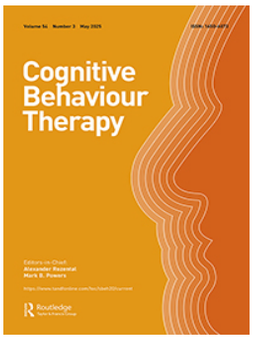

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Public safety personnel's perceptions of mental health training: an assessment of the Emotional Resilience Skills Training

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ABSTRACT

Public safety personnel (PSP) work experiences necessitate diverse and frequent exposures to potentially psychologically traumatic events (PPTEs) and other occupational stressors, which may explain the higher prevalence of mental health disorders and suicidal ideation among PSP relative to the general population. Consequently, PSP require emotional coping skills and evidence-informed mental health training to navigate arduous situations. The Emotional Resilience Skills Training (ERST) is a pilot 13-week mental health training program led by a peer and based on the robustly evidenced Unified Protocol for the Transdiagnostic Treatment of Mental Disorders. The study assessed whether PSP: perceived the ERST as improving their mental health or their management of stressors; applied the associated knowledge and skills; and would recommend ESRT to other PSP. Data were collected using a self-report survey and focus groups. A total of 197 PSP (58% male) completed a self-report survey and 72 PSP (33% female) participated in a sector-specific focus group to assess the ERST. The results indicate that PSP perceived ERST as helpful when applied. Almost all participants would recommend the training to other PSP. PSP expressed the ongoing need for mental health skills and knowledge, but also identified mental health training gaps during early-career training and stages.

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Mental health supports; peer-led training; cognitive behavioural therapy (CBT); Emotional Resilience Skills Training (ERST); unified protocol (UP)

Introduction

The term public safety personnel (PSP) refers to individuals who act in professional capacities to fulfil public functions with duties related to public safety (Canadian Institute for Public Safety Research and Treatment, 2021; Oliphant, 2016). PSP include, but are not limited to, correctional workers, career and volunteer firefighters, border service officers, public safety communication officials, Indigenous emergency managers, operational

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intelligence personnel, paramedics, police, and search and rescue personnel (Canadian Institute for Public Safety Research and Treatment, 2021). As a function of their service, PSP are frequently exposed to diverse potentially psychologically traumatic events (PPTEs; Carleton, Afifi, Taillieu, et al., 2018; Komarovskaya et al., 2011). PPTE exposures include direct or indirect exposure to actual or threatened death, serious injury, or sexual violence (American Psychiatric Association, 2022). An estimated 70% of the global population report exposure to a PPTE and 30.5% report exposure to four or more PPTEs (Benjet et al., 2016); in contrast, PSP report higher exposure frequencies (Andrews et al., 2024). For example, in a diverse sample of PSP, multiple exposures to each of several PPTE categories were reported, the highest being exposed to sudden violent death (93.8%), accidental death (93.7%), or a serious transportation accident (93.2%) (Carleton, Afifi, Taillieu, et al., 2018). PSP also report experiencing other occupational stressors including organizational stressors (e.g. staff shortages, lack of appropriate resources, inconsistent approaches to leadership) and operational stressors (e.g. shift work, public scrutiny, and job-related injuries) (Andrews et al., 2022; Carleton et al., 2020; Ricciardelli, 2018).

The frequency and diversity of PPTE exposures and other occupational stressors may contribute to the development of mental health disorders. A pre-COVID-19 study of 5,813 diverse PSP (i.e. public safety communicators, correctional workers, firefighters, municipal/provincial police, paramedics, and Royal Canadian Mounted Police) evidenced a considerable proportion of reported symptoms consistent with a mental health disorder (i.e. 15.1%) or more than one mental health disorders (i.e. 26.7%) (Carleton, Afifi, Turner, et al., 2018). The high prevalence of mental health disorders among PSP is a global challenge (Boffa et al., 2017; Courtney et al., 2010; Maia et al., 2007; Stanley et al., 2016). The high prevalence of positive screens for one or more mental health disorder(s) among PSP also appear associated with an increased risk of death by suicide (Stanley et al., 2016).

The COVID-19 pandemic exacerbated PSP stressors and increased mental health disorders (Drew & Martin, 2020; Khadse et al., 2020; Martínez-Caballero et al., 2021; Petrie et al., 2022). PSP have historically faced many barriers when accessing mental health services in Canada (e.g. shift work, operating in a remote location, stigma) (Moroz et al., 2020). Consequently, it is essential to find innovative ways to support PSP mental health support and training from within their organizations to help mitigate and manage the impact of PPTEs and other occupational stressors (Di Nota et al., 2021).

Existing proactive mental health programs tend to target specific difficulties (e.g. social anxiety, depression, substance use, eating disorders), reducing their applicability for PSP who experience contexts with broad risks for developing diverse symptoms associated with a number of discrete conditions (Becker et al., 2006; Denering & Spear, 2012). In general, cognitive behavioural therapies (CBT) have shown efficacy in improving symptoms for many of the disorders commonly experienced by PSP, including major depressive disorder (MDD), posttraumatic stress disorder (PTSD), generalised anxiety disorder (GAD), panic disorder (PD), and social anxiety disorder (SAD) (Cuijpers et al., 2016; Cusack et al., 2016). The Unified Protocol (UP) for the transdiagnostic treatment of mental disorders is a manualized CBT protocol for emotional disorders that was explicitly designed to

be applicable to a broad range of mental health symptoms (Barlow et al., 2017). The UP has been implemented using several modalities (i.e. outpatient individual therapy, inpatient, partial hospital groups) and has demonstrated efficacy effectiveness for treating mood, anxiety, and trauma-related disorders, as well as alcohol use, borderline personality disorder, and eating disorders (Cassiello-Robbins et al., 2020). Meta-analytic results indicate that the UP is associated with large improvements in diverse anxiety and depressive symptoms (Sakiris & Berle, 2019). A key premise of the UP is that aversive reactions to emotions (i.e. "I'm overreacting," "It is weak to feel this way") leads to emotional avoidance that, in turn, has been shown to increase the frequency and intensity of emotional experiences (i.e. rebound effects that maintain symptoms) (Abramowitz et al., 2001). However, avoidance is modifiable by circumventing maladaptive coping strategies (e.g. alcohol or substance use) and learning to accept and manage emotion (Barlow et al., 2017). The UP provides skills to encourage people to respond to their emotional experiences in an approach-oriented manner. Given its versatility (Cassiello-Robbins et al., 2020) the UP offers numerous opportunities for treatment and appears well suited for adaptation to a proactive training program to protect PSP mental health.

The Emotional Skills Resilience Training (ERST) program is a 13-week evidence-informed adaptation of the UP, originally tailored for pervasive integration into the Royal Canadian Mounted Police Cadet Training program as part of a large, multi-faceted, and multi-modal applied research study (i.e. the RCMP Study; www.rcmpstudy.ca) (Carleton, Krätzig, et al., 2022). The ERST program has since been further adapted to accommodate diverse PSP as part of a pilot study testing whether the RCMP Study protocols can be extended to support other PSP, with PSP providing training to other PSP (Carleton, McCarron, et al., 2022).

Quantitative analyses suggest that ERST is associated with statistically significant moderate reductions in self-reported and clinically assessed symptoms of several anxiety, mood, and trauma-related disorders from pre to post-training among a diverse sample of participating PSP (Carleton et al., 2024). There is also evidence that participating PSP who screened positive for a mental health disorder based on self-reported measures administered during pre-treatment showed improvements on their symptoms post-ERST (Carleton et al., 2024). Specifically, the largest improvements in mental health symptom scores were observed among firefighters, with effect sizes of ($ds = 0.40–0.71$), police ($ds = 0.28–0.38$), paramedics ($ds = 0.20–0.56$), and public safety communicators ($ds = 0.00–0.14$) (Carleton et al., 2024).

Based on the evidenced reductions in mental health symptom data, the current study assesses the initial cohort of PSP Trainers providing the ERST to other PSP. The current study was designed to assess the perceived utility of the ERST by participating PSP using data from self-report surveys and qualitative focus groups. Participating PSP were asked to evaluate: (1) the extent to which the ERST improved mental health challenges; (2) whether they have applied any ERST skills; (3) the extent to which the ERST skills helped to manage a difficult situation; and (4) whether they would recommend ERST to fellow PSP.

Method

Procedure

Data for the current study were collected as part of the broader Public Safety Personnel Posttraumatic Stress Injury (PSP-PTSI) Study. Details of the PSP-PTSI Study and the original RCMP Study have each been published in dedicated protocol papers (Carleton, Krätzig, et al., 2022; Carleton, McCarron, et al., 2022). The University of Regina Research Ethics Board approved the PSP-PTSI Study on 28 May 2021 (File #2020-226), and the PSP-PTSI Study received annual renewals in 2022 and 2023.

Data collection and time frame

Details of the methods, including data collection, for the PSP-PTSI Study have been published in a dedicated protocol paper (Carleton, McCarron, et al., 2022). In short, data were collected via full assessments (i.e. lifetime self-report survey, clinical interview), daily surveys, monthly surveys, and biometric assessments (i.e. daily LLA Recordis device recordings). The full assessments occurred at each of three milestones; specifically, pre-training (i.e. prior to taking the ERST), post-training (i.e. approximately 1 week after completing the ERST), and follow-up (i.e. approximately 1 year after completing the ERST). The start of data collection was staggered by sector, with pre-training starting October 2021, post-training starting in October 2022, and 1-year follow-ups concluded in October 2023. The focus group data were collected within a 2-week period after the completion of the ERST.

PSP-PTSI study design

The PSP-PTSI Study was designed to: (1) adapt, implement, and assess the impact of a system for ongoing (i.e. pre-training, post-training, 1-year follow-up, monthly, daily) evidence-based assessments of environmental factors and individual differences (i.e. measurements of biometrics, mental health, social experiences); (2) evaluate associations between sociodemographic variables and symptoms of PTSI; (3) longitudinally assess environmental factors and individual differences associated with PTSI; (4) adapt the RCMP study ERST to accommodate a diverse range of PSP; (5) provide ERST to a diverse sample of PSP; (6) assess participant reactions to the ERST; and (7) assess the impact of the ERST on individual differences and symptoms of PTSI over time (Carleton, McCarron, et al., 2022). The current study focuses on the sixth point above, assessing participant reactions to the ERST.

ERST development

ERST is a 13-week program developed from an adaptation of the UP (Barlow et al., 2017). ERST was developed in collaboration with one of the UP co-developers (i.e. Sauer-Zavala) to ensure fidelity to the UP, then further tailored based on focus group sessions with PSP stakeholders. ERST includes a workbook (i.e. paper copy and/or online version, per sector preference), an instructor guide, and a standardized set of

PowerPoint presentations. Sauer-Zavala personally trained the ERST trainers through a week-long interactive workshop. After the training, trainers could consult Sauer-Zavala directly for a follow-up consultation or support related to the delivery of the ERST.

Participants

Participants for the PSP-PTSI Study were recruited from four PSP sectors and included firefighters, municipal police, paramedics, and public safety communicators (e.g. 911 operators; dispatchers) within Saskatchewan (Carleton, McCarron, et al., 2022). The participants were required to be Canadian citizens or permanent residents, have a minimum of 3 years of PSP service, access to a computer with internet service, and an active interest in evidence-based mental health care. Exclusion criteria included high risk of suicide or previous suicide attempt or hospitalization within the prior year, experiencing current psychosis, mania, or drug/alcohol addictions, current or ongoing performance management concerns, or any history of advocating against mental health care (Carleton, McCarron, et al., 2022). Notably, no interested participants were prevented from participating in the study due to the exclusion criteria.

Recruitment efforts initially focused on Saskatchewan PSP via the website: www.saskptsistudy.ca. During recruitment, the website was publicly available and provided study details. Participant recruitment challenges occurred in two sectors (i.e. paramedics, public safety communicators), presumably due to increased workload and burnout stemming from COVID-19 pandemic (Heber et al., 2020; Wagner et al., 2023); consequently, the recruitment was expanded to PSP operating in other Canadian provinces (i.e. Manitoba, Ontario). Participants who agreed to take part in the study were provided with a welcome package via email. The welcome package included an introductory message from the principal investigator, a copy of the consent form, instructions for downloading, and accessing study applications. Participants were asked to review the consent form and download study applications prior to attending the session. The onboarding session was conducted via Zoom and provided information about the study rationale, consent, requirements, expected outcomes, and potential benefits to the broader PSP community (Carleton, McCarron, et al., 2022).

Participating PSP (n=197) sociodemographic information, as reported at pre-training, is provided in Table 1. Most participants self-identified as male, men, were 30–39 years in age, Caucasian/white, married, resided in Saskatchewan, had some post-secondary education, identified as heterosexual, had 10–15 years of PSP experience, and identified as Christian. Due to attrition, self-report survey data concerning the participants' post-training perceptions of ERST were only completed by a subset of these initial participants (n=118).

Participants were invited to attend a sector-specific focus group to assess the ERST within 2 weeks after completing the training. A total of 72 PSP participated across the four sectors (Table 2). Participants were provided with the opportunity to attend a gender-specific focus group, but no participants selected this option. Firefighters were the most likely to participate in the focus groups. The gender-distribution of participants varied across sectors.

Table 1. Participant sociodemographic information prior to ERST (*n*=197).

	Fire	Police	Paramedics	Communications	Totals
Sex					
Male	45	41	21	8	115
Female	^	9	29	36	†
Gender					
Man	45	41	21	8	115
Woman	^	9	29	34	†
Transgender	–	–	–	^	^
Non-binary	–	–	–	^	^
Age (years)					
19–29	^	^	7	6	†
30–39	22	19	25	15	81
40–49	13	19	10	13	55
50–59	7	^	^	7	†
60+	–	–	^	–	^
Ethnicity					
Asian	^	–	–	–	^
Black	–	–	–	–	–
First Nations/Inuit/Metis	–	^	–	^	^
Hispanic	–	–	–	–	–
White/Caucasian	45	47	47	39	178
Other	–	–	–	^	^
Marital status					
Single	^	–	9	6	†
Separated/Divorced	^	6	^	7	†
Married/Common-Law	43	44	39	27	153
Other	–	–	–	^	^
Province of residence					
Saskatchewan	47	50	38	37	172
Manitoba	–	–	–	^	^
Ontario	–	–	10	^	†
Education					
High school graduate	^	5	–	7	†
Some post-secondary	33	23	36	22	114
4-year University or higher	9	21	9	10	49
Sexual orientation					
Heterosexual	46	50	46	36	178
Homosexual	–	–	^	^	^
Bisexual	–	–	^	^	^
Other	^	–	^	^	^
Years of service					
Less than 4 years	^	^	–	^	^
4 to 9 years	15	18	7	10	50
10 to 15 years	15	21	7	8	51
16+	14	7	^	5	†
Religious view					
Agnostic	7	8	9	8	32
Atheist	5	9	9	6	29
Buddhist	^	^	^	–	^
Christian	20	23	20	23	86
Jewish	–	^	^	–	^
Prefer not to answer	9	5	5	^	†
Other	5	^	^	5	†

Sums may not total 197 due to participants not completing a self-report question.
–Indicates no response.
^Indicates 1 to 4 participants selected this category and categories with less than 5 responses are not displayed to protect participant confidentiality.
†Indicates the total sum is withheld to mask ^ values.

Table 2. ERST sector-specific focus groups (*n*=72).

Sector	Participants who completed the pre-training assessment and began ERST	Participants who completed ERST and the post-training assessment	Focus group participants*	Focus group participants gender**
Fire	46	38	35	35 men
Police	50	42	13	9 men; 4 women
Paramedics	47	35	10	2 men; 8 women
Communications	42	38	14	2 men; 12 women
TOTAL	197	153	72	48 men; 24 women

Sums may not total 197 (i.e. sums in column 1) due to participants not completing a self-report question; *Focus Groups were conducted after the post-training assessment; **Gender was self-identified by pronouns during the focus groups.

Data analyses

The data analyses for the current study were twofold. The self-report survey data were collected via Qualtrics and then imported into SPSS (IBM, v.28 Premium, 2021 New York, USA). SPSS was used to generate the descriptive statistics and cross-tabulations of the four sectors with specific ERST-related questions (i.e. "Did you find the ERST helpful for improving your mental health?"; "During and/or since your ERST, have you applied the knowledge and/or skills you learned to manage stress or emotions?"; "How much did the knowledge skills help you manage stress, your emotions and/or the situation?"; "Would you recommend ERST to other PSP?").

The focus groups were conducted via Zoom and later transcribed using the Zoom transcription feature. Per the University of Regina's Research Ethics Board instructions, directly after the Zoom transcription feature prepared the transcripts, the data were immediately downloaded to the qualitative researcher's computer (i.e. University of Regina server), and permanently deleted from the Zoom Cloud. These transcripts were then verified for accuracy and care was taken to remove all-identifying information from the transcripts. The transcripts were then imported into NVivo 12 (QSR International, 2018). NVivo software was used to conduct a thematic analysis using an inductive approach. Key themes and subthemes were identified according to repeated ideas and shared meaning.

Results

Self-report surveys

Most participating PSP indicated that the ERST was helpful for improving their mental health (Table 3). Participants ($n = 118$) indicated that the ERST helped improve their mental health "some" ($n = 46$), "a little" ($n = 42$), "a lot" ($n = 22$), or "a great deal" ($n = 3$). Relatively few participants ($n = 5$) indicated the ERST was "not at all" helpful for improving their mental health.

Most of the participants (*n*=98; 83%) reported having applied ERST knowledge and/or skills to manage stress or emotions during or since the ERST (Table 4). Proportionally, paramedics reported the highest application of ERST knowledge and skills.

Most participants indicated that ERST knowledge and/or skills helped them to manage stress, emotions, or a situation (Table 5). Participants indicated that the

Table 3. Did you find the ERST helpful for improving your mental health? (n =118).

	Firefighters	Police	Paramedics	Communications	Totals (n = 118)
Not at all	2	1	1	1	5
A little	19	11	8	4	42
Some	9	17	12	8	46
A lot	7	4	9	2	22
A great deal	0	2	1	0	3

Out of the 197 participants who started the study only 118 participants chose to complete this quetion.

Table 4. During and/or since your ERST have you applied the knowledge and/or skills you learned to manage stress or emotions? (n=118).

	Firefighters	Police	Paramedics	Communications	Totals (n =118)
No	8	10	0	2	20
Yes	29	25	31	13	98

Out of the 197 participants who started the study only 118 participants chose to complete this question.

ERST helped them to manage stress, emotions, or a situation "some" ($n = 43$), "a little" ($n = 31$), "a lot" ($n = 21$), or "a great deal" ($n = 1$). Relatively few participants ($n = 2$) indicated the ERST was "not at all" helpful for them to manage stress, emotions, or a situation.

A total of 128 participants responded to the question inquiring if they would recommend ERST to a fellow PSP. The majority (i.e. 123 participants stated they would recommend ERST and 5 participants (i.e. one firefighter, two paramedics, and two police officers) stated they would not recommend the ERST to a fellow PSP. Each of these five participants completed the open text box which provided further details shown in Figure 1.

Focus groups

A total of 72 participants attended the focus groups across sectors (Table 2). The application of ERST knowledge and/or skills as described by participants was thematically coded to develop the data into key themes (i.e. at work, with family, internal; Figure 2).

Table 5. How much did the [ERST] knowledge and/or skills help you manage the stress, your emotions, and/or the situation? ($n = 98$).

	Firefighters	Police	Paramedics	Communications	Totals (n =98)
Not at all	1	0	1	0	2
A little	9	9	5	8	31
Some	15	10	15	3	43
A lot	4	6	9	2	21
A great deal	0	0	1	0	1

Out of the 197 participants who started the study only 98 participants chose to complete this question.

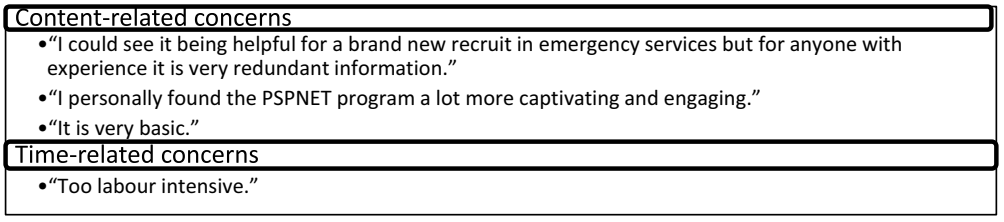

Figure 1. PSP's rationale for not recommending ERST to another PSP (n=5). The final participant responded, "see interview". The participant is referring to the clinical interview which was used to assess mental health symptoms not to assess the ERST training. Consequently, the response could not be included in the manuscript.

The application of ERST skills and/or knowledge by PSP were further coded into sub-nodes to provide details (i.e. mindfulness, self-development, breathing, re-framing, stopping avoidance; Figure 3).

Discussion

The purpose of the current study was to complement the initial efficacy data on ERST by examining qualitative and descriptive quantitative accounts of participant perspectives on the training program. In general, results suggest that PSP participants found the ERST to be helpful for their mental health and that they use the skills in a variety of contexts to cope with strong emotions. The current results provide further support and nuance regarding the efficacy data that suggests that mental health symptoms improve from pre- to post-intervention (Carleton et al., 2024). More than one-quarter (n=72) of participants reported using the ERST knowledge and skills; indeed, putting ERST knowledge and skills into practice may be a potential mechanism through which this training exerts its

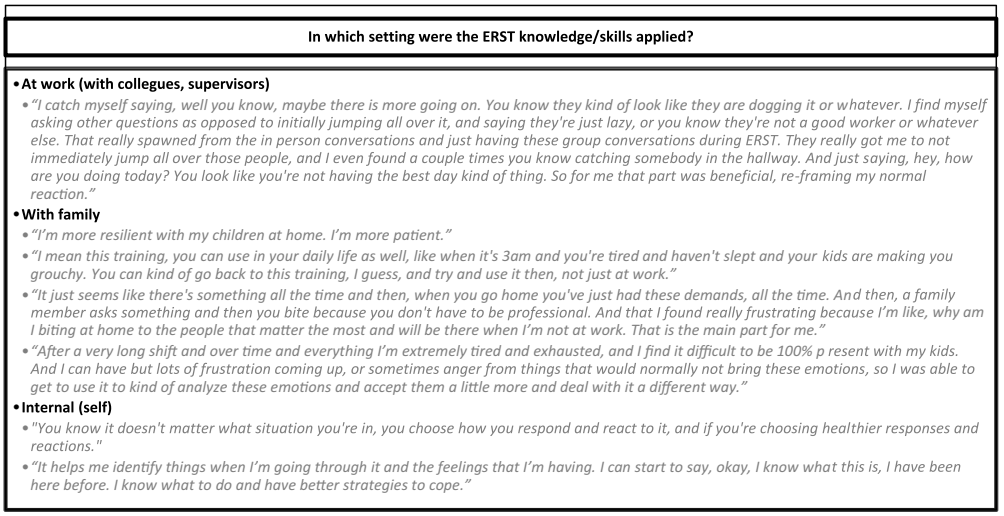

Figure 2. Representative examples of the setting ERST knowledge and/or skills were applied (n=72).

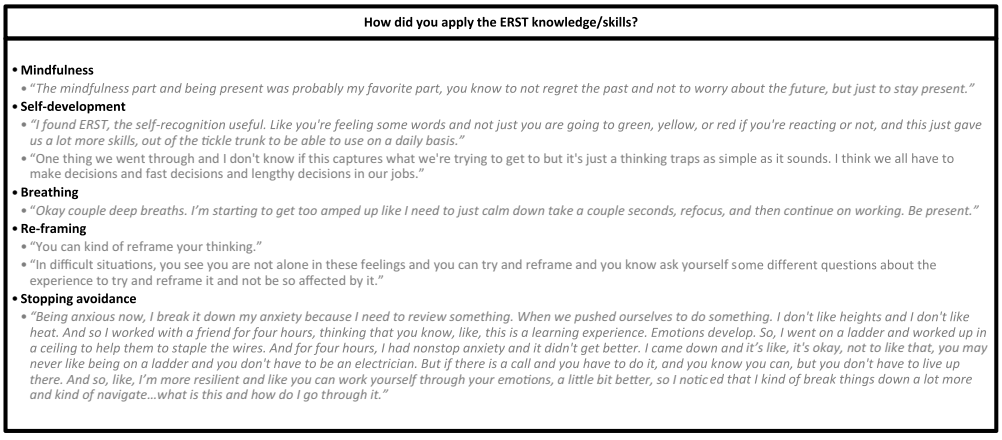

Figure 3. Representative examples of how participants applied the ERST knowledge and/or skills (*n*=72).

effects. Participants shared that, alongside the applicability of ERST knowledge and skills at work, their training also helped them to better engage with their families, and supported their ability to practice cognitive flexibility in difficult situations. Participants highlighted the potential benefits for serving members, and the possible advantages of extending the training to PSP at early-career stages or during initial recruitment training.

PSP highlighted that adequate time is required to participate in the ERST sessions and to practice the skills, meaning all the 13 1-hour sessions and additional time during the week are required to gain the skillset. The exact time for practicing the ERST skills was not assessed. Time-related challenges, such as shift work cycles, staff shortages, and ongoing stigma related to the time required for mental health activities (Carleton et al., 2020; Ricciardelli et al., 2020) all hindered ERST participation for some PSP. The delivery of ERST was each sector's responsibility and the initial data indicates sector-specific institutional challenges, for example, due to space shortages and staff shortage paramedics at certain locations were not able to participate in the sessions during their normal shift and did the training during their time off. The paramedics noted that they felt the training was needed, but struggled to balance other responsibilities (i.e. caring for children, time for self-care) with ESRT sessions and homework. Therefore, additional consideration should be given to the time needed for ERST and the possible impact of sector-specific constraints (i.e. training space, staff shortages). PSP who volunteer to participate in ERST should be able to do so during their shifts, per the original plan in the PSP-PTSI Protocol Paper (Carleton, McCarron, et al., 2022). The dynamics raised during the focus groups speak to wider sector-specific challenges related to staffing and funding.

Future research

The current study has several limitations that offer possible avenues for ongoing research. First, the opinions shared by the participating PSP offer a cross-sector perspective; however, there is no way to assess generalizability of the opinions to other PSP. Future researchers may

consider increasing the sample size to include additional sectors across Canadian provinces and territories and could assess whether the ERST produces similar results in an international PSP sample. Second, the participants who volunteered to be part of the study may have a particular interest in mental health training or have a greater need for mental health support. Understanding the participants' reasons for participating would provide an additional layer of nuance for understanding their feedback. Third, the trainers all attended the same training course to provide ERST, but subsequent fidelity was not measured (i.e. teaching content checks). Fourth, some sectors allowed PSP to participate in the ERST during work hours or offered additional time off in lieu. PSP who were able to complete the training as part of their shift requirements likely had more supportive work environments, increasing the likelihood that they would be able and willing to apply these skills. Finally, the ERST rollout logistics were sector-specific, with the start and end times of the training across sectors slightly differed based on holidays, illnesses, or bereavement leave. The extent to which such differences (e.g. summer holidays) may have impacted the participant responses is unknown. Future researchers may consider enforcing a more unified start and end of the 13-week training to reduce possible confounds. The issue of attrition should be addressed, particularly ways to mitigate attrition from studies focused on PSP (e.g. dealing with shift work challenges, offering the course during work time). Researchers should consider the implementation of formal exit survey to fully quantify attrition reasons. Within the current study, participants were offered the possibility to attend a focus group and/or to complete an open-text field of a self-report survey. Future researchers should consider continuing to use multiple methods to collect the data to add further nuance to the results.

Conclusion

PSP are essential to maintain public safety and order, and while on duty, PSP experience diverse and frequent exposure to PPTEs and various occupational stressors. Consequently, evidence-based mental health training and support remain imperative. The current study focused on the perspectives shared by PSP on the extent to which the ERST helped with their mental health and provided details on how the skills and/or knowledge were applied. The combination of self-report and focus-group data provided a nuanced understanding of the PSP's experiences with the ERST content, which showcased the utility of the training. The vast majority of participants (i.e. 123/128) would recommend the ERST to fellow PSP. The current study contributes to the literature by highlighting the benefits of PSP peer-led mental health training.

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Data availability statement

The datasets presented in this article are not readily available because the datasets will be made available only for independent confirmation purposes and only to persons with the necessary ethical and security clearances as defined by the research ethics board at the University of Regina. Requests regarding the datasets can be made to Nick.Carleton@uregina.ca.

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