The Effects of Posttraumatic Stress Disorder and Vicarious Trauma on Significant Relationships in First Responder Populations

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Abstract

Posttraumatic stress disorder (PTSD) is a well-known reaction to trauma. Vicarious trauma is a subsequent reaction to indirect trauma. This literature review explores PTSD and the vicarious effects of trauma on the significant relationships of public safety personnel (PSP). Public safety personnel, such as police, firefighters, corrections officers, and paramedics, are regularly exposed to traumatic events in their lines of work and are thus at higher risk for developing PTSD. The occupational stressors of front-line work permeate the personal lives of frontline workers and affect their significant relationships. This literature review examines the current gold standard treatments for trauma, including eye movement desensitization and reprocessing (EMDR), cognitive processing therapy (CPT), trauma-focused cognitive behaviour therapy (CF-CBT) and exposure therapy. This review suggests opportunities for including the significant partners of first responders in treatment and argues for individual specialized treatment for partners. This review reveals a gap in research regarding treatments for vicarious trauma in this vulnerable population, and suggests several recommendations for counselling practice. Finally, this review expands the view of the trauma lens to recognize the permeability of PTSD and its vicarious effects on those in proximity, further advocating for inclusive treatment. Future research recommendations include resilience factors for significant partners, gold standard treatment methods for vicarious trauma, and significant partners' inclusion within therapy for PTSD in first responder populations.

Keywords: posttraumatic stress disorder, relationship distress, first responders, public safety personnel, couples therapy, trauma therapy, vicarious trauma

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There is an equilibrium within each relationship whereby both partners performs their roles; doing so generates a functional state in the relationship (Johnson & Wu, 2004). When one partner's mental health is disturbed, it disturbs the relationship equilibrium, and affects the mental state of the other partner (Johnson & Wu, 2004). Posttraumatic Stress Disorder (PTSD) affects an individual's ability to find pleasure in significant activities that are typically enjoyable, and thus many PTSD symptoms have a direct impact on significant relationships of impacted individuals. PTSD symptoms such as emotional numbness, hostility, withdrawal, and an inability to maintain a sexual relationship create a sense of rejection and frustration for the partners of individuals who have PTSD (Ben Arzi et al., 2000; Ricciardelli et al., 2018).

Not only does living with trauma lead to relationship strain, but Ben Arzi et al. (2000) suggest there is a growing body of evidence that indicates that the intimate partners of individuals experiencing PTSD report higher rates of psychopathologies. For example, depression, anxiety and other problems occur more frequently than in intimate partner relationships where one partner does not have PTSD (Ben Arzi et al., 2000; Al-Turkait & Ohaeri, 2008). While an individual experiencing PTSD can affect the whole family, some studies suggest that the spouses of PTSD casualties assume a considerable burden of stress (Ben Arzi et al., 2000; Solomon et al., 2009). There is no doubt that front-line-related PTSD impacts families, particularly the spouses of PTSD casualties.

Examining PTSD and relationships provides an entry point for discussion about first responders and the impact their jobs have on them and their intimate partner relationships. Dekel and Monson (2010) suggest that individuals who have PTSD often report relationship disruption.

The connection between PTSD and relationship breakdown is the focal point of this review, as I will highlight the impact on relationships from both the perspective of the first responder as well as the significant partner. The many symptoms of PTSD can harm interpersonal relationships (Al-Turkait & Ohaeri, 2008; Dekel & Monson, 2010; Meffert et al., 2014; Monson et al., 2010). Monson et al., (2010) reveal that significant others often report high distress within their relationships; if their partner displays bouts of altered reality, such as flashbacks, they report concern for their safety. Several symptoms of PTSD contribute to strain on intimate relationships. Individuals with PTSD may display avoidance of behaviours that inhibit these people and their partners from engaging in pleasurable activities. Sleep disturbances may lead to avoidance of partner co-sleeping and irritability, which may cause additional tension in the relationship (Monson et al., 2010).

According to Regehr and LeBlanc (2017), emergency first responders are amongst the populations most frequently diagnosed with posttraumatic stress disorder (PTSD). First responders, synonymously referred to as public safety personnel (PSP) within this paper, are defined as individuals engaged in occupations that involve exposure to potentially traumatic events as a function of their work, such as military personnel, police officers, firefighters and paramedics (Carleton et al., 2019). While PTSD occurs in individuals who have directly experienced traumatic stress, vicarious trauma is a trauma effect that occurs after being in close proximity to someone who has directly experienced traumatic (Alrutz et al., 2020). A growing body of research is beginning to identify vicarious trauma trends in the families of first responders (Alrutz et al., 2020; Landers et al., 2020). Alrutz et al. (2020) suggest that because PSP populations have higher rates of PTSD than the general population, vicarious trauma rates may also be higher in the families of first responders. As an introduction to the broader issues of

PTSD, and to further develop effective treatment of PTSD-related mental health problems, I will examine the literature on the topics of caregiver burden, domestic violence, intergenerational transmission of PTSD, and vicarious trauma. I will then use this research to inform decision-making about a therapeutic process aimed at intervention in the family systems of emergency first responders.

Research question

Posttraumatic stress disorder (PTSD) affects hundreds of public safety personnel across Canada each year (Carleton et al., 2019) Their struggles with PTSD affect many aspects of their lives, specifically their significant relationships. This research examines the effects of PTSD on first responders to answer the question of how trauma vicariously affects others in proximity, including the significant relationships or spouses of first responders with diagnosed PTSD. More specifically, this literature review explores the most effective treatment strategies to be used by therapists working with the families of first responders. I ask these questions to understand the broader impact of PTSD and vicarious trauma, and to generate a wider breadth of knowledge that may inform therapists on treatment strategies for the families of PSP in Canada.

Self-Positioning Statement

This paper aims to address the multidimensional effects of PTSD among populations with high instances of PTSD, such as first responders, and the effect this trauma has on the families, specifically the spouses, of individuals diagnosed with PTSD. My bias towards this topic is identifiable as I have personal experience growing up in a first responder family. My father is a retired district fire chief after being a firefighter for over thirty years. My mother worked as a nurse for over thirty years as well. I have a clear and present bias in this area because I grew up with a first responder for a dad and a front-line worker for a mother. My parents worked in

positions where they dealt with potentially traumatic stress daily. I hold my parents in high regard as parents, people, and public safety personnel. It is a personal goal to work with a population of public safety personnel, especially first responders, due to my family's influence growing up.

According to Carleton et al. (2019), PSP face significantly more traumatic stress over their careers than the general population do over their entire lifetimes. My interest in helping people who are PSP includes an interest in understanding how living with PTSD can affect the peripheral areas of life outside of work, namely the families of individuals. Having grown up in a household with a firefighter myself, I know there were times when work stress permeated home life. My glimpse into a first responder's life has made me wonder what effects PTSD could have on family members, specifically spouses of first responders with PTSD.

Because I have a clear bias due to my lived experience, acknowledging this bias will provide me with some insight into potential countertransference that may come up during research into this topic. When reading research, I anticipate having countertransference feelings. Moreover, there may be literature in the paper that relates strongly to my own experiences growing up. I am empathetic towards first responders due to my personal experiences. No one chooses to have PTSD. However, the unintended effects that permeate into the families of first responders may leave first responders with additional guilt on top of their already challenging diagnoses.

The strategy I have considered for managing my bias is to first embrace it as the impetus for researching this topic. My interest in supporting PSP populations and their families has led me to this research. Engaging in this research with curiosity rather than with the goal of understanding and explaining my own life will help manage my bias. I intend to provide insight

into the lives of first responders and their families to inform my work with this population in the future. While I feel no need to process my life growing up with first responders, there may be times where I relate to the research on a personal level. I will intentionally seek out and refer to a broad body of research to support my hypothesis, not just include information that reflects my personal experiences.

In my exploration of the effects of vicarious trauma on first responders' families, I have intentionally included research on several occupations that encompass public safety personnel including police, firefighters, EMS, military and corrections officers. I have taken this approach to mitigate my bias stemming from personal experience with firefighter populations as I grew up as a firefighter family member. I am interested in the different experiences of first responder occupations and have seen conflicting arguments on individuals' resilience in some careers over others throughout my research. I am curious about whether vicarious traumatization occurs more frequently or intensely in different populations of first responders. With this curiosity in mind, I can mitigate my bias for researching one population.

Long-term stress from trauma can alter an individual’s perception of the world and change their beliefs and values about people, organizations and even themselves (Meffert et al., 2014). Furthermore, research also suggests that a parent passes on their beliefs and values to their children as they raise them (Ricciardelli et al., 2018). Although many first responders like my father demonstrated resilience despite the severe effects of trauma, many others cannot do so (Ricciardelli et al., 2018). This research is for the first responders who are unable to resist the effects of repetitive trauma, resulting in their symptoms presenting in ways that affect their families. This research is for the families who do not know where to turn for support because

they are bound by cultural stigma. Finally, this research is for the families who support first responders who fight fires, rescue those in need and fight crime for our safety.

Literature Search Statement

The effects of trauma, including both PTSD and vicarious trauma, are multidimensional. Research on PTSD among first responders and combat veterans is extensive; however, the literature leaves a gap in research on vicarious trauma experienced in the families of first responders, and the effects of PTSD symptoms on significant relationships. Therefore, research was conducted using multiple searches connecting the topics of PTSD, vicarious trauma and the impact on the significant relationships of first responders.

The researcher began the search using the terms “PTSD”, “family and vicarious trauma” and “first responders” to understand and explore the impact of PTSD on first responders. The research was then expanded by adding specific terms to the search to examine the effects of PTSD on family experiences; terms such as “PTSD and relationships”, “first responders and PTSD” and “distress” were used. These searches yielded several hundred hits in various databases. After reading abstracts, research was eliminated if it did not focus specifically on the effects and peripheral effects of PTSD and vicarious trauma.

Following an exploration of the impact of PTSD on first responders and their families, research was aimed at the treatment options available for individuals directly and indirectly impacted by PTSD and vicarious trauma. Using search phrases "vicarious trauma and treatment," "PTSD and family therapy," "PTSD and family and support", and "PTSD and relationship distress" yielded several hundred hits. The research was excluded in this step if treatment for indirect exposure to trauma was not discussed. Because one of the primary goals of this project is to provide insight into creating or improving treatment approaches for families of PSP dealing

with PTSD, research older than 2015 was excluded in order to focus on recent literature on the topic. Despite withholding research prior to 2015 in preliminary searches, subsequently, research older than five years was included to expand this literature base, as much of the seminal research on trauma extends beyond recent years.

Approximately 100 articles were selected for further review, many of which are cited within this work. Articles selected using the above criteria were examined thoroughly for relevance to the topic. Several themes were synthesized from the research, including the prevalence of people with war-related PTSD. While information about trauma and vicarious trauma in war-related populations is significant, further searching was required to identify relevant information on PSP populations. There is a significant gap in the number of articles regarding family functioning and vicarious trauma effects in PSP populations specifically. While the intent of this research is to generate knowledge about the effects of PTSD on relationships, specifically families and spouses, I also aim to garner a broader understanding of the experiences of spouses of first responders. A deeper understanding of the broader impact of PTSD may help to hone therapeutic strategies for the treatment of families affected by PTSD, specifically the need for early engagement of spouses in the treatment of first responders.

Literature Review

Throughout this section, I will identify different themes in the relevant literature on trauma. This section highlights published studies and identifies gaps that have not been explicitly addressed in contemporary literature. The purpose of this literature review is to explore the phenomenon of trauma and posttraumatic stress disorder (PTSD), and to identify the vicarious effects of PTSD on significant relationships, which may guide future research in the treatment of PTSD. The review will reveal treatment strategies, engagement activities and programs, or lack

thereof, and focus on strengthening the gaps in these areas for public safety personnel and their spouses in Canada.

Throughout this review, I will explore an understanding of unique trauma exposures in the population of first responders and outline how the development of PTSD affects individuals and their spouses. With these goals in mind, it is essential to understand key definitions and concepts in the academic literature when discussing the complex nature of PTSD and vicarious trauma. Common themes in the literature will be highlighted to better understand the possible development of vicarious trauma in the population of PSP spouses.

Trauma and Posttraumatic Stress Disorder

Trauma is a response to a life-threatening event or series of events with significant and long-lasting adverse effects on an individual's physical, psychological, social, emotional and social well-being (SAMHSA, 2014). Some of the longer-lasting reactions to trauma include disrupted emotions, flashbacks, and strained relationships (5th ed.; DSM-5; American Psychiatric Association, 2013). Exposure to trauma may lead to the development of PTSD. PTSD is a diagnosable disorder wherein individuals develop distinct symptoms following direct exposure to one or more traumatic events (5th ed.; DSM-5; American Psychiatric Association, 2013). Direct exposure to traumatic stress leading to PTSD includes but is not limited to exposure to war, life-threatening events such as natural or human-made disasters, severe motor vehicle accidents and threatened or experienced physical or sexual violence (5th ed.; DSM-5; American Psychiatric Association, 2013).

PTSD is well known as a reaction to one or many traumatic events. PTSD was once known as "shell shock," a phenomenon born from the Vietnam war and used colloquially to describe the consequences of war. Crocq and Crocq (2000) describe PTSD as a phenomenon

once used only to describe combat-related stress; more modern medical literature suggests otherwise. Kinghorn (2020) posits that while the roots of PTSD lie in a condition identified as an outcome of war, the current diagnosis of PTSD accounts for a holistic view of the individual, and considers the context of various traumatic events that contribute to presenting symptoms (Waddington et al., 2003).

Complex PTSD

The International Classification of Diseases eleventh edition [ICD-11] (World Health Organization, 2019) has broadened the spectrum of trauma-related diagnoses by presenting two distinct interpretations of PTSD. First, the ICD-11 states that PTSD results from an individual experiencing and re-experiencing trauma leading to several symptoms such as intrusive thoughts, avoidance and hypervigilance that persist for several weeks and cause significant impairments to function. There is, however, another specific diagnosis called complex posttraumatic stress disorder. In complex PTSD, the PTSD criteria are met in addition to a criterion that outlines multiple exposures to traumatic events in situations such as torture, slavery, repetitive abuse, or violence. Essentially, complex PTSD includes the PTSD symptoms as defined previously in addition to impairments in self-organization, affective, self-concept, and relational domains.

There is minimal research on the vicarious experiences of the spouses of first responders. Therefore, much research was included for the military population. PTSD is not limited to military populations, and there are many similarities in the experiences of PSP occupations that require individuals to work in environments that regularly expose them to life-threatening trauma. Different interpretations of what leads to PTSD, as shown when comparing the DSM-V and the ICD, suggest the complex nature of PTSD requires further research to understand its vicarious nature.

Operational Stress Injury

Operational stress injury (OSI) is an umbrella term used to describe any mental health issue which arises directly related to work with a wide variety of symptoms; examples including PTSD and depression (Ricciardelli et al., 2020). An OSI diagnosis is connected to serving in a professional capacity. Notably, PTSD is often comorbid, meaning co-occurring, with other presenting concerns such as anxiety or depression. First responders are a population with high rates of these injuries, as individuals working in this field frequently encounter high-risk situations and deal with daily stressors within their line of work (Antony et al., 2020). OSI may be used interchangeably with PTSD frequently within this paper to describe the experiences of the individuals who succumb to work-related traumatic stress.

PTSD and Public Safety Personnel

First responders lead extraordinary lives, facing danger each day. Individuals working in this field are exposed to potentially life-threatening stressors more frequently than in any other profession or in the general population. First responders are individuals acting in an emergency response role and are responsible for the public's safety. These occupations include firefighters, police officers, paramedics, corrections officers, and military personnel (Carleton et al., 2019). Carleton et al. (2019) also suggest that many occupations involved in emergency response, such as emergency room doctors and nurses, are also considered PSP. PSP share a unique role in society in that that they head towards danger rather than away from it. Repetitive exposure to trauma potentially leads to posttraumatic stress disorder (PTSD), and can permeate into all facets of an individual's life. While only a small minority of the general population develops PTSD when exposed to trauma in their lifetime, first responders and military personnel are at a significantly higher risk of developing PTSD due to the frequency of their exposure to traumatic

distress (Ricadilli et al., 2020). This review focuses on the public safety personnel population because of the high incidence of PTSD and the potential for vicarious effects of this diagnosis on the people they love.

Common PTSD Experiences in Public Safety Personnel

Moral Injury

Moral injury occurs when an individual encounters an event that requires them to perpetrate, witness, or fail to prevent an action that violates deeply held moral beliefs (Farnsworth et al., 2014; Frankfurt & Frazier, 2016; Jinkerson, 2016; Litz et al., 2009; Shay, 2014). Litz et al. (2009) state that events resulting in moral injury have long-term negative emotional, psychological, behavioural, social, and spiritual consequences. Morally injured individuals often have negatively altered beliefs about the world because of a traumatic event. For instance, Papazoglou and Chopko (2017) suggest that police officers who encounter death-related atrocities such as homicides, uncovering human remains or seriously injured victims often experience moral distress because of being unable to help the victims of the tragedy. Consequently, moral injury is often a precursor to or co-occurs with PTSD symptoms among first responders, and moral injury is prevalent in the cluster of PTSD symptoms related to the nature of the triggering event, re-experiencing the event and avoidance (Nash & Litz. 2013; Farnsworth et al., 2014; Frankfurt & Frazier, 2016).

Institutional Trauma

Institutional trauma or institutional betrayal are among several predictors of PTSD (Monteith et al., 2016; Ricciardelli et al., 2018). Monetith et al. (2016) suggest that individuals' perception of institutional betrayal appears to be highest when the institution fails to prevent or respond to significant traumatic events. Ricciardelli et al. (2018) assert that PSP report feeling

their employers ignore their own and their families needs. Ricciardelli et al. (2018) also state that when PSP are not supported by their governing bodies (or that they perceive they are not supported), this leaves them feeling powerless and vulnerable, leading to subsequent health-related issues.

Cumulative Trauma

Symptoms become more severe when trauma accumulates over time and symptoms remain untreated (Geronazzo-Alman et al., 2017). Moreover, Geronazzo-Alman et al. (2017) suggest that many first responders become dismissive of trauma over time. As a result, first responders' exposure to trauma events become normalized as something to be expected as part of the job, rather than as significant traumatic events as would be the case in situations involving the general population. Additionally, Wilker et al. (2015) indicate that the number of different traumatic events an individual is exposed to is an even stronger predictor of PTSD than the frequency of cumulative traumas alone.

Spouses of Public Safety Personnel and Vicarious Trauma

Trauma is multidimensional, inflicting further stress on individuals and on their families as well. Cramer and Jowett (2010) suggest that an essential factor to relationship success in couples is empathy, stating that empathy is having a deep understanding of the experiences of others. According to Frančišković (2007), Friese (2020) and Meffert et al. (2014), PTSD is associated with vicarious trauma in spouses and partners of individuals who are casualties of PTSD. At the same time, related concepts such as burnout, compassion fatigue, secondary traumatic stress and work stress are present in the literature regarding trauma for caregivers and individuals working closely with trauma, such as spouses and significant partners.

Collins and Long (2003) suggest that interacting with seriously traumatized people has the potential to affect caregivers and healthcare workers, citing terms such as vicarious trauma and traumatic countertransference. There can be strong emotional and psychological responses to interacting with traumatized individuals. Sabin-Farrell and Turpin (2003) describe how vicarious trauma can affect anyone who engages with trauma survivors with empathy. Sabin-Farrell and Turpin (2003) suggest that not only are police officers, firefighters, correctional officers and soldiers among the many professions exposed to frequent trauma who are susceptible to vicarious trauma, but researchers and caregivers are susceptible to vicarious trauma as well (Collins & Long, 2003; Friese, 2020; Sabin-Farrel & Turpin, 2003). Sabin-Farrell and Turpin (2003) discuss how vicarious trauma can lead to changes in world view, personal and professional identity, and can also lead to psychological needs changes.

While there is overlap between vicarious trauma, burnout, compassion fatigue, and secondary traumatic stress, it is essential to distinguish between them. An overlap occurs with these terms due to a commonality of distress over time, leading to increasing adverse reactions to stress. Often used synonymously, compassion fatigue and burnout occur because of prolonged work or stress, causing exhaustion and often early termination. Occupational stress can happen in any type of work; however, vicarious trauma can be sudden and is related more closely to working with trauma and trauma survivors.

Meffert et al. (2014) assert that PTSD is associated with emotional distress and relationship violence in police officer populations. While Meffert et al. (2014) conducted a relatively small study of approximately 71 police recruits, their findings were consistent with more extensive studies that suggest police officer PTSD is a predictor for secondary trauma among their spouses and partners. However, Meffer et al. (2014) also suggest that spouses and

partners who have a greater understanding of PTSD report lower distress levels and violence; more extensive study is required to confirm this hypothesis.

Ben Arzi et al. (2000) present a study on individuals with PTSD that assesses the implications of PTSD on partners who are experiencing a sense of burden and emotional distress. Ben Arzi et al. (2000) indicate that women with partners with PTSD suffer from higher distress levels and a greater sense of burden than a control population. Ben Arzi et al. (2000) support the concept of vicarious traumatization by suggesting that people who have intimate contact with a traumatized person may experience adverse reactions and even become victims the trauma themselves. Additionally, Ben Arzi et al. (2000) suggest that prolonged contact with a traumatized partner may catalyze chronic distress. Similarly, spouses and partners who take on the role of caregiver maybe be further susceptible to an accumulation of stress. Finally, Ben Arzi et al. (2000) assert that just as PTSD survivors are often treated in a clinical setting for trauma, their spouses and caregivers should also be considered for treatment.

Vicarious Trauma

Discussion of vicarious trauma began in the early 1980s, during the aftermath of the Vietnam war, when the partners of military personnel began experiencing similar symptoms to their partners who had experienced direct traumatic experiences (Alrutz et al., 2020). McCann and Pearlman (1990) suggest that previous conceptualizations such as burnout and countertransference, which resulted in cumulative fatigue following work with problematic clients, later evolved into the concept of vicarious trauma. Vicarious trauma has now evolved into a term used to describe the adverse effects of indirectly experiencing trauma (Alrutz et al., 2020).

PTSD symptoms such as avoidance, emotional numbing and hyper-arousal impair the psychosocial functioning of trauma survivors in various facets of their lives, including intimate partnerships and personal relationships (Lambert et al., 2012). Lambert et al. (2012) suggest that PTSD is associated with increased psychological distress for one's intimate partner. Furthermore, Lambert et al. (2012) argue that military-related PTSD might more significantly impact intimate relationships due to a stronger association with emotional symptoms such as anger and hostility when compared to symptoms of PTSD among civilians. Lambert et al. (2012) show a more significant effect size for female partners of male trauma survivors than for male partners of female trauma survivors. They also found a more substantial effect size for military samples than for civilian samples. Finally, Lambert et al. (2012) show that the effects of trauma intensify over time, suggesting that relationship quality and psychological distress symptoms worsen over time.

Ben Arzi et al. (2000) assess the implications of PTSD on the sense of burden and emotional distress wives experience. Ben Arzi et al. (2000) indicate that women with partners with PTSD suffer from higher levels of distress and feel an increased sense of burden compared to a control population. Ben Arzi et al. (2000) support the concept of vicarious trauma by suggesting that people who have intimate contact with a traumatized person may experience adverse reactions and even become victims of the trauma themselves. Additionally, Ben Arzi et al. (2000) suggest that prolonged contact with a traumatized partner may catalyze chronic distress leading to vicarious trauma.

While there is a growing understanding of the effects of PTSD on individuals diagnosed with this disorder, there is little understanding of the vicarious effects on the people closest to them. The lack of research and developed support programs for spouses who are exposed to

vicarious trauma is noteworthy. Through research into this topic will support the development of supports for this unique population of men and women. For example, Ben Arzi et al. (2000) suggest that treating only the symptoms of PTSD is insufficient; clinical treatments offered to those with PTSD should include their families. Further research into the needs of and resources available to families is required to provide insight and to inform treatment programs for this population. Frančišković et al. (2007) also suggest that married military veterans with PTSD will vicariously traumatize their spouse over time, supporting the conclusion that the treatment of PTSD should focus on more than an individual's symptoms.

According to literature, spouses of first responders are susceptible to vicarious trauma because of their repeated exposure to their partners diagnosed with PTSD. The primary goal of this research is to gather information on the breadth of experiences that partners of first responders have, how they are vicariously affected, and to provide insight into how to mitigate this phenomenon. Spouses of first responders who are subject to vicarious trauma report symptoms of PTSD at rates similar to those directly exposed to life-threatening stressors (Al-Turkait & Ohaeri, 2008). Uncovering information on the effect PTSD has on the intimate relationships of PSP can further understanding of and help to develop multidimensional treatment for trauma-related injuries in this population.

Researchers use the terms vicarious trauma and secondary trauma interchangeably: the common factors are that individuals who experience trauma indirectly experience cumulative and lasting effects as a result of repeated interactions with trauma survivors (Bride & Figley, 2009; Greinacher et al., 2019; Palm et al., 2004; Keenan & Royale, 2007). Fortunately, Keenan and Royle (2007) suggest that effective treatments for trauma and vicarious trauma are similar

and include evidence-based interventions such as eye movement desensitization and reprocessing (EMDR).

Implications for Counselling Psychology

Further reducing mental health stigma and increasing opportunities for partners of PSP to receive treatment begins with developing guidelines that include both individual treatments and the inclusion of partners in treatment. Both PSP and their significant others require access to treatment when PTSD and vicarious trauma are identified. Opportunities to work with PSP are ubiquitous, but there is limited evidence of psychologists working with significant partners of PSPs who are experiencing vicarious trauma. The research outlines the importance of including psychoeducation for families of PSP occupations as the first line of intervention. There is a need to integrate psychoeducation for all PSP and their families in order to reduce mental health stigma and provide effective treatment. This psychoeducation should include identifying signs and symptoms of trauma, what to expect from a PSP lifestyle, how to support oneself and one's family, and how to access services (Corrigan et al., 2012).

There is a gap in recent literature on vicarious trauma in the distinct population of PSP spouses. As the body of research on PTSD in first responder populations continues to grow, there is an expanding need to identify the vicarious effects on spouses and to formulate treatment approaches. Landers et al. (2020) suggest that a better understanding of trauma will allow spouses to manage their own responses to trauma while also acting in a supportive role for their first-responder spouses. The authors assert that promoting healthy responses and coping with traumatic responses in both individuals that make up a couple improves therapy outcomes and relationship satisfaction. In addition, understanding the ripple effects of trauma on PSP's lives

increases a therapist's understanding of the client and provides opportunities for psychoeducation with both the spouse and the professional (Landers et al., 2020).

Due to lack of literature focused on the treatment of vicarious trauma for first responder spouses, this paper is focused on raising awareness of the need for treatments in this population. Spouses require access to treatment protocols for trauma similar to as what is provided for their first responder partners. PSP often report experiences such as relationship deterioration, parenting issues and marital disturbances, which points to the affects of trauma on PSP spouses (Ben Arzi et al., 2000; Solomon et al., 2009). These experiences are not the sole experience of the person living with PTSD, but the spouse may, in some cases, also be experiencing significant distress. The literature indicates that spouses are susceptible to vicarious traumatization and have distressing symptoms similar to those with PTSD. For example, (Al-Turkait & Ohaeri, 2008) suggests that the partners of Gulf War veterans fulfilled criteria for PTSD, demonstrating symptoms such as hypervigilance, avoidance, and emotional instability.

Barriers to Services

McElheran and Stelnicki (2021) suggest that PSP are trained throughout their careers to control their emotional reactions in high-stress environments in order to maintain composure and make sound decisions. However, McElheran and Stelnicki (2021) go on to assert that this emotional suppression leads to stoicism and promotes an avoidant coping style in the personal lives of PSP, resulting in disturbances in their relationships and well-being. Similarly, McElheran and Stelnicki (2021) suggest that PSP receive support in adjusting to the mental, physical, emotional and spiritual stresses of their occupations. If issues are not discussed at home due to an avoidant coping style common in PSP populations, this reduces the opportunity for PSP spouses to seek assistance with disruptions in their relational well-being. McElheran and

Stelnicki (2021) suggest that by focussing on connection between partners, avoidant behaviours are reduced as PSP will have a chance to integrate their spouses into their mental health management.

In addition to PSP avoiding treatment as a misguided coping strategy, this is also due stigma associated with operational stress injuries in PSP populations. Bikos (2020) asserts that male PSPs are most likely to internalize the idea that mental illness is a weakness. Furthermore, traditional masculinity, which suggests supports a view that males who suffer from mental health challenges are weak, pressures men to be tough, stoic, avoidant and self-sufficient (Bikos, 2020). On the other hand, PSP who are women report a firmer belief in the existence of external stigma, but they do not appear to self-stigmatize as often as men. According to Bikos (2020), individuals working in management positions create additional barriers to stigma reduction. Many PSP do not report mental health issues out of fear of social and career repercussions. While there may be several barriers to accessing counselling for first responders; it is likely that there will be stigma regarding mental illness for their spouses to overcome as well. Navigating the stigma which is a barrier to accessing treatment in this population is necessary to connect with first responders.

Burns and Buchanan (2020) discuss that fact that the culture of policing influences how often police seek treatment for mental health problems. In policing, there is a stigma of being perceived as unfit for duty, weak or incompetent; police officers frequently worry that seeking psychological support will negatively impact their career advancement. Burns and Buchanan (2020) outline several ideas regarding how to increase the likelihood of PSP and their spouses accessing mental health services. These include addressing systemic factors (such as stigma); increasing access to information and education; quality and influence of relationships; individual characteristics; and organizational processes. Burns and Buchanan (2020) also suggest that the

police culture itself can be a barrier to accessing care as it fosters a strong allegiance to policing, creating an "us and them" perception, potentially isolating PSP from their friends and family. Burns and Buchanan (2020) also state that trusted relationships with family members are sought more frequently than professional counsellors as supports by police officers. Trusted friends and family members are also contributing factors to police officers deciding to go through with counselling. Burns and Buchanan (2020) point to significant implications for practice by suggesting that not only should significant relationships be integrated into the therapy of PSPs, but significant relationships may also provide a vital link to treating trauma in PSP themselves.

Integrating Treatment of First Responders and Significant Partners

Expanding societal knowledge about the effects of trauma on PSP populations offers a bridge to the therapeutic alliance. Regehr et al. (2005) assert that first responders, specifically firefighters, are often revered as heroes by others, including their significant partners. However, because first responders are held in such high regard, first responder partners often neglect their feelings and withhold expressing distress due to feelings of guilt. Regehr et al. (2005) indicate that spouses begin to believe their personal needs should be suppressed because first responders are held in such high regard.

Few occupations require individuals to charge directly into life-threatening situations as part of the job description. While encountering traumatic events for PSP in their lines of work is expected, there is no reasonable assumption that the spouses of these individuals should also face the consequences of trauma. Regehr et al. (2005) suggest that first responders' spouses face more than the risk of being vicariously exposed to trauma; they also experience the social, economic, spiritual, and physical consequences of the PTSD their spouses suffer from. Regehr et al. (2005) assert that as first responders experience the adverse outcomes of PTSD, they transfer their

reactions and experiences to their families. Roth and Moore (2009) suggest that helping both first responders and their families requires negotiating boundaries, roles and physical space in the home to promote healthy relationships. First responders often work extraordinarily long shifts for several days, leaving inflexibility in parenting relationships. According to Regehr et al. (2005), firefighters often work second jobs to supplement their income, potentially exacerbating the burden of responsibilities at home on their partners. Moreover, the need for access to supportive mental health services for partners of first responders is necessary for navigating their stressful lifestyle.

Bridging the gap to treating the spouses of PSP may require the therapist to reach out to spouses as part of a systematic approach to PTSD treatment of PSP professionals. The research highlighted in this review regarding vicarious trauma effects of partners of first responders offers significant utility around understanding the multidimensional effects of trauma. Friese (2020) reveals that the spouses of law enforcement officers experience similar or greater levels of distress compared to law enforcement officers. Friese (2020) also indicates that the elevated levels of distress in spouses contribute to negative coping strategies. Spouses of first responders believe they must dismiss their stress with the intent to return to it later, however, this strategy often leads to feelings of isolation (Friese, 2020). Additionally, avoidance of stress often leads to expressions of anger and violence to relieve long-term stress. Friese (2020) asserts that long-term physical and psychological effects are likely directly associated with ongoing exposure to elevated stress levels.

Additionally, Geronazzo-Alman et al. (2017) state that the cumulative nature of trauma exposure in first responders is a significant predictor of PTSD. Copeland et al. (2018) assert that multiple exposures to traumatic stressors common in first-responder work leave individuals

susceptible to long-term psychological effects on social functioning. Given the significant effects of PTSD on first responders and their partners. Alrutz et al. (2020) posit that the families, specifically the spouses, risk developing PTSD symptoms through vicarious exposure to trauma themselves. Carleton et al. (2019) present a distinct need for developing tailored interventions to mitigate the effects of critical stress in first responder populations. The need to support first responders experiencing PTSD remains at the forefront of clinical work, but the need to support the spouses of first responder is evident and supported by emerging literature as well.

Professionals can provide more effective care for their clients when they understand the influence that trauma can have on the many layers of an individual's life. Landers et al. (2020) discuss how individuals with partners in law enforcement experience trauma. They suggest that spouses are affected by first responders' trauma and act as a support system for buffering the effects of trauma. While the adverse effects of work-related stresses for firefighters are buffered by having strong relationships with work friends, the quality of an intimate relationship can either buffer or intensify the adverse effects of stress (Morman et al., 2020). The protective factors a partner may offer include social inclusion, acceptance, and connection. Stress-buffering might also reduce symptoms of high blood pressure and depression (Morman et al., 2020). More recently, Watkins et al. (2021) indicate that firefighters with higher quality relationships at home are able to prioritize sleep and recovery, and thus report better mental and physical health. In addition, firefighters who have flexibility with their partners and family duties experience reduced feelings of inadequacy as parents and partners, leading to more positive work and marital satisfaction. Individuals in negative relationships report a higher risk for physiological issues such as cardiovascular disease and increased rates of depression (Morman et al., 2020).

The social support provided by a significant partner provides protection from the adverse consequences of trauma.

Expanding the Trauma-Informed Lens

PSP frequently report feelings of alienation between their past and present selves. Ricciardelli et al. (2018) present this finding after examining the experiences of thousands of public safety personnel. PSP experience substantial and enduring changes such as becoming increasingly cynical, experiencing digestive complications, and experiencing psychological disturbances such as fear and anxiety. According to Bath (2008), trauma-informed care means observing an individual through a lens that considers past experiences as evidence for the current presentation. It is reasonable to look at PSP through the same lens, suggesting that a history of workplace trauma will lead to psychological impact over time. Furthermore, expanding the trauma-informed lens would include spouses and families who often experience traumatic events vicariously over time.

According to the ACE study (Felitti et al., 1998), there is a strong relationship between exposure to emotional, physical, or sexual abuse and household dysfunction in childhood, and health risk behaviour and disease in adulthood. While this research focuses explicitly on spouses, it is vital to consider the impact of trauma on family, such as children, and interpersonal dysfunctions, in future research. Prolonged exposure to trauma-related conditions, as may be the case for children of PSP experiencing PTSD, may result in several mental and physical health complications for these individuals in the future (Collins & Long, 2003; Perry, 2006). Exposure to vicarious trauma will potentially, over time, create PTSD symptoms in spouses of PSP. Consequently, a trauma-informed lens offers that vicarious trauma may have continuous and

lasting effects on spouses of PSP if not addressed. I would suggest expanding the "trauma-informed model" (Bath, 2008) to individuals in intimate relationships with PSPs.

Expanding Care

At present there are limited resources on vicarious trauma available for the spouses of first responders with PTSD despite the fact that these individuals experience a significant amount of trauma vicariously through their partners. Moreover, partners experience additional strains on their life balance, relationships, intimacy and parenting ability. PSP spouses are at risk of developing PTSD or PTSD-like symptoms through vicarious trauma exposure to their PSP counterparts and should be afforded the same opportunities to access mental health services. Currently, the treatments available to the families of PSP usually fall under the jurisdiction of services such as Employee Family Assistance Programs (EFAP) in Alberta. EFAP are counselling services available to all provincial public service employees, including first responders and their families. Fortunately, EFAP programs often work as a bridge for spouses and family members to access counselling services.

If an individual is the spouse of a first responder, the effects of trauma should be discussed on a systemic level, addressing several areas of functioning, including interpersonal relationships. Spouses of first responders are part of a unique population and should automatically be considered for treatment, even if no symptoms are present. Further still, regardless of what presenting symptoms an individual comes to therapy for, it is essential to recognize that vicarious trauma may impact presenting concerns. Trauma treatment for individuals directly exposed to trauma may be helpful in people who have significant experiences related to their partners, whether witnessing, supporting, or experiencing traumatic events. Most importantly, this research can impact the treatment availability for a vulnerable and

unnoticed population of men and women. To summarize, expanding this research may have a profound impact on the treatment of PTSD.

Fundamental Next Steps for Research

The fundamental next step for research in PTSD is to examine the needs and potential for connecting the significant and intimate relationships of PTSD casualties to counselling. Fundamental research into the design, implementation and testing of treatments for first responder spouses may uncover essential supports for an overlooked and vulnerable population. Lambert et al. (2012) highlight the need to study families over time at several points in their lives to determine the long-term effects of trauma on the family. Continuing this research may contribute to the ongoing investigation into the extraordinary lives of first responders and will benefit trauma work with populations beyond first responders who are directly exposed to traumatic stress. Ultimately, future research should focus on developing individual treatments for vicarious trauma in first responder spouses. Further research in this area may also shed light on how to tactfully negotiate relationship roles to benefit first responders and their families.

Common Treatments and the Needs of Partners of First Responders with PTSD

First responders are considered to be at a higher risk for developing PTSD because their employment duties require frequent exposure to traumatic stress, including the threat of death (Haugen et al., 2012). However, according to Jarero et al. (2013), there is some controversy around which interventions should be used to treat trauma exposure, who these interventions should be offered to, and when they should take place. Watkins et al. (2018) suggest that while several psychological treatments exist for PTSD, prolonged exposure (PE), cognitive processing therapy (CPT), and trauma-focused cognitive behaviour therapy (TF-CBT) are among the top recommended evidence-based treatments that directly focus on traumatic events. In addition,

Jareo et al. (2013) suggest that eye movement desensitization and reprocessing (EMDR) is a promising treatment that can be used as an early intervention for trauma exposure and a later-stage treatment option.

Needs of Partners

There are recommended interventions for PTSD, and these therapies require confronting traumatic memories, thoughts, and images, which can be difficult to tolerate for individuals in therapy. Lewis et al. (2020) assert that despite the efficacy of several treatments for PTSD, there are considerable dropout rates among individuals in trauma-focused treatment. Lewis et al. (2020) state that regardless of the approach, preparatory work such as stabilization shows effectiveness in maintaining treatment retention.

Little research can be found on the exploration and implementation of these practices with the spouses of first responders with PTSD. Landers et al. (2020) discuss the overarching themes of how individuals with partners in law enforcement experience trauma. Landers et al. (2020) suggest that spouses are affected by first responders' trauma and act as a support system for buffering the effects of trauma. Understanding the effects of trauma on the many layers of an individual's life will allow professionals to provide more effective care for their clients. Additionally, Morman et al. (2020) present significant findings suggesting that work-related stress's adverse effects for firefighters are buffered by having strong relationships with work friends. However, Morman et al. (2020) discovered in their research that the damaging effects of work-related stress are exacerbated by the relationship quality with their significant other.

Consequently, Morman et al. (2020) suggest that their intimate relationships' quality can buffer or intensify stress's adverse effects. Similarly, Watkins et al. (2021) more recently indicated that firefighters with higher quality relationships in the home reported better mental

and physical health due to having the ability to prioritize sleep and recovery. Watkins et al. (2021) suggest that firefighters who are flexible with their partners and family duties have reduced inadequacy feelings as a father or partner, leading to positive work and marital satisfaction.

Renshaw and Campbell (2011) demonstrate an association between veterans with PTSD and elevated relationship and psychological distress. Their research suggests that the avoidance cluster (including withdrawal) of PTSD symptoms is most significantly correlated with negative distress for the partners of those with PTSD. However, Renshaw and Campbell (2011) suggest that distress symptoms are reported as lower for partners who understand that service members experience highly traumatic events and may exhibit negative behaviours as a result. These findings suggest that psychoeducation about the causes and symptoms of PTSD may be linked to reducing the distress of partners of individuals with PTSD (Renshaw & Campbell, 2011)

Eye Movement Desensitization and Reprocessing

Eye Movement Desensitization and Reprocessing (EMDR) is a treatment approach developed by Francine Shapiro in 1989 to treat trauma and associated symptoms (Valiente-Gómez et al., 2017). Shapiro (1989) suggests that EMDR will elicit a lasting reduction of anxiety, cognitive adaptations, and decreased intrusive disturbances. Standard EMDR protocol utilizes bilateral stimulation, typically through eye movements, to desensitize the traumatic memories causing distress to an individual (van den Berg et al., 2015; Korn, 2009; Shapiro, 1989; Valiente-Gómez et al., 2017). Shaprio (2012) outlines the fact that there is a window of opportunity for intervention before traumatic memories integrate within an individual wherein EMDR can effectively treat traumatic events. This time is immediately following their occurrence. EMDR as an early intervention following a trauma that reduces distress and may

protect individuals from future trauma complications such as PTSD. A growing body of literature asserts EMDR is an effective intervention for PTSD and comorbid disorders such as substance abuse in later stages of PTSD. According to Abel & O'Brien (2010), EMDR shows significant success in treating long-standing PTSD and substance abuse with successful maintenance afterwards. EMDR is a treatment frequently used when working with those suffering from PTSD, and also in the treatment of vicarious trauma in the partners of PSP Watkins et al. (2018)

Prolonged Exposure

Prolonged Exposure (PE) is an exposure-based cognitive behaviour therapy intervention that uses a combination of psychoeducation, imaginary exposure, and actual exposure to traumatic triggers with the goal of reducing PTSD symptoms (van Minnen et al., 2012). Rauch et al. (2020) assert that PE is a significantly effective intervention for PTSD, however, there are high levels of client dropout due to intense trauma-focused sessions. Rauch et al. (2020) suggest that when PE is combined with complementary interventions such talk therapy to mitigate the difficulty with facing traumatic triggers, PE is a clinically effective treatment for varying demographics with PTSD. The contraindications for PE include dropout, suicidal and homicidal ideation, dissociation, and substance abuse (van Minnen et al., 2012). Therefore, van Minnen et al. (2012) state that PE practitioners may exclude many candidates for treatment due to comorbidities such as bipolar disorder, active addiction, and psychosis. Further research is needed to determine the effectiveness for the treatment of vicarious trauma in populations including the significant partners of first responders.

Cognitive Processing Therapy

Cognitive Processing Therapy (CPT) is a manualized, evidence-based, trauma-focused cognitive behaviour therapy for PTSD (Resick et al., 2015; Mott et al., 2014). CPT is a treatment that helps clients learn how to challenge and modify unhelpful thoughts about the trauma and PTSD (5th ed.; DSM-5; American Psychiatric Association, 2013). Clients identify automatic thoughts regarding trauma, learn to challenge them, and develop skills to modify beliefs about traumatic events (5th ed.; DSM-5; American Psychiatric Association, 2013). Resick et al. (2015) assert that CPT is an effective therapy in both individual and group settings. Resick et al. (2015) warn that there are early stage increases in PTSD symptoms when using trauma-focused interventions such as CPT due to the need for clients to confront traumatic memories and triggers.

CPT is among several treatments that are well established as an effective treatment for first responders with PTSD (Held et al., 2018). However, Held et al. (2018) suggest that CPT alone may not be effective in treating moral injury-based PTSD, and assert that there are promising results when this intervention is combined with other interventions such as PE. Mott et al. (2014) state that contraindications for implementing CPT include substance abuse disorder and high suicide risk, suggesting future research in combating potential contraindications for CPT.

Trauma-Focused Cognitive Behaviour Therapy

Trauma-Focused Cognitive Behaviour Therapy (TF-CBT) is a three-stage therapy beginning with stabilization and skill-building, followed by exposure and processing trauma, and concluding with planning for future sustainability (Sachser et al., 2017). Individuals learn regulation and coping skills and eventually gain control over their trauma triggers, allowing them to maintain a manageable lifestyle (Sachser et al., 2017). TF-CBT is an effective manualized

therapy for chronic and acute PTSD, even when comorbid with major depressive disorder or substance use disorder (Kar, 2011; Sachser et al., 2017). In addition, TF-CBT appears to be an ideal treatment due to its manualization of stages, beginning with psychoeducation, which allows for therapist-client relationship building and improves client retention (Kar, 2011; Yasinski et al., 2018). Kar (2011) supports the effectiveness of TF-CBT as a therapy for individuals with PTSD, stating TF-CBT is as effective as other treatments such as EMDR. Additionally, future research into vicarious trauma specific intervention is needed to understand the implications for practice.

Accounting for Environmental and Cultural Factors

PTSD is complex and pervasive; as such, Downie (2020) suggests that environmental and systemic factors may be important considerations for understanding the first responder experience. For example, the global COVID-19 pandemic may add an additional layer of acute psychological distress for first responders and other front-line workers. Systemic and environmental factors may exacerbate trauma. Recent research (Benfante et al., 2020) is pointing toward the psychological effect of a global pandemic, suggesting that ecological factors are clues for intervention before impacts are experienced long term (Benfante et al., 2020). Additional research as global and local events unfold will bring about new information of the clinical considerations for the treatment and management of PTSD.

Evaluating the effectiveness of treatment approaches on identified populations

There are no specific treatment options targeting families who experience the challenges of having a family member with PTSD outside of the already implemented evidence-based treatments being used for primary exposure to trauma. PTSD is a stigmatized disorder within PSP circles because it often indicates that an individual has an injury which means they cannot work. At the same time, first responders and their spouses and families may not willingly share

personal information such as symptoms or diagnosis for research purposes. Therefore, support to bridge the gap between injury and treatment may require a well-informed approach that accounts for the stoic culture of first responders. Research into

In view of the adverse psychological effects that PTSD has on an individuals and the people closest to them, there is an ongoing need for future research to identify support for these groups. Relationships are potential protective factors for people who have PTSD; however, this places a significant burden on the individual supporting a PTSD casualty (Solomon et al., 2009). Continued research into the relationship dynamic between first responders and their significant partners may shed light on how relationships increase or mitigate PTSD occurrences.

Hoyt et al. (2010) suggest that first responders with more significant social supports have lower levels of PTSD. Furthermore, Hoyt et al. (2010) reveal that low levels of PTSD are reported when first responders receive a positive response when they disclose traumatic events. However, negative responses to disclosures are associated with higher levels of PTSD. Future research directed at the resilience and protective factors of significant relationships within this population could provide a more insightful explanation for the indiscriminate occurrences of PTSD in PSP populations.

Further research could include researching how to collect the information of spousal or familial distress because of an individual with PTSD. Research could also be directed toward bridging the gap between treating individuals with PTSD and creating opportunities for their spouses. Lastly, researching how to transcend stigma might allow an opportunity for spouses to access services, taking fundamental steps toward providing adequate intervention for PSP spouses.

There is minimal research on the vicarious experiences of the spouses of first responders. Therefore, much research was included for the military population within this review. While PTSD is not limited to military populations, there are many similarities in PSP occupations that require individuals to work in environments that expose them to life-threatening trauma. In addition, there are different interpretations of what constitutes PTSD, as shown when comparing the DSM-V and the International Classification of Diseases (11th edition). The complex and variously understood nature of PTSD requires further research to understand its vicarious nature. A barrier to my current research question is operating under the assumption that spouses of first responders will experience vicarious trauma, based on what we know about trauma and PTSD.

Recommendations for Practice

Understanding the Permeability of PTSD when Treating First Responders

PTSD symptoms impact the afflicted individual and the significant people around them, and this impact often worsens over time. Due to the nature of PTSD, the literature suggests that the spouses of individuals exposed to traumatic stressors have access to similar counselling and mental health services afforded to PSP on the front lines. A trauma-informed lens is appropriate for assessing the needs an individual whose significant partner is a PSP, due to the vicarious effects of trauma these clients may be experiencing. Keenan and Royle (2007) discuss the vicarious effects on individuals working closely with traumatized individuals, such as counsellors, support workers and caregivers. They reveal that as is the case with PTSD, vicarious trauma has significant psychological effects. Individuals who are experiencing vicarious trauma exhibit feelings of shame, guilt, weakness and hopelessness in addition to symptoms similar to

PTSD such as hypervigilant and avoidant behaviours. Keenan and Royle (2007) suggest that treatments used for PTSD effectively treat vicarious trauma.

Treating Spouses of PTSD Survivors

Providing educational information about the symptoms, effects, expectations and treatment of trauma is a valuable tool in the treatment of PTSD. Oflaz et al. (2008) assert that including psychoeducation in the early stages of the treatment of PTSD improves outcomes when combined with other forms of treatment such as medications. Early stage psychoeducation includes a focus on expected outcomes, treatment progress, common symptomology of PTSD and fluctuations of progress; these are all important topics. Educating PTSD clients improves adherence to treatment (Oflaz et al., 2008). Furthermore, Oflaz et al. (2008) state that the most significant result of psychoeducation is the reduction in avoidant coping skills common in participants being treated for PTSD. When clients know what to expect from therapy, they will be more inclined to embrace symptoms as they occur and may progress through treatment more efficiently (Oflaz et al., 2008).

Beidel et al. (2017) suggest that intensive in-patient intervention is effective for reducing symptoms associated with PTSD. Both first responders with PTSD and their intimate partners benefit from inclusion in this form of treatment. Treating first responders and their families within the same organization allows sharing of information, collaboration and the integration of treatment. Cramm et al. (2017) suggest that families renegotiate parenting roles after an operational stress injury due to physical and psychological changes in first responder parents. Furthermore, Cramm et al. (2017) assert that changes in parenting dynamics affect spousal relationships and may vicariously impact children and youth in the family. Cramm et al. (2017)

claim that a collaboration between individual and family supports may fill an essential gap in treating stress injuries.

While including spouses in therapy is a step in the right direction, a recommendation for practice is individual treatment for spouses separate from the first responder counterpart. Spouses of first responders are an underrepresented and misunderstood population, and the resources available to treat spouses are slim compared to treatment for first responders. Treating both spouses and first responder individuals would allow an opportunity for reintegration into their relationship with couples' therapy. Because higher levels of PTSD symptoms correlate with a lower relationship satisfaction between couples, Ruhlmann et al. (2018) suggest treating couples for trauma both individually and together.

EMDR for Vicarious Trauma

Helping professionals are exposed to trauma throughout their daily lives as a result of their exposure to continuous disclosures of traumatic narratives from their clients (Keenan & Royle, 2007). Similarly, the spouses of first responders can become overburdened with the same traumatizing narratives that helping professionals are exposed to. EMDR is effective treatment for the psychological effects of trauma (Bardin, 2004; Keenan & Royle, 2007; Kitchiner, 2004); this technique uses left, right, visual, kinaesthetic, and auditory stimulation while the client focuses on a traumatic memory (Keenan & Royle, 2007). Furthermore, EMDR is a gold standard therapy due to its extensive research and proven effectiveness for treating trauma (Watkins et al. (2018)

Self- Reflexive Statement

While I have explored several dimensions of PTSD, I have focused primarily on public safety personnel and their spouses. I chose to identify this population in my research for several

reasons. First of all, due to my interest in working with first responder populations, and secondly due to my personal experience being a member of a PSP family. I have a strong desire to understand and connect with this population in my career as a therapist. Furthermore, I have several years of experience working on the front lines with children and youth. Finally, my experience working with individuals with a history of trauma gave me an unexpected experience of vicarious trauma myself.

As I have researched trauma in the first responder population, I have recognized certain qualities about my parents that created further interest in working in this area of psychology. While both of my parents completed their careers relatively unscathed, there is no doubt that traumatic stress affected their lives. Ricciardelli et al. (2018) suggest that the cumulative stress of extensive trauma experienced by PSP likely influences physical, psychological, social and interpersonal relationships. Furthermore, Ricciardelli et al. (2018) suggest the various effects of trauma in PSP can include marital and family breakdown, dissolved relationships with children, and increased stress within the family. As I reflect on this research, it has become more apparent that the effects of traumatic experiences likely influenced breakdowns within my own family. According to Carleton et al. (2019), PSPs face a significantly higher frequency of traumatic stress over their career than the general population does over their entire lifetime, which may increase the rate of interpersonal breakdowns such as conflict or divorce within the family.

Researching PTSD symptoms and experiences of vicarious trauma has highlighted the underwhelming accessibility of support for intimate partners of first responders and their families in Canada. Future research is needed to answer many unanswered questions about the vicarious effects of PTSD on intimate partners of first responders. Future research into vicarious trauma

and its effects will expand recommendations for treatment to intimate partners, allowing for access to gold standard treatments for a vulnerable population.

Helping PSP people has piqued my interest in how living with PTSD can affect tan individual, their family, and areas of life outside of work. As a first responder family member, my glimpse into a first responder's life has made me wonder what effects PTSD could have on family members of first responders with PTSD. While I have a clear bias regarding some lived experience, my experience has provided me with some insight into potential countertransference that may come up during research into this topic. However, completing the research, I was not presented with material that caused any intense reactions. The research on family impact was relatively scarce.

I have a close relationship with my parents, especially my mother. I must admit that part of the reason I am strongly drawn toward researching this topic is that I want to understand the possible effects that vicarious trauma may have had on my mother and how this has affected her mental health. If there is a way to understand and use the information gained from this research to provide direction for my mother and many others like her, I would like to do that. I am empathetic towards other first responders. No one chooses to have PTSD. However, the unintended effects that permeate into the families of first responders may leave first responders with additional guilt on top of their already difficult diagnoses.

The strategies I have implemented for managing bias were to first embrace it as the impetus for researching this topic. I then worked to include data beyond support for my hypothesis that intimate partners of first responders are traumatized vicariously by living with partners with PTSD. I have provided insight into the lives of first responders and their experiences with PTSD. This understanding of trauma offers valuable knowledge for work with

first responders in the future. My research was conducted from a place of curiosity rather than to understand my own life. While I felt no need to process my life growing up in a first responder family, there were times when I related to the research personally, and reflected on how trauma may be a contributing factor to family dysfunction. In the course of my research it is important that I broadened my research to consider the effects of trauma on first responders and their intimate partners on several occupations in addition to firefighters.

Conclusion

Public safety personnel (PSP) such as police, firefighters, corrections officers and paramedics are regularly exposed to traumatic events in their lines of work (McCreary, 2019). Research reveals that the occupational stressors of PSP can permeate into their personal lives and afflict their significant relationships with vicarious trauma and other mental health problems (Ben Arzi et al., 2000; Cramm et al., 2016; Frančišković, 2007; Friese, 2020; Meffert et al., 2014). PTSD is a known reaction to trauma. Vicarious trauma is a subsequent reaction whereby individuals are traumatized indirectly through proximity. Common PTSD symptoms such as intrusive thoughts and hypervigilance impede on an individual's ability to maintain a quality lifestyle. PTSD occurs in public safety personnel populations at a much higher rate than that of the general population. Furthermore, the significant others of PSPs are exposed vicarious trauma through their proximity to traumatized individuals or individuals with PTSD.

First responders are exposed to several traumatizing risk factors, such as moral injuries, institutional trauma, cumulative trauma, and vicarious trauma; all these experiences potentially exacerbate the likelihood of developing PTSD. More importantly, due to the nature the front-line work of first responders, higher instances of trauma and PTSD permeate their personal lives, and affect their significant relationships with vicarious trauma. There is a need to include significant

others experiencing vicarious traumatization in intervention and treatment due to the significant impact of being in relationships with first responders with PTSD.

First-line interventions typically recommended for PTSD include trauma-focused CBT, prolonged exposure, CPT and EMDR. These evidence-based interventions are recommended for treating PTSD due to their successful outcomes, minimal risk factors, and long-term outcomes; however, further research is required to support these recommendations. Moreover, as research develops regarding treating trauma and PTSD in first responder populations, the needs of their significant partners is increasingly evident. This review demonstrates a large gap in the research regarding treatment of the significant partners of first responders and highlights areas to examine in future research focused on developing interventions targeting both first responders and their partners.

Further research into vicarious trauma is essential to provide a theoretical framework for developing prevention and intervention strategies. Vicarious trauma accumulates in relationships through empathetic feelings (Pearlman, 1995; Kleim & Westphal, 2011). The effects of vicarious trauma can be lessened through several interventions such as self-care, social support and organizational factors like treatment opportunities. Vicarious trauma and PTSD benefit from similar treatment protocols, including interventions such as EMDR. Finally, Karaffa and Koch (2016) indicate that educating first responders and their families improves feelings of social support in psychologically injured individuals, and leads to a higher chance of impacted individuals seeking treatment.

First responders are often celebrated as heroes, but society must also recognize their silent suffering as trauma survivors (Garner et al., 2016). Counsellors working with this population can support their clients by integrating first responder spouses into treatment, as they

are frequently faced with vicarious trauma. Including spouses when treating first responders is essential in order to treat the traumatic injuries both individuals may experience. As a counsellor, it is crucial to be aware of the permeability of trauma and consider treatment at the individual and systemic levels (Bardin, 2004). Kleim and Westphal (2011) suggest the future of PTSD and vicarious trauma treatments depends on well-designed research on risk factors, resilience factors and treatment outcomes. Moving forward further research is needed to continue to make recommendations for the most effective treatment and intervention programs for spouses of first responders.

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