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## The Felt Sense of Interconnectedness:

A qualitative analysis of perceptions on finding resilience in the aftermath of trauma using the mind-body connections of Yoga

by

## Ashley Collette

BA – Honours English Literature, Royal Military College of Canada, 2007

## **THESIS**

Submitted to the Lyle S. Hallman Faculty of Social Work at Wilfrid Laurier University in partial fulfillment of the requirements for

Master of Social Work

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## WILFRID LAURIER UNIVERSITY

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"The Felt Sense of Interconnectedness": A qualitative analysis of perceptions on finding resilience in the aftermath of trauma using the mind-body connections of Yoga

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#### Abstract

Members and veterans of the military are at an increased risk of exposure to traumatic experiences due to the very nature of their occupation. The most recent statistics on Canada's deployment to Afghanistan show that 13.2% of the (Canadian Armed Forces (CAF) members deployed have been diagnosed with a mental injury within a five year follow up period of redeployment from the theatre of operations. The present preliminary study was designed to examine Yoga as a therapeutic intervention for trauma in a population of CAF members and veterans. The author interviewed 4 service providers and 2 service users of Yoga-based therapeutic interventions specifically designed for members/veterans with a diagnosis of Posttraumatic Stress Disorder (PTSD). The participants discussed the importance of connection to something greater than the Self as an absolute in building posttraumatic resilience, and both groups offered the mind-body connection as paramount in healing trauma and as the vehicle for the individual practitioner to come to know the *felt sense* of spirit and connection. These findings have implications for possible therapeutic interventions for CAF members, as well as for future research possibilities in the field of posttraumatic resilience and growth.

*Keywords:* Yoga, mind-body, Canadian Armed Forces, trauma, resilience, PTSD, posttraumatic resilience, posttraumatic growth

## Acknowledgements

To the participants of this study, I am so very humbled to have been witness to parts of your path in this life. Thank you for your courage to share some of your story with me, and I wish you the utmost peace on your journey.

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For my sister: side-by-side we have phenomenal strength.

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## 1. INTRODUCTION

#### 1.1 Introduction

The experience of trauma is an "essential part of being human" and the introduction of Posttraumatic Stress Disorder (PTSD) as a diagnosis in 1980 opened the door to scientific investigation concerning the nature of human suffering (van der Kolk, McFarlane, & Weisaeth, 1996). Due to the nature of the occupational requirements, Canadian Armed Forces (CAF) members are at risk of being exposed to traumatic events. The CAF deployed over 40 000 members in support of the mission in Afghanistan, more than 150 were killed on deployment, and many more have been seriously wounded; for this reason, there is major interest in long-term psychological effects of CAF deployments (Boulos & Zamorski, 2013). The most recent statistics collected within the CAF population show that 13.2% of a large, diverse cohort of CAF personnel deployed to Afghanistan have been diagnosed with an Operational Stress Injury (OSI), mental injuries resulting from deployment, within a five year follow up period of redeployment from the theatre of operations (Boulos & Zamorski, 2013). Cumulative incidences of OSI can be broken down as follows: PTSD, cumulative incidence 8%; anxiety, other than PTSD, cumulative incidence 3.2%; depression, cumulative incidence 6.3%; and substance abuse, cumulative incidence 2% (Boulos & Zamorski, 2013). PTSD is a major concern to the military; it has implications on the individual, the military organization, and society as a whole (Iversen et al., 2008). There is an undeniable need to acknowledge the complexity of the cost of PTSD in the CAF.

Yoga has recently been subject to research in the field of posttraumatic stress due

to its claims to positively affect physiological and psychological functioning (van der Kolk, 2014). In Canada, the first study to evaluate Yoga as a therapeutic intervention for trauma is currently being conducted out of Canadian Institute for Military and Veteran Health Research (CIMVHR). This study was designed to contribute to the literature on the use of Yoga in building resilience in the face of traumatic experiences, and has a focus on contributing to areas of interest for future research and program development for members and veterans of the CAF.

#### 1.2 Overview of the content

The following is an overview of the content of the study:

- 1. Chapter 1 is the introductory section and serves as a guide of the contents of the study.
- 2. Chapter 2 is a literature review of trauma theory, resilience and posttraumatic resilience and growth theories, and Yoga philosophy. The intention of this chapter is to provide an understanding of current literature and research that pertains to the subject of this study, and to outline the gaps currently existing in the subject areas.
- 3. Chapter 3 discusses the qualitative methodology of thematic analysis used in this study. This portion of the study addresses the following key components regarding the study's methodology: purpose of the study; research questions; epistemological perspective; theoretical frameworks; study design; sampling; data collection; data analysis; ethical issues; trustworthiness of the study, and a summary.
  - 4. Chapter 4 presents the findings as generated from the data analysis.
- 5. Finally, Chapter 5 is the discussion, which outlines an overview of the study and compares the key findings of the present study to pertinent literature in the fields of

trauma, resilience, and posttraumatic growth. This chapter outlines implications for social work practice and future research opportunities in this specific area of study, and includes a discussion of my personal experiences during the process of the study.

#### 1.3 Situation of Self in Relation to the Research

My interest in the use of Yoga for veterans is both professional and personal. I have been a serving member of the CAF for 13 years, and have recently made a career transition from the infantry to the world of army social work. My experiences in combat and within the military system have led me to seek ways to find wholeness and connection in the face of extremely traumatic circumstances. When I stumbled on the world of Yoga, I found a philosophy, practices and a lot of other people that offered me a sense of wholeness and coherence that I have yet to find anywhere else on my life journey.

My desire to share the use of Yoga as a model to increase resilience is largely due to the sense of equanimity and stability the practice has provided to me personally through the trials and tribulations of life. My intention is to share the findings of my research inquiry with other CAF members, commanders, and policy makers as we forge ahead as an organization that truly desires only the best for our fellow brothers and sisters in arms.

During the writing of the research proposal for this study, I travelled to *Nosara Yoga Institute* (NYI), a globally renowned Yoga training institute in Costa Rica. I was in pursuit of the opportunity to deepen my understanding of Yoga and my own personal practice. I did find an opportunity to steep myself in the practice, to connect with others searching for the same opportunity, and I was able to draw abstract ideas into something

coherent enough to present in a research proposal. Although its practices are simple, Yoga is a long studied tradition and one can find many differing views on the underpinning concepts. Focusing the point of my research was a challenge for me. At the end of my short time in Costa Rica, I was robbed. My laptop, storing the fruits of my academic labor and focus, was gone. I realized, as I started to come to terms with the fact I would have to reproduce the work I had done, that I embody this project. The concepts that I am intending to be a part of communicating to others are within me; they come from the inside out.

The point of mentioning this experience for me is not to tell a story of being robbed, but instead to shed light on my personal learning about my subjectivity in the creation and analysis of this study. I am embedded in the analysis of my findings. Not only would it be misleading for me to claim that I have an objective standpoint in the analysis of this study, or that I was able to set my own story aside as I listened to that of others, but I would be leaving out my own personal experiences of trauma, resilience and growth. My personal experience of trauma is most valuable in the understanding of how traumatic experiences can be gateways to a first hand knowing of loving kindness and compassion towards myself and others. For me, the traumatic experiences of my life have humbled me in ways that have resulted in a closer connection to life around me. Emerging from the abyss of trauma gave me access to courage and strength that feels as though they come from beyond my personal human capacity. Perhaps one day I will tell more of my personal story, so that it can stand as a testament of what is possible in the face of the most horrifying experiences. For now, you will see my subjectivity weaved through the threads of this study.

## 2. LITERATURE REVIEW

This chapter provides a review of the current literature on the theoretical frameworks that support an understanding of trauma and resilience as related to the CAF serving member and veteran population. Additionally, a brief overview of current trauma treatments and the principles of Yoga philosophy is provided and the final section offers justification for the current study.

### 2.1 Trauma Theory

Originating from the ancient Greek word for "injury" or "wound", the English word *trauma* is often used confusingly and interchangeably to describe different angles of a context; in some cases trauma is used to refer to a physical or psychological injury, and in other cases it refers to the events that caused that injury (Courtois & Ford, 2009). In what follows, the terms *traumatic event(s)* and *posttraumatic experiences and responses* are used to differentiate between the two most common uses of the word *trauma*.

A *potentially traumatic event* (PTE) can present itself in many forms. Some forms of traumatic events recognized in *The Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM*–5; American Psychiatric Association, 2013) include, but are not limited to, the following:

Exposure to war as a combatant or civilian, threatened or actual physical assault (i.e., physical attack, robbery, mugging, childhood physical abuse), threatened or actual sexual violence (i.e., forced sexual penetration, alcohol/drug-facilitated sexual penetration, abusive sexual contact, noncontact sexual abuse, sexual trafficking), being kidnapped, being taken hostage, terrorist attack, torture,

incarceration as a prisoner of war, natural or human-made disasters, and severe motor vehicle accidents (American Psychiatric Association [APA], 2013, p 274).

It is important to note that the *DSM-5* version of the diagnosis no longer includes emotional reactions such as "fear, helplessness, [and] horror" to the criteria, and notes that the "clinical presentation of PTSD varies" (APA, 2013, p. 274). More important to the understanding of trauma than the event itself, is the individual's reaction to the event, referred to in this work as the *posttraumatic response*.

The experience of trauma often overwhelms the individual's capacity to cope, and affects the organism on every level of functioning: biological; psychological; social; and spiritual (Herman, 1997). The very essence of a traumatic experience lies in its potential to overwhelm the individual's, and even the society's, coping mechanisms. In what follows, there is a synopsis of the literature and research that support an understanding of the following areas of the literature and research on trauma: trauma on the brain and the body; trauma and the *DSM-5*; a framework of understanding the impacts of trauma on the self, to include the effects of trauma on the human spirit/soul, and a synopsis of current trauma treatments.

## 2.1.1 Traumatic stress and the effects on the brain and body

The last two decades have allowed scientists to use brain-imaging techniques to offer a sophisticated understanding about how the brain processes information, which has transformed our understanding of how trauma affects the brain (van der Kolk, 2014). Evolutionarily, the human brain has developed three interdependent levels of brain functioning: the brainstem and hypothalamus, the limbic system, and the neocortex (van der Kolk, McFarlane, & Weisaeth, 1996). The brainstem and the hypothalamus are primarily associated with the regulation of internal homeostasis and together they control

energy levels in the body (van der Kolk, 2014). This part of the brain is responsible for everything that newborn babies can do (i.e., eating, sleeping, waking, crying, breathing, sensing hunger, wetness, pain, and riding the body of toxins by urinating and defecating; van der Kolk, 2014). Under normal circumstances, the brain takes in information from physical sensations and processes it emotionally through the limbic system and then sends it to the neocortex for analysis, logic, and reasonable response (van der Kolk, 2014; van der Kolk, McFarlane, & Weisaeth, 1996). This allows people to continue in relationship to other human beings, "on whom they so profoundly depend for meaning, company, affirmation, protection, and connection" (van der Kolk, 2006, p. 278).

The limbic system and the brain stem have been called the emotional brain and have an intimate relationship with the central nervous system (CNS) (van der Kolk, 2014). The autonomic nervous system (ANS), part of the CNS, plays a key role in regulating smooth muscles and other viscera such as "heart and circulatory system, kidneys, lungs, intestines, bladder, bowel, pupils" (Rothschild, 2000, p. 8). The ANS has two branches, the sympathetic (SNS) and the parasympathetic branch (PNS), which usually function in balance with one another (Levine, 2010; Rothschild, 2000; van der Kolk, 2014). Normally, when one system is activated, the other is suppressed, and the two systems work together keeping us at an optimal state of functioning with our environment and ourselves (Levine, 2010; Rothschild, 2000; van der Kolk, 2014). Sensory information is received through the senses and takes two paths in the brain. The first is through the thalamus and amygdala with lightning speed to interpret emotional significance, and the second is from the thalamus via the hippocampus and the anterior cingulate to the prefrontal cortex for a more refined interpretation (van der Kolk, 2014).

At the moment of perceived threat, the limbic system (through the amygdala's signal) releases powerful hormones such as cortisol and adrenaline, signaling the body to prepare for defensive action (Levine, 2010; Rothschild, 2000; van der Kolk, 2014). Once the danger has passed, the body returns to a state of homeostasis quickly; however, if the interpretation of threat is too strong, or is not filtered through the rational thinking system, then there is a prolonged state of alertness or aggression as is often the case in PTSD (van der Kolk, 2014).

Trauma has the potential to cause a failure of the organism's natural physiological activation and hormonal secretions required to organize an effective response to a life-threatening situation (fight or flight), resulting in immobilization (van der Kolk, 2006). One of the most significant factors that make an event traumatic for the individual is his/her sense of physical helplessness (Herman, 1997; Levine, 2010; van der Kolk, 2006). There are some researchers who theorize that the freeze or immobility response is normally time limited, but that this response is different in trauma (Levine, 2010). Part of the posttraumatic response can be theorized as resulting from the lack of resolve of the human immobility response (Levine, 2010). The vortex of trauma is born of the coupling of fear and immobility: "fear begets paralysis, and fear of the sensations of paralysis begets more fear, promoting yet a deeper paralysis" (Levine, 2010, p. 68).

One of the challenges in therapeutic trauma interventions is that trauma is the "speechless horror" (van der Kolk, 2014, p. 43). The traumatic experience is one that happens too fast and too unexpectedly to be fully known, and is therefore unavailable to consciousness until it returns to impose itself in the form of nightmares or intrusive remembering (van der Kolk, McFarlane, & Weisaeth, 1996). The bodies of traumatized

people re-experience the intense emotional response of terror, rage and helplessness, but the feelings emerge in a way that is impossible to articulate (van der Kolk, 2014). "Trauma by nature drives us to the edge of comprehension, cutting us off from language based on common experience or an imaginable past" (van der Kolk, 2014, p. 43). Neuropsychology and neuroimaging research show that traumatized individuals have a hard time with focusing concentration due to problems with working memory and sustained attention, making it challenging to fully engage in the present moment (van der Kolk, 2006). Long after the event of the trauma, the traumatized person often tends to remain stuck in the past. This chronic immobility causes the person to continue to experience the "core emotional symptoms of trauma: numbness, shutdown, entrapment, helplessness, depression, fear, terror, rage and hopelessness" (Levine, 2010, p. 67).

Despite studies that demonstrate that trauma is undoubtedly a psychophysical experience, using the body as a resource in the healing of trauma has rarely been explored (Rothschild, 2000). Some argue that therapeutic approaches that abandon the body and focus mainly on thoughts will be limited in effectiveness at best and, at worst, can retraumatize the individual (Levine, 2010; Ogden, Minton, & Pain, 2006; Rothschild, 2000; van der Kolk, 2014).

Due to the complexity of responses displayed to trauma, van der Kolk (2013) offers that learning to regulate the autonomic arousal system is perhaps the single most important prerequisite to dealing with posttraumatic responses. He suggests that it is through his experience in non-Western cultures such as breathing, Qi gong, drumming and Yoga (which primarily emphasize self-regulation instead of figuring things out by thinking as in Western psychological models) that he discovered ways of regulating

autonomic arousal (van der Kolk, 2013).

The most recent findings within the field of neuroscience provide an optimistic framework from which to proceed with the theory of resilience. *Conditioning* and *neuroplasticity* are two mechanisms of brain functioning that help conceptualize how individuals can harness their own capacity to rewire the brain for resilience (Graham, 2013). Conditioning refers to how the brain learns and stabilizes patterns of response through repetition, and neuroplasticity is how the brain remains flexible to change the stabilized patterns of response (Graham, 2013). Specific examples of current research in neuroscience are used throughout the findings and discussion chapters of this study in order to provide context for the data.

It is important to note here, that a neurobiological understanding of trauma, largely shaped within the field of psychiatry, is argued by some to be a social construction of trauma that pays scant attention to the effects of society and culture in the experience of trauma (Suarez, 2013). Critics of the dominant psychiatric conceptualization of trauma include, for example, theorists in the fields of radical feminism, transgenerational trauma, community trauma, and ecofeminism (Burstow, 2003). These theorists provide a different understanding of trauma, especially in terms of how institutions and cultures shape the experience of trauma for the individual. I argue that an understanding of trauma that includes both neurobiological and environmental/cultural components is most essential in the shaping of therapeutic interventions. It is my understanding that although the effects of trauma on the brain and body are key components of understanding Yoga's potential contribution to the field, it is equally important to understand the systemic factors in the lives of those living through

traumatic experiences. Subsequently, as a part of this review, I include a section highlighting the existing literature pertaining to the cultural factors that contribute to trauma and resilience specific to a military population (see section 2.1.4).

## 2.1.2 Trauma and the Self (to include the human spirit/soul)

That are those who defend that stress becomes traumatic when psychological damage occurs to the 'Self,' to include cognitive assumptions, affect, neural mechanisms governing habituation and learning, memory, and emotions (van der Kolk, McFarlane, & Weisaeth, 1996). They note that trauma has the potential to affect all of the components of the experience of being human. According to Wilson (2006), "the power of psychic trauma to radically disrupt an individual's sense of continuity in living and meaningful connections to self and others cannot be overestimated" (p. 438). He defends that a full understanding of how trauma affects the individual goes beyond the discussion of only PTSD, and he offers a spectrum of self-reconfigurations that manifest in persons who experience trauma. These are based on the clinical literature concerning trauma and its impact on personality functioning (Goodwin & Attias, 1999; van der Kolk, McFarlane, & Weisaath, 1997; Williams & Somer, 2002; Wilson, 1980). These self-reconfigurations are "typologies of personality profiles" (Wilson, 2006, p. 39) that form as a result of coping with the impact of trauma. Although a full explanation of these archetypes is beyond the scope of this review, a list of the terms used to describe the manifestations are as follows: inert self (regressed); empty self (passive); fragmented self (mistrustful); imbalanced self (disconnected); over-controlled self (over-controlled); anomic self (nonattached); conventional self (conforming), grandiose self (insolent); cohesive/vital self-esteem and identity (flexible); psychosocial accelerated self-individuation (existential), and

integrated-transcendent self-actualization (unified) (Wilson, 2006). Of utmost importance to the formulation of the inquiry of this study is the integrated-transcendent self-actualization posttraumatic typology of personality, which will be discussed in what follows on theories of posttraumatic resilience and growth.

The experience of trauma is very much considered a soul wound. Traumatic events "undermine the belief systems that give meaning to human experience [and] they violate the victim's faith in natural or divine order and cast the victim into a state of existential crisis" (Herman, 1997, p. 51). The experience of trauma overwhelms emotions and "threatens to darken the inner light of the soul" (Wilson, 2006, p. 171). It is an existential crisis that overwhelms and shatters life, as it was known previously. A complete understanding of the posttraumatic self depends on the inclusion of spirituality, and in many survivors of trauma, the alignment with the present moment and attunement to personal values includes a sense of being connected to a Higher Power or an ultimate truth (Wilson, 2006).

#### 2.1.3 Trauma and the DSM-5

The history of labeling posttraumatic responses within the population of war veterans is complex and is still being debated within the literature. Posttraumatic stress disorder (PTSD) as a diagnosis is relatively new, although the posttraumatic response has been a part of the lives of humans for a much longer time than it has been acknowledged (Herman, 1997; Levine, 2010; Ozer, Best, Tami, & Weiss, 2008). Interest in the psychological impact of trauma peaked in the 20<sup>th</sup> century after wartime, with a major focus on combat-related psychological manifestations of trauma called *psychoneurosis* at the time (Ozer et al., 2008). Terminology evolved after the epidemic of posttraumatic

response apparent in veterans of WWI; other subsequent terminology used to describe the effects of extreme trauma on the psyche included *fright neurosis*, *shell shock*, *battle fatigue*, *war neurosis*, *and operational exhaustion* (Levine, 2010).

When the DSM-2 was published, the effects of trauma were placed in the category titled "transient situational disturbances," (Ozer et al., 2008, p. 3), despite the concurrent publishing of *The Traumatic Neurosis of War* by American psychiatrist Abram Kardiner, who indicated that the effects of war were more chronic and complex than conceptualized in the DSM-2 (Herman, 1997; Ozer et al., 2008). In the 1970s, following the Vietnam War, many veterans were being hospitalized in the psychiatric wards of Veterans Affairs (VA) hospitals and receiving diagnoses of schizophrenia or other psychotic disorders (Ozer et al., 2008). Other veterans created antiwar groups intended to offer solace to individual veterans who were suffering psychological trauma, and to raise awareness on the consequences of war (Herman, 1997). Paralleling the anti-war movement was the feminist consciousness-raising groups. An explosion of research in the mid 1970's (conducted mostly by women) revealed that sexual assaults against women and children were widespread, and women were experiencing similar psychological reactions as previously described in the research with war veterans (Herman, 1997). Largely due to these political movements, PTSD as a diagnosis was finally initiated in the DSM-3 in 1980. Since the DSM-3, there have been numerous updated versions of the DSM published, the most recent being the *DSM-5* in 2013.

In the *DSM-5*, there are four primary clusters of symptoms that manifest as a part of the diagnosis of PTSD. They are symptoms that revolve around intrusion and reexperiencing the traumatic event(s), avoidance and numbing of stimuli associated with

the traumatic event(s), negative alterations in cognition and mood, and a state of hyper arousal (APA, 2013).

There is a considerable amount of literature accumulating to highlight the problematic nature of PTSD as a widespread label for posttraumatic reactions, due largely to the exclusionary nature of the diagnostic clusters of symptoms (Pupavac, 2001; Suarez, 2013; Summerfield, 2008; van der Kolk, 2013; van der Kolk, 2014; Wilson, 2006). Cases of pure PTSD are rare; symptoms often displayed in traumatized individuals include alcoholism, drug addiction, gambling, somatization problems, depression, dissociation, self-injurious behavior, and a tendency to perpetually reenact the trauma, none of which are covered in the diagnosis of PTSD (van der Kolk, 2013). The psychopathology of trauma risks assuming that the absence of symptoms implies an optimal level of human functioning and it arguably distracts from learning about how trauma can and has been transformed in ways that allow the trauma survivor to emerge as resilient and in some cases transcendent (Wilson, 2006). Furthermore, considering PTSD as the only manifestation of trauma distracts from the essential study and consideration of those who emerge from a traumatic experience to live an "authentic life, in the moment," with humanity, courage, wisdom, knowledge, humility, forgiveness, a sense of justice, and the capacity for humanness that is awe-inspiriting to others" (Wilson, 2006, p. 2). Within the global context, PTSD as a diagnostic category remains largely unquestioned and, with this sweeping use of the diagnosis, there is a risk of oversimplifying the traumatic response and pathologizing the traumatized individual (Suarez, 2013). Furthermore, research conducted in non-Western contexts often conceptualizes the local research participants as cross-cultural data instead of sources of knowledge and wisdom

(Suarez, 2013). Considering PTSD as the only expression of trauma does not offer a consideration of the wide spectrum of manifestations in the posttraumatic self of the survivor of trauma.

In June of 2011, the British Psychological Society sent a complaint to the APA that, within the new *DSM-5*, psychological suffering was framed as originating from the individual, and overlooked the social causation of many of the problems associated with PTSD (van der Kolk, 2014). Some question the underlying motivations of the publishing of the *DSM-5*, highlighting the fact that the APA earned \$100 million on the *DSM-4*, and the publication remains a significant source of funding for the APA (van der Kolk, 2014).

Similar critiques have emerged in the field of global health research, which has been somewhat separated from human rights approaches (Suarez, Logie, & Arocha, 2014) resulting in a distraction of resources and attention from the underlying causes (and possible prevention) of the traumatic events under consideration (Pupavac, 2001; Summerfield, 2008). The same risk of generalizing responses to trauma and therefore distracting from dedication to discovering the root of the issue is present in military populations. Pupavac (2001) says, "The idea of the soldier as traumatized victim has become the norm through the concept of post-traumatic stress disorder (PTSD), but this neglects how men may gain a status and sense of purpose in the military, which they might not have enjoyed in peacetime" (p. 364). The danger of conceptualizing PTSD as the only response to trauma within a military population, or even as the most prevalent response to traumatic events, is that it risks not discovering the factors that may contribute to the transformation of trauma, and to the systemic factors that contribute to the wellbeing and resilience of military members and veterans.

### 2.1.4 Factors That Contribute to PTS Vulnerability Specific to the Military Population

What if there is within each person a force that understands at some gut level that all humanity is inextricably interdependent and that to harm any part is to harm the whole?

Grossman (1996, p. 37-38) 1

There is substantial research indicating that military personnel are at increased risk of developing PTSD as a result of service (Hoge et al., 2002; Nelson et al., 2011). Combat-related PTSD remains one of the most damaging forms due to the nature of long term, pervasive, high-stake acts of interpersonal violence and the compounding stress of uncertainty about the future (Stankovic, 2011). Although the fear of death and injury may be an obvious component of the soldier's experience in combat, the full picture is much more complex and is well represented as follows:

The Reign of Fear is represented as only one contributing factor in the soldier's dilemma. Fear, combined with exhaustion, hate, horror, and the irreconcilable task of balancing these with the need to kill, eventually drives the soldier so deeply into a mire of guilt and horror that he tips over the brink into that region that we call insanity. Indeed, fear may be one of the least important of these factors. (Grossman, 1996, p. 54)

To focus the study of the complex nature of combat trauma primarily on the fear of death and injury would be to miss many of the components of the experience of combat that contribute to the soldier's overall physical, psychological and spiritual experience.

Compounding the risk of developing a negative reaction to a traumatic experience are the systemic factors that are unique to the military population, especially those that pertain to subsequent life stress and the member's social support system, which are both assessed in the literature as key factors that convey a risk of developing PTSD (Brewin,

 $<sup>^{1}</sup>$  I use quotations at the beginning of a section where I found that it was useful in focusing the particular subject.

Andrews, & Valentine, 2000; Ozer et al., 2008). Job requirements see a geographical relocation of military members on a frequent basis and members are often sent to isolated geographical locations with or without their family (McFadyen, 2008). Members of the military are also at risk of developing moral injuries that arise from acting (or witnessing someone else act) in a way that transgresses their personal beliefs about ethics and humanity (Litz et al., 2009). In counterinsurgency, or guerilla warfare, members of the military are exposed to unconventional features such as an unmarked enemy, civilian threats, and improvised explosive devises, all of which contribute to greater uncertainty (Litz et al., 2009).

Of utmost importance in the structuring of CAF resilience training and mental health resources available to members, veterans, and their families, is an in depth understanding of the factors that contribute to the development of PTSD in the aftermath of exposure to a traumatic event. What are the factors that render a person vulnerable to the development of PTSD, and what are the factors that buffer the lives of those who emerge resilient in the face of trauma and, in some cases, emerge from the traumatic experience with a positive, thriving outcome? Stated differently, what are the risk and resilience factors associated with the spectrum of manifestations of trauma in the individual?

Some insight into the risk factors that contribute to PTSD may be found in a meta-analysis conducted by Brewin et al. (2000) which found that some risk factors predicted PTSD in some populations only (female gender, younger age, and racial minority status). The strongest predictors of trauma from this analysis were greater trauma severity, lack of social support and more subsequent life stress, and other risk

factors were consistent predictors of PTSD to varying extents (low socio-economic status, lack of education, low intelligence, other previous trauma, other adverse childhood, trauma severity, lack of social support, and life stress; Brewin et al., 2000). Three risk factors were assessed in Brewin et al. (2000) meta-analysis as homogeneous in predicting PTSD across different trauma populations: psychiatric history, childhood abuse, and family psychiatric history. When they analyzed the military population separate from the civilian, they found that "younger age at trauma, lack of education, childhood adversity, trauma severity, and lack of social support were all significantly more important in this group that the civilian group" (Brewin et al., 2000, p. 752). Other military specific studies have confirmed the impact of childhood adversity on the development of PTSD after combat as well (Iversen et al., 2007; LeardMann, Smith, & Ryan, 2010).

Meta-analytic studies also indicate the role of peritraumatic (at the time of the traumatic event) emotional responses and peritraumatic dissociation as strong predictors of PTSD in civilian populations, as are typical in cases of severe trauma (i.e. childhood sexual abuse; Ozer et al., 2008). In terms of military specific studies, Iversen et al. (2008) found that low perceived preparedness for work in a theatre of operations showed a risk of developing PTSD; they hypothesized that this may be consistent with other studies that show a sense of loss of control or a perceived threat to one's autonomy at the time of trauma to be associated with higher rates of PTSD (Brewin, Andrews, & Rose, 2000). On the contrary, other researchers have found that a sense of fear, helplessness and horror (was a criterion necessary for a diagnosis of PTSD in the *DSM-4*) was not related to the

symptom clusters of PTSD as defined in the *DSM-4* (Breslau & Kessler, 2001; Schnurr, Spiro, Vielhauer, Findler, & Hamblen, 2002).

Within the CAF population, the term Operational Stress Injury (OSI) has been used to label posttraumatic responses that emerge as a result of operations. The term OSI is not a recognized diagnostic category, but is instead an umbrella term used to capture possible psychiatric diagnoses that have been clinically observed as a result of operations (i.e. PTSD, Major Depressive Episode, or Alcohol Dependence; Boulos and Zamorski, 2013). Recent Canadian specific military studies in trauma align with the previous findings above (Brewin et al., 2000; Ozer et al., 2008) in showing social support, and number of lifetime traumatic experiences to be significantly associated with PTSD, major depressive disorder (MDD) and suicidal ideation (SI) in the previous year (Nelson et al., 2011). Important factors to consider in the CAF population, they shed light on the risk of minimizing the past life experiences of the CAF member/veteran when assessing traumatic responses, which could lead to inappropriate type of treatment that may not address the root cause of the member/veteran's suffering.

It is important to note that, although combat related PTSD is an extremely damaging form, many members and veterans of the CAF have not been exposed to combat but have still been exposed to other traumatic events while in active service (i.e. sexual assault; National Defence, 2015; Suris, Link-malcolm, Chard, Ahn, & North, 2013). Much of the literature on PTSD in veterans labels PTSD as synonymous with combat PTSD, and there are gaps in the research that investigates the influence of the military culture on the development of PTSD. Given that some of the strongest predictors of developing PTSD include greater trauma severity, lack of social support and more

subsequent life stress (Brewin et al., 2000), there is hope that the CAF as an organization can significantly contribute to the wellbeing of its members and veterans. It is imperative that the CAF investigate the full spectrum of factors that have been shown to contribute to the wellbeing, or lack thereof, of their members instead of focusing solely on combat as an implied prerequisite to the development of a traumatic reaction.

## 2.2 Resilience Theory

This study is guided by theories of resilience and posttraumatic growth, which frame the understanding that despite tragedies of unprecedented magnitude, human beings have the capacity to survive, cope, and even thrive in the face of adversity. This study endorses the view of trauma as incomplete if it is to assume that health is defined as the absence of disease, and resilience as the absence of PTSD, as has been done historically by many health care professionals working with traumatized people (Almedom & Glandon, 2007). Many studies evidence cases of phenomenal resilience. War veterans, prisoners of war (POWs), genocide and survivors of the most horrific traumas often go on and live healthy, resilient lives (Dohrenwend et al., 2004; Feder et al., 2008; Pietrzak et al., 2010; Suarez, 2015; Wiesel, 1969) and children and youth have been found to thrive despite extreme adverse conditions (Klasen et al., 2010). This study aims to expand an understanding of the factors that contribute to a sense of resilience in the face of trauma as it pertains to a CAF member and veteran population.

Studied by researchers from diverse disciplines, definitions of resilience have evolved over time; generally, resilience within the literature is understood as referring to positive adaptation, or the ability to maintain or regain mental health, despite experiencing adversity (Berger et al., 2011). Differences in defining resilience within the

literature are largely centered on either conceptualizing resilience as a personal trait, or considering it as a dynamic process (Berger et al., 2011). In the beginning, researchers were focused on discovering what traits or strengths helped people survive adversity, while subsequent researches expanded the discussion to include investigations on the contributions of systems to the resilience of individuals (Cicchetti, 2010). Definitions of resilience have broadened to acknowledge that there are intersecting factors and systems that contribute to resilience, and that resilience may not be present across all domains of life due to its contextual, time specific, nature (Berger et al., 2011). Studies on resilience have expanded to include both the individual's life and development and the contributions of the sociocultural context (Berger et al., 2011).

In a meta-theory of resilience, Richardson (2002) outlines three waves of resilience within the literature. The first wave describes resilient qualities of individuals and systems that serve to predict a social and personal success. The second wave describes the process of resilience, focusing on the opportunity to integrate disruptions in life into a biopsychospiritual homeostasis. The third wave of resilience inquires about the source of resilience, and assumes that there is a force within everyone that drives them to seek self-realization, wisdom and harmony (Richardson, 2002).

Recently, there have been those who propose a focus of resilience research on the cultural and contextual contributions to an individual's resilience. Ungar (2012) proposes that focusing on resilience shifts the framework from a treatment or suppression of disorder model, to that which enhances wellbeing in populations under stress. He proposes that resilience is best understood when it is studied across cultures and contexts and that research reveals three principles that help shape the understanding of how

cultures and contexts contribute to resilience (Ungar, 2012). In his research across cultures, he found the following: a facilitative environment, where an individual experiences an optimal meeting of needs, can be more influential than the individual's internal resilience; a resilience promoting environment (versus a resilience thwarting one) provides resources relevant to those who need them; and that resources need to be tailored to the specific risk faced (health promotion, an example of a provision of resources available across a population, does not necessarily facilitate resilience since resilience is defined within the context of adversity; Ungar, 2012).

This study adopts a social ecological understanding of resilience, which is defined as follows:

In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well being, and their capacity individually and collectively to negotiate for these resources to be provided and experienced in culturally meaningful ways. (Ungar, 2008, p. 225)

This view of resilience is based on the following principles as defined by Ungar (2011): decentrality (social and physical ecology first, interaction between environment and person second, and person third when investigating resilience); complexity (not expecting a resilient person to be resilient at all times, under all circumstances), atypicality (resilience related qualities are contextual in that in some cases a behavior may be considered resilient and in other cases not); and cultural relativity (positive growth is culturally imbedded). This study was designed to inquire into the nature of resilience, and recognizes the need to understand both individual and cultural sources of resilience, while acknowledging the intersecting nature of their combination. It is important to note here, that the principles of a social ecological understanding of resilience are not included

in depth in the findings and discussion of this study, because they were not the focus of the present research inquiry. I came to appreciate a social ecological view of resilience after I had embarked on my research journey. As I listened to the stories of the participants of the study, I noticed a significant gap in the questions I was asking. I have included a social ecological understanding of resilience in the review of the literature, and in my suggestions for future research, as a way of reflecting my learning as a part of the study.

#### 2.2.1 Posttraumatic Resilience and Growth

Specific to this study, is the study of resilience in the face of traumatic events, and particularly how this relates to members and veterans of the CAF. The literature on trauma and PTSD has established that there is a wide spectrum of posttraumatic responses that manifest in individuals who undergo a traumatic experience (Agaibi & Wilson, 2005). Most people who experience trauma bounce back to resume homeostatic living (Bonanno, 2004; Wilson, 2006) and many show positive responses that they attribute to the traumatic experiences (Tedeschi & Mcnally, 2011). This study is underpinned by the conviction that the resilient and transcendent trauma survivor is a valuable source in shaping a complete understanding of the psychological, physiological and spiritual effects of trauma, and in the understanding of possible pathways to finding a sense of wellbeing in the face of, and perhaps as a result of, the trauma experience.

Of particular interest to this study are the qualities of the integrated-transcendent self-actualized posttraumatic self as proposed by Wilson (2006). The study aims to shed light on questions about why some survivors overcome and transform profound experiences of trauma while others develop chronic posttraumatic stress disorders. If we

are to determine how the integrated-transcendent self-actualized trauma survivor came to manifest in this way, then we are better suited to develop programs and provide support to those who are seeking help in healing and transforming their experience of trauma.

Resilient trauma survivors describe experiencing a transcendence of self where trauma has been overcome and integrated within a new identity structure, and the qualities of the experience can be conceptualized as "continuity, coherence, connection, autonomy, vitality, and energy" (Wilson, 2006, p. 3). John Wilson's (2006) composite personality profile of the integrated posttraumatic self provides a framework of understanding posttraumatic resilience behaviors or tendencies within the resilient posttraumatic self. He states that "the study of the healthiest, strongest, most resilient and psychologically integrated survivor holds the key to understanding self-actualizing, transcendent persons as well as those who develop chronic PTSD self-pathologies and other psychological disorders" (Wilson, 2006, p. 7).

Wilson (2006) offers 12 principles that characterize transformations of personality in resilient trauma survivors, and describes these substrata of self-transformation as "trauma messages" that "resonate from the heart and soul of survivors" (p. 405). Wilson (2004) offered the following characteristics to describe resilient trauma survivors:

- Vulnerability and illusions
- Pain, suffering, and transformation
- Acceptance: life's unequal playing field
- Limits to ego and humility
- Continuity to discontinuity in life
- Connection and sources of meaning
- Balance and groundedness
- Empathy, compassion, and freshness of appreciation
- Honesty and gratitude
- Love and generosity
- Self-transformation and reinvention
- Spiritual consciousness and altruism

Wilson (2006) developed the 12 principles from the following sources: (a) the expansive literature on PTSD; (b) clinical treatment approaches and their limitations in psychotherapy with trauma survivors; (c) anecdotal accounts of trauma survivors and patients from momentous historical events; (d) novels and biographical writings by trauma survivors; (e) the mythological literature found in anthropology and literary forms; (f) the literature on self-psychology and narcissistic personality processes; (g) recent research on optimal states of functioning; and (h) [his own] personal interviews from 1973 to 2005 with thousands of trauma survivors, most of whom suffered from anxiety, depression, substance abuse, PTSD and posttraumatic self-disorders (p. 403). Wilson (2006) suggests that self-actualization happens during a "peak experience" (p. 214), which he derived largely from Maslow's work in Toward a Psychology of Being (1968) and Motivation and Personality (1970). He frames the peak experience at one end of the spectrum of an integrative continuum of psychological experiences where dissociate disorders occupy the other end (Wilson, 2006). The peak experience is subjectively described as a state of "joy, rapture, awe, wonder, ecstasy, and feeling fully at one's 'peak' of power as a person" (Wilson, 2006, p. 216). The idea within therapeutic interventions, he suggests, is to create mini peak experiences to "contravene the presence of persistent stress response patterns" (Wilson, 2006, p. 447). In other words, it is to create the conditions that contrast the experience of tension and dysregulated emotions in PTSD to the pleasures and euphoria of the peak experience so that the individual becomes aware of alternatives to the suffering of PTSD.

#### 2.3 Current trauma treatments

There has recently been an increased recognition that social work interventions

should be evidence based (Fengzhi & Yunong, 2009; Thyer, 2008). Evidence based practice (EBP) in the field of social work is a term that emerged from the acceptance that social services are legitimized by their effects rather than by the solitary fact that they are consumed (Thyer, 2008). EBP can be defined as "a systematic process that blends current best evidence, client preferences (wherever possible), and clinical expertise, resulting in services that are both individualized and empirically sound" (Gibbs & Shlonsky, 2004, p. 137). In the field of trauma therapy, extensive research has led to the development of EBPs aimed at the amelioration of posttraumatic symptoms and other negative outcomes related to traumatic exposure (Fogler, Keane, McMackin, & Newman, 2012).

The CAF has prioritized the need for effective dissemination and implementation of evidence based treatment approaches for PTSD. Specialized treatment for PTSD for members of the CAF is offered through the Operational Trauma and Stress Support Centres (OTSSCs) and for veterans, it is offered through VAC. Evidence based treatments offered by these organizations include the following: Cognitive Behavioral Therapies (CBTs) such as Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT); Eye Movement Desensitization and Reprocessing (EMDR); and Pharmacotherapy in the form of selective serotonin re-uptake inhibitors (SSRIs) (National Defence, 2013; Veterans Affairs Canada, 2015).

PE is a treatment package that focuses on helping the client approach feared and avoided trauma related cues (memories, feelings, thoughts and situations that pertain to the traumatic event) (Eftekhari, Stines, & Zoellner, 2006). After psychoeducation and breathing retraining/relaxation training, exposure to traumatic cues is attained through *in vivo* and imaginal exposure. *In vivo* exposure has the client approach real-life situations

he/she has been avoiding but are objectively safe, and imaginal exposure has the client recount the traumatic memory (Eftekhari, et al., 2006). PE has a large base of empirical support among different trauma populations, including veterans; subsequently, the Veterans Affairs Office of Mental Health Services in the United States funded national training on PE as the treatment of choice for veterans with PTSD (Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010).

CPT was originally developed for rape victims, and is focused on exposure to the traumatic memory and direct challenging of maladaptive beliefs associated with the trauma that revolve around a range of emotions such as shame, sadness, and anger (Resick & Schnicke, 1993). Empirical evidence supports the efficacy of CPT as a therapeutic intervention for members and veterans with PTSD (Monson et al., 2006; Alvarez et al., 2011). Monson et al. (2006) believe that one of the most important aspects of CPT that makes it well suited to the member and veteran population of the military is its "ability to address cognitions related to committing, witnessing, and experiencing acts of violence, which often co-occur in the context of combat traumatization" (p. 904).

Controversial and debated within the literature, EMDR emerged in the 1980's as a way to loosen the mind/brain to remember trauma associated memories and images from the past in order to place them into the larger context of one's life (van der Kolk, 2014). Francine Shapiro discovered the effects of EMDR in 1987 when she noticed that rapid eye movements produced relief from her distress as she remembered painful memories while walking through a park (Shapiro, 2004). The method involves facilitating saccadic eye movements for a client while he/she holds the most salient aspect of a traumatic memory in mind, and is intended to reduce anxiety and change cognitions associated with

the memory (Shapiro, 1989). In a meta-analysis of EMDR, Davidson and Parker (2001) concluded that EMDR is an effective therapeutic intervention when compared to no therapy or non-specific therapy, and that it is on par with other therapeutic interventions that have been proven effective. Controversial to the methodology of EMDR, Davidson and Parker (2001) also found that eye movements or other alternating stimuli were unnecessary to the efficacy of the treatment.

Pharmacotherapy is a part of the treatment of PTSD within the military, particularly the use of Selective Serotonin Reuptake Inhibitors (SSRIs). Pharmacotherapy has a base of empirical support showing its efficacy in reducing the symptoms of PTSD (Ipser & Stein, 2012) and although it is beyond the scope of this study, it is important to acknowledge it as a part of the treatment given to members and veterans of the CAF.

## 2.4 Yoga Philosophy<sup>2</sup>

In what follows, definitions of the terms *Self* and *Mindfulness* are helpful in framing the concepts of the research.

The Self. In modern Western psychology, the concept of the Self is largely derived from the work of Sigmund Freud, and is focused on developing a healthy and autonomous egoself capable of directing life, dealing with frustrations, marshaling resources, coping with conflict, working, loving, creating, and caring for self and others (Kornfield, 2009). Many therapeutic interventions in the Western culture are largely based on a pathological medical model and focus on the dark side of human nature (Kornfield, 2009).

Transpersonal theories, more recent derivations in Western psychology, propose that individuals are capable of transcending the ego by deepening understanding of the

<sup>&</sup>lt;sup>2</sup> The words *Yoga* and *Self* are capitalized in what follows in this thesis to emphasize the importance of these concepts for the study and the study findings

true human nature, which is connected profoundly with other people and the universe (Canda, Chatterjee, & Robbins, 2012). These theories "make major contributions to understanding spiritual development, the human potential for creativity and expanded consciousness, and the integration of body, mind and spirit" (Canda et al., 2012, p. 404). In response to Freud's pathological psychodynamic theories, Carl Jung contributed significant works to the body of transpersonal theories. In his book *Modern Man in Search of a Soul*, Carl Jung (1933) offered that "psychoanalysis itself and the lines of thought to which it gives rise – surely a distinctly Western development – are only a beginner's attempt compared to what is an immemorial art in the East" (p. 216).

Buddhist psychology, with its focus on inner freedom and liberation of the heart through daily practices and trainings, takes the concept of the self to a level past the healthy development of an autonomous ego-self (Kornfield, 2009). Buddhist psychology offers the idea of a non-self; through letting go of identification with experiences and paying attention to one's perceptions, impulses and sensations with an objective observer-like awareness (Kornfield, 2009). Buddhist psychology suggests that what emerges is the process of life to be observed as a whole (Kornfield, 2009). Buddhist psychologist Jack Kornfield (2009) states that "the functional self, even at its most healthy, is not who we are. And to the extent that we adults remain caught and identified with any of the earlier stages of development, our suffering is perpetuated" (p. 66). Graham (2013) states that "the psychological self is made up of many selves, an integration of different patterns of neural firing that encode various memories or mental representations of different aspects of the 'self'" (p. 150). She goes on to explain how the

acceptance and care of all aspects of the self contribute extensively to one's ability to foster resilient patters of living (Graham, 2013).

Consistent with the above conceptualization, the philosophy of Yoga conceptualizes the Self as a multi-dimensional organism consisting of five layers, or sheaths. These sheaths consist of the physical, energetic, mental, intellectual, and soul bodies. These sheaths can be compared to layers of an onion or parts of a Russian Doll; the practice of Yoga is intended to integrate the five sheaths, thus eliminating fragmentation and establishing unity within the self (Iyengar, 2005). The practice of Yoga provides a framework for conceptualizing and caring for the different layers of the human being. Feuerstein (2014) sets Yoga apart from other models of psychotherapy by establishing how Yoga pursues introspection more completely than modern Western Psychology, because Yoga approaches self-understanding primarily – though not exclusively – by meditation and awareness that leads to a state of bliss where the subject and object in some way become merged. In what follows, the Self is conceptualized as a whole multi-dimensional being made up of physical, energetic, mental, intellectual and soul layers.

Mindfulness. Mindfulness is defined as moment-to-moment non-judgmental awareness (Kabat-Zinn, 2013). The practice of mindfulness was originally developed in the Buddhist tradition (Kabat-Zinn, 2013), and has recently received a great deal of attention in Western psychology (Follette, Palm, & Pearson, 2006). In addition, mindfulness is a core component of a Yoga practice, and this author attempts to examine how the practice of Yoga offers a mindful way to examine, accept and even potentially transform all components of the Self.

Yoga, often inadequately translated as *union*, represents both the action of the awakening to, as well as the description of our underlying True Nature or pure Being that is the birthing ground of authentic spontaneity (Miller, 2005). Desikachar (1999), a highly respected teacher and master of Yoga, says "Yoga attempts to create a state in which we are always present – really present – in every action, in every moment" (p. 6). It is often defined as a union of body, mind and spirit. Beyond this simple definition of Yoga, Desikachar (1999) says there is another meaning that can be understood by conjuring an image of a mirror with which we can look inside ourselves, where the practice of Yoga allows us to recognize our true selves more clearly. "Yoga has its roots in Indian thought, but its content is universal because it is about the means by which we can make the changes we desire in our lives" (Desikachar, 1999, p. 5). The practice of Yoga invites us to act and to be aware of our actions with a non-judgmental and compassionate attitude. The Yoga Sūtra, the most important philosophical ancient texts written by the great sage Patañjali to outline the yogic path, defines Yoga as the ability to direct the mind without distraction or interruption (Desikachar, 1999).

Like any other methods of psychotherapy or practices of Self-awakening, Yoga is not a fix-all or a recipe to alleviate all suffering; as a system that provides a framework to conceptualize the Self as a multi-dimensional organism, practicing Yoga can provide guidance and help in refocusing one's attitude in a direction of truth and freedom (Desikachar, 1999). A review of the literature on Yoga displays a multitude of disciplines that exist under the title of Yoga. Like branches of a tree attached to a single trunk, the diverse strands within the practice of Yoga are all connected to a basic cluster of ideas and practices. These strands of Yoga are united by their overarching goal, which is Self-

realization, or Self-awakening (Feuerstein, 2011).

In what follows, the author outlines the practice of Yoga as it stems from the tradition of classical Yoga. Formulated by the sage Patañjali in the Yoga Sūtra, classical Yoga is theorized through the practice of eight constituents or limbs, all designed to lead to a resilient and integrated self. The ultimate goal of the eight limbs is to reach meditation. Currently a discussion within mainstream Western culture, many sources claim that the practice of meditation will reduce stress. The concept within the yogic tradition is that meditation cannot be reached from a state of stress within the body and mind, and that reaching the ultimate goal of meditation starts with a foundational practice involving the physical body to find a relaxed state through exercise and breathing practices. This subsequently moves toward practices intended on integrating the more subtle aspects of the being (Iyengar, 2005).

In Western science, it is acknowledged that the human being is capable of experiencing physical, mental, and energetic fields of existence (Millar, 2005); Yoga further divides these dimensions of existence into five *koshas* or sheaths. The sheaths range from gross to subtle and are composed of the following: the physical body (awareness of sensation); the energy body (awareness of breath and energy); the emotional body (awareness of feelings, emotions and sense of I as a separate Self); the body of wisdom (awareness of thoughts, beliefs, and images); and the body of joy or the bliss body (transcendence of the instrument of experience; Niranjanananda Saraswati, 2012). As previously outlined, traumatic events "shatter the construction of the self that is formed and sustained in relation to others" (Herman, 1997, p. 51); the concept of the multi-dimensional self offers a valuable framework from which to build therapeutic

interventions with individuals who have been traumatized and are experiencing a complete fragmentation of the sense of self.

Classical Yoga, as developed by Patañjali in the Yoga Sūtra outlines eight limbs, or areas of practice that lead to the awakening of the Self and to ultimate connection. The first limb of Yoga is the bedrock of the practice, and is referred to as the *Yamas*, which can be translated as disciplines or attitudes (Desikachar, 1999). This limb is a moral code comprised of five precepts: nonviolence, truthfulness, nonstealing, abstinence from sexual activity that distracts from Self-actualization, and greedlessness. The endeavor to pursue Self-actualization from a base of moral discipline is not unique to Yoga, and can be found in all of the great religions in the world (Feuerstein, 2011). Desikachar (1999) prefers to consider these guidelines as attitudes that contribute to the behavior of the individual toward the outside world. Considering these moral disciplines or attitudes in light of individuals who have experienced trauma, they contribute to safety, the cornerstone in the trauma-healing journey.

The second limb of Yoga is referred to as the *Niyamas*, which can be translated as self-restraint (Feuerstein, 2011) or attitudes that one has toward the Self (Desikachar, 1999). They are comprised of cleanliness, contentment, heating the body or fitness, study of Self, and dedication to a higher power. More than specific practices, these concepts are suggested in Yoga as guideposts to help the practitioner navigate living in the world. For individuals who have experienced trauma, these attitudes toward the self contribute to the concept and importance of self-care.

*Asana*, the third limb of Yoga is the practice of physical postures, or exercise, intended to heat and purify the body in preparation for focusing, or meditation. Trauma is

often considered to be a 'mental' problem, or a 'disorder' of the brain; however, trauma is also something that happens and is often stored in the body (Levine, 2010). The most recent findings in neuroscience are difficult to integrate into CBT and psychodynamic psychotherapy, the most prevalent therapies currently taught in schools, due to the lack of attention within these models to disturbed physical sensations and preprogrammed physical action patters in traumatized individuals (van der Kolk, 2006). Literature supporting the notion that trauma can be processed using the physical practice of movement and awareness of the physical body is beginning to emerge. Levine (2010), through extensive work with survivors of trauma seeking therapy, created a process called *somatic experiencing*, where the individual experiencing symptoms of trauma uses a series of body exercises to reset the instinctive response to trauma.

The fourth limb of Yoga is *Pranayama*, and is often translated as breath practice. Prana, in the tradition of Yoga, is the vital force that sustains life, and every practice in Yoga is aimed at awakening this vital force within the individual human being and within the wider universe (Niranjanananda Saraswati, 2012). Pranayama uses the agency of the breath to attain balance in the body and control of the mind (Niranjanananda Saraswati, 2012). There are a myriad of studies to support the physiological benefits of a regular breath practice (Kabat-Zinn, 2013; Niranjanananda Saraswati, 2012; van der Kolk, 2006) and many mainstream therapeutic interventions now include a practice of mindful breathing in support of stress reduction.

*Pratyahara*, the fifth limb of Yoga, means sensory withdrawal (Desikachar, 1999) and is the practice of focusing one's attention so consistently that the senses no longer respond to outside objects. The senses, although valuable in many situations, distract the

focus of the practitioner of Yoga; the ability to withdrawal from, or go beyond/transcend the senses provides a means for controlling physical discomfort by directing the focus, or attention, elsewhere (Desikachar, 1999; Millar, 2005). Withdrawing from the distraction of the senses and developing a mindful approach to focusing attention allows the practitioner of Yoga to connect more deeply to the object of focus.

The sixth limb of Yoga is *Dharana*, which means to hold. The essential idea of this limb is to hold the attention in one direction (Desikachar, 1999). This object of focus can be anything at all; the idea in this practice is that the mind is focused on one single object. Traumatized individuals are challenged to fully engage in the present; "neuropsychology and neuroimaging research demonstrate that traumatized individuals have problems with sustained attention and working memory, which causes difficulty performing with focused concentration, and hence, with being fully engaged in the present" (van der Kolk, 2006, p. 281). Graham (2013) outlines how focusing attention on a particular object or experience cause the neurons related to that experience to fire, and provides an opportunity to harness the neuroplasticity of the brain to alter the conditioned patters of the brain and the automatic response of the brain to stress.

*Dhyana*, the seventh limb, means connection and happens when the mind is moving in one single direction. This, can be further expanded to conceptualize the idea that the self links to the object of focus (Desikachar, 1999).

Samadhi, the eighth and final limb, means to bring together or to merge (Desikachar, 1999). This merge happens when the mind becomes so absorbed in something that the Self becomes one with it. The object and the Self are not separate. Samadhi can be described as reaching the state of Yoga, the ultimate goal of the eight-

limbed Yoga practice.

The practice of Yoga is a practice of mindful Self-inquiry and Self-compassion, where the practitioner inquires into the components of the human experience, to include the physical body, energetic body, emotions, thoughts and beliefs, and the transcendence of the instrument of experience. This study intends to discover which components of Yoga are considered most relevant to members and veterans of the CAF in building resilience in the aftermath of trauma. How do service providers/users perceive Yoga as a therapeutic intervention after trauma? How is Yoga being used and received in the CAF population with PTSD? How do service providers/users of Yoga perceive it contributing to posttraumatic resilience and growth?

#### 2.5 Rationale for the research

Although research supports the efficacy of PE and CPT, there are considerable gaps in the literature as it pertains to members and veterans who do not benefit from these therapeutic modalities. Some literature has showcased the drop out rates in CBT for PTSD to be as high as 67.5% (Garcia, Kelley, Rentz, & Lee, 2011). A recent meta-analytic review of psychosocial treatments for PTSD found that a large percentage of treatment seeking individuals continue to show symptoms of PTSD after treatment, and less than half of the patients completing exposure therapy show meaningful clinical improvement (Bradley, Greene, Russ, Dutra, &Westen, 2005). These statistics justify the need to continue to evolve programs and options for members and veterans of the CAF with PTSD.

The resolution of conditioned fear responses, thought to be an important aspect of treatment in PTSD, requires the capacity to be able to tolerate internal sensations, which

proves difficult in cases of PTSD (Jaycox & Foa, 1996; van der Kolk, 2006).

Mindfulness meditation has shown positive results in affect regulation (Baer, 2003;

Holzel et al., 2011), which offers an optimistic method of building brain regions associated with attention, interoception and sensory processing (regions of the brain affected in trauma). It has been proposed that by practicing mindfulness meditation one can gradually increase the capacity to navigate stressful situations (Baer, 2003; Payne, Levine, & Crane-Godreau, 2015; van der Kolk, 2006), however it has also been noted that challenging physical and emotional experiences can arise during meditation, and some propose that this makes meditation challenging for someone with PTSD, and points to the need for a biological resolution of a traumatic experience stored in the body (Payne, Levine, & Crane-Godreau, 2015).

The field of research as it pertains to Yoga as a valid therapeutic intervention for individuals experiencing posttraumatic reactions is still in its infancy. Yoga has recently been associated with positive therapeutic outcomes in numerous clinical studies pertinent to the field of social work (Field, 2011) and is beginning to emerge in the field of research on posttraumatic stress, especially as it pertains to the regulation of affect and the nervous system (van der Kolk, 2014). This study aims to contribute to the research on trauma, particularly in the fields of posttraumatic resilience and growth. There is a potential with this study to influence and expand services provided to members of the CAF by drawing out specific themes pertaining to Yoga for future research in the field of posttraumatic stress. Social work with the CAF is not well known to the general public and this study could potentially provide an opportunity to make social work practices within the CAF more visible. As well, the research could provide a starting point for

follow on research in the field of social work as it pertains to the CAF population or to the research on trauma and PTSD in members of the CAF.

## 3. METHODS

This study employed qualitative analysis of one-on-one interviews with service providers and service users of Yoga based therapeutic interventions for CAF members experiencing PTSD. The data revealed common elements of the service providers' theoretical stances, and specific suggestions for the practical application of their theoretical stance. For a more complete analysis, these data were compared to the available accounts of service user experiences. This chapter addresses the following key components regarding the study's methodology: purpose of the study; research questions; epistemological perspective; theoretical frameworks; study design; sampling; data collection; data analysis; ethical issues, and trustworthiness of the study.

#### 3.1 Purpose statement

The purpose of this study from a practical standpoint is to inquire into the experiences of Yoga teachers and soldiers who have offered and participated respectively in Yoga based therapeutic interventions after trauma. The purpose of the inquiry is to discover if their perception is that Yoga contributes (or has contributed) to the wellbeing of the practitioner, and if so, which specific components they feel are the most significant contributors. Although the focus of the inquiry was on finding out how Yoga has contributed to the lives of the service users, all but one of the service providers of the study are veterans or previous civilian employees of the CAF; subsequently, the study was also designed to inquire about their personal experience with the practices of Yoga contributing to their wellbeing. From an empirical standpoint, the purpose of this research is to scaffold an initial framework for future research in the area of Yoga as a practice to increase resilience after trauma within services offered to CAF members. Finally, during

my studies I read that all research is actually 'me-search' and, in the case of this study, that conception is quite relevant. On a personal level, I wanted to inquire into my own journey as a soldier with a dedicated practice of Yoga, and examine why Yoga has contributed so greatly to my own sense of peace and equanimity in the face of extreme trauma.

## **3.2 Research Questions**

This study employs a qualitative methodology, specifically thematic analysis (Braun & Clarke, 2006), to answer the following overarching questions:

- 1) In the context of services offered to CAF members and veterans, how do service providers/users perceive Yoga as a therapeutic intervention after trauma? What is considered most valuable in Yoga as a therapeutic intervention for trauma?
- 2) How do service providers and users perceive Yoga as contributing to resilience in the aftermath of traumatic exposure?

The study employed an inductive approach to thematic analysis of the data. Thematic analysis is a basic method for qualitative methodology applied as a strategy for "identifying, analyzing and reporting patterns (themes) within data." (Braun & Clarke, 2006, p. 79). Unlike other analytic methods, thematic analysis is flexible in that it can be applied to different epistemological frameworks (i.e. realist or constructionist) so long as this is clearly articulated (Braun & Clarke, 2006).

Braun and Clarke (2006) outline six stages to thematic analysis, which were followed in this study. They are as follows: familiarization with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes, and

production of the report.

## 3.3 Epistemological Perspective

The study assumed a social constructivist paradigm. A social constructivist worldview considers that individuals develop subjective meanings of their experience, which they project onto objects or things. It also assumes that there are multiple and varied meanings of these objects or things, and the goal of the researcher is "to look for the complexity of views rather than narrowing meanings into a few categories or ideas" (Creswell, 2014, p. 8). In line with this worldview, the study employed open-ended questions and carefully considered the social and historical contexts that surround the participants of the study.

This particular paradigm is relevant to the suggested research in that it "seeks to develop a consensus among participants about how to understand the focus of inquiry" (Engel & Schutt, 2013, p. 50). In addition, it supports the assumption that if components of the therapeutic intervention being researched are useful for the research participants, then they are highly likely to be transferable to other veterans or current serving members of the CAF.

#### 3.4 Theoretical Frameworks

The process of transforming trauma and maintaining a sense of personal integrity is ultimately the quest to be fully human.

Wilson (2006, p. 421)

In order to make meaning and give structure to the study's data, this study is guided by theories of trauma and resilience, and in particular by Wilson's (2006) framework on posttraumatic resilience. By definition, trauma is "unbearable and intolerable" (van der Kolk, 2014, p. 2), and "psychological trauma is an affliction of the

powerless" (Herman, 1997, p. 33). Most individuals who experience a traumatic event emerge without developing PTSD, and some even emerge from the abyss of the traumatic experience with a sense of self-transcendence and resilience, providing rich areas of study in the field of posttraumatic resilience (Wilson, 2006).

Especially pertinent to this study, is Wilson's theory of the manifestations of the posttraumatic self, and in particular, his theory of the resilient posttraumatic self. Wilson's (2006) presentation of the posttraumatic self offers a holistic view of the possibilities of how trauma can and has manifested in individuals, and he provides an outline of 12 principles that characterize transformation of personality in resilient trauma survivors (see literature review for more detailed information on the 12 principles). I discovered Wilson's work while collecting the data for this study, and the reason that I use these 12 principles is because they fit so closely with the themes drawn from the data analysis of this study. These principles credit the practices examined in the study, and provide an understanding of the data within a larger context of trauma and posttraumatic resilience.

In order to provide further contextual credibility to the accounts of the participants' experiences, I ground the data in sources of current trauma research in the field of neuroscience, particularly as it pertains to resilience. The neuroscience research on the subject of resilience used in the presentation of this study intends not only to help ground the practices described in current scientific research, but also to provide suggestions for future research and program development in the arena of mental health and resilience as it pertains to the CAF.

## 3.5 Study Design

This qualitative investigation examined the experiences of service providers (n=4) and service users (n=2) of Yoga based therapeutic interventions for PTSD. This study employed in-depth interviews with open-ended questions conducted face-to-face, via Skype/FaceTime, or via phone; in order to enhance the depth of personal reflection requested as a part of the interview, participants were also invited to send any further reflections to me either via phone or e-mail if they felt appropriate to do so.

### 3.6 Sampling

Participant recruitment criteria included adult individuals (18 years old and over). In the case of service providers, criteria included having completed a Yoga teacher training and offered a CAF or VAC sanctioned Yoga program as a therapeutic intervention to members or veterans of the CAF who are experiencing posttraumatic stress. In the case of service users, criteria included veterans who participated in the Yoga based therapeutic intervention. All service user participants of this study were veteran participants of The Peaceful Warrior (TPW), a group therapeutic intervention incorporating the philosophies and practices of Yoga.

I used a purposive and convenience approach to sampling. All of the service provider participants were chosen based on the above criteria and were considered to be rich sources of information from which could be learned a great deal about the issues of central importance to the purpose of this research (Patton, 2002). In addition, I was informed of the Yoga teachers through snowball sampling and approached the participants via e-mail with the invitation to participate. All of the service providers who

have participated in a CAF sanctioned Yoga-based therapeutic intervention agreed to participate in this study. I do not have fidelity on VAC sanctioned programs, and cannot confirm if there are other VAC sanctioned service providers than the one who participated in the present study.

For service users, clientele who participated in TPW were approached through Dr. Ken Dunn, the service provider of TPW program. All of the participants of TPW were given a letter of invitation (Appendix A) electronically, and invited to contact me directly if they were willing to participate in the research. The Research Ethics Board at Wilfrid Laurier University approved the study.

#### 3.7 Data Collection

In depth interviews were the primary data collection tool used within the current study. The interviews were implemented through a semi-structured interview schedule done one-on-one by me with each research participant. The interview schedule contained questions created to solicit detailed information about the service provider and service user participants' ideas and experiences of Yoga as therapeutic tool in the aftermath of trauma. Some examples of questions that guided the interview to service providers are as follows: What does Yoga mean to you? Would you say that you have observed Yoga as a contributor to the well-being of your clients/students? How? How do you feel that the techniques/practices you have learned through Yoga contribute to your way of being in the world? For service users: If resilience is defined as *positive adaptation, or the ability to maintain or regain mental health, despite experiencing adversity* or *one's ability to bounce back from adversity*, how do you feel that TPW affected (if at all) your resilience? What are your thoughts and feelings about the Yoga portions of TPW program?

Participants were provided with an information sheet on the study (Appendix A for service users and Appendix B for service providers), a consent form (Appendix C for service users and Appendix D for service providers), and a copy of the interview questions (Appendix E for service users and Appendix F for service providers).

Participants who were accessible to meet me in person met in a convenient community location of mutual choosing, and those who were not accessible to meet in person participated in the interview via phone or Internet communication service (Skype or FaceTime). All interviews were digitally audio recorded. The interviews were semi-structured, individual, and conducted one-on-one.

## 3.8 Data Analysis

The digital audio recordings were transcribed verbatim and verified for accuracy by playing back the audio recordings simultaneously to reading the transcripts.

Identifying information was removed from transcriptions and each participant was assigned a numerical code. The data was examined using thematic analysis.

Thematic analysis is a method used to identify and analyze themes within the data; unlike other methods, thematic analysis is not strictly connected to a particular theoretical framework (Braun & Clarke, 2006). Themes were identified within the data using an inductive approach and the theoretic framework for the data analysis was chosen after themes were identified within the data. It is important to note that "researchers cannot free themselves of their theoretical and epistemological commitments, and data are not coded in an epistemological vacuum" (Braun & Clarke, 2006, p. 84). In this study, data analysis was informed by Wilson's (2006) theoretical framework and overall by social constructivism. This study's data was inspected at the latent level. Analysis at

the latent level goes beyond the semantic content of the data and begins to identify underlying ideas, conceptualizations and assumptions that theoretically shape or inform the semantic content of the data (Braun & Clarke, 2006).

I coded thematic analysis by reading the transcripts several times and noting preliminary ideas, producing initial codes by highlighting relevant data, generating themes by collating codes across the data set, reviewing themes to develop a thematic map, refining themes, and generating the final report by linking selected themes to the literature.

#### 3.9 Ethical Issues

Although the service provider participants of this study are professionals, there were risks considered when extending the invitation to participate. Service provider participants are at risk of emotional distress by participating in the study, however their risk is significantly minimized with their identification as a provider of Yoga based services for persons experiencing PTSD. Service provider participants were offered the option to be acknowledged in the study and were provided with an informed consent outlining the aforementioned risks. Due to the extremely small number of Yoga teachers who have offered Yoga based interventions to veterans of the CAF, the information in the study is identifiable to the Yoga teachers who participated. All of the service provider participants chose to have their name associated with the study and consented to this agreement in writing on the informed consent (Appendix D).

Service user participants of this study were exposed to potential emotional and social risks. All research involving therapeutic interventions involves the risk of enhancing the distress of participants. In this study, there was a risk that the participants

will retrieve traumatic memories while participating in the study. This risk was minimized by the availability of therapeutic support throughout the period of the study. Participants could experience feelings of stress or anxiety about the confidentiality of their shared information as a part of the research. To mitigate this potential risk, transcripts were stripped of identifying information and stored on a password-protected computer and a password-protected backup system. Only my thesis supervisor and I had access to this information.

One of the most significant ethical issues in this research design was that I am myself a current serving member of the CAF. This could have caused pressure on service user participants to participate in the research; or, in the case of those who chose to participate in the research, my position within the CAF may have caused the participants to withhold information as a part of the interview. My efforts in keeping confidentiality of the study data mitigated any potential risk for participants' information becoming public; however this promise may not have mitigated any stigma associated with sharing information with members of the CAF. One of the ways in which I helped alleviate any pressure or stigma was to dress in civilian clothing when meeting research participants, instead of dressing in a uniform. I clearly explained my position within the CAF, and my motives for conducting the research, which include expanding the services provided to CAF members. All of these risks were outlined in the service user informed consent form.

This study's purpose, interview questions, possible participants, information letters, and informed consent forms were all presented to the Wilfrid Laurier University Research Ethics Board in the fall of 2014. Approval to conduct the study as proposed was

granted on November 25, 2014.

## 3.10 Trustworthiness of the study

Credibility of the study was furthered by the use of the following:

- a) *Member checking*. At the conclusion of the study, some participants were contacted to share the findings of the research. Participants were invited to ask questions, offer clarification, or offer additional information to the findings of the study.
- b) *Theoretical triangulation*. Study data was analyzed using both trauma and resilience theories in order to lend trustworthiness to the interpretation of the study data (Glesne, 2010).
- c) *Knowledge and discussion of the limitations of the study*. Limitations of the study were discussed as a part of the presentation of the findings to ensure that readers understand what data was unavailable to the scope of this study.

#### **3.12 Summary**

In summary, this qualitative inquiry applied an inductive approach to the thematic analysis of six one-on-one interviews conducted with service providers and users of Yoga based therapeutic interventions for trauma within a CAF member or veteran population. The research was conducted from a social constructivist epistemological paradigm, and aimed to answer the following overarching inquiries: In the context of services offered to CAF members and veterans, how do service providers/users perceive Yoga as a therapeutic intervention after trauma? What is considered most valuable in Yoga as a therapeutic intervention for trauma? How do service providers and users perceive Yoga as contributing to resilience in the aftermath of traumatic exposure? Data was grounded in theories (and research) of trauma and resilience, especially in the area of posttraumatic

resilience.

## 4. FINDINGS

The previous chapter explored the use of thematic analysis as a method for the data collection and analysis of the study. This chapter presents the findings from the analysis of data and seeks to integrate the overarching themes of the study in order to suggest areas of future research in the areas of trauma and resilience.

#### **4.1 Participants**

There were 6 participants in this study, 4 were service providers and 2 were service users of Yoga based therapeutic interventions. The service provider participants were composed of 3 men and 1 woman. Of these 4 participants, 2 are retired veterans of the CAF, and 1 is a retired civilian member of the Department of National Defense (DND). The fourth service provider is a psychologist by trade, and has experience providing mental health services to CAF members through Veterans Affairs of Canada (VAC). All service providers of this study elected to have their name associated with the study and are referred to by their real names.

The service user participants were both male and are retired veterans of the CAF. Both participants were members of the combat arms, and during their interview with me they shared part of their experiences with the traumas of war. Both individuals referred to their diagnosis of PTSD as a result of experiences in the context of war, although I noted that they testified to many factors contributing to their experience other than simply the experience of combat. An in depth account of the stories of their personal experiences with trauma are beyond the scope of this study, although it is important for me to note that I was most humbled that they would share parts of their story with me. I believe that their courage is a testament to how members and veterans are willing to tell others about

their experiences, given the right environment. In the reflexivity section at the end of the study, I reflect more deeply on my personal experience as I listened to these two participants. I note particularly how their stories contributed to a more full understanding for me of trauma and posttraumatic resilience and growth. One of the service user participants did not want his name associated with the study; subsequently, out of respect for his privacy, and with their permission, I have given both service user participants pseudo names: Edward and Anderson.

## 4.2 Themes

The data are separated into two major themes: 'The Felt Sense Of Spirit' and 'Finding Resilience Through Alignment With Purpose Using The Mind-Body Connection.' The following figure provides a synopsis of the major themes and subthemes from the data.

**Figure 1: Data Analysis Synopsis** 

	Service Providers (SP)		Service Users (SU)
1)	Major theme: The Felt Sense of Spirit	1)	Major theme: Reflections on TPW
	Sub-themes		Comparison
a)	Integrity Of Self		a) Mind-Body Connection in Trauma and Resilience
b)	Spirit As Fundamental To		b) Purpose As Essential To
	Resilience		Resilience
c)	Mind-Body Connection as a way of		c) Sense of Connection,
	finding the felt-sense of spirit		Camaraderie and love as healing
d)	Practice (cumulative effects of		d) Practice (healing takes time, not
	practice)		a fix all)
2)	Major theme: Finding Resilience	2)	<b>Major theme: Engagement In</b>
	Through Alignment With		TPW From A Client Point of
	<b>Purpose Using The Mind-Body</b>		View
	Connection		
	<u>Sub-themes</u>		Comparison
	a) Awareness (interoception,		a) Awareness induces relaxation
	mindful awareness)		
	· · · · · · · · · · · · · · · · · · ·		b) Acceptance (Forgiveness as
			b) Acceptance (Forgiveness as revolutionary)
	b) Acceptance (surrender, forgiveness)		revolutionary)
	b) Acceptance (surrender,		revolutionary) c) Appreciation (Gratitude as a
	b) Acceptance (surrender, forgiveness)		revolutionary)

#### 4.3 The Felt Sense of Spirit

#### 4.3.1 Integrity of Self

In exploring the experiences of Yoga teachers who use Yoga as a treatment in trauma interventions, I began by asking what Yoga means to them in terms of how Yoga has affected their life, and how they observed Yoga contributing to the lives of their clients. I wanted to know what they believed was so valuable about Yoga in the face of trauma. All of the service provider participants commented on how the mind, body, spirit connection is a fundamental component of their experience of Yoga:

"Yoga is for me, everything, mind, body, and spirit" (Monica).

"Everything is connected. Emotional body and your physical body are very strongly connected" (Larry).

Some spoke about the harmony of mind, body, and spirit as a place from which to find peace and equanimity.

I really like the idea that it's the ability to bring mind, body and spirit into harmony, and I think when we do that, we create a place from which we can maybe perceive ourselves more clearly. It's a place that is really not distorted by preconditioned thoughts, feelings or experiences. (Brendon)

They spoke about the importance of keeping the holistic connection of the parts of the self together, which I am conceptualizing as 'integrity of self.' When I asked them which parts of Yoga were most important, they reflected that there is no one piece that is more important, but instead that it is the combination that is key. "It's all linked – there is not one piece by itself" (Larry). Larry gave the analogy of humpy dumpty when explaining how trauma fragments the experience of the self and how Yoga offers a holistic framework for Self-integration and linking together the fragmented parts.

When people break they need to ... be stitched and integrated back together again and it is hard for one thing to do that ... It is a little like humpty dumpty. When they fall apart, they fall all apart, not a little bit apart. So to bring them back together you have to address all the parts.

Similarly, Ken offered that from his point of view as a clinical psychologist and Yoga teacher, Yoga acknowledges all aspects of the experience of being human, to include the physical and the spiritual, where many contemporary psychological theories do not put the biopsychospiritual model into practice.

I would see Yoga as a step up in a way because of its focus on all aspects of experience including the physical and the spiritual. And the physical and the spiritual have been the dimensions missing in psychological practice in my opinion for a lot of ... in a lot of psychological practice, those aspects are talked about but they're not necessarily implemented. Yoga seems to me provides a multidimensional, multidisciplinary set of tools that can be used to help people.

The participants of this study were adamant that the power of Yoga lies in its holistic nature and its acknowledgement that the components of being human (body, mind, spirit, thoughts/beliefs, etc.) are all linked to one another.

The service user participants offered that their experience of trauma is that it affects the physical, psychological and spiritual components of the self. One participant talked about how, during a flashback, he had a physiological response to seeing a man in a turban, even though he does not desire any prejudice against Muslim people. He said that his reaction to seeing this man was a "physical phenomenon that happened to [him]" (Edward). When this participant talked about his experience of PTSD, he used a body reference to describe the felt sense of his soul being wounded in trauma: "In fact, you know ... I feel like my soul has been violated ... I feel like a chunk of my heart has been taken out" (Edward). Subsequently, when he talked about finding a sense of resilience as a result of TPW, he discussed it as both a psychological knowing and a knowing in his body. This is discussed in more detail in the sub-themes that follow.

#### 4.3.2 Spirit as Fundamental to Resilience

The idea of integrity of the self included a discussion on the importance of acknowledging and cultivating a sense of spirit in the building of resilience. The service provider participants talked about the importance of connecting to a sense of purpose, and the healing power of the firsthand experience of feeling connected to something greater than the self. The service provider participants described the spirit as a sense of connection to the rest of existence. They described spirit as a felt sense of connection, as though it is something that could be sensed in the physical body. The terms that they used to describe spirit included "true self," "connection with the rest of existence," "inner resource," "inner reference," "heartfelt desire," "purpose," and "love." Brendon talked about how he would not label himself as a particularly spiritual person, but describes a definition of spirituality that he was able to come to terms with.

I like to think of spirituality in the most basic terms as our ability to connect with something that's larger than ourselves. With the rest of existence... And for some people that includes a divinity and for others it necessarily doesn't. But just that ability to be connected to sort of ... you know to love and be loved in the true sense of the word love not romantic love but just overall like caring for other human beings and allowing yourself to be cared for as well. So that's sort of like the basic definition of spirituality that I like to use. You know, that ability just to be connected to something more than yourself, knowing that you're not alone.

Brendon reiterated the importance of this connection (to love and be loved) for those who are experiencing PTSD, due to the fact that many feel isolated and alone. He referenced spirituality and the sense of connection as an essential piece to moving forward from trauma. "[Those with PTSD] may be physically healthy and they may even be mentally stable but if they don't have that last piece of the puzzle where they actually feel like, "wow", that really makes it difficult to move forward" (Brendon).

Validating the need to acknowledge the spirit as a part of the Self, the service users talked about PTSD as a "soul wound" (Edward). "In fact, you know, I feel like I've been ... I feel like my soul has been violated. You know, I've b... you know I feel like a chunk of my heart has been taken out ... you know?" (Edward).

Other service provider participants of this study agreed that this sense of spirituality and connection is essential to posttraumatic resilience. Ken referred to the phenomenon of sensing the spirit and knowing the "true self" as the ultimate discovery of the Self within this lifetime.

And even though [Yoga] has been degraded into a physical practice a lot of the time ... and, you know, it's interesting to see that some people interpret it that way because that's what they need at that given point in time. But it has the potential to move people beyond that to really look at the inner world, their *true* selves, beyond the body ... even though it's focused on the body, the heart, the mind, the soul ... it goes ... it's a holistic practice that really allows us to discover our *true* natures beyond our bodies, beyond our minds. Even beyond the soul ... because the way I see the soul is sort of as the individual embodiment of the spirit.

Ken also used the term love to describe the practice of Yoga. He said, "Ultimately, I think, it comes down to love. You know, the practice of Yoga is really the practice of love, loving kindness and compassion."

The service user participants expressed experiencing a sense of love and connection during TPW training. One participant said that part of his experience in TPW was the experience of love. "[Dr. Dunn] makes us feel like we have a purpose. He makes us feel like we're loved by people in general. And I hope that other guys felt love as well" (Edward). When I asked about the most prevalent positive experience from TPW, both service user participants commented on the sense of connection that came to them from knowing that they are not alone in their experience and that the other participants are experiencing their version of posttraumatic stress.

We're all in the same boat with the program. And everyone's experience is different. But this is one of the few things that could draw us all together and work through this, cause everyone brings some baggage back ... whatever label you want to put on it, everyone brings war baggage back. (Anderson)

One of the service user participants of the study said that he realized, as a result of TPW, his worth and his contribution to society in his role as a CAF member. After retirement, he felt that he was no longer defined by the job that he had done for his entire career, which he found difficult. He said that after TPW, he redefined himself as a superhero: "You come back here [after deployment] and people are living their lives. Free. And that's because of you. That's because of all of us" (Edward). He called this a revelation and said, "I don't care if nobody else knows what I've done, where I've been. As long as [I] know" (Edward).

## 4.3.3 Mind Body Connection As An Essential Place to Start

When I asked the service providers if they noticed any change in their clients' sense of connection, they offered that "they have to connect to themselves" in order to be able to connect with the rest of existence (Monica). In order to connect with others, individuals need to first be able to connect with their Self, and part of that (which is particularly problematic for someone experiencing PSTD) includes being able to tolerate the visceral sensations in the body.

If they can do that as well, connect first with themselves, because the numbness, and the detachment is what PTSD is all about. They don't want to feel that because they are scared of their own bodies and their reactions to it. It is getting them at ease, with their bodies, their sensation, and connecting again with their heart and that's foreign. Connecting with the heart for military is a foreign concept for them and saying you know, love yourself – ugh – you know. They have been so trained to not-to connect there so this is a *huge* thing to do. It is a jump, it is a hurdle, it is a huge hurdle to connect with that emotional contact and their heart. (Monica)

The research in neuroscience confirms the problematic nature of the mind-body connection in trauma survivors; this highlights the challenge for trauma survivors to sense into their internal experience for fear of becoming overwhelmed and immobilized as in the case of the traumatic event (Levine, 2010; van der Kolk, 2014).

Within this study, the service provider participants agree that the starting point in learning to negotiate the powerful sensations of feelings and emotions is with the physical body (through engaging mindfully in body sensing and breath). All of the service provider participants gave their personal accounts of how a regular practice of body and breath awareness gives them a sense of being grounded that allows them to choose their response to a stimulus instead of reacting automatically to it.

The more often I do it the better I feel. In the sense that my residual worry is much lower and that I could choose responses. So I went through the journey of witness consciousness and the observer and what that means. And when you practice it enough you kind of get this sense of – okay now I see what is happening. This whirlwind has got me I'll just ride it out, I'll bring it to the end and choose what I can do. (Larry)

The service provider participants also gave their testimony of having witness the progress and transformation of some of their Yoga participants.

Certainly now a lot of them are able to recognize when they're being triggered or they're close to being triggered, and they're able to take a little bit of preemptive action to short circuit that process. So, they'll engage their breath, and I think again it's a matter of practicing that to the point where it becomes almost second nature. (Brendon)

In his personal testimony (above), Larry mentions his experience of 'witness consciousness.' Witness consciousness, as defined within the Yoga literature, is a state of awareness that arises in the practice of non-judgmental self-awareness/self-observation.

Witness consciousness arises when the individual experiences the *felt sense* that they are

not the sensation, emotion or thought that arises, but instead that they can witness the experience as a part of the whole.

Within this study, the participants described witness consciousness as the *felt sense* of spaciousness and as a knowing that they can choose their response to situations. They presented their experience as a realization of their agency. "It is like I can watch my body's response and choose how I am going to deal with that. I can *choose* a separation" (Larry). "I would use the Yoga techniques I was trained in to change my breath, to relax my body, relax my muscles, monitor my thoughts, you know become aware of what was going on, and then consciously change my reaction" (Ken).

Agency, a sense of owning one's own life, is an essential component of healing trauma and it starts with an awareness of what is going on within. "If we are aware of our inner and outer environment, we can mobilize to manage them" (van der Kolk, 2014, p. 95). Engaging the part of the brain that is responsible for monitoring our inner sensations, the medial prefrontal cortex, is what is going on in a practice of mindfulness (van der Kolk, 2014).

The idea of practicing mindfulness in Yoga is that the practitioner can start with mindfully observing physical sensations, and then progress to the observation of emotions and thoughts that create similar sensations in the body. The following comments from Brendon nicely refection this concept:

So as you move from pose to pose, you're experiencing sensation in different places. So they're practicing watching what they're feeling, and we're teaching them to watch it with acceptance, so try to watch it without judgment, without saying that's good sensation, that's bad sensation. That's just the way it is, so as long as I'm not causing myself pain, I can engage my breath, and I can probably sit and watch some sensation that I may consider to be unpleasant. So we're really training them, first of all, to get in touch with what they're experiencing physically, and then secondly to be ok with that. And I think that that process ...

you know, you start with the body and you can apply exactly the same technique to the mind, and I would I don't know like I often say that emotions are just sensations of the mind. So if you become proficient doing it with something in your body, eventually with time when that fear or that feeling of terror arises you can say, oh that's just a sensation and I can breathe my way through that exactly the same way I can breathe my way through stretching my tight hamstring.

The service user participants from this study expressed a felt sense of relaxation from the practices of Yoga shared in TPW. "You're never put in such a position where you're so relaxed. Yoga contributed greatly to that ... it was nice to be able to let your guard down for a prolonged period of time" (Anderson).

Similar to the service providers, the service user participants also offered their experience with mindfulness as a daily practice that slows the passage of time and improves their relationships with others.

I have been trying to remember to use mindfulness in my life since and it has really helped! It helped solidify my relationships and how I interact with the people I love and quite frankly, with people in general. It also helped improve my skills as a furniture maker for instance. It is really great to be able to slow yourself down and thereby train yourself to appreciate the things that you do or have. I think it also makes you somewhat grateful for whatever it is you are doing at the present time. In my opinion, practicing mindfulness is to a certain extent is slowing down the passage of time! (Edward)

One of the participants talked about the body specifically as an arena to practice mindfulness and to get to know about better ways to "take care of yourself" (Anderson). When he talked about the Yoga portion of TPW, he said, "[Yoga enabled me to] better stretch and better condition myself from the injuries, and ok here's what I can do, here's what I can't do and then I'll gradually work it".

#### 4.3.4 The Cumulative Effects Of Practice Take Time

As a part of the interview guide (see Appendices E and F), I defined resilience as positive adaptation, or the ability to maintain or regain mental health, despite

experiencing adversity or one's ability to bounce back from adversity. When I asked the service provider participants if they feel that Yoga contributes to their resilience and the resilience of the clients that they offer Yoga to, there was no exception to their collective response that Yoga does contribute to resilience *if* it is practiced on a regular basis. The following are some of their reflections on their personal experiences with Yoga as a practice:

It is like any discipline that needs to be practiced. If over time, you have not continued the practice then you start to lose the ability to have the effect.
[I]t is partly why I continue Yoga because all the times that I've stopped Yoga I've felt like shit (Larry).

[I]f I'm practicing on a regular basis, the small things just don't seem to bother me as much, where ... and the triggers in life that we may be subject to because that's the way it's always been, these patterns that we fall into, they just don't seem to flip the switches as easily as if I wasn't keeping my state of mind grounded and healthy (Brendon).

I would use the Yoga techniques I was trained in to change my breath, to relax my body, relax my muscles, monitor my thoughts, you know become aware of what was going on, and then consciously change my reaction. And so what happened over the course of several years, was that the more that you do that, it becomes an automatic behavior, so it just becomes an automatic response. So instead of, you know when something terrible happens, you respond in as positive a way as you can, it just becomes a habit, it becomes a normal way of interacting (Ken).

[M]y own training over the course of this year working with the guys and women really emphasized the fact that they *have* to do more than just coming into that that hour class or hour and ten minutes. If they don't change some of their habits at home, it is not going to work. It won't look at the whole being. I don't preach that they have to change everything, just small changes (Monica).

The service provider participants and the service user participants of the study agreed that the practice is not a fix all, and that resilience is not a destination that one arrives at and then never has to find their way there again. "It's not a panacea" (Ken). All of the participants of the study framed the skills that build resilience to be something that one needs to continue to practice in order to receive the benefits. One of the service user

participants compared learning the skills of resilience to learning how to fish. "You know they give you a tool. They don't give you ... like I said it's not like a pill, you know, they give you tools to help you. They show you how to fish" (Edward).

When he spoke of resilience, he compared it to a seesaw or the "teeth on a saw" that go up and down (Edward). He talked about how TPW teaches people how to get back up when they fall. He said, "You don't go home and everything's good, you know, but [TPW] teaches you how to get yourself back up. So you can fall as much as you want. You know, you should be able to get yourself back on your feet ... every time" (Edward).

Both the service provider and service user participants agreed that finding the time and support to continue to practice the skills is challenging. Brendon described this as "the hardest part ... the hardest part for people is to practice on a regular basis."

# **4.4 Finding Resilience Through Alignment With Purpose Using The Mind-Body Connection**

In what follows, I report the major practices that the service provider participants outlined as most important in building resilience in the face of trauma. The four main subthemes that emerged as recommended practices for building resilience in the face of trauma were as follows: 1) awareness of what is happening in the present moment experience (breath, body sensations, emotions, thoughts); 2) non-judgmental acceptance of the present moment experience; 3) appreciation and the practice of gratitude; 4) Altruism and finding alignment with a life purpose. The data are compared with how the service user participants in the project discussed their experiences of these concepts within TPW.

#### 4.4.1 Awareness

I believe that people who are most resilient, and find the greatest peace in their lives, have learned to tolerate extreme sensations while gaining the capacity for reflective self-awareness.

Levine (2010, p. 137)

All of the service provider participants discussed the importance of developing awareness as a foundation from which to build the practices. They discussed the awareness of body sensations and breathing as key components of self-regulation. They described their own personal experiences of practicing non-judgmental awareness of what is happening in the body as a result of a stimulus, using the breath as a tool to calm the nervous system. They described these as skills that allowed them to create the space to choose how they will respond instead of reacting automatically to the stimulus. One participant described his practice of awareness as something that helped him more effectively negotiate stressful jobs in the CAF.

I went through the journey of witness consciousness and the observer and what that means. And when you practice it enough you kind of get this sense of – okay now I see what is happening. This whirlwind has got me I'll just ride it out, I'll bring it to the end and choose what I can do. Watching my body's emotional responses a little more closely. That, in part, helped me a lot because I was in a lot of very stressful jobs. It also gave me the ability to deal with people more effectively because I wasn't getting energized by their energy, I was just being able to sit with it. So I wasn't reacting to them I was just listening to them. (Larry)

Witness consciousness, as mentioned earlier, is a disidentification from the sensation being experienced, and is the seat of the practice of non-judgmental awareness. Wilson (2006) highlights the value of being in the moment, accurately focused, egotranscendent and detached from self as skills that maximize "native intelligence," "capacities for information processing," "executive functioning," and gaining "a clear and coherent sense of what needs to be done to achieve a positive outcome" in the face of challenge (p. 378). The service provider participants described this practice of non-

judgmental awareness, or witness consciousness, as something that allowed them to slow things down enough to choose their reaction to a stimulus instead of falling into automatic patterns.

Another service provider participant described his personal experience similarly to Larry, saying that he replaced his habitual response of anxiety following a negative stimulus with deep breathing and non-judgmental awareness of sensations and thoughts. "I would use the Yoga techniques I was trained in to change my breath, to relax my body, relax my muscles, monitor my thoughts, you know become aware of what was going on, and then consciously change my reaction" (Ken).

When asked about their experience offering Yoga to veterans of the CAF who are experiencing PTSD, these are some of the responses of the service provider participants:

[The mindful Yoga program] was twelve-weeks of learning to build a toolbox of things to do, a lot of work on breath, a lot of work on breath and movements, building body awareness because for many were vets with PTSD, not only army vets, RCMP, and Corrections Canada were people in my class. It is learning to recognize what their body feels like and be able and willing to feel the body as opposed to closing it off (Larry).

So a goal with TPW program, was to develop a sense that what they need to do is develop a habit, for it to be a lifelong learning process. So that when faced with the next demon, the next flashback, or whatever, that instead of just responding to it without awareness, and suddenly finding themselves in a constant downward negative spiral, that they go, "ah ... I'm having a flashback, what do I do?" (Ken).

[I]n Yoga, or at least the kind of Yoga that I've been taught and am teaching... is that you're asking people to continually bring their awareness to their experience of the present moment (Brendon).

[W]e talked about the breathing. We talked about the mindfulness, so their awareness, their sensations, and trying to get them in touch with that and in tune with their own sensations (Monica).

Research is showing that the only way we can consciously access the emotional brain is through self-awareness, which involves activating the medial pre frontal cortex (MPFC;

van der Kolk, 2014). The participants of this project discussed the importance of practicing self-awareness as the starting point of being able to make *choices* about the way they want to move forward. The service user participants of this study said that they go back to the Yoga techniques in moments when they need to in their daily life.

I'm going to stretch, I'm going to relax, I'm going to force the air in and force the air out and do my traditional combat breathing but. This is sort of the quick escape. Because there isn't a lot of time to do anything else but, you know under a stressful situation I'll find myself falling back to some of the Yoga. And to me, you know, the mountain pose for when I need to relax right now. I need some quiet time. So that's sort of my, you know ... my personal escape/meditation (Anderson).

### 4.4.2 Acceptance

Surrender is the single but profound wisdom of yielding to rather than opposing the flow of life ... acceptance of what is immediately frees you from mind identification and thus reconnects you with Being.

Tolle (1999, p. 171-172)

The concept of acceptance within the data was married to becoming aware of sensations in the body. The participants specified that the practice was to first realize that there are sensations (become aware), and then to practice suspending judgmental labelling of the sensation. The qualities of acceptance that arose within the data included suspending judgment and sensing what is, focusing on the breath to ride the wave of sensation, finding forgiveness for the self and others, and practicing compassion toward the self and others.

One of the service provider participants explained the idea of acceptance as encouraging the CAF members in their Yoga class to move from being aware of their body's inner experience and accepting that it is as it is instead of trying to change anything or numb their experience.

We encourage them in the beginning to pay attention to the sensations they're experiencing, so as you move from pose to pose, you're experiencing sensation in

different places. So they're practicing watching what they're feeling, and we're teaching them to watch it with acceptance, so try to watch it without judgment, without saying that's good sensation, that's bad sensation. That's just the way it is, so as long as I'm not causing myself pain, I can engage my breath, and I can probably sit and watch some sensation that I may consider to be unpleasant (Brendon).

Another participant offered that "moving with their body, breathing, and accepting" are important in the physical integration of the trauma experience, since "most run away ... and if they can learn that if they are able to breathe, they do not have to run away, it is a different experience." He also discussed the importance that they are able to "accept that they actually have emotions, and they can ride a wave instead of being swamped by this tsunami that washes over them" (Larry).

Another service provider participant presented the concept of the wave as well. She highlighted the importance that the practitioner trusts that the sensation is impermanent. And with awareness and acceptance, the sensation is like a wave with a high point and point that it goes flat.

I tell them it's all riding ... even the breath is riding the wave. Also sensations come, they rise, and they fall. So as long as they get that it is not permanent. If they have something that is angering them, or whatever feelings are happening, [they get] that it is not going to be there permanently. It is going to rise it is going to fall (Monica).

The concept of acceptance was also referenced within the data as acceptance and compassion toward the self. The participants discussed this in the data as "coming to terms with who you are" (Brendon) and opening up the self to "love and altruism and kindness toward [the self]" (Ken). Another participant mentioned the importance of self-compassion and acceptance of the self after acting in a way that does not feel in line with one's intentions. She gives the example of finding compassion for one's self after getting

angry, and admits, "It is not always easy to detach from [your anger] when you are in the heat of being angry." (Monica)

Within the literature on trauma, acceptance is referenced as an important quality of the resilient trauma survivor (Wilson, 2006). The service provider participants reflected that they observed their clients beginning to slow their body's reaction to the stress response in the face of being triggered.

By the end of the 12 weeks, they are able to breathe in response to stress in order to slow their body's reaction, which is wonderful and they have learned the fundamentals of meditation which is just sitting without judging and breathing. (Larry)

Other service provider participants noted that their clients would come to class and tell them that there are moments in the grocery store or driving when they begin to feel angry, and then they practice breathing and they are able to calm themselves enough to suspend a reaction and choose how they want to act in that moment. Monica gave an example of what one of her clients told her when he came to the class one week.

He was accosted, he and his family while he was going to my 12 week class and he said, "You know, I instantly started breathing and my anger dissipated. I was able to diffuse the situation and grabbed my kids and walk away."

These stories were presented as awareness paired with acceptance, leading the individual to a sense of agency, at which point they can see that they have a choice on how to respond.

The service user participants of this study also discussed the components of acceptance as a revelation that changed the course of their life. One participant told me about his experience in coming to deeply understand forgiveness.

You know? I thought forgiveness was something was kind of ... you know ... somebody does something to you, you forgive him therefore you make it ok what he did. You know what I mean? That's what you thought before. But there's a lot more to forgiveness than that. You give yourself ... you allow yourself to

continue. And that was a big one ... you forgive yourself in a way. If you forgive, it's letting go of anger. It's letting go of a big growth that is ... you know ... that's basically what it is. (Edward)

As so superbly communicated by the participants of the study, acceptance in its deepest sense is the birthing ground for the trauma survivor to find a sense of agency. The participants of the study were clear that acceptance does not refer to the endorsement of the content of one's experience, but instead it is about accepting that one has been witness to the content, and can therefore cultivate the mental clarity and calmness to choose their way forward.

### 4.4.3 Appreciation

Through self-recovery and the transformation of trauma, gratitude and humility generalize and widen the circle of experiential modalities of empathy and compassion. Similarly, the circle of personal identification with others, and humanity in general, widens in scope.

Wilson (2006, p. 415)

Service provider participants of this study discussed the importance of gratitude as a way to widen the circle of connection around the person experiencing PTSD. Ken offered gratitude as a practice that shifts negative energy for him in the face of a challenge. He presented the practice as a way that creates the opportunity for him to "let go of all that negativity and open [his] heart to love and altruism and kindness toward [himself]" (Ken). In his description, gratitude serves as a bridge.

Research in neuroscience strengthens the idea that gratitude is a primer for more resilient actions (Graham, 2013). Within this study, the service user participants indicated that the practice of appreciation can be directed toward something that has nothing to do with the trauma. They suggested cultivating gratitude on a regular basis.

I say you have your meal in front of you, I say, before you delve into it, look at it, smell it, be grateful for that meal, where did it come from? That is mindfulness. I

said there is something about what we used to do with grace, and giving grace for our meal in front of us, and then it will taste even better (Monica).

The data suggests that one of the goals in the practice of appreciation is to come to a place of appreciation for the experience of what emerged as a result of the trauma. "It's when they can use what they have learned, and when they see ... almost like a ... this trauma or what I went through, taught me something." (Monica)

The literature on posttraumatic resilience and growth supports the idea that a sense of appreciation for the lessons learned through the traumatic experience widens the field of awareness and connection for the trauma survivor. Wilson (2006) eloquently speaks of some of the outcomes of incorporating appreciation into the healing experience as follows:

There is a strongly felt sense of belonging to the great chain of humanity. The heightened development of empathy and compassion for others related to the principle that life is an "unequal playing field." ... For the trauma survivor, the reality of having been dealt a "trauma playing card" in the "big game of life" sensitized them to the vulnerability of others and to their areas of emotional angst (p. 415).

The service user participants of this study confirmed the revolutionary nature of practicing appreciation. One participant talked about how it is easy to lose focus on what you do have in the face of trauma and how appreciation "puts something back into perspective" (Edward).

You kind of forget what we have. You kind of start to take things for granted, you know when you don't have the love. Or when you lose this sense of purpose, you know you ... it's as though you lose focus. You lose focus on what you have. You lose focus on who you have. So when we talked about gratitude it kind of drove home the fact that my wife, she loves me and I love her. And my kids they love me. You know, I have a lot to live for. (Edward)

#### 4.4.4 Altruism

At the highest levels of self-transformation following trauma, the person understands that they are the architect of their identity – the central guidance mechanism located in the core of self-dimensions and personality as a whole.

Wilson (2006, p. 452)

When I asked the service provider participants of the study to discuss how they feel that Yoga contributes to resilience, they all spoke about the importance of reaching out and being a part of something greater than themselves as paramount to lasting posttraumatic resilience. Although regulation of physiology and psychology through mindful awareness and acceptance were the cornerstones of the practices of resilience as suggested in the data, all of the participants advocated for the practice of one's heartfelt desire or purpose as essential to moving through the world with resilience.

One participant said, "Focusing on compassion and altruism has really helped some of my clients to get outside themselves instead of just being focused on their own struggles to actually be able to get out and practice loving kindness and compassion" (Ken). Ken views altruism as an alignment with "being kind, compassionate, and loving, first toward one's self, and then extending that to others. It also involves an opening, vulnerability, and a willingness to take risks." As such, Ken defines altruism as "the ultimate act of courage."

Another participant suggested that moving on in resilience is to begin to expand their view from themselves to offering help to others.

To move on, for the resilience is also then to start to branch out to help others. When they only focus on themselves and on their pain ... It's when they can use what they have learned, and when they see – almost like a... this trauma or what I went through, taught me something, if they can see that what they went through,

and maybe the Yoga, and hopefully that is the idea of – what is your heartfelt desire right? (Monica)

Monica outlined the role of appreciation for what the trauma teaches the survivor as a stepping-stone to finally connect with a greater purpose or calling in life that will sustain the person through future hardships.

Brendon shared Monica's ideas about connection to something more than the self as essential to moving forward with resilience after trauma. His understanding of this sense of connection was similar to the spiritual awakening as discussed in the 12-step recovery program.

Certainly the 12 steps focuses on that almost ... well I shouldn't say ... focuses on it exclusively, but it's definitely what it's trying to drive people towards, that place where ... like the last step of having had a spiritual awakening yourself is to try to share it with other people, right? Yeah. And I think Yoga's very much like that as well. (Brendon)

Larry mentioned the structure of the 12-step program as well. He suggested a way forward as involving those who have learned Yoga to teach it to others.

I believe that although it would be difficult to measure, there is a profound effect of teaching Yoga to other people. It may be like, although participating in a 12-step rehabilitation program that those who are best able to lead it are those who have done it. Those who have gone through similar trials – so I think if we can bring this through a Yoga course and bring them to the point where they can actually teach that to others, that would be of great benefit to them. (Larry)

Both the service provider and the service user participants described this sense of altruism and connection to a life purpose as a firsthand knowing or a *felt sense*. They described it as something that they knew intrinsically instead of something that someone else told them. They discussed it as something that they knew within their heart. When I asked Monica about what the indicators were for someone knowing that they have found their purpose in life, she said, "It feels right."

One of the service user participants gave this exact account of his experience of purpose in life. He participated in TPW after his retirement from the CAF, and expressed his feelings of being a nobody. "It's difficult because you feel like you're nobody. From one day to the next you ... you're nobody" (Edward). He told me that during and after TPW, he realized the importance of the role he played in the grand scheme as a solider, he described knowing his purpose in his heart and mind.

You know in your heart ... you know in your mind ... Inside of you ... as long as you know in your heart. You know ... I don't care if nobody else knows what I've done, where I've been ... you know as long as you know ... and this is something that I kind of had the revelation of after the first peaceful warrior (Edward).

This service user participant actually went on to help run the second iteration of TPW that summer because he believed in it so much.

The language used by this participant is about the mind body connection. He uses mind terminology (know) combined with body terminology (in your heart) to describe how he will recognize his life purpose. The data supporting the mind body connection as the way to discover meaning and purpose was very strong. Participants described a sense that the mind body connection is an intrinsic resource within each person that can be used to create the space to choose the response in any given situation; subsequently, as the individual searches for purpose and meaning, the mind body connection provides a language for the trauma survivor to connect with him/herself and the rest of existence.

You know that the power is there, the energy is there ... often times the problem is often that it's locked up by faulty beliefs, it's locked by fear primarily, that if we can help people, through Yoga, to let go of the fear and open to the love that's within them, the infinite source of power that's within. Once that's unlocked, the capacity for resilience that's unlocked there ... really can help to combat something like PTSD. (Ken)

The data that emerged did not promote acts of kindness outside of the self as a way of pleasing others or of behaving properly, but instead the focus of this data was on finding a sense of agency in practicing one's particular sense of purpose and meaning in the world.

## 4.5 Summary

Analysis of the data from the current study resulted in suggestions about why service providers feel that Yoga contributes to resilience in the aftermath of trauma, and suggested practices that they feel are most influential for the trauma survivor. In order to provide a complete analysis, these data were compared with the reflections of the service users. The service provider participants of this study suggested specific practices that they feel are most important in building resilience in the aftermath of trauma. They discussed the value of Yoga in facilitating the practices of awareness, acceptance, appreciation, and altruism. The following chapter compares these findings with the existing literature in the fields of trauma and posttraumatic resilience, and provides suggestions for future research in these areas.

### 5. DISCUSSION AND CONCLUSIONS

The purpose of this study was to qualitatively explore the accounts of service providers of Yoga based therapeutic interventions in order to refine how they are defining Yoga and what it is that they believe is most valuable in offering Yoga to a CAF population experiencing PTSD. Additionally, the study aimed to discover how the participants felt that Yoga contributes to resilience. In order to enrich the understanding of the data, their narratives were compared with narratives on the same topic from service users of TPW, a Yoga based therapeutic intervention for PTSD. The main focus of the study was to discover areas and approaches to future research and practice in the arenas of trauma and resilience for members and veterans of the CAF.

## 5.1 Summary of The Study

The qualitative analysis of one-on-one interviews with service providers of Yoga based therapeutic interventions for CAF members experiencing PTSD revealed common elements of the service providers' theoretical stances. For a more complete analysis, these data were compared to the available accounts of service user experiences. To the service providers, the integrity of Self as conceptualized in the philosophies of Yoga is imperative to resilient functioning in the world. To them, Yoga philosophy acknowledges all aspects of the experience of being human, and the alignment of mind, body and spirit was expressed as an essential component of integration of the Self after trauma. The service providers and service users discussed the importance of connection to something greater than the Self as an absolute in building posttraumatic resilience, and both groups offered the mind-body connection as paramount in healing trauma and as the vehicle for the individual practitioner to come to know the *felt sense* of spirit and interconnectedness.

Both service providers and users offered that the practices of Yoga are not a fix all, and that they need to continue to be practiced in order to yield results. They also discussed that healing trauma and building resilience is a long-term practice with a continuation of highs and lows, instead of a destination that one arrives to and remains at.

The analysis also revealed practical applications of exercises that service providers suggested to enhance posttraumatic resilience, and the data were compared with how the service users discussed their experiences of these exercises. The service provider participants of this study reflected that they believe that some traits of resilience can be learned and facilitated within the right context, all gave testimony of this being the case in their personal experience, and the service user participants confirmed this in their personal testimonies as it pertained to some of the suggested practices. Common elements revealed in this study of the practices that build posttraumatic resilience included the following: awareness of sensation (beginning with awareness of sensation in the body, awareness of breath, and then expanding to more subtle experiences of emotions, thoughts, and awareness of connection to something greater than the individual experience of the self); acceptance of experience as it is (practicing interoception, or otherwise stated within the data as non-judgmental observation of sensation across the components of the experience of Self); appreciation and the practice of gratitude to shift the experience toward a positive emotional experience; and practicing altruism and connecting to something greater than the Self.

## **5.2 Discussion of findings**

The findings of this study are separated into two overarching themes: 'The Felt Sense of Spirit' and 'Finding Resilience Through Alignment With Purpose Using The

*Mind-Body Connection*.' In this section, I discuss how these two topics generated by this research fit into the broader area of research on trauma and resilience as relevant to CAF members, and I discuss implications for future research in these subject arenas.

### 5.2.1 The Felt Sense Of Spirit

Within the first theme, 'The Felt Sense Of Spirit, participants of the study outlined four subthemes: integrity of self; spirit as fundamental to resilience; the mind-body connection as an essential place to start; and cumulative effects of practice take time.

Integrity of self. The participants of this study were adamant that the parts of the whole human being (they discussed this as body, mind and spirit) cannot be divided into separate entities, and that a program that promotes resilience and wellbeing must acknowledge how the parts of the experience of being human interact with one another. Aligned with the concept of the self in Yoga, Wilson (2006) separates the contents of integration versus disintegration into five sub paradigms: "(1) physical (bodily) integrity, wholeness, intactness; (2) ethical and moral integrity; (3) personal (psychological) integration; (4) a sense of epigenetic (life course) completeness; and (5) the formation of a positive self-identity with the capacity for altruism" (p. 29). He suggests that integration of the self is not comprised of only one part (i.e., physical or mental or emotional), but instead it happens in many domains of the experience of self. The domains he suggest parallel those suggested by the service provider participants of this study.

Spirit as fundamental to resilience. Both the service providers and the service user participants of this study outlined the importance of cultivating the felt sense of belonging to something greater than just the individual Self. They talked about this sense

of connection existing in the realm of spirit, and they considered love to be the currency. The service providers said that Yoga offers a practical way of cultivating the *felt sense* of connection and alignment with a heartfelt desire. They used terms such as "true self," "connection with the rest of existence," "inner resource," "inner reference," "heartfelt desire," "purpose," and "love" to describe the ultimate goal of the practice of Yoga. The service users described this experience as "love," "camaraderie," "like meeting old friends," "knowing that they are not alone," and "knowing [who you are] in your heart" as ways of describing their experience of TPW.

In Wilson's (2006) theory of the posttraumatic Self, the transformation of spirit in the posttraumatic self is "intimately related to core questions of identity, the conceptualization of the self, and the capacity to create meaning in the wake of life's most disturbing episodes as a human being" (p. 25) and is an essential component to acknowledge in order to have a full understanding of the nature of the posttraumatic self. In some manifestations of the posttraumatic self, the inner soul may even be experienced as defeated or gone, and psychiatric illness and spiritual emptiness are parallel processes.

The struggle with psychiatric illness and spiritual vacuity are parallel processes that run their course until a breakthrough, either from treatment, spiritually reconnecting experiences, or personal epiphany, ignites the inner mechanisms of organismic healing at a holistic level of functioning (Wilson, 2006, p. 241).

Wilson (2006) calls the experience of connection to spirit a transcendent experience, and outlines its qualities as follows:

- 1. Awareness of higher levels of being, self-consciousness and the possibility of unity in the self.
- 2. Rapid transformative changes in value priorities in the meaning of one's existence.
- 3. Awareness of illusions, deception, and other forms of perceptual and cognitive "false" experience.
- 4. Personal consciousness of the numinous experience.

- 5. Intuitive knowledge of the transformation of consciousness at qualitatively higher levels of existence.
- 6. An acute sense of death-in-life vs. life-in-death paradigm of self-existence (p. 189).

He compares the transcendent experience to peak experiences, which he offers can be recreated in the context of the therapeutic intervention.

The concept of connecting to spirit through the felt sense of bodily sensation is discussed within the literature on trauma and posttraumatic resilience. In the book, *In An Unspoken Voice*, Levine (2010) includes a testimony of being witness to the profound and authentic side effects of the transformation of trauma in his clients. He attests to witnessing his clients experience "ecstatic joy, exquisite clarity, effortless focus and an all-embracing sense of oneness" (Levine, 2010, p. 347) after the mastering of the haunting symptoms of trauma. He expresses his observation of spiritual experiences in his clients as welded with the most primitive animal instincts involved in trauma, and offers that the application of the type of brain research that studies spiritual experience is a "rich area worthy of further research and exploration" (Levine, 2010, p. 353). This study also reveals an opportunity for further inquiry into the effects of strengthening the parts of the brain that involve a sense of connection with spirit.

The mind-body connection as an essential place to start. The service provider and service user participants of this study discussed the mind-body connection as an essential place to begin when coming to terms with how trauma has affected their sense of Self. Service providers offered that the mind-body connection is an essential component to uncovering and unlocking the overwhelming and unspeakable effects of trauma on the organism. In modern psychotherapy practice, there is a strong faith in the capacity of talk to resolve trauma (van der Kolk, 2014). The cognitive part of Cognitive Behavior

Therapy (CBT) is a top down approach based on the restructuring of negative cognitions and its pitfall lies in "the illusion that our thinking can easily be corrected if it doesn't 'make sense'" (van der Kolk, 2014, p. 246). Unfortunately, memories of trauma are stored as cognitive flashbacks similar to the visual flashbacks experienced by traumatized people and "the reason people become overwhelmed by telling their stories, and the reason they have cognitive flashbacks, is that their brains have changed" (van der Kolk, 2014, 246).

Research in neuroscience confirms the problematic nature of the mind-body connection in trauma survivors. Brain imaging studies of trauma survivors find that the insula, the part of the brain that integrates the input from the internal organs, almost always shows abnormal activation (van der Kolk, 2014). At the onset of a traumatic memory stored deep inside the brain, the insula can transmit signals to the amygdala that initiate the fight/flight response. There is no cognitive or conscious input and these powerful feelings cannot be eradicated by reason or understanding (van der Kolk, 2014). "As long as we register emotions primarily in our heads, we can remain pretty much in control, but feeling as if our chest is caving in or we've been punched in the gut is unbearable" (van der Kolk, 2014, p. 76). These unbearable feelings are precisely what cause the trauma survivor to consciously numb the experience of sensing the internal state of their body, and in the most extreme cases, the individual experiences total loss of the sense of internal state, otherwise known as alexithymia (van der Kolk, 2014). The problem with coping by shutting down the visceral feelings that define terror, is that the same areas in the brain are responsible for our felt sense of being some body and our capacity to feel fully alive (van der Kolk, 2014).

The participants of this study reiterate the importance of the felt sense of embodiment as the starting point for being able to find purpose and meaning in the world after traumatic stress. They describe the importance of knowing that they have a body, and that it can be a messenger of sensation that guides them to knowing what feels aligned and what does not, as the way of coming to understand spirit and belonging to something greater than their individual Self.

In the literature, the 'inner-body sensation' refers to the plethora of feelings that are always present within the body (Ogden, Minton, & Pain, 2006). The sensation is continuous, although may hardly be noticed, and it represents an overall state of everything that is within the body (Damasio, 1994). This basic self-sensing ability is called 'interoception' and, in traumatized people, brain-imaging studies have shown problems in the areas of the brain related to physical self-awareness (van der Kolk, 2014). Brain researchers are beginning to show that intensive meditation has a positive effect on the brain areas critical for physiological self-regulation (Holzel et al., 2011). Although research on the brain areas involved in physiological self-regulation in people who are traumatized requires more work at this point, this provides a preliminary and hopeful direction in studying what meditation, when accessible to the practitioner, can do to help modulate the effects of PTSD. Future research would benefit from inquiring how the mind-body connection serves as a starting point to access the benefits of intensive meditation.

Cumulative effects of practice take time. Both service providers and service users discussed the idea that the effects of building resilience take time and practice. The service providers compared the idea to that of aerobic fitness and offered that the effects

of practicing Yoga are cumulative in the same way that working out has a cumulative effect on physical fitness. The service users described the effects of the practices as vitamins that kick in over time. All participants of this study reiterated that the practices are not a fix-all, nor are they always easy, and that their efficacy depends on their continuous implementation on a regular basis. Congruent with these findings, Wilson (2006) presents the concept of creating peak experiences in therapeutic interventions, and he too frames them as cumulative in effect.

The idea of evoking/facilitating mini peak experiences would have positive accumulative effects of reducing the operation of maladaptive, prolonged stress response syndromes and supplanting them with more adaptive ones that release organismic striving toward optimal adaptive functioning (Wilson, 2006, p. 447).

This finding is a paramount consideration in the formulation of program structures for the future, and it is recommended that future programs and research consider the most recent literature on environmental and time factors that promote the establishment of lasting habits.

# **5.2.2 Finding Resilience Through Alignment With Purpose Using The Mind-Body Connection**

Within the second theme, 'Finding Resilience Through Alignment With Purpose Using The Mind-Body Connection,' I developed a roadmap to resilience with specific practice suggestions and reflections from the service provider and user participants of the study. One of the service providers uses what he calls the 'A4 system' when he notices that he becomes physically and psychologically aroused: awareness, acceptance, appreciation and altruism. Several practices fall under the overarching terms in the A4 system, but he established this framework as an easy way to remember the practices when he is in the face of physical and psychological arousal. When I looked at the data

from the other participants, they too seemed to be suggesting practices that fit into these overarching sub-themes. I adopted his presentation of the terminology in the data analysis, as I believe that it contributes to framing the research findings in a way that can be used for future program implementation and development within the CAF environment. In what follows, I expand on how these suggested practices fit into the larger framework of research on trauma and resilience.

Awareness. Service provider participants of this study discussed practicing awareness of present moment experience as a starting point for the other practices suggested. They offered that awareness of body sensation and awareness of the effects of breath are practical tools to create a sense of relaxation and inner peace. Service user participants confirmed a sense of relaxation to be their experience after practicing Yoga during TPW. Service provider participants suggested that these techniques can be practiced regularly to the point of creating a habit, and then at that point the practice begins to positively affect the individual's sense of agency in choosing their response in the face of emotional arousal in the world. Service user participants expressed that this ability to regulate their physical reaction to a stimulus was something that they took from TPW and that they continue to practice regularly.

Research shows that traumatic memories are encoded in the human organism as fragmented sensory and emotional traces and that when exposed to a trigger, the frontal lobe (the part of the brain that is necessary to put feelings into words) shuts down and the emotional brain takes control (van der Kolk, 2014). The emotional brain is not under conscious control, and "expresses its altered activation through changes in emotional arousal, body physiology, and muscular action" (van der Kolk, 2014, p. 176). It is the

overwhelming nature of the physiological response to trauma triggers that causes the traumatized person to continue to feel as though they are still experiencing the trauma that has been encoded as a memory. The non-judgmental awareness of sensations in the body is the cornerstone to healing: "traumatized people need to learn that they can tolerate their sensations, befriend their inner experiences, and cultivate new action patterns" (van der Kolk, 2014, p. 273). The simple act of noticing cultivates emotional regulation, and it helps stop the traumatized person from ignoring his/her inner experience (van der Kolk, 2014).

Acceptance. Service provider participants suggested that acceptance of things as they are in the present moment is part of being able to transcend the experience and know their Self as something much greater than the experience in the moment. The participants specified that acceptance does not mean condoning the content of the experience, but instead to accept that one has been witness to the content of the experience. They described this as the practitioner's ability to sense that they have the ability to observe that sensations come and go. The service providers described this as riding the wave of sensation. These accounts of how sensation is a wave are confirmed within the literature on trauma. Van der Kolk (2014), in his study on Yoga as a healing modality for survivors of trauma, credits the idea that sensation is a wave that rises and falls in time. He offers, "body awareness also changes your sense of time. Trauma makes you feel as if you are stuck forever in a helpless state of horror. In Yoga you learn that sensations rise to a peak and then fall" (van der Kolk, 2014, p. 273).

In addition, Wilson (2006) highlights that resilient trauma survivors see things as they are instead of how they wish them to be. He also describes the resilient trauma

survivor as someone who "[exhibits] mindfulness and acceptance without solipsism or nihilistic attitudes" (Wilson, 2006, p. 452). He reiterates that resilient trauma survivors know that they are the creator of their experiences in life. "At the highest levels of self-transformation following trauma, the person understands that they are the architect of their identity – the central guidance mechanism located in the core of self-dimensions and personality as a whole" (Wilson, 2006, p. 452).

Appreciation. The participants of this study suggested practicing appreciation for what they have, and the good things that exist in their life as a way to widen their perspective and change their focus from only their Self to observing a more broad experience of life. Although this concept was a subtler component of this subtheme, the service provider participants took appreciation to another level. They offered that, at some point, appreciation can ultimately be practiced toward the traumatic event itself, in that the resilient traumatic survivor can see the traumatic event as something that ultimately offered insight and wisdom in the grand scheme of their life story.

Neuroimaging studies indeed reveal that the cultivation of positive and prosocial emotions such as gratitude causes an increase in neural activity in the left hemisphere and exceeds that in the right. Gratitude strengthens the individual's capacity to approach rather than avoid in the face of challenge (Graham, 2013).

Gratitude practice helps block toxic emotions like envy, resentment, regret, and hostility; it diverts attention away from stress and worry; it bring closure to unresolved traumatic memories; it strengthens social ties, letting people feel more connected to others, less lonely and isolated; and it improves a sense of self-worth (Graham, 2013, p. 274).

Altruism. The participants of this study offered ideas on the importance of practicing altruism and going forward in connecting with something greater than the Self

in order to promote a sense of resilience. They discussed this as the final piece to moving forward after trauma, and without it they held that it is extremely challenging for the trauma survivor to carry on. The literature on trauma and resilience confirms that altruism comes from a place of resilience. Graham (2013) defines altruism as "an unselfish concern for the welfare of others" and says it is a quality that is available to express from a place of resilience (p. 383). According to Wilson (2006), "the self-transcendent trauma survivor knows that meaning to existence is created by choice and mindful consciousness of the moment" (p. 452). The participants of this study suggest that this sense of agency, that one can decide how they want to manifest in the world, can be restored through the mind-body connection.

In summary, the participants of this study propose practices that fall into the themes of awareness, acceptance, appreciation and altruism as a roadmap to find resilience in the face of trauma. They discuss the practices as skills that increase with regular repetition and fade in times without exercise, and they clearly indicate that the learning of the skills takes time. They acknowledge the challenges and cyclical nature of life, and that even if one has all the tools, "it's not always that easy" (Monica). They do not consider the mind-body connection through Yoga as a "panacea," but instead as a way to reclaim a sense of agency in the face of challenge. The ultimate goal of the practices is indicated as a felt sense of connection with the Self and others (the felt sense of interconnectedness), and the method of finding this is to practice awareness and acceptance of sensation while remaining fully present instead of psychologically numbing the experience. Figure 2 visually depicts the suggested practices to finding a sense of agency and choice in the face of psychological and physiological arousal.

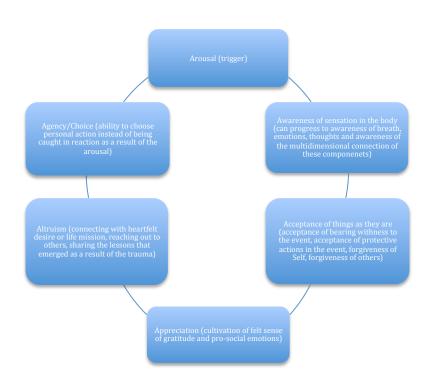


Figure 2: Pictorial Representation of the Resilience Roadmap

## 5.3 Limitations of the study

This study was limited in its focus by the greater availability of service providers versus service users. Future studies would benefit from an equal contribution from both service providers and users, or a service user focus. In addition, the analysis of the data focused on how the suggested practices affect the individual; it limited its analysis of the military or post military environment, which holds a myriad of unique challenges and systemic factors that contribute significantly to the wellbeing of its members. This limits the understanding of how systemic factors continue to contribute to the experience of PTSD and propagates the risk of pathologizing the individual.

The lack of diversity was a limitation of this study. Available to the study was a small, homogeneous sample size largely dominated by white, middle-aged men. Larger studies in the future would benefit from careful consideration of this important issue in the planning stages to ensure that the study includes representation from diverse backgrounds and life experiences.

The study was limited by the time available to me within the Master of Social Work (MSW) program. Although I had originally planned a mixed methods client-focused study, it was not possible to recruit the participants as anticipated, and it was very challenging to recruit service user participants for the subsequently planned qualitative study to take place after the program that they had been a part of was complete.

Although this was a limitation of the study, it was also one of the most valuable lessons that came from the research journey. When considering the structure of future research in this subject, it may be useful to consider a participatory action research (PAR) method. It is possible that an approach to research that has a sense of agency built into its construct will attract more service user participants, who are ultimately the experts of their own experience. Important to note for future consideration, is that a PAR project requires a significant amount of time, and involves the community from the onset of developing the structure and research questions. The time commitment required from both researchers and participants in a PAR project is an important equation to consider due to the frequent geographical relocations that are often a part of the CAF occupational requirements.

Another limitation of this research lies in the fact that Yoga teaching in Canada is unregulated and there are many paths of Yoga practiced in the West. There is no overarching body or college within Canada that serves to regulate schools that offer Yoga teacher training, which provides a challenge in ensuring the congruency of particular practices being offered within the Yoga training.

All of the Yoga teachers interviewed in this study were approved to offer the practices of postures, breath and meditation as approved by the Surgeon General of the CAF or VAC. Although the focus of the study is on experiences as observed by Yoga teachers, two of the Yoga teachers in the study served in the CAF for a lifetime career, and one of the participants is the spouse of a member of the CAF and recently retired herself from a job with the Department of National Defense (DND). This unique dual identity of CAF member/spouse and Yoga teacher provides a particular base of understanding of the experiences of CAF members on both a micro and macro level. The fourth service provider participant held a dual role of Yoga teacher and psychologist, and has over 20 years of experience working with a population affected by trauma. His understanding of both Yoga and current Western practices of psychological interventions was particularly useful in positing Yoga within a broader understanding of care.

To my knowledge, this study is one of two studies to be conducted in Canada to date on the subjects of Yoga, trauma and resilience in members/veterans of the CAF. The other study is yet to be published, and collected data focused on the clients' experiences of Yoga in the therapeutic intervention. It is my hope that the findings of this study can inform future research on programs within the CAF, particularly in the areas of trauma and resilience.

## 5.4 Implications of the study

### **5.4.1 Social Work Practice implications**

This study revealed the importance of acknowledging the body, mind and spirit in clinical social work practices for healing trauma and building posttraumatic resilience.

This study clearly implies that the strength of the practices suggested by the participants lies in the combination of these priorities, and when separated the potency can be lost.

One of the most significant subthemes of this study to social work practice implications is that the participants of this study are adamant that the practices have a cumulative effect, and that there is skill fade without a regular engagement in practice. They compare mindfulness as practice that increases psychological strength and flexibility to physical exercise as practice that increases physical strength and aerobic capacity.

From an organizational standpoint, this implies that offering the education on the A4 practices derived from Yoga is not enough to promote an environment where individuals will be able to continue to practice the skills. This idea of implementation of a regular practice is not foreign to the military environment. Regular (daily) physical fitness training is expected as a job requirement for the CAF and is implemented into the daily routine. In addition, regular (daily) trade specific training is a component of the building of a force that continues to operate at a high level of military functioning. This study implies that it would be beneficial to consider psychological wellbeing in a similar category of requiring a regular (daily) practice.

### **5.4.2** Research and Theory implications

The emerging themes in this study are preliminary and require further investigation in order to provide sufficient credibility to be proposed as viable options to implement systemically within the CAF. The themes and subthemes that emerged from the data provide an optimistic direction for future research in the area of practical application of theories on building resilience and posttraumatic resilience. In particular, I suggest further inquiry into the following subjects: Strengthening the mind-body connection as a way of coming to know the *felt sense* of alignment with a life-purpose (or a sense of altruism); the practice of Self-awareness in trauma and posttraumatic resilience; and the effects of a holistic regular practice of the combination of self-regulation (bottom up approach) and mindful self-awareness (top down approach) in the transformation of trauma.

From a practical standpoint, I suggest a follow up research program to evaluate the A4 system, delivered under the consideration of the theoretical principles that emerged from this study data. I propose that the research take form as a mixed methods research study. Mixed methods studies contain both a quantitative and qualitative component of measurement to ensure that there is a full understanding of the suggested complex intervention. Although quantitative randomized controlled trials (RCTs) are currently the 'gold standard' of research on mental health services, they have recently been subject to critical discussions due to the idea that they do not provide a full picture of how the outcomes of the quantitative measurements are actually applied in practice or how they affect clients they are directed towards (Larson, 2007).

Mixed methods research implies that the combination of quantitative and qualitative approaches to inquiry provides a more complete view of the research inquiry than one of the two methods alone (Creswell, 2014). The mixed methods approach to research is a relatively new methodology originating around the late 1980's and early 1990s. Based on work from a wide variety of fields (evaluation, education, management, sociology, and health sciences), it has developed through the formative stage, philosophical debates, procedural developments, and most recently global expansion into different disciplines (Creswell, 2014).

I propose that the quantitative portion of a follow up study include biological measures such as Heart Rate Variability (HRV), which provides the best available means of measuring the interaction of sympathetic and parasympathetic tone (van der Kolk, 2014). It would be useful to also include neurological measures such as measurements of areas of the brain such as the Medial Prefrontal Cortex (mPFC), which directly influences emotional arousal and is related to the effects of interoceptive awareness (Payne, Levine, & Crane-Godreau, 2015; van der Kolk, 2006). These measurements combined with a qualitative analysis of participant experiences have the potential to provide a more clear picture of the effect of the practices suggested in this research study.

A consideration in the proposed study is the use of Yoga language in the program delivery. The service user participants of this study voiced a bias against Yoga as initially understood by them to be a practice that did not align with the military ideal that they had learned throughout their career. They changed their opinion of Yoga after understanding what they were actually doing in the practices. Service provider participants voiced an understanding of this rejection of Yoga terminology as well, and voiced the importance

of translating Yoga terminology into something that is more in line with the cultural environment of the military. For example, they suggested English words instead of Sanscrit words for the practices. Additionally, Yoga has a problematic connotation of being synonymous in Western culture with physical exercise intended on developing flexibility and fitness, which is not the idea promoted in the data that emerged from this research study. Future studies may benefit from being named something original, while crediting its roots in the philosophy and practices of Yoga.

## **5.5** Researcher reflexivity

From the perspective of my role as advocate within the field of social work, one of the things that emerged so clearly for me as a part of this research, was that the majority of the literature that addresses PTSD in veterans discussed the disorder as something that emerges as a result of the horror of the experiences of war. Most of the literature on trauma in the serving member and veteran population seemed to consider PTSD as synonymous with combat PTSD. I have been in combat and am a decorated veteran of war; I do not discount the horrors of that experience. I do, however, recognize the importance of shedding light on the systemic factors (outside of the traumatic event) that I have observed as extremely significant contributors to the wellbeing (or lack thereof) of members and veterans that I have served with.

Even though the literature on resilience points to social support as the single most important factor that protects an individual against developing a pathological condition in the face of traumatic experiences, it has been my experience that the CAF is organized in such a way that it requires of its members to uproot themselves on a regular basis to meet occupational and operational requirements. For example, I was geographically relocated

within two months of my redeployment from a combat tour in Afghanistan. Not only did this adversely affect my own personal wellbeing, but some time after my posting I also received communication from the members who had previously been under my command. They felt as though they had been abandoned, and that they had lost those who they knew they could trust. I realize now, that this may have been a significant contributor to the development of pathological conditions for some of the personnel who had served under my command.

It has been my experience that there is limited discussion on the power of the military culture to create the conditions that reinforce the soldiers' felt sense of being frozen in time and lacking agency in their circumstances. Within the organization, the consideration of the military culture's power is limited, even though I have observed it to be a very significant contributor to the lives of its members. Research on vulnerability and shame-based cultures helped me to make sense of this personal reflection. Brown (2012) defines a shame prone culture as a culture that is "deeply steeped in comparison and fractured by disengagement" (p. 27). She defines scarcity as the problem of never enough, and says that it "thrives in a culture where everyone is hyperaware of lack" (Brown, 2012, p. 26). She frames the issue as our culture's version of posttraumatic stress and says that a culture does not develop this atmosphere overnight, but instead it happens when a culture has been through too much (Brown, 2012). She invites us to reflect on three components of scarcity and how they influence the culture we create: shame (Is self-worth tied to achievement, productivity, or compliance?); comparison (Is there constant overt or covert comparing and ranking? Are people held to one narrow standard rather than acknowledged for their unique gifts and contribution?); and disengagement (Is it easier to stay quiet than to share stories, experiences, and ideas? Does it feel as if no one is really paying attention or listening?) (Brown, 2012). In my personal experience, the affirmative answer to these areas of inquiry causes me to wonder if we are creating conditions that cause the continuation of the trauma experience for the members of our culture. Are there pockets of sub-cultures that have not conformed to the shame-based culture within the CAF? Do the members of those sub-cultures experience trauma in the same way?

When I first began this study, I started out with a post-positivist worldview. I planned a mixed methods study where I was going to test my theory that Yoga decreases PTSD and increases resilience, and then ask participants of my study to expand on their experiences of Yoga. I saw PTSD and resilience as opposing experiences on the same spectrum. As I continued my journey, and I humbly listened to the stories of the participants of my study, I realized that I needed to better understand what others' experience of trauma has been like, before I can develop a theory that I felt was worthy of being tested. I came to value a social constructivist worldview as I shape a better understanding of the full picture of trauma and posttraumatic resilience/growth. I came to see that some of the people who showed the most severe symptoms of PTSD also showed some of the most widely considered attributes of resilience. I also came to a realization that I have a crippling tendency toward perfectionism, and that this fear of making mistakes or of showing up imperfectly has the potential to stifle my creativity and production of something new. This was a pinnacle realization in my research journey, and is one that I hope to pursue more fully in my future studies and research. These realizations have revolutionized my appreciation of the power of the researcher in

creating opportunities for agency that are built into the research study, and have humbled and shaped me as a clinician. As I listened to others testify to their personal journey, while reflecting on my own, I have come to realize that the most valuable thing I can offer in healing, is absolute and unconditional positive regard, however imperfect I may initially judge myself or the other to be.

I realize in retrospect, that I had very little concept of an ecological framework of resilience, and I have since come to realize the potency of a community in creating the conditions that support posttraumatic resilience and growth. When I reflect on the data of this study, I wonder if it is the sense of agency that the participants talk about that is most valuable in creating the conditions for resilience and growth in the aftermath of traumatic experiences. In a conservative and uniform political culture like the military, a sense of agency is not easy to experience for oneself. When I look back at my own personal experiences of trauma, knowing that I can choose my reactions and my way forward is one of the most significant contributors to my sense of resilience and wellbeing. I did not connect to my sense of agency through cognitive restructuring, but instead by sensing (through the resource of my body) that it was always there. I believe wholeheartedly that people thrive, even in the most horrific circumstances, given a resilience and growth-supporting environment.

## **5.6 Conclusions**

This preliminary study has significant implications pertinent to the field of social work, especially as it pertains to members and veterans of the CAF. The data suggest that through a program that integrates the mind, body and spirit, it is possible to create the conditions that allow individuals to connect with a first hand knowing of a sense of ease

and homeostasis within the body. The data suggest that, through learning to access the resources of the body, the practitioner can come to a first hand, experiential knowing of his/her interconnectedness with the rest of existence, which was suggested in the data to be part of the realm of the spirit or soul. Connection with a sense of spirit or soul was considered in this study to be an essential component in resilience in the aftermath of the effects of trauma. It is from this sense of interconnectedness that the data suggest the practitioner can connect to his/her individual sense of purpose and altruism, thereby creating the conditions for agency. The data do not suggest that the practices of Yoga should replace the well-researched and empirically supported systems of CBT, but instead may serve as meaningful additions and alterations to therapeutic care already provided to members and veterans of the CAF.

Future studies would benefit from further inquiry into the claims of this study, particularly as they pertain to the body as a resource in finding an experiential knowledge of agency. Is the mind-body connection an essential resource in finding alignment with a life-purpose (or a sense of altruism)? How does the practice of Self-awareness in trauma and posttraumatic resilience affect the practitioner? What are the effects of a holistic regular practice of the combination of self-regulation (bottom up approach) and mindful self-awareness (top down approach) in the transformation of trauma? The field of social work in the CAF would benefit from a study that is structured in a way that empirically supports the claims made by the participants of this study.

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### **APPENDICES**

# Appendix A Information Letter: Request to Participate Service Users

## WILFRID LAURIER UNIVERSITY Letter of Introduction: Request to Participate

Experiences of The Peaceful Warrior (TPW) Program Principle Investigator: Ashley Collette. Advisor: Dr. Eliana Suarez

My name is Ashley Collette and I am a Master of Social Work student in the Lyle S. Hallman Faculty of Social Work at Wilfrid Laurier University in Kitchener/Waterloo, Ontario. I have been a current serving member of the Canadian Armed Forces (CAF) for the last 12 years, and have recently changed my focus to the field of Social Work within the CAF.

I am conducting a study that seeks to collect information on the shared experience of participants of The Peaceful Warrior Program (TPW). Developed by psychologist, Dr. Ken Dunn, TPW was specifically designed as a tool to increase resilience after trauma, and uses mindfulness-based cognitive therapeutic interventions and Yoga as components of the program.

Yoga has recently benefited from the attention of numerous clinical studies associating it with positive therapeutic outcomes in individuals specifically diagnosed with anxiety, stress, depression, anxious depression (co-morbidity), insomnia, addictions, and schizophrenia. The goal of this study is to explore if TPW, and more specifically the participation in Yoga, is useful in increasing resilience in veterans experiencing symptoms of trauma.

With Dr. Dunn's support, I am inviting veterans who completed The Peaceful Warrior (TPW) program to share in spreading the knowledge from the program to the wider population of the CAF.

If you are interested in participating in this study, you will be asked to meet with the principle investigator, either in person, or over the phone for a 1 hour interview. You are also invited, if you wish, to attend a focus group for dissemination of the results of the study after the data has been collected.

The information solicited through the open-ended interview will be used to guide further program development and research for trauma and resilience in veterans of the CAF. All information provided in the questionnaire will be kept confidential and will not be associated with your name.

If you agree to participate in the study, you will be provided with the interview questions in advance of the scheduled open-ended interview with the principle investigator. In the individual interview, you will be asked to share your experiences with how TPW affected your life. You will also have the opportunity to make suggestions that fall outside of the specific questions provided or discuss topics that are related to the study but not represented in the research questions. Upon completion of the interview, your answers will be transcribed and the transcription will be returned to you in person or via e-mail for any additions or deletions. Following your confirmation of accuracy, the data will be coded and the principal investigator will meet with you at a later scheduled date for approximately less than one hour to present the findings and confer with you that I have accurately captured your position.

The findings of the study will be presented in a way that maintains your privacy unless you otherwise choose to have your name associated with this study. Your individual responses may be used to shape future interview research and programs within the CAF. You may also withdraw yourself from the study at any time.

This study is collaborative and intends to help provide a clear picture of the experiences of veterans of the CAF, and develop a coherent theory on how mindfulness and Yoga potentially contribute to our wellbeing and resilience. My intention is to accurately represent the voice of the research participants to those who provide services to serving members (past or present) of the CAF. If you would like to participate in this research study or have any questions, please contact

Ashley Collette at 519 378 3013 or coll6910@mvlaurier.ca

Thank you for your time, I look forward to hearing from you!

# Appendix B Information Letter: Request to Participate Service Providers

## WILFRID LAURIER UNIVERSITY Letter of Introduction: Request to Participate

Experiences of Yoga for members of the Canadian Forces Principle Investigator: Ashley Collette. Advisor: Dr. Eliana Suarez

My name is Ashley Collette and I am a Master of Social Work student in the Lyle S. Hallman Faculty of Social Work at Wilfrid Laurier University in Kitchener/Waterloo, Ontario. I have been a current serving member of the Canadian Armed Forces (CAF) for the last 12 years, and have recently changed my focus to the field of Social Work within the CAF.

I am conducting a study that seeks to collect information on the shared experience of service users and providers of Yoga as a therapeutic intervention after trauma. The study is open to: a) CAF participants of The Peaceful Warrior program (TPW) and similar Yoga based therapeutic programs, and b) service providers of Yoga based therapeutic interventions for members and veterans of the CAF.

Yoga has recently benefited from the attention of numerous clinical studies associating it with positive therapeutic outcomes in individuals specifically diagnosed with anxiety, stress, depression, anxious depression (co-morbidity), insomnia, addictions, and schizophrenia. The goal of this study is to explore if Yoga is useful in increasing resilience in veterans experiencing symptoms of post traumatic stress.

I am inviting you, Yoga teachers who offer Yoga to CAF members and veterans, to share in spreading the knowledge of your experience to the wider population of the CAF.

If you are interested in participating in this study, you will be asked to meet with the principle investigator, either in person, or over the phone for a 1 hour interview. You are also invited, if you wish, to attend a focus group for dissemination of the results of the study after the data has been collected.

The information solicited through the open-ended interview will be used to guide further program development and research for trauma and resilience in veterans of the CAF. All information provided in the questionnaire will be kept confidential and will not be associated with your name.

If you agree to participate in the study, you will be provided with the interview questions in advance of the scheduled open-ended interview with the principle investigator. In the individual interview, you will be asked to share your experiences with how Yoga affected your life, or how you reflect on the effect of Yoga with your students. You will also have the opportunity to make suggestions that fall outside of the specific questions provided or discuss topics that are related to the study but not represented in the research questions.

Upon completion of the interview, your answers will be transcribed and the resulting data will be coded by the principal investigator. Depending on your availability, you are also invited to a later scheduled focus group meeting where the principal investigator will present the key findings and confer with you if your experiences have been accurately captured. The findings of the study will be presented in a way that maintains your privacy unless you otherwise choose to have your name associated with this study. Your individual responses may be used to shape future interview research and programs within the CAF. You may also withdraw yourself from the study at any time.

This study is collaborative and intends to help provide a clear picture of the experiences of veterans of the CAF, and develop a coherent narrative on how Yoga potentially contribute to our wellbeing and resilience. My intention is to accurately represent the voice of the research participants. If you would like to participate in this research study or have any questions, please contact

Ashley Collette at 519 378 3013 or coll6910@mvlaurier.ca

Thank you for your time, I look forward to hearing from you!

## Appendix C Informed Consent Form - Service User

#### WILFRID LAURIER UNIVERSITY INFORMED CONSENT STATEMENT

Experiences of The Peaceful Warrior Principle Investigator: Ashley Collette. Advisor: Dr. Eliana Suarez.

You are invited to participate in a research study that will explore the effects of The Peaceful Warrior (TPW). The goal of this study is to explore the claims that The Peaceful Warrior (TPW), a mindfulness and Yoga based therapeutic program, increases resilience and decreases the symptoms of posttraumatic stress. It aims to collect data from participants on their experiences of TPW program in order to investigate possible theories of wholistic and integrated approaches to therapeutic programs for Canadian Armed Forces members experiencing post traumatic stress.

The principle investigator is Ashley Collette, a Master of Social Work student at Wilfrid Laurier University located in Kitchener/Waterloo. This project will also go toward the partial-completion of Ashley Collette's thesis.

#### Information

This research study consists of 2 steps:

- 1. An individual, one-on-one interview lasting 1 to 1.5 hours.
- 2. A follow up focus group designed to review and clarify the findings of the research (apx 1 hour). Please note that if you choose not to have your identity revealed to the other participants in the research, you may request a one-on-one interview with the researcher before 1 Mar 2015 to clarify the findings of the research.

We are inviting you to participate in the study. The study is designed as a one-on-one interview with Ashley Collette and will be conducted in a convenient community location of mutual choosing. If you would prefer, the interview can be conducted over the telephone or by way of the internet using Skype or similar electronic communication. We will also attempt to arrange an interpreter to conduct the study in your first language if you request. However, we cannot guarantee that this service can be arranged.

## **Potential Risks of Participation**

All research involving humans undergoing therapeutic interventions involves the risk of enhancing the distress of participants. In this study, there is a risk that you will retrieve traumatic memories while participating in the study. This risk is minimized by the availability of therapeutic support by Dr. Ken Dunn and your personal physician-

#### **Benefits**

There are meaningful rewarding benefits to participating in the study. By participating in the study, you have the opportunity to contribute to the formulation of a theory outlining the experiences of wholistic therapeutic programs involving mindfulness and Yoga based models. Potentially validating TPW as a supported therapeutic intervention could

contribute to the types of services offered to veterans and current serving members who may one day require the support.

### **Confidentiality**

The researcher has taken many steps to ensure your confidentiality during the study. All of your personal information including that provided in the interview will be kept in a locked drawer at the Faculty of Social Work (WLU). Your name will not be associated with any of this information. Data collected will be stored in a password-protected computer and encrypted. Only the researcher and her supervisor will have access to this information. Following the completion of the study, all information that you provided will be destroyed. To inquire about participation, you can contact the researcher directly. The researcher will discuss with you how you wish to be contacted over the duration of the study. Please note that if you choose to participate using an Internet communication service, (for example, Skype) the researcher cannot guarantee confidentiality due to Internet hacking, viruses or other personal computing related security issues. Steps will be taken by the researcher including the use of anti-virus software and a secure Internet connection to meet with participants over the Internet.

During the data analysis stage of the study, the researcher might request assistance from Dr. Eliana Suarez, the Wilfrid Laurier University faculty advisor to help interpret the data. Names and demographic backgrounds will not be associated with interview transcripts. Also, names will not be associated with quotes that might be used in the final write-up of the project and quotes that might reveal the identity of the participant will not be used. In the case that an interpreter is requested at the interview, confidentiality cannot be guaranteed. However, the interpreter will be asked to keep all information confidential.

#### **Compensation**

For your participation in the study, you will not receive financial compensation or award.

### **Participation**

Your participation in this study is voluntary. You can remove yourself from the study at any time without penalty including after data has been collected. You have the right to request that any question, procedure or response that you give be removed from the study at any time.

### Feedback and Publication

The results of this study might be distributed in different ways. A report for CAF mental health service providers might be developed and there is the chance that findings from the study might be published in academic journals or presented at academic conferences. You can request a copy of any written documents pertaining to the study by contacting the principle investigator. You may also request a copy of your interview transcript.

#### Contact

If at any time you have questions about the study or its procedures or you experience adverse effects as the result of your participation, you may contact the researcher, Ashley

Collette, at 519-378-3013 or by email at <a href="coll6910@mylaurier.ca">coll6910@mylaurier.ca</a>. This project has been reviewed and approved by the University Research Ethics Board at Wilfrid Laurier University under file #4049. If you feel that you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of the project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970 or <a href="mailto:rbasso@wlu.ca">rbasso@wlu.ca</a>.

<b>Consent</b> I have read and understand agree to participate in this s	e above information. I have received a copy of this form. I dy.
Participant Signature	Date
Investigator Signature	Date
All individual interviews w taking notes throughout the	Audio Recorder During Individual Interview  be digitally audio recorded and the researcher will be interview.  lly audio recorded during my individual interview
Yes No	
	Date
presentation of the study. Yet to ensure that you are accurant be associated with quot information from quotes. T	ations from you, the participant, in the final report and/or a have the right to vet your quotations before they are used ely represented. To ensure confidentiality, your name will and efforts will be made to remove all identifying are is a possibility that your experiences and/or opinions quotes used. You have the right to refuse your quotes from
I give permission to be quo developed from this research	d in the final report and/or presentations and publications study.
Yes No	
Participant's Signature	Date

### **Consent to Participate in the Focus Group**

A follow up focus group is offered to review and clarify the finding of the research (less than 1 hour). You may wish not to attend the focus group, as there will be other participants present and you may wish to keep your participation confidential. Please note that if you choose not to participate in the focus group, this will not affect the invitation

to participate in the study, and the researcher will make all efforts to disseminate the findings to you via a private telephone conversation or a private meeting at a convenient community location of mutual choosing. If you choose the private option of information dissemination, you may request a one-on-one interview with the researcher before 1 Mar 2015.

I give permis	sion to participate in the	focus group for information dissemination.
YES	NO	
Participant's	Signature	Date
I give permis as a participa	-	ssociated with this study; I wish to be acknowledged ents in the final report and/or presentations and
Yes	No	
Participant's	Signature	Date

## Appendix D Informed Consent Form Service Providers

### WILFRID LAURIER UNIVERSITY INFORMED CONSENT STATEMENT

Experiences of Yoga in the Canadian Armed Forces Principle Investigator: Ashley Collette. Advisor: Dr. Eliana Suarez.

You are invited to participate in a research study that will explore the effects of Yoga for members of the Canadian Armed Forces (CAF). The goal of this study is to explore the claims that Yoga increases resilience and decreases the symptoms of posttraumatic stress. It aims to collect data from both service users and providers on their experiences of Yoga as a therapeutic intervention in order to investigate possible theories of wholistic and integrated approaches to therapeutic programs for Canadian Armed Forces members experiencing post traumatic stress.

The principle investigator is Ashley Collette, a Master of Social Work student at Wilfrid Laurier University located in Kitchener/Waterloo. This project will also go toward the partial-completion of Ashley Collette's thesis.

#### **Information**

This research study consists of 2 steps:

- 1. An individual, one-on-one interview lasting 1 to 1.5 hours.
- 2. A follow up focus group designed to review and clarify the findings of the research (apx 1 hour). Please note that if you choose not to have your identity revealed to the other participants in the research, you may request a one-on-one interview with the researcher before 1 Mar 2015 to clarify the findings of the research.

As a Yoga instructor, we are inviting you to participate in the study. The study is designed as a one-on-one interview with Ashley Collette and will be conducted in a convenient community location of mutual choosing. If the opportunity for face-to-face is unavailable, or if you would prefer, the interview can be conducted over the telephone or by way of the internet using Skype or similar electronic communication. We will also attempt to arrange an interpreter to conduct the study in your first language if you request. However, we cannot guarantee that this service can be arranged.

## **Potential Risks of Participation**

All research involving humans involves the risk of creating some emotional distress for participants. This risk is minimized in this case by your identity as provider of Yoga based services

### **Benefits**

There are meaningful rewarding benefits to participating in the study. By participating in the study, you have the opportunity to contribute to the formulation of theoretical tenets

outlining the experiences of wholistic therapeutic programs involving mindfulness and Yoga based models. Potentially validating Yoga as a supported therapeutic intervention could contribute to the types of services offered to veterans and current serving members who may one day require the support.

## **Confidentiality**

The researcher has taken many steps to ensure your confidentiality during the study. All of your personal information including that provided in the interview will be kept in a locked drawer at the Faculty of Social Work (WLU). Your name will not be associated with any of this information. Data collected will be stored in a password-protected computer and encrypted. Only the researcher and her supervisor will have access to this information. Following the completion of the study, all information that you provided will be destroyed. To inquire about participation, you can contact the researcher directly. The researcher will discuss with you how you wish to be contacted over the duration of the study. Please note that if you choose to participate using an Internet communication service, (for example, Skype) the researcher cannot guarantee confidentiality due to Internet hacking, viruses or other personal computing related security issues. Steps will be taken by the researcher including the use of anti-virus software and a secure Internet connection to meet with participants over the Internet.

During the data analysis stage of the study, the researcher might request assistance from Dr. Eliana Suarez, the Wilfrid Laurier University faculty advisor to help interpret the data. Names and demographic backgrounds will not be associated with interview transcripts. Also, names will not be associated with quotes that might be used in the final write-up of the project and quotes that might reveal the identity of the participant will not be used. In the case that an interpreter is requested at the interview, confidentiality cannot be guaranteed. However, the interpreter will be asked to keep all information confidential.

### Compensation

For your participation in the study, you will not receive financial compensation or award.

### **Participation**

Your participation in this study is voluntary. You can remove yourself from the study at any time without penalty including after data has been collected. You have the right to request that any question, procedure or response that you give be removed from the study at any time.

### Feedback and Publication

The results of this study might be distributed in different ways. A report for CAF mental health service providers might be developed and there is the chance that findings from the study might be published in academic journals or presented at academic conferences. You can request a copy of any written documents pertaining to the study by contacting the principle investigator. You may also request a copy of your interview transcript.

### **Contact**

If at any time you have questions about the study or its procedures or you experience adverse effects as the result of your participation, you may contact the researcher, Ashley Collette, at 519-378-3013 or by email at <a href="mailto:coll6910@mylaurier.ca">coll6910@mylaurier.ca</a>. This project has been reviewed and approved by the University Research Ethics Board at Wilfrid Laurier University UNDER FILE #4049. If you feel that you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of the project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970 x 4994 or <a href="mailto:rbasso@wlu.ca">rbasso@wlu.ca</a>.

Consent I have read and understand the agree to participate in this study	above information. I have received a copy of this form. I
Participant Signature	Date
Investigator Signature	Date
All individual interviews will b taking notes throughout the inte	dio Recorder During Individual Interview e digitally audio recorded and the researcher will be erview.  audio recorded during my individual interview
YesNo	
Participant's Signature	Date
presentation of the study. You leto ensure that you are accurated not be associated with quotes an information from quotes. There	ons from you, the participant, in the final report and/or have the right to vet your quotations before they are used y represented. To ensure confidentiality, your name will not efforts will be made to remove all identifying is a possibility that your experiences and/or opinions otes used. You have the right to refuse your quotes from
I give permission to be quoted it developed from this research st	in the final report and/or presentations and publications udy.
YesNo	
Participant's Signature	Date

**Consent to Participate in the Focus Group** 

A follow up focus group is offered to review and clarify the finding of the research (less than 1 hour). You may wish not to attend the focus group, as there will be other participants present and you may wish to keep your participation confidential. Please note that if you choose not to participate in the focus group, this will not affect the invitation to participate in the study, and the researcher will make all efforts to disseminate the findings to you via a private telephone conversation or a private meeting at a convenient community location of mutual choosing. If you choose the private option of information dissemination, you may request a one-on-one interview with the researcher before 1 Mar 2015.

I give permissio	n to participate in the	focus group for information dissemination.	
YES	NO		
Participant's Sig	gnature	Date	
I give permissio as a participant	•	sociated with this study; I wish to be acknowledgents in the final report and/or presentations and	ged
Yes	No	<u></u>	
Participant's Sig	gnature	Date	

## Appendix E Service Users Interview Guide

## **Background**

The researcher will introduce herself and explain the purpose of the study. The consent form will be reviewed which includes, in the case of Internet communication services (such as Skype), that anonymity cannot be guaranteed due to Internet hacking or viruses. The researcher will suggest that participants do not mention anyone's names and to keep client information confidential. The participant will then be asked if he or she has any questions before beginning.

Question 1: How are you doing now as compared to when you entered the TPW program?

Probes: Would you say that TPW contributed to a general sense of well-being for you? How? Do you feel that the techniques you learned in TPW will continue to be useful to you in the future?

Question 2: If resilience is defined as *positive adaptation, or the ability to maintain or regain mental health, despite experiencing adversity* or *one's ability to bounce back from adversity*, how do you feel that TPW affected (if at all) your resilience?

Probes: From your perspective, are your symptoms of posttraumatic stress related to your concept of resilience? Are they related to your self-esteem? Why or why not?

Question 3: What (if anything) was most valuable to you from your participation in TPW program?

Probes: Have you experienced any other group therapy program? How (if at all) did TPW differ from other therapeutic interventions you may have experienced? Did TPW have any effect on the issues that you wanted to address in therapy? Do you think the benefits will be lasting? Why or why not?

Question 4: What are your thoughts and feelings about the Yoga portions of TPW program?

Probes: Have you practiced any Yoga before TPW program? How did TPW program compare to your previous experience? Do you feel as though Yoga has helped you to get to know yourself better? How do you feel more connected to yourself and others (if at all)? How do you feel about whether Yoga contributed to your ability to focus?

Question 5: Is there anything I have not asked that you were hoping I would, or is there anything further that you would like to share?

## Appendix F Service Providers Interview Guide

## **Background**

The researcher will introduce herself and explain the purpose of the study. The consent form will be reviewed which includes, in the case of Internet communication services (such as Skype), that anonymity cannot be guaranteed due to Internet hacking or viruses. The researcher will suggest that participants do not mention anyone's names and to keep client information confidential. The participant will then be asked if he or she has any questions before beginning.

Question 1: What does Yoga mean to you?

Probes: How do you define Yoga? How did you come to find Yoga? Why did you choose to become a Yoga teacher? How do you define the role of a Yoga teacher? Would you say that Yoga contributes to your personal well-being? How? Would you say that you have observed Yoga as a contributor to the well-being of your clients/students? How? How do you feel that the techniques/practices you have learned through Yoga contribute to your way of being in the world?

Question 2: What (if anything) was most valuable as it pertains to Yoga as a therapeutic intervention to members of the Canadian Armed Forces (CAF) who are experiencing post traumatic stress?

Probes: How do you define post traumatic stress? Do you have any clinical experience offering any other type of group or individual therapeutic intervention outside of Yoga? How (if at all) did the Yoga-based intervention differ from other therapeutic interventions you may have been a part of either as a service user or provider? How do you feel about the tenacity of the effects of Yoga?

Question 2: If resilience is defined as *positive adaptation, or the ability to maintain or regain mental health, despite experiencing adversity* or *one's ability to bounce back from adversity,* how do you feel that Yoga affects (if at all) resilience? What are your reflections on how you have seen Yoga affect (if at all) the resilience of your clients?

Probes: From your perspective, how are symptoms of posttraumatic stress related to resilience? Do you feel as though Yoga helps the practitioner get to know him/herself better? How? How do you feel Yoga affects the practitioner's sense of connection (if at all)? Do you feel that Yoga contributes to the practitioner's ability to focus?

Question 4: Is there anything I have not asked that you were hoping I would, or is there anything further that you would like to share?