#### Western University

### Scholarship@Western

**Neuroscience Institute Publications** 

Western Institute for Neuroscience

6-1-2022

## The mental health experience of treatment-seeking military members and public safety personnel: a qualitative investigation of trauma and non-trauma-related concerns

Bethany Easterbrook McMaster University

Andrea Brown

McMaster University

Heather Millman
Homewood Research Institute

Sherry Van Blyderveen McMaster University

Ruth Lanius Homewood Research Institute, ruth.lanius@lhsc.on.ca

See next page for additional authors

Follow this and additional works at: https://ir.lib.uwo.ca/neurosci\_inst\_pubs

#### Citation of this paper:

Easterbrook, Bethany; Brown, Andrea; Millman, Heather; Blyderveen, Sherry Van; Lanius, Ruth; Heber, Alex; McKinnon, Margaret; and O'connor, Charlene, "The mental health experience of treatment-seeking military members and public safety personnel: a qualitative investigation of trauma and non-trauma-related concerns" (2022). *Neuroscience Institute Publications*. 140.

https://ir.lib.uwo.ca/neurosci\_inst\_pubs/140

Authors Bethany Easterbrook, Andrea Brown, Heather Millman, Sherry Van Blyderveen, Ruth Lanius, Alex Heber, Margaret McKinnon, and Charlene O'connor				

## Original qualitative research

# The mental health experience of treatment-seeking military members and public safety personnel: a qualitative investigation of trauma and non-trauma-related concerns

Bethany Easterbrook, MSc (1); Andrea Brown, PhD (1,2,3); Heather Millman, MA (2); Sherry Van Blyderveen, PhD, CPsych (1); Ruth Lanius, MD, PhD, FRCPC (2,4); Alex Heber, MD, FRCPC, CCPE (5); Margaret McKinnon,\* PhD, CPsych (1,2,3,6); Charlene O'Connor,\* MA, MSc (3)

This article has been peer reviewed.



#### Abstract

**Introduction:** Paramedics, firefighters, police officers and other public safety personnel (PSP) as well as Canadian Armed Forces (CAF) members are frequently exposed to stressors and demanding work environments. Although their specific work-related tasks may vary, a commonality between these occupations is the significant likelihood of repeated exposure to potentially psychologically traumatic events (PPTE) over the course of their careers. Due in part to these repeated exposures, CAF members and PSP are at an elevated risk of mental health concerns including posttraumatic stress disorder. The purpose of this study was to obtain a more in-depth understanding of the trauma- and non-trauma-related experiences of active or retired PSP and CAF members that may be implicated in mental health issues and resultant treatment and recovery.

**Methods:** Study participants were recruited during inpatient treatment at a private mental health and addictions inpatient hospital in Canada. We conducted and audiotaped semistructured focus groups and transcribed the discussions. Interpretive phenomenological analysis and thematic coding generated a coding scheme from which to identify concepts and linkages in the data.

**Results:** Analysis generated four primary themes: interpersonal relationships, personal identity, mental health toll and potential moral injury. A variety of subthemes were identified, including family dynamics, inability to trust, feelings of professional/personal betrayal, stigma within the CAF/PSP culture, increased negative emotions about self/others, and a reliance on comradery within the service.

**Conclusion:** The information gathered is critical to understanding the perspectives of PSP and military members as the career stressors and related exposure to PPTE of these occupations are unique.

**Keywords:** posttraumatic stress disorder, military, first responders, potentially psychologically traumatic events

#### Highlights

- Police, paramedics, other public safety personnel (PSP) and members of the Canadian Armed Forces witness more potentially psychologically traumatic events and report higher rates of mental health disorders than the general population.
- While seeking treatment at an inpatient facility, study participants described the impact of their military/PSP experiences on their relationships and mental health through semistructured focus group discussions.
- Relationships with family and friends, personal identity, mental health impact and potential moral injury are areas that influence selfperception, role evaluation and feelings of connectedness with society.
- Specific mental health programming may be beneficial for active and retired military members and PSP because of their unique career stressors.

#### **Author references:**

- 1. McMaster University, Hamilton, Ontario, Canada
- 2. Homewood Research Institute, Guelph, Ontario, Canada
- 3. Homewood Health Centre, Guelph, Ontario, Canada
- 4. Western University, London, Ontario, Canada
- 5. Veterans Affairs Canada
- 6. St. Joseph's Healthcare Hamilton, Hamilton, Ontario, Canada
- \* Joint senior authors.

Correspondence: Margaret McKinnon, Psychiatry & Behavioural Neurosciences, St. Joseph's Healthcare, West 5th Campus, Office: B352, 100 West 5th Street, Hamilton, ON L9C 0E3; Tel.: 905-522-1155, ext. 36645; Email: mckinno@mcmaster.ca

#### Introduction

Public safety personnel (PSP), including but not limited to police officers, firefighters, correctional officers, dispatchers and paramedics1 as well as members of the armed forces, have higher exposure to potentially psychologically traumatic events (PPTE) and report higher rates of mental health disorders than the general population. The 2018 Canadian Armed Forces members and Veterans Mental Health Follow-up Survey found that 44% of those surveyed had experienced symptoms consistent with anxiety or depression at some point between 2002 and 2018, while 25% of respondents had experienced symptoms consistent with both.2 The prevalence of past-year posttraumatic stress disorder (PTSD) for members of the Canadian Armed Forces (CAF) also increased from 2.8% in 2002 to 5.3% in 2013. In 2016, 16.4% of surveyed Regular Force veterans released between 1998 and 2015 self-reported a diagnosis of PTSD.3

Similar increased rates of mental health disorders, compared to the general population, have been found for PSP. A recent national survey of almost 6000 Canadian PSP found that 44.5% screened positive for symptom clusters consistent with one or more mental health disorders.4 The frequency of positive screens among active and veteran military and public safety personnel (~44%) is significantly higher than the prevalence of diagnosed mental health disorders in the general Canadian population (~10%).5 While the specific demands of each career differ widely, commonalities between military and public safety occupations include the increased chance of repeated exposure to on-the-job traumatic experiences6-8 and an elevated risk of mental health concerns, including alcohol dependence, depression, PTSD and potential moral injury9-11. Moral injury refers to the psychological distress or difficulties with functioning that individuals experience as a consequence of situations during which they or others have betrayed personal moral beliefs. 12,13 Individuals exposed to events that transgress their personal morals commonly report symptoms of shame and guilt, which may influence the development of PTSD and other mental health disorders. 14,15 These feelings of shame and guilt can be associated with acts of the self, such as actions leading to loss of life, and actions of others, including seeing ill or injured people they are unable to help, a common experience during deployment.<sup>11</sup>

Although successful evidence-based treatments for PTSD exist, their effectiveness seems to be reduced in combat-exposed individuals, who are more likely to be diagnosed with PTSD than the general public.<sup>2,16</sup> Treatment dropout rates among military samples are higher than the general population, with one in four veterans not completing residential treatment and many others refusing to seek treatment because of perceived and experienced stigma, misconceptions about treatment and structural barriers. 17,18 The high dropout rates indicate there is a missing component to effective treatment of military personnel with mental health concerns. Moreover, although data on treatment dropout rates among PSP are unavailable, commonalities (e.g. long shifts, stressful environments, high-risk situations) with the military suggest that dropout rates could be similar.

The literature is scarce on the mental health concerns of active and retired CAF members and PSP seeking treatment for PTSD and substance use disorders. By gaining in-depth understanding of the unique trauma and non-trauma-related issues among military and public safety personnel, we can work to enhance the effectiveness of focused treatment programs designed for active and retired CAF members and PSP.

The purpose of this study was to gain a comprehensive understanding of the experiences of treatment-seeking individuals in these occupations. Our sample included CAF members on medical leave, CAF veterans and PSP, all seeking inpatient mental health treatment.

This article provides a descriptive overview of the themes and issues identified as most relevant for PSP and military members and veterans relating to moral injury and their mental health.

#### Methods

#### Design

We used a phenomenological focus groupbased approach to better understand participants' first-hand experiences in their military/PSP careers and the impact of these experiences on their relationships and mental health. We used focus group discussions to draw out participants' lived experiences as CAF members and PSP, to elucidate how subjective experiences can reveal shared nuances and themes within these professions. <sup>19</sup> We paired this method of data collection with a thematic analysis of the data, to descriptively identify similarities and differences in the data set, and to highlight key shared features. <sup>20</sup>

#### Ethics approval

We obtained institutional ethics approval from Homewood Health Centre (REB #18-08).

#### Setting

We conducted the study in a private mental health and addictions inpatient residential treatment facility in Canada. The facility offers group-based treatment to adults (18+ years old) for substance use disorders, trauma and anxiety-related disorders. Treatment included emotion regulation skills, cognitive behavioural skills, dialectical behavioural interventions, group and individual therapy sessions, and creative activities such as gardening.

#### **Demographics**

We conducted 26 focus groups with 63 self-identified active or retired CAF members and PSP receiving treatment for trauma and/or substance use disorders. Participant recruitment was conducted in the treatment units. The only reason for exclusion from the focus groups was that participants could not be in their first week of inpatient treatment, to allow for a period of emotional adjustment to the facility environment.

Eligible individuals interested in participating in the focus groups were asked to meet with one of the researchers beforehand to learn about the purpose of the focus group interviews and to give informed consent. In total, 48 men and 15 women participated in at least one focus group, though many individuals participated in multiple groups.

Three different sets of question guides were used for the focus groups. The question guides were rotated each week, which is why some participants chose to engage in multiple focus group sessions. Of note, 2 male participants did not provide demographic data (see Table 1). Of the remaining participants, 19 were police

TABLE 1 Demographics of focus group participants  $(n = 63)^a$ 

Demographics	n (%)	
Median age: 45.5 (range: 29–80) years	-	
Sex/gender $(n = 63)^a$		
Male	48 (76)	
Female	15 (24)	
Marital status (n = 61)		
Married	34 (56)	
Separated/divorced	14 (23)	
Single	9 (15)	
Declined to respond	4 (7)	
Occupation (n = 61)		
Police	19 (31)	
CAF (active member or veteran)	10 (17)	
Correctional officer	10 (17)	
Paramedic	9 (15)	
Firefighter	6 (10)	
Other (e.g. emergency dispatch, CBSA)	7 (11)	
Work status (n = 61)		
Full-time/disability	45 (74)	
Retired/suspended/unemployed	11 (18)	
Declined to respond	5 (8)	
Ethnicity (n = 61)		
White	50 (82)	
Other	6 (10)	
Declined to respond	5 (8)	
Mean PCL-5 Score (SD) (n = 59)	53 (14.75)	
Mean ACE Score (SD) (n = 59)	3.1 (2.42)	

Abbreviations: ACE, Adverse Childhood Experiences; CAF, Canadian Armed Forces; CBSA, Canada Border Services Agency; PCL-5, posttraumatic stress disorder checklist for the *Diagnostic and Statistical Manual of Mental Disorders* (DSM–5); SD, standard deviation.

officers (including municipal forces, provincial police services and Royal Canadian Mounted Police); 10 were CAF members/veterans, 10 were correctional officers; 9 were paramedics; 7 were in the "other" category, meaning that they had multiple PSP roles (e.g. began career in CAF, then became a police officer; emergency dispatch); and 6 were firefighters. Active and retired PSP and CAF members took part in the study.

The median age of participants was 45.5 (range: 29–80) years.

Focus groups were conducted once per week, lasted approximately one hour, and included 4 to 16 participants each. Because anyone who had consented to participate was welcome to attend as

frequently as they wanted, the focus groups included a mix of occupations, ages (18+) and sex/genders.

Groups were facilitated by two clinicians (CO and SV) trained to a master's or doctoral level, with multiple years of experience working with these populations. Interviewers adopted a facilitative rather than interrogative stance to encourage rich discussion and participation. While one researcher facilitated, the other observed, noting any non-verbal cues; the observer was also available for any questions to do with the research study.

The clinicians facilitated the focus groups using semistructured question guides. The discussions were audiorecorded with participant consent, and the recordings professionally transcribed verbatim. The questions asked about specific challenges and stressors associated with participants' jobs that affected their lives, including effects on relationships, stigma, potential moral injury, treatment expectations and treatment experiences.

In addition to informed consent forms, participants were asked to complete a demographics form, the PTSD checklist for the Diagnostic and Statistical Manual of Mental Disorders (PCL-5)21 and the Adverse Childhood Experiences (ACE) questionnaire<sup>22</sup>. The PCL-5 is a 20-item self-report questionnaire assessing symptoms of PTSD as per Diagnostic and Statistical Manual of Mental Disorders (DSM-5) criteria.21,23 The ACE questionnaire is a 10-item self-report measure designed to identify experiences of childhood abuse and neglect.<sup>22</sup> These questionnaires were included as part of the treatment intake battery to clarify participants' history of trauma. Results of these self-report questionnaires are included in order to account for the severity of trauma history in this sample.

We used an inductive, interpretive phenomenological approach to qualitatively examine the transcripts for further thematic analysis. Interpretive phenomenology is commonly used to explore insights from a given person on how a phenomenon relates to personally significant experiences. We chose a phenomenological approach because we were particularly interested in understanding participants' interpretations of their experiences as CAF members and/or PSP. This approach allowed us to group together individual interpretations of events to establish a broader understanding of the daily life conditions of members of these populations using an inductive approach.24 Sampling was purposive, as participants were chosen because of their experience as military members or PSP and their current engagement in inpatient psychiatric

Three members of the research team (AB, BE, HM) independently assessed transcripts, noting initial ideas for terms that represented dominant themes in the data. A coding scheme was developed using Miles and Huberman's techniques of data reduction, data display and conclusion drawing/verification.<sup>25</sup> The researchers identified primary themes based on participant

 $<sup>^{</sup>a}$ Two focus group participants gave no demographic information other than their sex/gender. Therefore, unless noted, all other rows n = 61, and percentages are calculated based on the number of respondents to that question.

discussions throughout the process; they included these into a coding scheme once all three coders reached consensus agreement. Any disagreements between coders were resolved through team discussion. Independent parallel coding was conducted, with two coders evaluating the same sample of raw text to revise and refine the category system, ensuring transferability, dependability and conformability of the coding scheme.

#### Results

#### Demographics

Of the 59 participants who completed the questionnaires (4 individuals chose not to), the mean (standard deviation [SD]) total score on the PCL-5 was 53 (14.75). Of these 59 participants, 53 (90%) scored above the cutoff of 33 that indicates symptoms consistent with probable PTSD.21 In addition, 50 (85%) met the DSM-5 criteria for a provisional diagnosis of PTSD. The mean (SD) score on the ACE was 3.1 (2.42) out of 10 positive indications; 48 (82%) participants selected one or more items, and 24 (41%) selected four or more items. Individuals who experience four or more adverse childhood categories, when compared to those who experience none, have a 4- to 12-fold increased risk for substance use disorders, depression and other mental health disorders.<sup>22</sup>

#### **Qualitative themes**

We extracted four primary themes from the data with supporting quotes: relationships; identity; mental health toll; and potential moral injury.

#### Relationships

Participants discussed relationships at length during the focus groups. The discussions were multifaceted, and experiences in one relationship domain (e.g. family) often seemed to blend into others (e.g. peers). Issues to do with trust and feelings of isolation and lack of understanding were pervasive throughout all relationship domains, while support from peers provided the benefit of understanding without judgment.

Family was a central point of discussion throughout many of the focus groups. Participants reported that demanding work schedules reduced their participation in family dynamics and made it difficult to separate work experiences from home life. They attributed the difficulties in separating work and home life to shift work, long hours and the constant stress associated with the critical, typically timesensitive decision-making often required in their work. Participants described their jobs as physically and emotionally exhausting, which made it difficult to be empathetic at home as the challenges faced in civilian life seemed trivial in comparison. As one participant explained:

You don't have empathy for [your spouse's problems at home] because you spend all day crushing all your feelings and empathy because you have to, because that's your job, so you don't—it's not like a switch you can turn on and off, it's too big of a stretch and a demand to be able to do that. You'd almost need a split personality to have an effective work life and an effective home life.

This quote exemplifies the frustration felt when trying to communicate with family and friends. Participants reported frequent communication breakdowns as it became increasingly challenging to interact and communicate with loved ones while coping with work-related stress. Many described a decrease in empathy, leading to noticeably reduced tolerance of others.

Relationships with friends and acquaintances were difficult to navigate for many participants, partly because they felt their occupations became their primary identity when they were in social situations. Many said that they had been asked to describe "the worst thing you've ever seen," a potential trigger for those who have experienced PPTEs. The inability to escape the perception that their sole identity was as military or public safety personnel led many to feel that their civilian friends and acquaintances could not truly understand them because their experiences were "impossible" for civilians to relate to. Feeling misunderstood by the civilian community left many with a sense of isolation.

Many participants explicitly described difficulties drawing on their emotions to connect with others. Some explained that they used "dark humour," such as jokes about dying or other PPTE, as a type of coping mechanism, which they felt further isolated them from their civilian

counterparts who saw no humour in such expressions.

Many participants found their coworkers and individuals in other military or public safety services to be a significant source of support. Several explained that their lived experiences were only truly understood by other military members or veterans and first responders, which made it easier to maintain these friendships. Many said that they could "be themselves" around others within CAF/PSP because they understood what it was like to work in high-stress environments where exposure to PPTE was common. Conversely, some individuals indicated that colleagues could also become sources of stress or triggers because their relationships with them centred around shared experiences.

#### Identity

Overwhelmingly, participants said that their occupations had become a critical part of their identity. Many had a great sense of pride in their work and an ingrained need to help others even if they were no longer on active duty. Feeling that their identity was so closely tied to their job made some feel unsure of their identity when they were no longer able to perform work-related duties. One participant's statement provided insight into how crucial individuals considered their identity as CAF members or PSP, especially those who were on medical leave and hoping to eventually return to work: "Firefighting is who I am and it's what I do, and when I can no longer do it ... life ends."

Alongside a shift in identity, many participants described how their job had changed their view of the world. For example, "It's almost like you have a filter for the outside world now and your filter changes because it's been blocked by this [work experiences] and you can't help but see the world differently."

Participants specifically noted that the challenges of their jobs had led them to hold a more negative world view than before they began their career in the CAF or as PSP. Many now expected the worst from the individuals with whom they interacted, and they were cynical of both the system in which they worked and of those whom they helped. In some, this lack of trust and cynicism decreased their capacity to be empathetic, "...like a callus over your emotions, just like you would

get from lifting, you know, calluses on your hands. It's the same thing, like a callus over your emotions." This quote exemplifies the difficulty in expressing emotions that some participants felt was related to the PPTEs to which they were repeatedly exposed. The participants indicated that this difficulty expressing emotions was not something they had always had, but that it had developed over the course of their careers and caused them to become embittered about the utility of discussing their emotional reactions.

#### Mental health toll

Participants described the mental health toll of PSP and military careers as over-whelmingly negative. Many described having symptoms typically associated with emotional dysregulation, such as hypervigilance, agitation and disproportional anger:

Say the regular everyday stuff that people go through that is traumatic to them—whether it's my spouse or friends or somebody else—and they're talking about some stress that they've gone through and then I get angry because I think, "Well, that's your problem?! That's what your worst day is?!"

Some participants acknowledged that this "flip of the switch" anger was disproportional to the "inconsequential" stressors. Some individuals said that their emotional outbursts were driven by the need to protect loved ones, including attempting to shelter family from their symptoms of PTSD. "I'd rather be a disaster inside," a 30-year-old participant imparted, "than have, you know, my [spouse] or my family members be a disaster by having them see it as well."

Research indicates there may be an association between severity of veterans' PTSD symptoms and degree of intimate partners' caregiver burden. 26,27 As 90% of focus group participants (n = 53/59) scored above threshold levels for symptoms of PTSD, it is likely that their intimate partners experienced caregiver burden, even if the participant attempted to shield their family from their PTSD symptoms. Although participants believed that keeping their work experiences from their family protected them from vicarious trauma, this secrecy also reduces the family's ability to provide support. 28 As levels

of perceived support decrease, levels of depression and traumatic stress symptoms among PSP appear to simultaneously increase.<sup>28</sup>

Another emotional symptom discussed at length was the participants' current feeling of isolation. Participants said that they typically did not discuss their traumas with their families for fear of "burdening" them with the details, and that when their CAF/PSP colleagues were unavailable it was "just very isolating." While some said they understood the difficulties their peers face in reaching out, they nevertheless longed for a sense of connectedness. As many felt that their social circle primarily comprised individuals in the same career, lack of contact from those within the organizations, especially while the participant was in treatment or on medical leave, only served to increase feelings of isolation and abandonment related to their mental health diagnosis.

The participants talked about the different mechanisms used to cope with the mental health toll of their occupations, including the culture of using alcohol to deal with negative emotions surrounding difficult events. Although the participants were unanimous about the mental health toll of coping with exposure to PPTE, some of the coping mechanisms they had adopted, such as dark humour, had led to further isolation from relationships as these coping mechanisms were considered neither commonplace nor appropriate in civilian relationships.

#### **Potential moral injury**

Many participants said they had feelings of shame and guilt across relationships, mental health and sense of identity, as well as an overwhelming sense of betrayal by many different entities, including management. Feelings of shame and guilt were frequently identified in relation to decisions made while on the job or the inability to make critical decisions due to "red tape" and other administrative constraints. Such feelings of shame and guilt have been identified as crucial components of moral injury.<sup>29</sup>

Some participants described potentially morally injurious situations and events they had experienced, including witnessing tragic outcomes or having to make decisions that resulted in loss of life. Others felt that it was the high frequency of difficult decisions made over time that lead to their feelings of shame and guilt. For example, one participant explained how the consequences of smaller decisions made over the course of years could have a large, cumulative effect:

It's that moral, those moral injuries right...it's not one trauma, I liken it to, it's that getting that little rock in your shoe where you can walk 10 steps and kick it out, and it's okay, 10 more steps you get another pebble in your shoe... You do that over 10 years, you walk around with those pebbles in your shoes, it's going to irritate you after a while, and that's what I find in my experience, that's what kills me. And some of the big things are the straw that breaks the camel's back, [but] sometimes it's small.

A feeling of betrayal was a concept brought up in many different forms. Some participants said they felt that their organization did not care about them as people. According to one, "...they squeeze as much out of you as they can, then when you break, they just throw you away." Others felt a distinct difference between the supports purported to be offered and the supports that they received or that were available: "Like, just having the lack of support. Like, they say they do all these great things for us and, they don't. They don't care one single bit." These feelings of betrayal exacerbated their frustration with the "political red tape" associated with careers in the CAF and public safety organizations.

These insights provide evidence that potential moral injuries incurred during service in these professions may be prevalent in treatment-seeking populations, even if not explicitly discussed.

#### Discussion

The objective of this study was to gain a comprehensive understanding of the experiences faced by treatment-seeking active and retired military members and PSP who attended a single inpatient psychiatric facility. In this article, we provide an overarching synopsis of themes related to moral injury and mental health. To enhance the effectiveness of treatments for active and retired CAF members and PSP, it is critical to consider these themes

(i.e. relationships, identity, mental health toll and potential moral injury) throughout treatment and recovery, and to consider the role of these themes in successful therapeutic interventions in these populations.

#### Relationships

Research on the work–family lives of PSP is lacking.<sup>30,31</sup> Existing research indicates that PSP employment has a negative impact on families, partners and relationships.<sup>30-32</sup> Aspects of PSP employment that affect family life include occupational stress, exposure to PPTE and shift work.<sup>30-32</sup> These factors are also associated with higher parenting stress and lower parenting satisfaction.<sup>32</sup>

Our study expands current knowledge of work-family lives of PSP by providing details about the impacts PSP and military careers have on relationships and sense of personal identity. Our research also describes the importance of relationships developed within these occupations. Many participants described the social support of other military or public safety personnel as a positive influence through their ability to empathize without judgment and provide opportunities for emotional disclosure. Of note, interpersonal conflicts with coworkers and role-related stressors were both considered to be significant in affecting mental health. This aligns with current research showing that the social support of peers appears to be extremely beneficial, while interpersonal conflict with coworkers is associated with negative mental health outcomes, including increased rates of PTSD and substance use disorders.33,34 Social supports have also been cited as a robust factor negatively associated with PTSD symptoms35 and positively associated with better dyadic functioning36. Specific social supports associated with protective effects are therefore a critical area for future research in CAF and PSP populations.

Lack of mutual understanding was another relational factor echoed by participants in our focus groups; they had difficulty understanding "civilian problems," and loss of meaning in life following discharge or retirement from service was commonplace. The perceived lack of understanding between military members/PSP and civilians may serve to isolate people in

these occupations and increase their feelings of identity loss when transitioning into civilian life.

#### Identity

This study provides insight into how being in public safety or military occupations can affect one's identity. Participants frequently mentioned how their careers had shaped their personal identities and that no longer actively participating in CAF/PSP duties was tied to feelings of uncertainty and loss. Such feelings may be compounded by the perception of profound differences between CAF/PSP culture and civilian life, where caregiving, thrill seeking and sense of duty are less common career components.37 For CAF veterans, successfully adjusting back into civilian society is often impeded by having negative perceptions of civilian society, feeling excluded as a result of their military service, feeling the loss of a military "brotherhood\*" and having difficulties with finding meaning in the civilian world.38,39 It is therefore imperative that individuals transitioning to non-military or non-public safety careers reframe their views of and relationship with civilian life. Key areas of support include encouragement in shaping identities outside of the CAF/PSP spheres, and improving perceptions of civilian group belonging.

#### Mental health toll

Focus group participants described their difficulties with regulating emotions and actively engaging with others, being hypervigilant in scenarios where such behaviour was unnecessary and using substances as a method of coping with exposure to PPTE. The primary symptoms captured in the phenomenological experiences of this treatment population largely map onto the DSM-5 symptom criteria of PTSD and substance use disorders.40 Specifically, participants described intrusion symptoms, avoidance reactions, marked changes in reactivity and negative alterations in their cognitions and mood following exposure to PPTEs throughout their careers. These experiences emerging as primary themes further validate the necessity of appropriate treatment strategies that adequately identify and mitigate these symptoms.

Further, avoidance of social interaction, which was a commonly discussed outcome in this study, may affect participants' families in the form of ambiguous loss, that is, the experience of psychological absence while a loved one is physically present.<sup>41</sup> Ambiguous loss has been associated with psychological distress in intimate partners<sup>42</sup>, and could further exacerbate feelings of isolation, as well as increase strain on familial relationships.

#### Potential moral injury

Participant discussions suggest that they may have been coping with potential moral injuries developed as a result of their experiences in the field. Many participants described pervasive feelings of shame, guilt, anger and betrayal due to their experiences during their time as CAF members or PSP; these feelings are critical components of moral injury.<sup>12</sup>

Previous studies indicate that 70.5% of CAF members know someone who was seriously injured or killed, and that 43% have seen "ill or injured women or children whom [they] were unable to help"11,p.4 during deployment. Similarly, surveyed law enforcement officers have reported that harming others (perpetrators or colleagues) would be the most stressful experience to cope with in their line of duty.43,44 Severely injuring a perpetrator has also been identified as a risk factor for development of PTSD among police officers.45 Emergency Medical Service (EMS) personnel have also described seeing a family member or friend at the scene of an accident or seeing someone seriously injured or killed as extremely distressing.46

Violent PPTEs are commonly considered the most distressing events for both CAF and PSP personnel, and may be involved in the development of moral injury and other mental health disorders in both populations. 47,48 In addition, occupational stressors may further exacerbate mental health symptoms.48 Although empirical evidence regarding prevalence of moral injury in PSP is lacking, many of our participants indicated feelings of shame or guilt related to events that could be classified as morally injurious. These analogous experiences provide anecdotal insights into the potential moral injuries associated with service in the CAF or as PSP and highlight the importance of further

 $<sup>^{\</sup>ast}$  This term was used by both male and female participants.

examination of moral injury in both contexts. This also exemplifies the need to explicitly address moral injury during therapeutic treatment in CAF/PSP populations.

#### Limitations and future directions

Because research participants were inpatients recruited using a purposive sampling method, our findings cannot be generalized to all military members, veterans or PSP seeking inpatient psychiatric treatment. Secondly, the intent of a phenomenological approach is to examine how individuals perceive meaning of an event or phenomenon, rather than develop theories or generalizations about entire populations. In this case, we examined how active and retired CAF members and PSP, regardless of sex/gender or age, perceived their careers as influencing different areas of their lives. Critically, the conclusions of phenomenological inquiry depend on the participants chosen; as such, this study may have excluded information regarding experiences in different branches, municipalities or deployments.

Finally, we chose to combine the experiences of active and veteran military and public safety personnel because they were receiving treatment in a single, combined program, and because many of their difficulties were similar across careers (CAF vs. policing vs. firefighters). Despite responses being similar across occupations, research shows that CAF treatment outcomes differ from that of the general population and therefore may also differ from PSP expectations and outcomes. 49 As such, combining data from CAF veterans and PSP may have unintentionally diluted specific treatment experiences and concerns of each profession. Further research into treatment-seeking CAF and PSP populations is necessary to elucidate whether differences exist between them.

This article provides an overarching view of the areas that active and retired military members and PSP identify as having the greatest impact on their mental health. As the mean total score on the PCL-5 was 53 and a typical cutoff score for provisional diagnosis of PTSD is between 31 to 33,<sup>21</sup> it is clear this sampled population was experiencing severe trauma-related symptoms. Future research should examine whether the themes discussed are equally important to active and retired military members and PSP, and to those experiencing less acute distress. In addition, each of

these themes requires further exploration. Future research is also needed to understand how to best include families and spouses in treatment to address the feelings of isolation participants identified.

#### Conclusion

Participants discussed relationships, identity, mental health toll and potential moral injury as critical areas that affect self-perception, evaluation of their role in society, and their ability to connect with civilians. These areas were identified as crucial to participants' recovery and should be addressed specifically during mental health treatment for these populations. Our findings affirm that treatment-seeking individuals view specific mental health programming for active and retired CAF members and PSP as beneficial, due, in part, to the unique challenges they face throughout their careers.

#### **Conflicts of interest**

None to declare.

#### Acknowledgements

The authors would like to thank the military members and veterans and public safety personnel who participated in the focus group sessions. We would also like to thank the numerous health care workers, senior administrators and staff members of Homewood Healthcare who assisted with successful completion of this project, along with the staff of Homewood Research Institute.

Dr. Margaret McKinnon serves as the Homewood Chair in Mental Health and Trauma at McMaster University.

## **Authors' contributions and statement**

SVB, RL, AH, MM, AB and CO were integral in the conceptualization and design of the project. AB, BE, SVB and CO conducted focus groups and collected the data. AB, HM and BE analyzed and interpreted the findings. BE drafted the initial manuscript. BE, AB, HM, SVB, AH, MM, RL and CO all revised the paper and approve its submission in its current form.

The content and views in this article are those of the authors and do not necessarily reflect those of the Government of Canada.

#### References

- 1. Oliphant RC. Healthy minds, safe communities: supporting our public safety officers through a national strategy for operational stress injuries: report of the Standing Committee on Public Safety and National Security. Ottawa (ON): House of Commons; 2016.
- 2. Statistics Canada. The Daily:
  Canadian Armed Forces members
  and Veterans Mental Health Follow-up
  Survey, 2018 [Internet]. Ottawa (ON):
  Statistics Canada; [released 2019 Apr
  23; cited 2021 Aug 9]. Available from:
  <a href="https://www150.statcan.gc.ca/n1/daily-quotidien/190423/dq190423d-eng.htm">https://www150.statcan.gc.ca/n1/daily-quotidien/190423/dq190423d-eng.htm</a>
- 3. Van Til LD, Sweet J, Poirier A, et al. Well-being of Canadian Regular Force veterans, findings from LASS 2016 survey. Charlottetown (PE): Veterans Affairs Canada Research Directorate; 2017.
- 4. Carleton RN, Afifi TO, Turner S, et al. Mental disorder symptoms among public safety personnel in Canada. Can J Psychiatry. 2018;63(1):54-64. https://doi.org/10.1177/07067437177 23825
- 5. Pearson C, Janz T, Ali J. Health at a glance: Mental and substance use disorders in Canada. Ottawa (ON): Statistics Canada; 2013 [Statistics Canada, Catalogue no. 82-624-X].
- 6. Galloucis M, Silverman MS, Francek HM. The impact of trauma exposure on the cognitive schemas of a sample of paramedics. Int J Emerg Ment Health. 2000; 2(1):5-18.
- McCaslin SE, Rogers CE, Metzler TJ, et al. The impact of personal threat on police officers' responses to critical incident stressors. J Nerv Ment Dis. 2006;194(8):591-7. <a href="https://doi.org/10.1097/01.nmd.0000230641">https://doi.org/10.1097/01.nmd.0000230641</a> .43013.68
- Sareen J, Cox BJ, Afifi TO, et al. Combat and peacekeeping operations in relation to prevalence of mental disorders and perceived need for mental health care. Arch Gen Psychiatry. 2007;64(7):843-52. <a href="https://doi.org/10.1001/archpsyc.64.7.843">https://doi.org/10.1001/archpsyc.64.7.843</a>

- Fullerton CS, Ursano RJ, Wang L. Acute stress disorder, posttraumatic stress disorder, and depression in disaster or rescue workers. Am J Psychiatr. 2004;16(8):1370-6. <a href="https://doi.org/10.1176/appi.ajp.161.8.1370">https://doi.org/10.1176/appi.ajp.161.8.1370</a>
- 10. Kleim B, Westphal M. Mental health in first responders: a review and recommendation for prevention and intervention strategies. Traumatology. 2011;17(4):17-24. <a href="https://doi.org/10.1177/1534765611429079">https://doi.org/10.1177/1534765611429079</a>
- 11. Nazarov A, Fikretoglu D, Liu A, Thompson M, Zamorski MA. Greater prevalence of post-traumatic stress disorder and depression in Canadian Armed Forces personnel at risk for moral injury. Acta Psychiatr Scand. 2018;137(4):342-54. <a href="https://doi.org/10.1111/acps.12866">https://doi.org/10.1111/acps.12866</a>
- Litz BT, Stein N, Delaney E, et al. Moral injury and moral repair in war veterans: preliminary model and intervention strategy. Clin Psychol Rev. 2009;29(8):695-706. <a href="https://doi.org/10.1016/j.cpr.2009.07.003">https://doi.org/10.1016/j.cpr.2009.07.003</a>
- 13. Lewis HB. Shame and guilt in neurosis. New York (NY): International Universities Press; 1971.
- 14. Statistics Canada. The Daily: Canadian Forces Mental Health Survey, 2013 [Internet]. Ottawa (ON): Statistics Canada; [released 2014 Aug 11; cited 2021 Aug 9]. Available from: <a href="http://www.statcan.gc.ca/daily-quotidien/140811/dq140811a-eng.htm">http://www.statcan.gc.ca/daily-quotidien/140811/dq140811a-eng.htm</a>
- Nazarov A, Jetly R, McNeely H, Kiang M, Lanius R, McKinnon MC. Role of morality in the experience of guilt and shame within the armed forces. Acta Psychiatr Scand. 2015;132(1):4-19. https://doi.org/10.1111/acps.12406
- Stewart CL, Wrobel TA. Evaluation of the efficacy of pharmacotherapy and psychotherapy in treatment of combat-related post-traumatic stress disorder: a meta-analytic review of outcome studies. Mil Med. 2009; 174(5):460-9. <a href="https://doi.org/10.7205/milmed-d-04-1507">https://doi.org/10.7205/milmed-d-04-1507</a>

- 17. Smith NB, Sippel LM, Rozek DC, Hoff RA, Harpaz-Rotem I. Predictors of dropout from residential treatment for posttraumatic stress disorder among military veterans. Front Psychol. 2019;10:362. https://doi.org/10.3389/fpsyg.2019.00362
- 18. Sudom K, Zamorski M, Garber B. Stigma and barriers to mental health care in deployed Canadian Forces personnel. Mil Psychol. 2012;24(4): 414-31. <a href="https://doi.org/10.1080/08995605.2012.697368">https://doi.org/10.1080/08995605.2012.697368</a>
- 19. Bush EJ, Singh RL, Kooienga S. Lived experiences of a community: merging interpretive phenomenology and community-based participatory research. Int J Qual Methods. 2019;18:1-12. https://doi.org/10.1177/1609406919875891
- Nowell LS, Norris JM, White DE, Moules NJ. Thematic analysis: striving to meet the trustworthiness criteria. Int J Qual Methods. 2017; 16(1):1-13. <a href="https://doi.org/10.1177/1609406917733847">https://doi.org/10.1177/1609406917733847</a>
- 21. Weathers F, Litz B, Keane T, Palmieri PA, Marx BP, Schnurr PP. PTSD checklist for DSM-5 (PCL-5) [Internet]. Scale available from the National Center for PTSD; 2013 [updated 2021 Oct 18; cited 2021 Aug 9]. Available from: <a href="https://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp">www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp</a>
- 22. Felitti VJ, Anda R, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. Am J Prev Med. 1998;14(4):245-58. https://doi.org/10.1016/s0749-3797(98)00017-8
- 23. Wortmann JH, Jordan AH, Weathers FW, et al. Psychometric analysis of the PTSD Checklist-5 (PCL-5) among treatment-seeking military service members. Psychol Assess. 2016;28(11): 1392-403. <a href="https://doi.org/10.1037/pas0000260">https://doi.org/10.1037/pas0000260</a>
- 24. Webb AS, Welsh AJ. Phenomenology as a methodology for scholarship of teaching and learning research. Teach Learn Inq. 2019;7(1):168-81. <a href="https://doi.org/10.20343/teachlearninqu.7">https://doi.org/10.20343/teachlearninqu.7</a>.1.11

- 25. Miles MB, Huberman AM. Qualitative data analysis: an expanded sourcebook. 2nd ed. Thousand Oaks (CA): Sage Publications, Inc; 1994.
- 26. Calhoun PS, Beckham JC, Bosworth HB. Caregiver burden and psychological distress in partners of veterans with chronic posttraumatic stress disorder. J Trauma Stress. 2002; 15(3):205-12. https://doi.org/10.1023/A:1015251210928
- 27. Beks TA. Walking on eggshells: the lived experience of partners of veterans with PTSD. Qual Rep. 2016; 21(4):645-660. https://doi.org/10.46743/2160-3715/2016.2269
- 28. Regehr C. Social support as a mediator of psychological distress in firefighters. Ir J Psychol. 2009;30(1-2): 87-98. <a href="https://doi.org/10.1080/03033910.2009.10446300">https://doi.org/10.1080/03033910.2009.10446300</a>
- 29. Bryan CJ, Bryan AO, Anestis MD, et al. Measuring moral injury: psychometric properties of the moral injury events scale in two military samples. Assessment. 2016;23(5):557-70. https://doi.org/10.1177/1073191115590855
- 30. Cowlishaw S, Evans L, McLennan J. Work-family conflict and crossover in volunteer emergency service workers. Work Stress. 2010;24(4):342-58. https://doi.org/10.1080/02678373.2010.532947
- 31. Roth SG, Moore CD. Work-family fit: The impact of emergency medical services work on the family system. Prehosp Emerg Care. 2009;13(4):462-8. https://doi.org/10.1080/10903120903144791
- 32. Shreffler KM, Meadows MP, Davis KD. Firefighting and fathering: workfamily conflict, parenting stress, and satisfaction with parenting and child behavior. Fathering. 2011;9(2):169-88. https://doi.org/10.3149/fth.0902.169
- 33. Pflanz SE, Ogle AD. Job stress, depression, work performance, and perceptions of supervisors in military personnel. Mil Med. 2006;171(9):861-5. <a href="https://doi.org/10.7205/milmed.171.9.861">https://doi.org/10.7205/milmed.171.9.861</a>

- 34. Ketcheson F, King L, Richardson JD. Association between social support and mental health conditions in treatment-seeking veterans and Canadian Armed Forces personnel. J Mil Veteran Fam Health. 2018;4(1):20-32. https://doi.org/10.3138/jmvfh.2017-0001
- 35. Proescher E, Aase DM, Passi HM, Greenstein JE, Schroth C, Phan KL. Impact of perceived social support on mental health, quality of life, and disability in post–9/11 U.S. military veterans. Armed Forces Soc. 2020; 48(1):115-35. https://doi.org/10.1177/0095327X20919922
- 36. Cederbaum JA, Wilcox SL, Sullivan K, Lucas C, Schuyler A. The influence of social support on dyadic functioning and mental health among military personnel during postdeployment reintegration. Public Health Rep. 2017;132(1):85-92. <a href="https://doi.org/10.1177/0033354916679984">https://doi.org/10.1177/0033354916679984</a>
- Donnelly EA, Siebert D, Siebert C.
   Development of the emergency medical services role identity scale (EMS-RIS). Soc Work Health Care. 2015; 54(3):212-33. <a href="https://doi.org/10.1080/00981389.2014.999979">https://doi.org/10.1080/00981389.2014.999979</a>
- 38. Zoli C, Maury R, Fay D. Missing perspectives: service members' transition from service to civilian life—datadriven research to enact the promise of the post-9/11 GI bill [Internet]. Syracuse (NY): Institute for Veterans & Military Families, Syracuse University; 2015 [cited 2021 Aug 9]. Available from: <a href="https://surface.syr.edu/cgi/viewcontent.cgi?article=1006">https://surface.syr.edu/cgi/viewcontent.cgi?article=1006</a> &context=ivmf
- 39. Orazem RJ, Frazier PA, Schnurr PP, et al. Identity adjustment among Afghanistan and Iraq war veterans with reintegration difficulty. Psychol Trauma. 2017;9(Suppl 1):4-11. <a href="https://doi.org/10.1037/tra0000225">https://doi.org/10.1037/tra0000225</a>
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington (DC): American Psychiatric Association; 2013.

- 41. Boss P. Ambiguous loss theory: challenges for scholars and practitioners. Fam Relat. 2007;56(2):105-10. https://doi.org/10.1111/j.1741-3729.2007.00444.x
- 42. Yambo TW, Johnson ME, Delaney KR, Hamilton R, Miller AM, York JA. Experiences of military spouses of veterans with combat-related post-traumatic stress disorder. J Nurs Scholarsh. 2016;48(6):543-51. https://doi.org/10.1111/jnu.1223
- 43. Weiss DS, Brunet A, Best SR, et al. Frequency and severity approaches to indexing exposure to trauma: the critical incident history questionnaire for police officers. J Traum Stress. 2010;23(6):734-43. <a href="https://doi.org/10.1002/jts.20576">https://doi.org/10.1002/jts.20576</a>
- 44. Chopko BA, Palmieri PA, Adams RE. Critical incident history questionnaire replication: frequency and severity of trauma exposure among officers from small and midsize police agencies. J Trauma Stress. 2015;28(2):157-61. https://doi.org/10.1002/jts.21996
- 45. Komarovskaya I, Maguen S, McCaslin SE, et al. The impact of killing and injuring others on mental health symptoms among police officers. J Psychiatr Res. 2011;45(10):1332-6. https://doi.org/10.1016/j.jpsychires .2011.05.004
- Donnelly EA, Bennett M. Development of a critical incident stress inventory for the emergency medical services. Traumatology. 2014;20(1):1-8. <a href="https://doi.org/10.1177/15347656">https://doi.org/10.1177/15347656</a>

   13496646
- 47. Carleton RN, Afifi TO, Taillieu T, et al. Exposures to potentially traumatic events among public safety personnel in Canada. Can J Behav Sci. 2019; 51(1):37-52. <a href="https://doi.org/10.1037/cbs0000115">https://doi.org/10.1037/cbs0000115</a>
- 48. Carleton RN, Afifi TO, Taillieu T, et al. Assessing the relative impact of diverse stressors among public safety personnel. Int J Environ Res Public Health. 2020;17(4):1234. https://doi.org/10.3390/ijerph17041234

49. Straud CL, Siev J, Messer S, Zalta AK. Examining military population and trauma type as moderators of treatment oucome for first-line psychotherapies for PTSD: a meta-analysis. J Anxiety Disord. 2019;67:102133. https:// doi.org/10.1016/j.janxdis.2019.102133