coordinator)

Sharmigaa Ragunathan (Project Coordinator)

### *University of Alberta:*

Douglas Gross

Charl Els

Sebastian Straube

Suzette Brémault-Phillips

### *University of Regina:*

R. Nicholas Carleton

### *Wayfound Mental Health Group:*

Megan McElheran (Clinical Psychologist and CEO)

## Stakeholders

*Wayfound Mental Health Group*

*Legacy Place Society*

*Edmonton Police Services*

*Red Deer Emergency Services*

*Bonneyville Regional Fire Authority*

*Edmonton Fire Rescue Services*

*Rocky View County Fire Service*

*Calgary Police Services*

*Health Sciences Association of Alberta*

*Public Services Health and Safety Association (Ontario)*

# Project background:

---

- Occupational injuries are common for first responders. A particular challenge for this group of workers is post-traumatic stress injuries (PTSI) or occupational stress injuries (OSI).
- PTSI is a considerable burden for first responders, their families their workplaces, and society at large. Recent studies have shown that organizational policies and practices have an important impact on PTSI prevention.
- The scientific evidence about the effectiveness of PTSI interventions is modest at best. Regardless of the state of the scientific evidence, first responder organizations must develop ways to protect workers.

# Model used to guide project

## Evidence Based Practice (EBP)

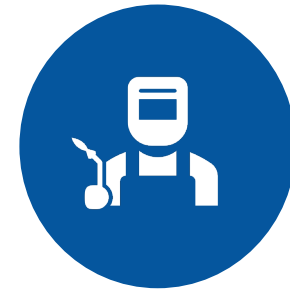
### Evidence from:



Practitioner expertise  
e.g., OHS, work  
disability prevention



Best available  
research evidence



Stakeholder  
experience e.g.,  
worker, manager

Adapted from Sackett et al. (1996) *Evidence based medicine: what is it and what isn't it.*

# Project objectives and methods

- The purpose of the study is to develop a resource or guide targeted at improving the prevention of PTSD work disability in Alberta first responder organizations.
- The study includes three stages:
  - **Stage 1:** An environmental scan of international first responder organizations' policies and practices for the prevention of PTSD work disability.
  - **Stage 2:** A summary of the scientific evidence.
  - **Stage 3:** Semi-structured interviews with Occupational Health and Safety (OHS) practitioners, managers/supervisors, and workers within Alberta first responder organizations to gather detailed information about current PTSD work disability prevention and management practices and needs in Alberta.

**Preliminary findings**  
**Please do not share**

# Stage 1: Environmental Scan

- Scan of international first responder organizations' programs, services and practices for the prevention of PTSI work disability

|                     | Location      |          |  | Total     |
|---------------------|---------------|----------|--|-----------|
|                     | International | Alberta  | Other Canadian Provinces / Territories |           |
| <b>Firefighters</b> | 4             | 1        | 7                                      | <b>12</b> |
| <b>Paramedics</b>   | 1             | 6        | 4                                      | <b>11</b> |
| <b>Police</b>       | 3             | 1        | 4                                      | <b>8</b>  |
| <b>Other*</b>       | 2             | 1        | 1                                      | <b>4</b>  |
| <b>Total</b>        | <b>10</b>     | <b>9</b> | <b>17</b>                              | <b>35</b> |

\*Other includes participants who worked with more than one group of first responders



# Stage 1: Thematic Analysis (10 Themes)

## 1. Specialized programs and services

- Need to recognize unique experiences of first responders
- Multiple programs developed to provide customized support
- Generic programs such EAP/EAFP not as effective

## 2. Stigma associated mental health

- Tough, hero, macho image often mentioned
- Challenges associated with expressing feelings, acknowledging need for support

## 3. Confidentiality/anonymity

- Lack of trust with in-house services—career concerns often mentioned
- Related to stigma (#2) and addressed through multiple pathways for support seeking (#7)

## 4. Training

- Training required at all levels and on an ongoing basis
- Onboarding programs (screening and training) for mental health resilience
- Refresher courses and workshop on mental health, nutrition, exercise
- Training for spouses and family to better understand and provide support

# Stage 1: Thematic Analysis (10 Themes) cont'd

## 5. Communication

- Ensuring awareness of supports
- Information sessions on mental health, nutrition, exercise
- Posters to encourage being mindful of own mental health, peer support, and available support

## 6. Whole person approach

- Like Total Worker Health (NIOSH)
- Include nutrition, exercise, work-life balance and wellness, in addition to mental health
- Family health and wellbeing needs
- Community building and social cohesion through group events

## 7. Multiple avenues for support seeking

- Allow for different needs and preference, and ability to maintain privacy and confidentiality
- Provision of internally funded and provided programs and supports
- Availability of externally provided programs through labour/unions, workers' compensation, public health systems

# Stage 1: Thematic Analysis (10 Themes) cont'd

## 8. Continuity of services

- Across the employment journey, including at onboarding, maintenance, during absences and return to work, and also through career advancement
- Importance of including supports even after exits, due to possibility of late onset
- Continuum of supports from primary, secondary, tertiary
- Whole person approach, including family and community

## 9. Research

- In-house assessment through surveys, audits, monitoring and evaluation
- Many key informants spoke about ties to academics and importance of rigorous research evidence
- Emphasis on evidence-informed programs, services and practices
- Noted need for continual improvement approach through ongoing assessment, scanning, research

## 10. Resource constraints

- Noted by almost everyone we spoke to-- can take different forms
- People time constraints due to extensive demands, particularly during COVID
- Funding cuts and budget constraints that make it difficult to provide full suite of services and support
- Noteworthy for smaller and regional services, particularly where first responders are volunteers
- Availability of services in some regions

# Four clusters of interventions

---

1. Individual-directed interventions to develop skills to mitigate the development of PTSI/PTSD and other mental health conditions
2. Peer-directed interventions to develop skills for increased social support for individuals to help mitigate/identify PTSI and other mental health conditions
3. Supervisor-directed interventions to develop skills for creating a supportive work environment, early identification and enhanced communications
4. Population-directed interventions aimed to develop a combination of individual, peer and supervisor skills

# Cluster 1: Individual-directed interventions

- **Emotional self-regulation**

- Training interventions aimed to change the emotional response of individuals
- Mix of psycho-education, directed exercises, mental focus and awareness, cognitive behavioral therapy, meditation self-practice, mobile games
- Examples – Road to Mental Readiness (R2MR), Coherence Advantage Program (CAP), Biofeedback-Assisted Resilience Training (BART), Mindfulness Based Resilience Training (MBRT), Mental Health First Aid, O2X (eat, sweat, thrive), Resilience at Work Program (RAW), Systematic Self Reflection Training (SRT)

- **Cognitive self-regulation**

- Training interventions aimed to change the cognitive response of individuals
- Mix of stress response psycho-education, exercises in strengths, adaptive coping strategies, self-efficacy, social-support, self-reflection
- Examples – Mindfulness Based Resilience Training (MBRT), Mental Agility and Psychological Strength Training (MAPS), Master Resilience Training (MRT), Resilience at Work Program (RAW), Systematic Self Reflection Training (SRT)

# Cluster 2: Peer-directed interventions

---

- Peer trauma risk management training for early identification of high-risk individuals and group sessions to understand cognitive and emotional response to exposure
- Education sessions that increase peers' awareness of symptomatology and treatment for mental health conditions; enhance ability to support others; practice in facilitating supportive conversations
- Examples – Mindfulness Based Resilience Training (MBRT), Resilience at Work Program (RAW), Critical Incident Stress Management (CISM); Trauma Risk Management (TRiM); Schwartz Round; Group Counselling

# Cluster 3: Supervisor-directed interventions

- Supervisor-directed training intervention through education
- Include mix of psycho-education, workplace mental health risks, supervisor roles and responsibilities, communication skills
- Similar to peer training interventions – increase ability to recognize symptomatology of mental health conditions; ability to support subordinates experiencing psychological challenges; facilitating supportive conversations; increase awareness about mental health risks specific to the workplace and occupation, awareness of responsibilities for creating a supportive work environment
- Examples – RESPECT, HeadCoach

# Cluster 4: Population-directed interventions

---

- Population-directed multi-component combining individual directed education, peer and supervisor-directed early intervention, crisis-management and resource access, and organization-directed new administrative units
- Example – Together for Life



# Stage 1: Summary of promising practices

- Focus on total worker health (including family) across the employment journey
- Leadership training to improve how to care for employees
- Top-down support championing worker health and well being
- Relationship building across the organization
- Diversity and inclusion initiatives to ensure that everyone feels welcome
- Conducting research to determine best practices and support continual improvement
- Royal Foundation (UK) six voluntary standards:
  1. Prioritizing mental health in the workplace and developing and delivering a systematic program of activity;
  2. Ensure work design and organizational culture to drive positive mental health;
  3. Promote open culture around mental health;
  4. Increase organizational competence and capability;
  5. Provide mental health tools and support; and
  6. Increased transparency and accountability through internal and external reporting.

# Stage 1: Summary of barriers and challenges

- Culture where seeking mental health support is considered a sign of weakness is a barrier
- Lack of trust and confidence in the management particularly with use of in-house services
- Concerns about potential short or long-term impact on one's career
- Service providers not having knowledge of first responder experiences
- Programs not customized to context of first responder experiences
- Lack of funding—this is especially a barrier for rural volunteer departments
- Lack of service availability in rural areas
- Lack of leadership buy-in and leading by example
- Long shift hours and long commutes that restrict time to seek support
- Lack of quantified measure of the overall effectiveness of the programs
- Gap between research and its translation into an evidence-informed decisions

## Stage 2: Summary of the Scientific Evidence

- Searched for systematic reviews on the effectiveness of workplace-based PTSI programs and practices in reducing work disability of PTSI among first responders?
- 3 reviews that met inclusion criteria
  - were published between 2020-2022.
  - were conducted in Canada
  - focused on different psychological interventions for PTSI, including peer and crisis-focused (Anderson et al, 2020), proactive mitigation programs (Di Nota et al, 2021), and psychotherapeutic interventions (Bahji et al, 2022)
  - populations were police, firefighters, paramedics and one included all three first responder groups.
  - outcomes were absenteeism, anxiety, burnout, coping, depression, general symptoms, psychological distress, PTSD, resilience, stress and suicidality.

# Stage 2: Summary of the Scientific Evidence

1. Develop Question

2. Literature Search

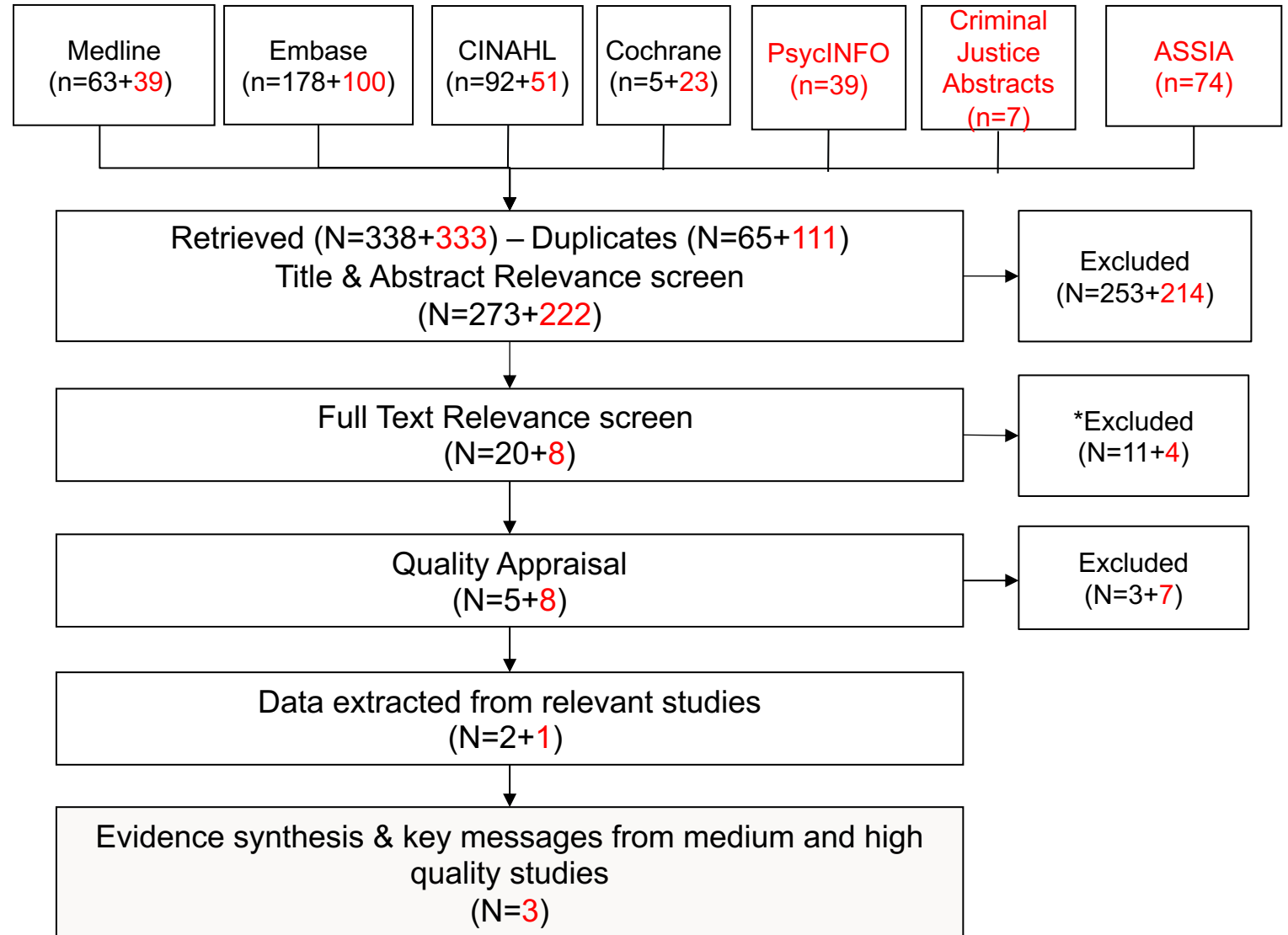
3. Relevance Screen

4. Quality Appraisal

5. Data extraction

6. Evidence synthesis

What is the effectiveness of workplace-based PTSD programs and practices in reducing work disability of PTSD among first responders?



## Interventions with a Positive Effect

1. RESPECT manager training program vs. Waitlist Control (WLC)
2. Emotion regulation, cognitive therapy, coping skill building vs. WLC
3. Coherence Advantage Program vs. WLC
4. Resilience promotion and coping skills building vs. Training as Usual (TAU)
5. Resilience promotion vs. TAU
6. Psychoeducational resilience promotion vs. TAU
7. Mindfulness-based resilience promotion vs. Control
8. Psychoeducation and counseling vs. control
9. Multimodal psychophysiological stress management vs. Relaxation only
10. Mindfulness-based resilience promotion vs Nil training
11. Together for Life suicide prevention and peer support program vs. no training
12. Trauma Risk Management (TRiM) vs. no TRiM
13. Stress management
14. Psycho-educational and physiological emotion regulation
15. Mindfulness-based resilience promotion
16. Psychoeducational resilience promotion and coping skill building
17. Critical Incident Stress Debriefing (CISD)
18. TRiM Peer Support and Risk Assessment Intervention

## Intervention with a Negative Effect

1. Debriefing vs. no debriefing

## Intervention with No Effect

1. Road to Mental Readiness (R2MR)
2. Coherence Advantage Program vs. WLC
3. Emotion regulation, cognitive therapy, coping skill building vs. WLC
4. Debriefing vs. no debriefing
5. CISD vs. stress management education vs. screening only
6. Mindfulness-based resilience promotion vs Nil training
7. Psycho-educational and physiological resilience promotion vs TAU

# Stage 3: Workplace experiences, update

- Semi-structured interviews with Occupational Health and Safety (OHS) practitioners, managers/supervisors, and workers within Alberta first responder organizations to gather detailed information about current PTSD work disability prevention and management practices and needs in Alberta.

|                    | Role      |           | Age       |              | Gender    |           | Total     |
|--------------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|
|                    | Support   | Worker    | 18-44     | 45 and above | Male      | Female    |           |
| <b>Firefighter</b> | 5         | 11*       | 6         | 10           | 14        | 2         | 16        |
| <b>Paramedic</b>   | 5         | 10        | 8         | 7            | 9         | 6         | 15        |
| <b>Police</b>      | 7         | 9         | 8         | 8            | 9         | 7         | 16        |
| <b>Total</b>       | <b>17</b> | <b>30</b> | <b>22</b> | <b>25</b>    | <b>32</b> | <b>15</b> | <b>47</b> |

\*Two individuals spoke from both the support and worker perspectives

# Stage 3 - Workplace experiences: themes

3 overarching themes emerged from the interview data:

1. Improving culture
2. Programs under development
3. (Trustworthy) communication

3 additional themes emerged from recommendations questions:

1. Continue to reduce stigma
2. Stream-lined processes
3. Better resources



# Core Themes

## 1. Improving culture

*“And just in general, I feel society and our organization also, but society as a whole has made PTSD or PTSI more socially acceptable, and more knowledge has been shone on it I guess. People hear more about it now and accept it more.” <S-PL-40>*

## 2. Under development

*“The first year was just figuring out what we have, what we don’t have, and what we need. And so bringing these types of training and services to the members is part of our process we’re looking at.” <S-FF-15>*

## 3. (Trustworthy) communication

*“Yeah, word of mouth has been the biggest seller for the resources that are available. When people go and they have an experience, and life gets better because they went to psychological therapies, or talked to Peer Support, or involved in Reintegration, then usually that word of mouth within the service is really what sells things.” <W-PL-30>*

# Additional themes from respondent recommendations

1. Continue to reduce stigma
2. Stream-lined processes
3. Better resources

*“If you’re going to decrease stigma, if you’re going to make the return-to-work process easier, your advocates have to have a lot of organizational credibility. Truly. That’s how you shift conversations is people who a lot of others look up to.” <W-PL-06>*

*“I just think it would make it a lot easier if there’s ... one clear, concise point of entry ... instead of a million different websites. There’s a joke in the fire service about firefighters not being able to tie their own shoes that’s why we have big rubber boots. So trying to have a firefighter ... search through a million websites trying to find the right one, [they] are going to say I’m done.” S-FF-44*

*“We need a better HR department, with HR professionals, who are trauma informed and who work closely with our psychological services and take into account the injured employee, you know, what’s going to benefit them and what’s going to help them to get better or to at least be in meaningful work.” <W-PL-42>*

# Questions or comments for us?

---



# Acknowledgements

---

- This research is supported by funding from the Alberta Supporting Psychological Health in First Responders (SPHIFR) Grant.
- The Institute for Work & Health operates with the support of the Province of Ontario.
- The views expressed in this document are those of the authors and do not necessarily reflect those of the Province of Ontario.

# Keep up on evidence-based practices from IWH



Sign up online for our monthly e-alerts, our quarterly newsletter, event notifications and more: [iwh.on.ca/subscribe](https://iwh.on.ca/subscribe)



Follow @iwhresearch on Twitter:  
[twitter.com/iwhresearch](https://twitter.com/iwhresearch)



Connect with us on LinkedIn:  
[linkedin.com/company/institute-for-work-and-health](https://linkedin.com/company/institute-for-work-and-health)



Subscribe to our YouTube channel:  
[youtube.com/iwhresearch](https://youtube.com/iwhresearch)

# Thank you

---

## Emma Irvin

Director, Research Operations



eirvin@iwh.on.ca

## Emile Tompa

Senior Scientist

etompa@iwh.on.ca



This document/slide is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License: <http://creativecommons.org/licenses/by-nc-nd/4.0/>.