

HEALTHY MINDS HEALTHY MOUNTIES

The Royal Canadian Mounted Police Study: Protocol for a Prospective Investigation of Mental Health Risk and Resilience Factors (Carleton et al., 2022)

Faculty Disclosure

- R. Nicholas Carleton, Ph.D., R.D. Psych.
 - Professor of Psychology, Scientific Director for CIPSRT
 - No relationships with commercial interests



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Potential for Conflicts of Interest:

- None to declare.



Mitigating Potential Bias

- There are no biases to mitigate.



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Our Challenge

Current Mental Health Injury Rates – Best Data Available

	General Public	RCMP 2017	RCMP 2023
PTSD	2 %	30 %	48 %
Major Depressive Disorder	7 %	32 %	45 %
General Anxiety Disorder	3 %	23 %	34 %
Panic Disorder	2 %	12 %	21 %
Alcohol Use Disorder	7 %	4 %	5 %
Any Mental Disorder	10 %	50 %	65 %



The Current State

All those who serve deserve better

We need solutions that actually work



The RCMP PTSD Study as a Solution

The RCMP PTSD Study is an initiative led by the University of Regina.

This global first is a multi-year study which will investigate Posttraumatic Stress Disorder (PTSD) and other mental health injuries among RCMP.

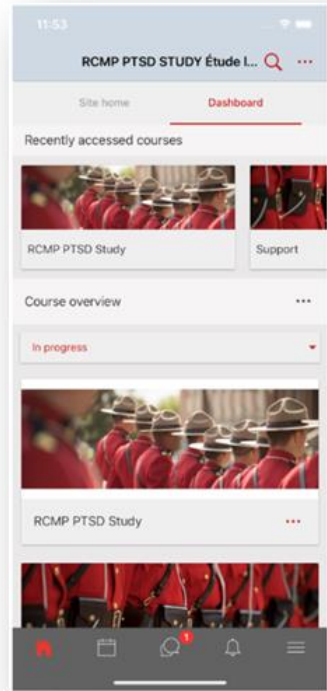


Primary Study Objectives

1. Assess for environmental factors and individual differences that may predict PTSI
2. Assess the impact of ongoing evidence-based assessments
3. Evaluate associations between demographic variables and symptoms of PTSD and other PTSI
4. Integrate the adapted Unified Protocol treatment (i.e., “Emotional Resilience Skills Training”; ERST) into the RCMP Depot Division Cadet Training Program
5. Assess for differences between members who did or did not receive the ERST



Study Design



- All participants
 - Full psychological assessment (surveys, clinical interview)
 - At onset of training, again before deployment, annually thereafter
 - Daily and Monthly surveys
 - Daily seismocardiogram
- Team 1 – Standard Training
- Team 2 – Augmented Training



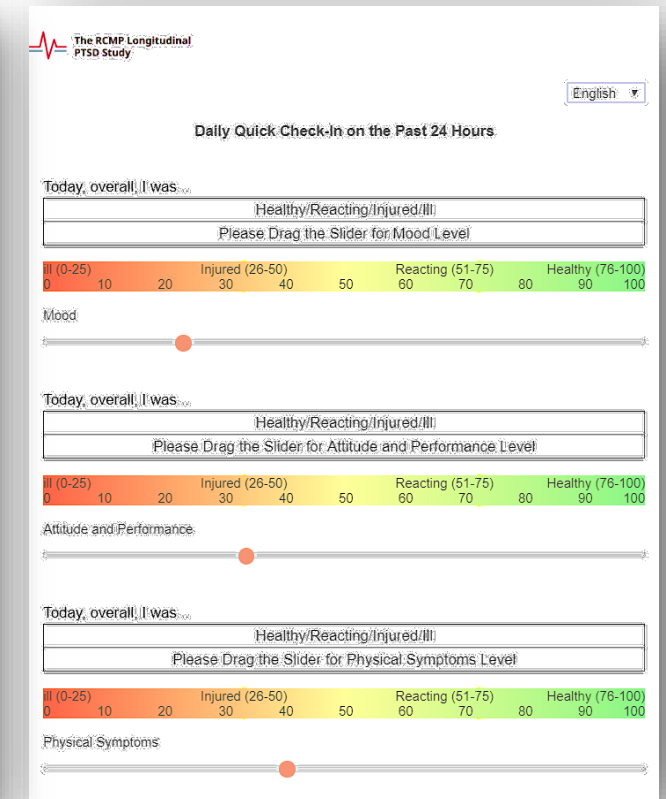
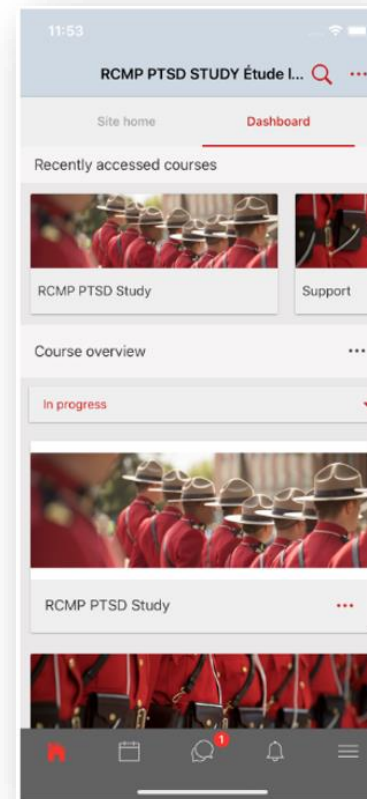
Full Assessments – All Participants

- Full Mental Health Assessment, Part 1
 - An **Online Survey** (~75 mins)
 - Personal and employment history
 - Physical and mental health history
 - Personal supports including family, friends, and colleagues
 - Leisure and recreational activities
 - Various measures to assess symptoms, risk factors, and resilience factors
- Full Mental Health Assessment, Part 2
 - A **Structured Interview** with a **trained clinician or supervised trainee**
 - MINI International Neuropsychiatric Interview (Lecrubier et al., 1997)



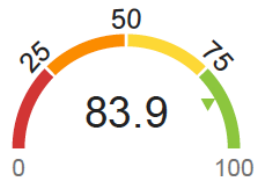
Daily and Monthly Surveys – All Participants

- All participants will use a mobile app to complete short surveys
 - Monthly Survey (~20 min)
 - Daily Survey (~1 min)
- Daily, Monthly, and Annual surveys help to track and protect mental health

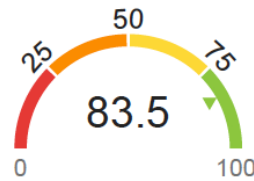


Daily and Monthly Surveys – All Participants

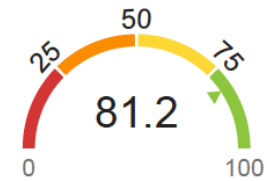
Mood



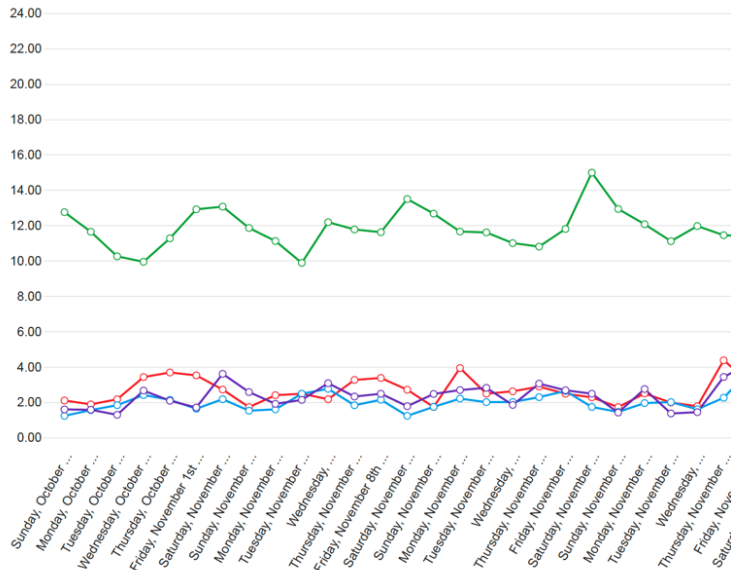
Attitude and Performance



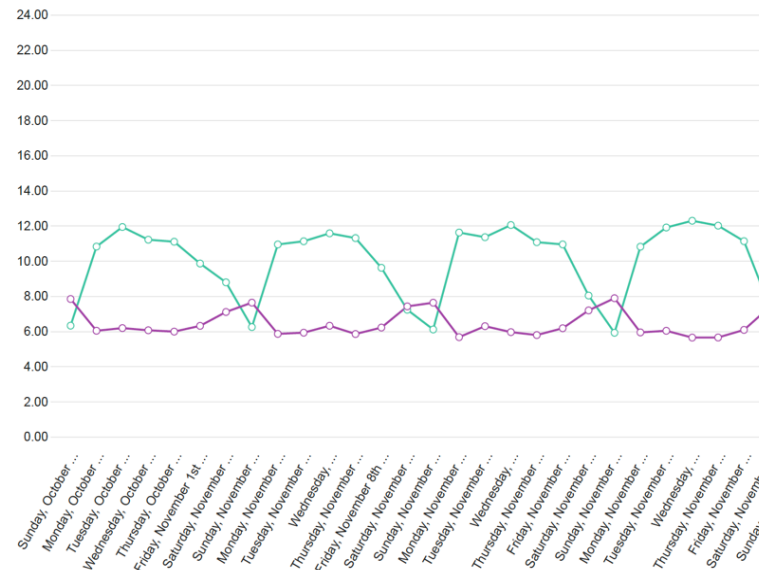
Physical Wellness



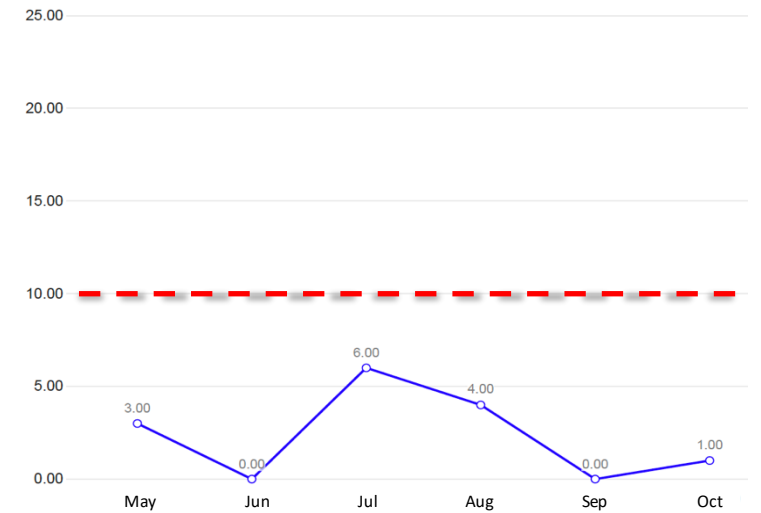
- Joyful and Content
- Irritated or Angry
- Anxious or Fearful
- Sad or Depressed



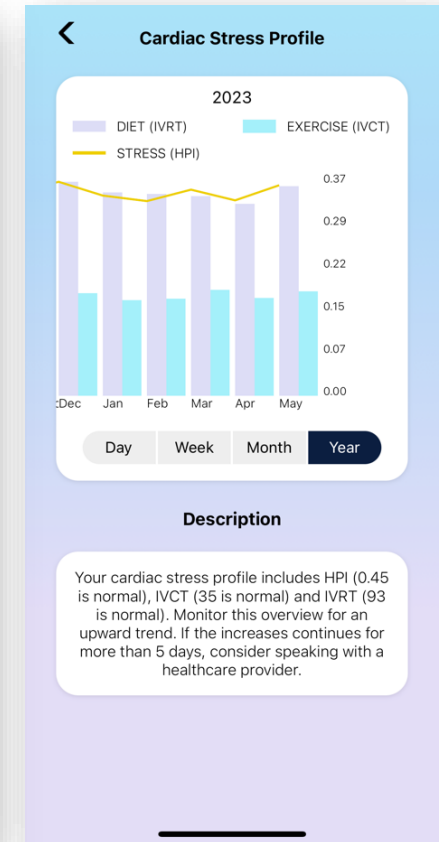
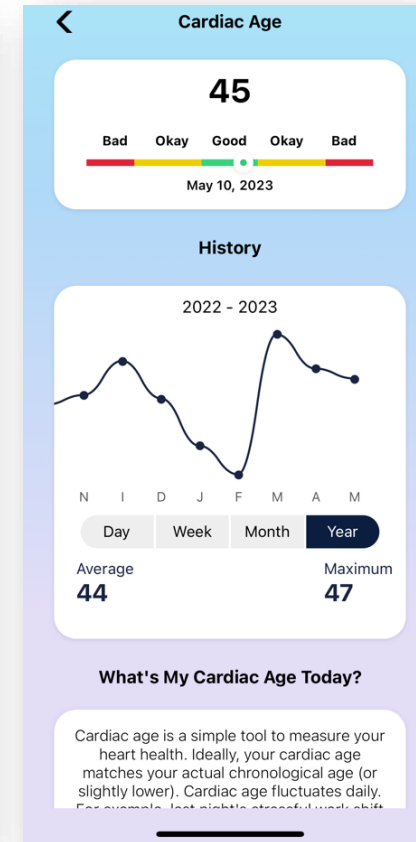
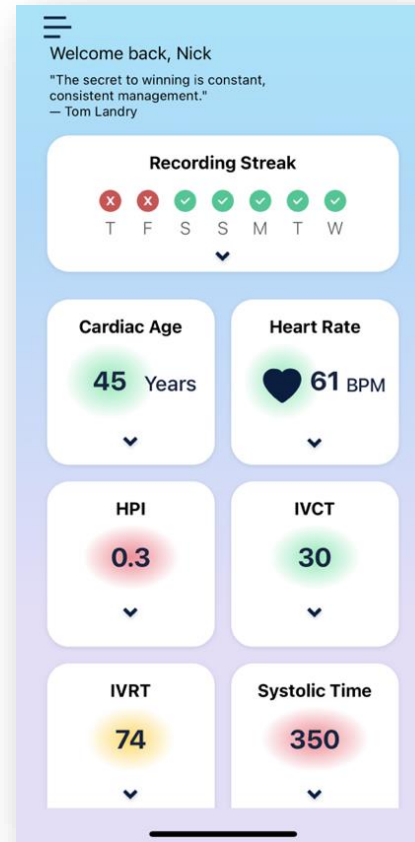
- Work Hours
- Sleep



- Symptoms of Major Depressive Disorder



Daily Seismocardiogram – All Participants



Emotional Resilience Skills Training (ERST)

The Unified Protocol for Transdiagnostic Treatment of Emotional Disorders

(Barlow et al., 2018; Ellard et al., 2010)

- Modified for RCMP training
- 13 weekly 1-hour sessions, assigned homework, testing
- Fully integrated throughout the Cadet Training Program
- Taught by RCMP to Cadets
- Robustly evidenced as a very effective treatment (Cassello-Robbins et al., 2020)
- Preliminary support for proactive mitigation of PTSD (Bentley et al., 2018)



Recruitment to Date

- Team 1 – Standard Training
 - Recruitment from May 2019 to October 2021
 - $n = 772$
- Team 2 – Augmented Training with ERST
 - Currently recruiting



Expectations

All participants are expected to benefit from

- 1) mental health self-monitoring;
- 2) early identification of mental health injuries;
- 3) their own capacity to intervene in support of good mental health; and,
- 4) stigma reductions by making mental health discussions, training, and monitoring commonplace.





Participants receiving the ERST are expected to screen positive less often for mental health disorders.



Early Results – www.rcmpstudy.ca

- Pre-Cadet Training Program Trauma Exposures

Cadets, on average reported exposure to more types of PPTE exposures than the general population, but significantly fewer than serving RCMP and other public safety personnel.

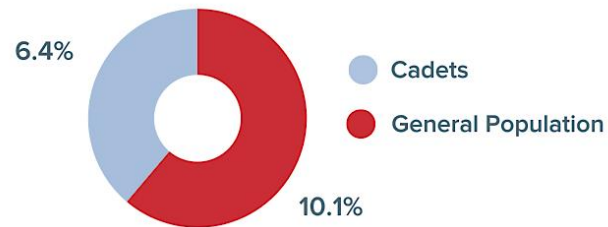
Group	Exposure rate (out of 17)
 General population	2.31
 Cadets	5.81
 RCMP	11.64
 Public safety personnel (PSP)	11.08

These results indicate that a relationship between more frequent PPTE exposures and choosing policing as a career may exist.

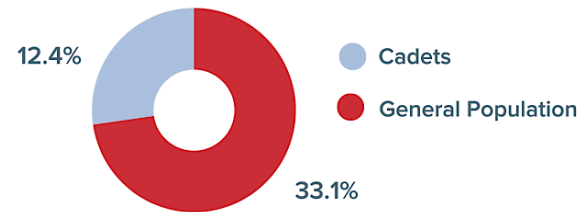
Type of PPTE	Exposure rate in cadets (%)
Physical assault	58.2
Serious transportation accident	52.2
Serious accident at work, home or during recreational activity	45.2
Sudden accidental death	41.6

Early Results – www.rcmpstudy.ca

- Mental Health and Suicidal Behaviours



Based on clinical interviews, participants were less likely to screen positively for any CURRENT mental disorder compared to current rates among the general population.



Based on clinical interviews, participants were less likely to screen positively for PAST mental disorder compared to rates for the general population.

Based on previously published data about serving RCMP, cadets were less likely to screen positively for:

Cadets' suicidal thoughts and behaviours compared to serving RCMP and the general population

	Cadets (past month)	RCMP (lifetime)	General population (lifetime)
Suicidal ideation	1.6%	25.7%	11.8%
Planning	0%	11.2%	4.0%
Attempts	0%	2.4%	3.1–3.5%

Early Results – www.rcmpstudy.ca

- Mental Health Risk and Resilience

Cadet scores - lower risk and higher resiliency



Resiliency

Associated with mental health strength

Risk variables

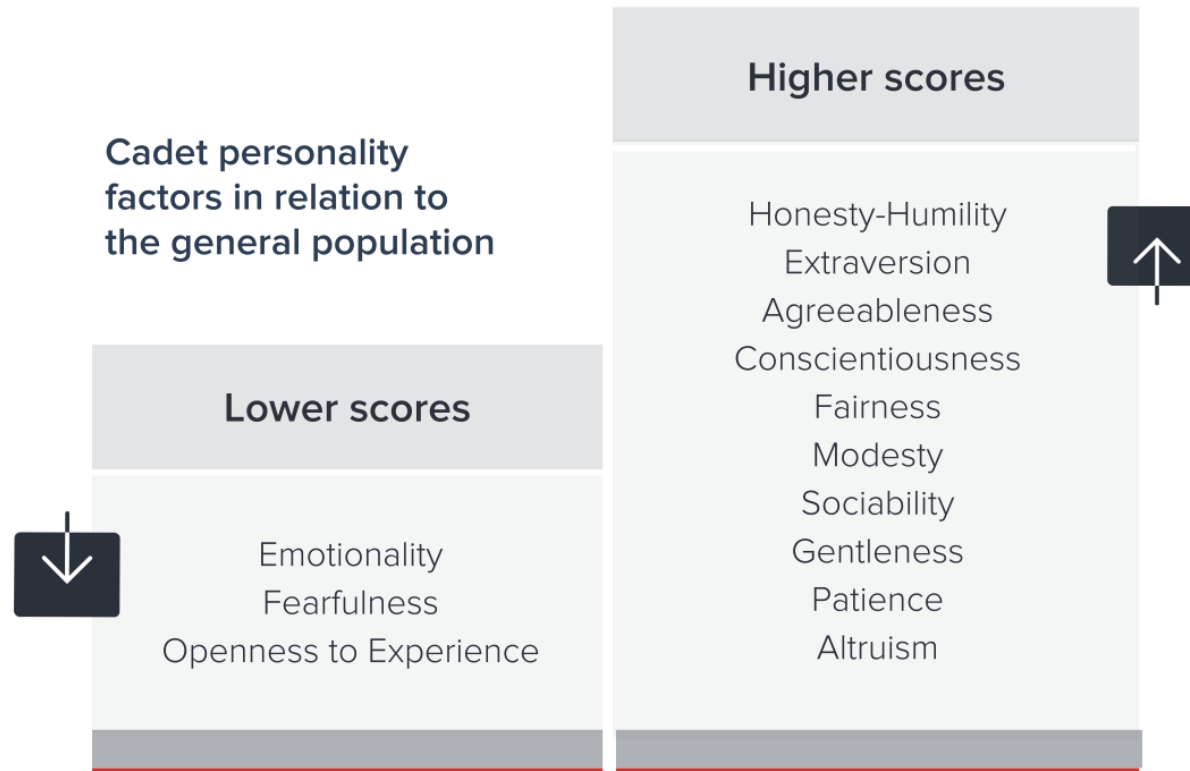
Associated with mental health challenges

Anxiety sensitivity
Fear of negative evaluation
Pain anxiety
Illness and injury sensitivity
Intolerance of uncertainty
State anger



Early Results – www.rcmpstudy.ca

- Personality



Early Results – www.rcmpstudy.ca

- Mental Health Monitoring
 - As little as 2 times per week
 - Evidence of early self-referrals

Among cadets reporting mental health symptoms at the start of training



Daily survey use was associated with decreased severity of mental health disorder symptoms by the end of training

The therapeutic benefits of self-monitoring




Increased emotional awareness, knowledge of mood patterns, and self-management of symptoms

Early Results – www.rcmpstudy.ca

- Physical Activity and Regular Exercise

Higher active calories burned



Decreased symptoms

- Posttraumatic stress disorder
- Major depressive disorder
- Generalized anxiety disorder
- Social anxiety disorder
- Alcohol use disorder



Existing research highlights the reliability of calories burned as a longitudinal measure of physical activity.

Take Home

- Cadets starting training are at least as healthy and resilient as the general public
- The ERST can be fully integrated into training programs
- Regular self-monitoring appears broadly beneficial, which is consistent with safe-guarding models
- Exercise appears beneficial for mental health





The PSP PTSI
Longitudinal Study
<https://www.saskptsistudy.ca>



Extending the RCMP PTSD Study

- Evaluation as a transferable and scalable solution
- Questions
 - Effectiveness
 - Cost-effectiveness
 - Efficiency





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Extending the RCMP PTSD Study

- A 3-year study adapting and extending the RCMP Study protocols to support other PSP
 - Serving firefighters, paramedics, police, public safety communicators
- Collaboration with several PSP agencies





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Extending the RCMP PTSD Study

- Association of Public Safety Communication Officials
- CanOps: Public Safety Canada
- Frontenac Paramedic Services
- Ottawa Paramedic Service
- Paramedic Services Chiefs of Saskatchewan
- Peterborough County-City Paramedics
- Regina Fire and Protective Services,
- Saskatchewan Association of Chiefs of Police
- Saskatchewan Federation of Police Officers
- Saskatchewan Health Authority





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Extending the RCMP PTSD Study

- Collaborated with serving PSP who had experience training PSP to modify the ERST to flexibly support diverse groups of serving PSP
 - The Study Team worked with collaborating agencies to select PSP who underwent extensive training
 - The PSP trainers then taught the ERST skills to their colleagues.





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Extending the RCMP PTSD Study

- Time Requirements - Total ~51 hours
 - ~3 hours in the first 2 weeks for the initial (i.e., *pre-training*) survey and interview
 - ~13 hours of ERST training, plus regular practice, for 13 weeks
 - ~3 hours in about 13 weeks for the second (i.e., *post-training*) survey and interview
 - ~3 hours in about 12 months for the third (i.e., *follow-up*) survey and interview
 - ~1 hour per month for monthly and daily surveys
 - Using the heart device for 1-2 minutes a day while relaxing





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Extending the RCMP PTSD Study

- A wide variety of participation models
 - Paramedics struggled to participate on paid time or receive time in lieu, in part because of COVID-related challenges
- Evidence that success requires engagement and practice, which may require structural organizational supports





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Extending the RCMP PTSD Study

- Currently under peer-review
 - Several initial results are already better than expected for all groups, but particularly for firefighters.
 - Paramedic results are still promising, but participants reported specific structural organizational challenges with participation.





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Take Home

- The RCMP Mental Health Monitoring tools have been successfully modified for diverse PSP
- The ERST has been successfully modified for diverse PSP, can be taught by PSP to PSP, and appears effective for improving mental health
- Practicing evidence-based skills appears crucial



Next Steps

- Planning is underway for additional extensions and evaluations of the RCMP Study tools and training
- Ongoing interim research results dissemination from the RCMP Study, the PSP PTSI Extension Study, and the National Police Federation Study



Thank You!

Questions and Discussion

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