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WHAT HAPPENS AT WORK GOES HOME: INVESTIGATING SECONDARY TRAUMATIC STRESS AND SOCIAL SUPPORT AMONG THE PARTNERS OF NEW ZEALAND’S POLICE, FIRE, AMBULANCE, AND DEFENCE PERSONNEL

Anna Stowe Alrutz

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Abstract

Police, fire, ambulance and defence force personnel (responders) risk experiencing dangerous activities, traumatic events and the development of post-traumatic stress disorder. In turn, spouses/partners (partners) of these responders risk developing secondary traumatic stress (STS) as they are exposed vicariously to the trauma through communication with their responders.

The research aimed to address the question: How do the partners of NZ defence and emergency responders respond to work stress experienced by their responder? The study used six research questions and six hypotheses to identify resources and barriers towards effective management of STS. A mixed methods approach assessed the experience of STS among the partners of New Zealand’s (NZ) responders.

Using this approach the researchers interviewed participants prior to survey data collection and again after the survey to facilitate interpretation and incorporate feedback. After piloting, the anonymous online survey was made available nationwide.

The survey measured STS in partners, perceived stigma towards help-seeking, partner resilience and relationship satisfaction. The survey asked if the defence and emergency responder’s organisation invited partners to events, offered inductions, or offered informational resources to manage stress. Partners were asked who they turned to when dealing with stressful situations experienced by their responder. The survey concluded with open-ended questions about organisational engagement with the partners and responders.

Themes were identified from analysis of the qualitative responses given by the 835 partners of NZ responders. A hypothesised model was produced and tested using multiple regression \((n=664)\) which led to the creation of a structural equation model (SEM) \((n=547)\) to describe interactions between resources and barriers.

The study found that 20–35% of partners experience significant symptoms of STS and almost half feel unsupported when managing stressful issues experienced by their responders. Positive organisational communication benefits partners and reduces psychosocial risks. The thematic analyses endorsed increasing partner self-efficacy and encourages organisations to identify partner accessible resources. Triangulating the results obtained from these mixed methods highlights challenges faced by partners of defence and emergency responders and suggest how direct organisational engagement with the partners of their employees could reduce risks associated with secondary exposure to trauma.
Dedication

To my parents, Neen and Jim Alrutz, who lead by example and provided almost a half century of FFF (forced family fun).
Acknowledgments

I would like express my profound appreciation to the hundreds of partners who participated in this study. This study was a success due to their engagement.

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Preface

I became interested in this topic as a result of living and working in military communities. From 1990 to 2010 I was the spouse of a United States Army officer and the subculture I lived in had its own history, customs, rules and expectations that significantly impacted my life and my experiences.

Adjusting to this military culture took many years, especially since the ‘rules’ for spouses were not always clear, varied from unit to unit and were often complicated by living overseas or in parts of the country with different cultural norms. Those who were with their partner when they arrived at their first training received a formal induction. However, I arrived a year or so later and did not receive a standardised orientation. I sat for a picture and signed my identification card without any indication of the benefits and entitlements that it afforded me. Moreover, I was not briefed on the rules and regulations surrounding those benefits and entitlements. It seemed that new spouses gained information about policy, procedures and customs from their own life experiences. We often first attempted tasks in the wrong way, without the proper forms, at incorrect locations or without appropriate authorisation. Information that was not always current or accurate was shared as factual by other spouses, military community members, and service members. Through involvement with military spouse activities and working on a military base, I became familiar with military norms, protocols and procedures. While the US military engaged with spouses in different ways throughout its history, at the end of the first Gulf War, in 1991, the Army again recognised a need to revisit how it interacted with the spouses of service members. The military leadership delivered new spouse engagement guidelines to units, and began training military spouses on the new ways of communicating with, and supporting military families (Albano, 2002). The informal ‘coffee groups’ or ‘wives clubs’, which had long been a part of the culture of the military, became more structured with rules and guidelines as part of the official functions of a military unit; and while some persisted, most were eventually replaced officially by the Family Readiness Group (McCollum et al., 2010). The Army leadership also initiated a new training programme called the Army Family Team Building programme and placed more importance on a 10-year old grassroots programme called the Army Family Action Plan that had proved successful in addressing concerns of the Army community (Judge Advocate General's Office Legal Center and School, n.d.; Vernez & Zellman, 1987). For 13 years I was actively involved with many of these programmes that aimed to educate spouses, standardise communication with spouses Army-wide, and offer an effective means
to improve the system. In my opinion, these changes to communication and training enhanced the lives of military spouses and military families. These experiences fuelled my interest in studying military spouses and informed this research.

From 2005 to 2006 I studied at Florida State University and earned a master’s degree in communication. I focused my thesis on whether military spouses encouraged their military service member to seek help for traumatic stress (Alrutz, 2006). My research delved into aspects of social support, stigma, information sources (for traumatic stress) and spouse experiences in these situations. Further research in this area has revealed parallels to the military subcultures across the police, fire fighter and ambulance service communities (Archer, 1999; Waddington, 1999; Woody, 2005). My move to NZ in 2010 provided an opportunity to investigate these commonalities within the NZ context. While my formal education and experiences focus mainly on communication, my approach to this research traverses multiple disciplines in order to draw on their respective insights.

This research would not have been possible without the support from individuals from the following organisations:

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1 Introduction

New Zealand has over 33,000 defence and emergency responders which include volunteer and paid ambulance officers, police officers, volunteer and paid fire fighters and regular and reserve Army, Navy and Air Force personnel in the NZ Defence Force (NZDF). Their job of helping and protecting the public exposes them to many life-threatening and dangerous situations and puts them at risk of experiencing traumatic stress (Brough, 2004; Bryant & Harvey, 1996; Figley & Sprenkle, 1978; Marmar, Weiss, Metzler, Ronfeldt, & Foreman, 1996; Marmar et al., 2006; Witteveen et al., 2006). Defence and emergency responder organisations and the responders themselves often overlook the impact the job has on the spouses/partners (partners) of responders. The partners of traumatised defence and emergency responders are at risk of developing secondary traumatic stress (STS) from engagement with their responder’s stress reactions (Figley, 1999b; Regehr, 2005; Regehr, Dimitropoulos, Bright, George, & Henderson, 2005; Solomon et al., 1992). In NZ it is estimated that about half of the defence and emergency responders have partners, which means approximately 16,000 partners associated with these organisations are potentially at risk. The study of secondary trauma in other groups indicates that secondary trauma is preventable and treatable (Beaton & Murphy, 1995; Harris, 1995; Yassen, 1995).

To improve understanding of the lives of the partners of NZ’s defence and emergency responders, this study will investigate how these partners respond to high-risk work-induced stress experienced by their responder. Specially, is traumatic stress experienced by a military or emergency responder affecting their partners? If so, how, and if not, what could be contributing to that outcome? What form does this stress take in the partners and how do they manage it? What social support is available and what support, if any, do they expect or receive from their responder’s employer in relation to traumatic stress?

1.1 Culture of defence and emergency responders

Defence and emergency responder cultures are often described as hierarchical, authoritarian, highly prescriptive, disciplined, rank-structured, with long standing traditions, their own language, own cultural norms and beliefs and thus fit the definition of paramilitary (Archer, 1999; Henderson, Van Hasselt, LeDuc, & Couwels, 2016; Reger, Etherage, Reger, & Gahm, 2008; Reiser, 1974). Researchers have combined responses to stress reactions from police, fire and ambulance when examining issues within these organisations (Berger et al., 2012; Brough, 2005; Burke & Paton, 2006; Dunning, 1988; Durham, McCammon, & Allison,
and it is clear these groups are considered high risk because “members of these professions do work in environments that regularly expose their members to challenging and threatening demands” (Paton & Violanti, 2011, p. 7). All these organisations train their members to respond to disasters and they share many similarities in how they operate.

These military or paramilitary environments seem to be effective in achieving the mission outcomes required of responders, which relate to defence, policing, firefighting and responding to medical emergencies. Even though these organisations are high risk for trauma exposure (Britt & McFadden, 2012; Paton & Violanti, 2011), this type of organisational structure and culture has struggled to manage post-traumatic psychological reactions.

Individuals working in these organisations often either avoid psychological services altogether or view psychological counselling with suspicion. Mainly this behaviour is due to responders’ concern that, if peers or supervisors discovered they were seeking help, they would be labelled weak or unstable, their colleagues would lose confidence in them or lose respect for them, and feared they might lose their jobs (Bohl, 2013; Britt & McFadden, 2012; Britt, 2000; Fillion, Clements, Averill, & Vigil, 2002; Rees & Smith, 2008; Stone, 1995; Strom et al., 2012; Violanti, 2007). This stigma towards help-seeking has been well documented internationally in all these organisations (Britt & McFadden, 2012; Britt, 2000; Halpern, Gurevich, Schwartz, & Brazeau, 2009; Henderson et al., 2016; Hoge et al., 2004); for example, Gould et al. (2010) found that reported stigma and other perceived barriers to health care does not differ across the armed forces of the US, UK, Australia, NZ, and Canada. In addition, a literature review on post-traumatic stress disorder (PTSD) in rescue workers from around the world stated that “these workers were found to be highly heterogeneous regarding sociodemographic characteristics, assigned duties, and type and frequency of exposure to traumatic events” (Berger et al., 2012, p. 1007). Another study looking at the psychological health of NZ emergency services organisations, including NZ Fire Fighters, Police and Ambulance services, found that “stressful job characteristics and psychological outcomes are not necessarily unique to any one service” (Brough, 2004, p. 238).

Furthermore, all of these organisations have strict rules around secrecy and confidentiality, which may also act as a deterrent for individuals to seek any psychological assistance (Strom et al., 2012) or even be willing to share information about their experiences with their partners (Figley, 1999b). One researcher stated that the police culture “tends to push the law
enforcement officer toward isolation from commonplace social and family relationships, with the by-products of mental, physical, and behavioral problems.” (Woody, 2005, p. 527).

It is well documented that having social support from the defence and emergency organisation after a traumatic event is a strong positive mediator against the development of traumatic reactions (Brewin, Andrews, & Valentine, 2000; Leffler & Dembert, 1998; Prati & Pietrantoni, 2010; Weiss, Marmar, Metzler, & Ronfeldt, 1995). Social support, especially from partners, is a particularly effective mechanism for protecting the responder from trauma reactions (Bolton, Glenn, Orsillo, Roemer, & Litz, 2003; Chadda, Agarwal, Singh, & Raheja, 2001; Regehr, Hill, & Glancy, 2000). Organisations have been encouraged for many years to include social support in their policies to counteract trauma reactions, and often that suggestion includes an element for families. In the late ninety’s, Figley (1999b) advocated for police organisations to educate themselves and others about primary and secondary trauma, suggesting the organisations implement institutional policies guided by a few fundamental principles. Those principles encouraged actions which specifically included the families and were not just focused on the police officer. Along with other suggestions, Figley pushed for educating the partners along with the officers about risks, maladaptive behaviours, and resiliency techniques. He proposed taking every opportunity from day one, through incident debriefs and orientations, to educate or re-educate the officer and the family about critical incident stress and secondary trauma to prevent, or at least help manage, the negative effects. Figley argued that this education and supportive environment provides healthier environments in which to share post-incident trauma with the partner. He also reasoned that “increasing the quality of police officer disclosure to their spouses reduces work-related stress, increases morale, and enhances the marital bond” (Figley, 1999b, p. 39). Similar suggestions have been made for other organisations (Figley, 2005; Regehr & Bober, 2005).

1.1.1 New Zealand context

In NZ, around 33,000 individual defence and emergency responders deliver services. At the time this study took place this included about 11,000 regular and reserve Army, Navy and Air Force personnel in the NZDF; around 9,000 police; almost 9,000 volunteer and paid fire fighters; and around 4,000 volunteer and paid ambulance officers (4.4.4). A report entitled Emergency Management in New Zealand: Potential Disasters and Opportunities for Resilience (Webb & McEntire, 2008) described NZ as a country with a number of identified natural disaster risks that these responders are trained to combat. Those risks include
earthquakes, volcanic activity, tsunamis, flooding, bush fires, landslides, coastal incidents, snowfall, drought, and high winds. There are also human related vulnerabilities including an aging population and a large tourist population (over three million visitors per year) who may be unaware of hazards. The report also found that “New Zealanders have always prided themselves on their ‘can do, risk taking’ attitude. While this attitude has raised New Zealanders profile on the world stage, it can also limit awareness and understanding of hazards and risks while also creating apathy toward emergency preparedness and readiness” (p. 6). Emergency services often need to address these vulnerabilities. Responders attend a large number of events each year, with over 1.9 million calls for advice or assistance in 2013, of which over 770,000 were calls for emergency assistance (New Zealand Police, 2014). The NZ Fire Service attended around 70,000 incidents in 12 months over 2012–13, including fires, floods, motor vehicle accidents, and rescues (New Zealand Fire Service, 2013), St. John treated over 425,000 patients for medical issues (St. John, 2014) and Wellington Free Ambulance responded to more than 50,000 incidents (Wellington Free Ambulance, 2015). Many responders are also included in national security, regional security, global security, disaster aid, and peace-keeping missions. The impact on the partners of these NZ responders from the wide variety of incidents is not well documented.

1.2 Significance of the study

Partners of defence and emergency responders in NZ are an under-researched group especially in relation to experiences of traumatic stress. This study seeks to better understand the social support factors that impact STS among partners of responders. These factors potentially include coping mechanisms, support systems, and organisational opportunities, as well as barriers to care for STS. Gaining a better understanding of these impacts can assist the responder organisations and partners of defence and emergency responders to prevent or manage the psychosocial risks. Unmet health needs of these partners could affect their personal health and ability to support their responder. This support has impacts on the quantity and/or quality of their responder’s work which ultimately impacts the defence and emergency responder’s organisation (T. D. Allen, 2001; McGonigle et al., 2005; Paton et al., 2011; Rosen & Durand, 1995). Thus the study may assist researchers, health professionals, and organisations to implement appropriate interventions and make them accessible to partners of responders.
1.3 Development of research questions

To explain what will be studied in any research project, it is important to develop good research questions using the researcher’s perspective, critical appraisal of the literature and knowledge gained from real-world experiences (Haber, 2010). Good research questions are specific, clear, relevant, fairly original, and realistically able to be answered (Buetow, 2007). Because secondary trauma is a multifaceted topic, many subject areas were identified through the literature and subject matter experts. Epistemologically this study assumes that people interact with their environment to negotiate provisional knowledge through experience and reason. Combined with an ontology of subtle realism, this epistemology constitutes my worldview of pragmatism (and to a lesser extent, critical theory) across disciplines including communication, environmental studies, sociology, psychology and the medical field. The research questions aim to be broad enough to include these fields, yet specific enough to answer key issues identified by the researcher. Hence these questions delineate the scope of this study.

1.3.1 Research questions

This study’s main research question is: How do the partners of NZ defence and emergency responders respond to high-risk work-induced stress experienced by their responder partner? To address that question, subsidiary research questions were developed:

Research question one (RQ1): To what extent do the partners of NZ defence and emergency responders experience STS?

Research question two (RQ2): How do the partners of defence and emergency responders manage STS?

Research question three (RQ3): What barriers to managing STS do partners of defence and emergency responders identify?

Research question four (RQ4): What resources do the partners of defence and emergency responders identify as useful to manage STS?

Research question five (RQ5): Do the relationships of resources/barriers with STS vary according to demographic variables?

Research question six (RQ6): Is there a relationship between these resources/barriers and STS?
A hypothesised model to assist in answering some of these questions was created many months into the research and these hypotheses are presented in Section 4.6.

1.4 Thesis guidelines

Abbreviations and acronyms are purposefully written in full upon the first use in the text of each chapter, even if they were previously described in a prior chapter. The description of ‘defence and emergency responders’ will frequently be shortened to ‘responders’. Double quotation marks indicate a direct quote by an author or a participant while specialised terms use single quotation marks or indentation of fonts. Furthermore, in-text titles of books and articles use indented font. Other formatting employs the American Psychological Association (2010) publication guidelines. The terms in this thesis follow the traditional NZ spelling except when directly quoting authors that used an alternative spelling.

1.5 Thesis outline

The preface to this thesis shares how I became involved with this topic and why I believe it is important research. It also acknowledges individuals from other organisations that were involved with the research.

Chapter 1 briefly describes the historic culture of responder organisations in the NZ context. It also introduces the scope of the study and outlines the research questions.

Chapter 2 summarises the history of primary traumatic stress and STS, defines concepts that will be discussed in this thesis and presents an overview of the literature pertaining to the partners of responders. The section concludes with a tightly defined literature review of measured STS and social support research among partners of defence and emergency responders. The review identifies the gaps in the literature and describes how those articles informed this research.

Chapter 3 describes the theoretical framework that underpins this thesis. It provides a perspective on my own research position as well as the theories that guide this thesis including pragmatism, critical theory, complexity theory, and Kaupapa Māori-consistent approach. This chapter also describes how a complexity framework around STS impact this study and concludes with methodologies and methods used in this thesis.

Chapter 4 offers specific descriptions of the methodology by describing the research design and ethics approvals. It details the methods used for collecting the qualitative and quantitative data. Recruitment, instrument development, and analysis of the data are also
covered. This section concludes by describing how feedback was incorporated into the findings and how the findings were disseminated back to the organisations and participants.

Chapter 5 includes qualitative findings from the preliminary interviews and how that information impacted the research. It includes findings from piloting the survey which helped to modify the online survey. It describes feedback during the survey, from the post-survey interviews, and from the organisations. The bulk of the chapter presents the thematic analyses based on open-ended questions asked within the survey.

Chapter 6 outlines the demographic information provided by the participants and the criteria for inclusion in each dataset. It presents the summaries of results for each research question, followed by testing of the hypotheses through hierarchical multiple regression. The chapter concludes with the creation and analysis of a structural equation model (SEM).

Chapter 7 concludes this thesis. The findings and results are discussed by addressing the research questions and hypotheses. I present some of the strengths and limitations of this research and provide suggestions for future research, defence and responder organisations, and responder partners based on the overall findings. I conclude by reflecting on the interactions with the many defence and emergency responder stakeholders as well as the research process.
2 Literature Review

2.1 Introduction
A large body of research has addressed the impact of occupations on families. Many different fields have an interest in this topic including (but not limited to) sociology, psychology, social work, business management, health, and gender studies. These different fields use their own terminology to describe various aspects of these work-family interactions (Edwards & Rothbard, 2000) and include terms such as spill-over, work-family conflict, segmentation, cross-over, resource drain, enrichment, work-life balance, congruence and integration. While many of these terms describe interactions between responders and their partners (Westman & Etzion, 1995; Beelu, Johnson & Nieva, 1995), they do not necessarily describe the impact of high-risk work activities on the partners. Learnings from this literature include the need for an environment that provides the person experiencing secondary traumatic stress (STS) with a structured set of preventative measures. Therefore this chapter builds on these lessons by reviewing literature related specifically to the prevalence of secondary trauma among partners of defence and emergency responders. It discusses the importance of social support as a mediator of that traumatic stress. The chapter supplements the description provided in Chapter 1 (1.1 and 1.1.1) about the environment in which responders (police, fire fighters, ambulance, and military personnel) and their partners function. Secondary traumatic stress is initially discussed in general, with many of the articles focused on what has been learnt about risks, coping techniques, and barriers to care for STS among professional care-givers, and then more specifically in relation to the partners of responders. The chapter concludes by reviewing the research that is most directly relevant to the current study. To put the review in context it is important to understand that secondary trauma has become recognised in the research literature through an understanding of primary traumatic stress.

2.2 History of post-traumatic stress disorder (PTSD)
The PTSD acronym is the most recent name for a syndrome that has a long history. Descriptions of symptoms can be found in philosophical and literary writings from the Greco-Roman period onwards, but it was not until the 1800s that physicians became collectively aware of the symptoms and began the long and often complex road towards diagnosing a syndrome (Birmes, Hatton, Brunet, & Schmitt, 2003). Early terms for traumatic stress, including ‘nostalgia’, ‘disordered action of the heart’, ‘irritable heart’, and ‘railway
spine’, became part of the public discourse when World War I brought in the term ‘shell shock’ as a diagnosis (Jones & Wessely, 2005). World War II introduced use of the term ‘combat fatigue’. It continued during the Korean and Vietnam Wars, the latter providing the term ‘post-Vietnam syndrome’. However, these terms were still mostly confined to the medical and military environments despite occasions when the public became temporarily aware of them (Spiller, 1990). Only after the Vietnam War did the terms enter the public consciousness for a sustained period as key issues to address (Scott, 2004).

New ideas gradually become accepted as they are repeatedly introduced and explained in different situations. This ‘softening up’ process is an accurate model for PTSD where salient journal articles dealing with ‘combat fatigue’ were written by and for the medical community for an extended period before the Vietnam War (Kingdon, 2003; Weissert & Weissert, 2012). In 1955, over a thousand academic articles were published on combat fatigue (Spiller, 1990). However, what changed the public consciousness were advocacy groups gaining membership, television widely publicising tragic events which involved veterans killing individuals within their communities, and advocacy gaining traction as lobby groups petitioned the government for assistance (Spiller, 1990). Today the term PTSD is ubiquitous although the popular and medical understandings may vary.

2.3 Definition of PTSD

Post-traumatic stress disorder is described in The Diagnostic and Statistical Manual of Mental Disorders (5th ed.) (DSM-5) as:

Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse) (American Psychiatric Association, 2013, p. 309.8).

Individuals who experience specific aspects of avoidance, arousal, intrusion, and negative consequences for longer than a month after a traumatic incident are showing signs of
inadequately managing their environment and emotions and can be diagnosed with PTSD. Symptoms can include flashbacks; nightmares; avoiding people or places; constant fear; negative self-talk; hypervigilance; jumpy, restless sleep; and interference with social activities or work (American Psychiatric Association, 2013). These symptoms can vary greatly from one individual to another (Brewin & Holmes, 2003; Lasiuk & Hegadoren, 2006). Although a medically diagnosed mental health disorder, the term PTSD has moved into the cultural lexicon of the media, general public, and even research environments, often in the absence of a clinical diagnosis made by a health care professional.

2.4 Primary traumatic stress

The term ‘primary traumatic stress’ is traditionally used to describe the symptomatic exposure to a traumatic event, experienced first-hand regardless of a specific diagnosis. Primary traumatic stress is of great concern for military personnel on active duty, for veterans (Greentree, 2012; Rosenheck & Fontana, 2007; Seal et al., 2010), and first responders (Beminger et al., 2010; Bryant & Harvey, 1996). Being diagnosed with PTSD is a major risk for those who put themselves in harm’s way (Benedek, Fullerton, & Ursano, 2007; Berger et al., 2012; Fullerton, Ursano, & Wang, 2004) including military personnel, fire fighters, police, and paramedics (Marmar et al., 2006; Mcfarlane, 1988; Regehr et al., 2005; Regehr & Bober, 2005). Responders’ experience of trauma in their work environment can expose them to death, violence, and accidents that may endanger their own lives (Regehr & Bober, 2005).

Defence and emergency responders can also experience post-traumatic symptoms due to repeated exposure to trauma victims. This trauma may be vicariously experienced through helping the victims. Responders can develop symptoms in their capacity as firefighters (Homish, Frazer, & Carey, 2012; Robinson, 2016), paramedics (Crampton, 2014; Regehr, Goldberg, & Hughes, 2002), police officers (Brown, Fielding, & Grover, 1999; Figley, 1999a), and military service members (Chappelle, Goodman, Reardon, & Thompson, 2014) with some research including more than one responder group (Durham et al., 1985). These traumatic experiences are not limited to combat duty or responding to emergencies. Training environments can also cause traumatic experiences which is why the US military often uses the term combat/operational stress (US Army, 2016; US Navy, 2016).

For the purpose of this thesis, the term ‘primary traumatic stress’ will describe the traumatic experience (in a primary or secondary capacity) by the defence and emergency responder
group. This group experiences the trauma because of their work environment or job requirements, both of which are considered the primary source of exposure. The existence and symptoms of primary traumatic stress among this responder group are conclusively documented in the literature. Primary traumatic events in this population create the conditions for the experience of STS among partners of defence and emergency responders. However, unlike the PTSD definition above which is used for diagnosis, this research is not diagnosing a disorder, instead it hopes to identify if there are risks to partners because of exposure to primary traumatic events via their defence and emergency responders.

2.5 Secondary traumatic stress

In the PTSD definition of the DSM-5, the phrase: ‘Learning that the traumatic event(s) occurred to a close family member or close friend’ was one way of experiencing trauma (American Psychiatric Association, 2013). This form of experiencing trauma was not given a distinct diagnosis separate from PTSD in the DSM, this indirect, vicarious experience of trauma among those who may be helping the traumatised has become widely known as STS, Compassion Fatigue, or Vicarious Trauma (Figley, 1999a; Pearlman, 1999a; Stamm, 1999). Other terms such as countertransference, burnout, indirect trauma, secondary PTSD, secondary victimisation, contact victimisation, secondary exposure, emotional cognition, secondary survivor, proximity trauma, trauma transmission, toxification of family, secondary traumatic stress disorder, shared trauma, and witnessing have also been used to describe this indirect experience of trauma. Much debate surrounds the meanings of these terms and how they differ from each other (Baird & Kracen, 2006; Devilly, Wright, & Varker, 2009; Fernando & Consedine, 2014; Lynch & Lobo, 2012; Rothschild, 2006; Sabo, 2011). For those working at the coalface, the terms are often used interchangeably (Bride, Radey, & Figley, 2007; Regehr & Bober, 2005). For this research I chose a term that is well used in the literature and could apply not to work per se but rather to family interactions. The three most commonly used terms are compassion fatigue, vicarious trauma, and STS. The term compassion fatigue is widely applied to helping professionals (Figley Institute, 2013) and incorporates elements of worker burnout (R. E. Adams, Boscarino, & Figley, 2006) and secondary trauma (ProQOL, 2016b). Vicarious trauma is also often used for work-related exposures and focuses on the possible change to an individual’s worldview, spirituality, and identity because of their interaction with a traumatised individual (Pearlman, 1999b).

This study will use the term ‘secondary traumatic stress’ the way Charles Figley defined these secondary reactions “as the natural, consequent behaviors and emotions resulting from
**knowledge about** a traumatizing event experience by a significant other. It is the stress resulting from *helping or wanting to help* a traumatized or suffering person” (Figley, 1999a, p. 10). Figley has also described STS as “…nearly identical to PTSD, except that it applies to those emotionally affected by the trauma of another (usually a client or family member)” (2002b, p. 3). I tailored the STS section of the literature review to this definition for the partners of defence and emergency responders as it accurately matched the emotions and experiences from my previous research with military spouses and the definitions given in the increasingly relevant STS literature. I will use this term ‘STS’ to describe all traumatic secondary exposure unless I am quoting authors who use a different term. In describing my own research, STS will be the term used when discussing trauma symptoms experienced by the partners of responders. STS in this research will refer to symptoms of partners exposed to the traumatic events in a secondary capacity.

### 2.6 Job related STS

STS research has mainly focused on professions that assist those who are traumatised. The research into STS and health care providers, therapists, nurses, and social workers is fairly robust (R. E. Adams, Figley, & Boscarino, 2008; Beck, 2011; Beck, LoGiudice, & Gable, 2015; Bride, Robinson, Yegidis, & Figley, 2004; Bride et al., 2007; Bride & Figley, 2007; Dekel, 2010; Figley, 2002a; Figley, 2002b; Hesse, 2002; Huggard, 2011; Huggard & Unit, 2011; Steed & Bicknell, 2001). Other professions, where there is research into job related STS, include clergy (Hendron et al., 2011), physicians (Nimmo & Huggard, 2013) aid workers (S. Bishop & Schmidt, 2011; Shah, Garland, & Katz, 2007), attorneys (Levin & Greisberg, 2003; Levin et al., 2011; Piwowarczyk et al., 2009), and journalists (Feinstein, Owen, & Blair, 2002). These papers focus on secondary trauma as a risk factor for these professionals. They discuss how exposure to traumatised individuals can ‘infect’ a professional helper resulting in compassion fatigue and burnout, and a number discuss how professionals can also simultaneously feel satisfaction through this process. Specific variables also increase or decrease the risks associated with the secondary exposure. Risks include having personally experienced traumatic events and lack of experience working in their job as a helper (Baird & Kracen, 2006; Pearlman & MacIan, 1995). Being female also appears to increase the risk of STS (Baum, 2016). Moderating factors include having a partner and working in a supportive environment (Boscarino, Figley, & Adams, 2004) as well as access to strategies for helpers to practise regular self-care and implementation of policies and procedures for their protection (R. E. Adams et al., 2008).
2.7 Non-job related STS

Research into STS into carers who are not clinically trained is sparse as is STS research related to partners of defence and emergency responders or those who help traumatised individuals but not as part of their job. This literature includes families where a child has been sexually abused (Manion et al., 1996) and where a family member has experienced a major illness (Brosseau, McDonald, & Stephen, 2011; Day & Anderson, 2011; B. Smith, 2007), or has been injured from terror attacks (Ahmadi et al., 2011; Weinberg, 2011). A small number of STS studies have also looked at children of traumatised parents (Barnes & Cathrall, 2005; Daud, Skoglund, & Rydelius, 2005; Dinshtein, Dekel, & Polliack, 2011; Williams, 2004; Yehuda, Bell, Bierer, & Schmeidler, 2008) and spouses of Holocaust survivors (Lev-Wiesel & Amir, 2001). It is in the non-job related STS research category that this investigation of STS among partners of NZ responders seeks to contribute.

2.8 Secondary traumatic stress theories and frameworks

How traumatic experiences impact the lives of individuals has been variously conceptualised by many frameworks including trauma theories, crisis theories, and stress theories (Regehr & Bober, 2005). But frameworks specifically focused on secondary trauma have mainly focused on professional practitioners not on those experiencing non-job related STS. When I started to explore conceptual frameworks for secondary trauma, I planned to use ‘compassion satisfaction and compassion fatigue theory’ which describe positive and negative aspects of working with traumatised clients (ProQOL, 2016a). This theory positions secondary trauma as a negative outcome of compassion fatigue which translates easily to the non-professional interactions between partners and their responders. On the other hand, burnout and, to some degree, satisfaction components as described in this theory, are more difficult to translate to the partner/responder relationship. This difficulty became clear when I attempted to modify the Professional Quality of Life Survey 5 (ProQOL), the most current measure tied to this theory (Stamm, 2010). Burnout questions addressing hopelessness, effectiveness, and difficulties within the work environment that are experienced because of clinician/client relationships as measured in the ProQOL (Bride et al., 2007) become more ambiguous when they ask about similar secondary experiences because of partner/responder relationships. This is because the burnout measure was constructed to measure job burnout (R. E. Adams et al., 2008; ProQOL, 2016a). While some research examines couple burnout due to work stress (Pines, 2005; Pines, Neal, Hammer, & Icekson, 2011; Pines, 2013) even within military (Westman & Etzion, 1995) and police couples (Beelu et al., 1995), those
measures required evaluating both the partner and worker. Therefore a suitable replacement for the burnout component of this measure was not found. Additionally, the compassion satisfaction measure in the ProQOL focused on the pleasure gained from clinically helping clients (Bride et al., 2007), which was difficult to transfer to the partner experiences. Because the individual’s professional work environment was a key component of compassion satisfaction and compassion fatigue theory (ProQOL, 2016a), this theory was not an appropriate fit to underpin this thesis.

A conceptual model of STS described by Bride and Figley (2009) identified variables that influence the development or prevention of STS in professional providers. These variables included being vicariously exposed to trauma, experiencing empathy for the client, and compassion satisfaction because of the engagement. Another variable included risk factors such as time as a clinician, the amount of time working with traumatised clients, and the clinicians’ own personal trauma history. The final variable in this model addressed the types of coping behaviours employed by the clinician, specifically supportive behaviours such as humour, planning and seeking support, and maladaptive behaviours such as withdrawal, alcohol consumption, drug use, or acting out (Bride & Figley, 2009). Although the authors included partners and families along-side professional caregivers in their definition of military caregivers, the research that was referenced to describe the conceptual model focused mainly on the professionals and their work environment. The differences between the partner environment and that of a clinician were apparent in a number of variables, particularly when describing the risks and available resources related to the work environment. Those differences made it not suitable to apply this conceptual framework directly to experiences of STS with partners of defence and emergency responders.

Another framework that focused on professional providers and hearing stories from traumatised clients is that of ‘vicarious traumatisation’ developed by McCann and Pearlman (1995). It described understanding the psychological effects of working with and treating patients who had been traumatised and was advanced from constructivist self-development theory which the authors also conceptualised. Constructivist self-development theory was proposed to assist clinicians assess and treat clients with primary traumatic reactions. The theory did not describe symptoms. Instead it focused on what the authors described as “cognitive schemas” (McCann & Pearlman, 1995, p. 137), which placed emphasis on the beliefs, expectations, and assumptions that the individual holds about themselves and world around them. The theory’s premise defined individuals as having “an inherent capacity to construct their own personal realities as they interact with the environment” (McCann &
Pearlman, 1990, p. 6) and was explained as “complex and multifaceted” (McCann & Pearlman, 1990, p. 34). Where constructivist self-development theory focused on the modifications to individuals’ internal beliefs, expectations, and assumptions due to the primary experiences of trauma, the vicarious traumatisation framework focused on these same internal modifications experienced by professional clinicians due to secondary exposure to the trauma experienced by their clients. Pearlman created a measure called the Trauma and Attachment Belief Scale to evaluate the safety, trust, esteem, intimacy, and control beliefs held by individuals about themselves and others (Pearlman, 2003). This scale is a licensed product that requires payment per participant (Western Psychological Services, 2016) which was a financial barrier for its use in this study. Additionally, I was only able to see sample scale questions and unable to assess its suitability for this research.

These existing frameworks and conceptual models have focused on professional clinicians such as social workers, psychologists, and counsellors not those experiencing non-job related exposure to secondary traumatic stress. The risk factors associated with caring for a traumatised population and subsequent self-care strategies are aimed at these professions and their work environments. Although a stand-alone STS theory was not used in this thesis, Chapter 3 describes a multifaceted theoretical framework to explain the psychosocial environment of the partners of emergency responders which was used in this study and ties in with many facets of the above concepts and theories.

### 2.9 Public awareness of STS

Articles about STS are appearing in non-research journals and newspapers providing context for the public about the topic, helping identify who is at risk for STS, and offering tips for early identification of STS (Chen, 2012; Gilmore, 2012; McClelland, 2013; Ostrowski, 2003; Soudi, 2016). Therefore, usage of concepts around secondary trauma continues to expand beyond the medical and research arena and ‘soften up’ the public understanding of traumatic stress beyond PTSD. These developments normalise regular discussions about STS prevention, identification, and treatment within high-risk organisations in the workplace.

### 2.10 Consequences of not addressing trauma reactions

Those who do not address the mental health risks of primary exposure to trauma face possible consequences including anxiety, depression, phobias, substance abuse, relationship problems, and suicidal behaviour (Beaton & Murphy, 1995; Lasiuk & Hegadoren, 2006).
For faster and more effective recovery, traumatic stress injuries need to be identified and treated early (Nash, 2007). However, meeting these complex needs requires individuals to know the signs, identify healing activities, be able to seek help without barriers to care and be in a safe and nurturing environment (Pearlman, 1999a; Yehuda, 2002).

In NZ, some claim that more needs to be done to meet these complex needs. Early studies looking at primary traumatic stress in NZ combat veterans from the Vietnam War found that 10% had significant post-traumatic symptomology (Vincent, Chamberlain, & Long, 1994) and implicated combat exposure as a reason. Veterans were also more likely to divorce, have dysfunctional families, and intimate relationship problems (Chamberlain, Vincent, & Long, 1994).

An article from the NZ Herald in 2013, entitled NZ veterans: Suffering in silence, claimed that the NZ Defence Force (NZDF) was not doing enough to provide screening and support for military service members who return from war. This prompted concerns of long-term negative consequences for these members and their families (Bayer, 2012). A 2014 headline from the same newspaper stated that the Military admits: We don’t understand trauma and suggested that this may be because compared to the UK and US, fewer NZ service members seek help for combat or operational stress. The article went on to say that the NZDF believed that one reason could be the “stoic New Zealand culture” (Fisher, 2014, para. 9). The NZDF acknowledges that service member partners are experiencing adverse consequences because of frequent deployments and elevated rates of suicides among veterans (Fisher, 2014).

Other research has examined the impact of primary trauma on NZ police and has proposed ways to mitigate the impact. Research conducted in the late 1990s found that the impact of traumatic stress on the police force was something that the NZ Police was striving to understand and address (Stephens & Miller, 1998). One study stated that PTSD in NZ police officers usually results from work-related trauma (Stephens, Long, & Miller, 1997). A later study of job performance in the NZ police force found that the most common reasons for absenteeism were illness and mental health issues (Packman, 2003). The NZ research also suggests how to address the impact of traumatic stress, including the proposal that the NZ Police needs to increase resources for debriefing programmes to address traumatic incidents rather than rely on a one-off debriefing approach (Addis & Stephens, 2008). The NZ police seem to have made some progress in getting their officers to seek help. In 2011, 983 referrals for trauma counselling in the police department almost doubled the 567 in the previous year. This increase was attributed primarily to the Christchurch earthquakes in that year (Migone,
2012), so it is likely that many more officers were exposed to trauma than in the year before and those involved in the earthquake recovery were offered the counselling as a precautionary measure without having to request it. Other research found that the NZ police officers who engaged in peer support had decreased PTSD symptoms after traumatic events (Stephens et al., 1997) as did those who shared their emotional trauma with others (Stephens, 1997).

Processing trauma experiences impacts not only the responders, but typically also the lives of those who care for them (Figley, 1995). This research highlights the importance of understanding the prevalence of STS among partners of NZ defence and emergency responders and the associated barriers to care. This line of investigation led to exploration in the literature of the family impact on retention and readiness.

2.11 Family impact on organisation retention and readiness

The impact that families have on organisations can have financial implications for organisations. Although some organisations choose to ignore their connection with the families of their employees, families can be an asset for the organisations by indirectly improving the work environment, decreasing attrition, and increasing readiness (Burnam, Meredith, Sherbourne, Valdez, & Vernez, 1992; Kerce, 1998). The costs to not retaining employees are fairly well known, but as Tziner and Birati (1996) point out, employee turnover have fairly obvious direct costs but also indirect costs that are often experienced by organisations when employees need to be replaced. The authors describe:

- The direct outlays to the firm incurred by the replacement process: recruiting, hiring, training, and socializing new employees including the extra effort by supervisors and coworkers to integrate them;
- The indirect costs and losses that relate to interruptions in production, sales, and the delivery of goods and services to customers; and
- The financial value of the estimated effect on performance as a result of the drop in morale of the remaining work force following on dysfunctional turnover (p. 116).

Defence and emergency responder organisations have long recognised that retaining personnel saves money, but research into the impact that families have on retention came about more slowly. A US military research report which included a literature review of studies from the 1980s, concluded that “one of the most consistent finding in the research is the positive and significant relationship between spouse support and the retention intentions and behavior of armed forces personnel” (Orthner, 1990, p. 3). A more recent study with
spouses of US service members conducted after Operation Desert Storm found that perceived compatibility between US Army life and family life was the best predictor of whether junior ranking enlisted soldiers would re-enlist after deployment (Rosen & Durand, 1995).

In another study, workers stated that organisations with family-friendly policies were perceived to be more supportive overall than organisations without family friendly policies. Employees in organisations that were perceived to be less family-friendly “experienced more work-family conflict, less job satisfaction, less organizational commitment, and greater turnover intentions than did employees who perceived that the organization was more family-supportive” (T. D. Allen, 2001, p. 429). When employees see these policies as accessible and usable the organisational commitment and workplace productivity increase (S. C. Eaton, 2003).

Perceptions by partners about how well their lives integrate into the responder’s work life are also important to consider when examining the readiness of the responders. Readiness for defence and emergency responders involves preparing for situations that can be described as navigating “life-threatening or life-altering consequences and regularly occur against a backdrop of psychological stressors, including danger and risk, time pressure, and uncertainty” (M. M. Thompson & McCreary, 2006, p. 4-2). To remain operationally effective and uphold their own safety and the safety of others, responders must be mentally ready to engage with their work responsibilities by controlling their behaviours, thinking, and emotions. Unfortunately, the stresses within the work environment can decrease the effectiveness of the responder, causing “attentional lapses, narrowing of perceptual focus, short-term memory impairment, and biased information processing, which separately, and in combination, can contribute to errors in judgement and performance” (M. M. Thompson & McCreary, 2006, p. 4-2). Strategies to increase the effectiveness and readiness of responders are vital for the organisations. The US Army has found that a resilience training programme implemented with service members and families prior to deployments called the ‘comprehensive soldier and family fitness program’ decreased substance abuse, mental health diagnoses, and soldier behavioural issues which consequently increased the health and effectiveness of the organisation at large (Harms, Herian, Krasikova, Vanhove, & Lester, 2013). The programme and the results have been highly contested because the programme’s measures and ethical application had not been independently and objectively reviewed (Eidelson, Pilisuk, & Soldz, 2011; Steenkamp, Nash, & Litz, 2013).
McGonigle et al. (2005) provided a conceptual model of the relationship between personnel support programmes and readiness, which could be applied to military and civilian environments. One argument they made is that readiness is a “collective characteristic” (p. 28) structured within a hierarchy. For the organisation to be ready, the unit must be ready which depends on the service member being ready, and “the readiness of service members, in turn, is influenced by the readiness of the service members’ families” (p. 28). The conceptual model reviewed literature that linked organisational support programmes to the readiness status of organisations (Figure 2-1).

Figure 2-1 Literature review of relationship between organisational support programmes and organisational readiness


Personnel support programmes were defined with three categories: family services, athletic programmes, and recreational programmes. Readiness was defined with six categories: unit cohesion, fitness, technical competence, organisational citizenship behaviour, preparedness, and commitment. The authors proposed five mediating variables between personnel support programmes and readiness; namely self/collective efficacy, skill building, job satisfaction, family adaptation, and perceived organisational support. Much of the evidence relies on inferred relationships, not necessarily statistical analysis within articles. Even so, this model
exemplifies the complexity involved with organisational readiness and salient examples of the impact that partners can have on that readiness. Activities which impact partners is clear in ‘Family Services/Activities’ which in the military literature includes services such as child care centres and activities aimed at youth programmes, and in the civilian environment speaks to family-friendly policies. The involvement of partners is included in ‘Family Adaptation’ which involves efforts by the organisations and the families to alter their lives to achieve the goals of the individual and organisation. While some links may not yet have enough research to support a direct relationship, there may be second and third order effects to consider. For example, “family services programs may increase family adaptation, thereby increasing preparedness” (p. 29) and “family service programs may serve to improve service member’s quality of life, which leads to increased job satisfaction” (p. 35).

An Australian study (Cowlishaw, Evans, & McLennan, 2008) investigated issues related to reduced recruitment of rural volunteer firefighters and suggested that the decline in volunteers was due in part to family issues. The authors proposed that “if specific characteristics of volunteer firefighting are common sources of conflict for partners and children, then an awareness of these may allow new volunteer families to be better prepared for these experiences. An increased agency emphasis on educating families may help achieve this” (p. 23).

Studies from NZ also provide suggestions for retention and readiness. The main recommendation from the next study focused on educating the police officer as well as the families with suggestions based on the difficulties experienced by other police families. The study (Buttle, Fowler, & Williams, 2010) compared the impact on the private lives of rural NZ police officers with those who work in the urban environment. This qualitative study indicated that rural policing in particular invades family life, due mainly to the officer being known to everyone in the community and never ‘off duty’. Often considered ‘defacto police’, their families were also widely known, yet they felt isolated and stressed and either cut short or did not attend activities they wanted to engage with. Stigma attached to being a police officer’s partner could put pressure on their relationship and the officer’s willingness to keep working for the police. The study suggested that the organisation provide tips to families which establish boundaries and expectations between their public and private lives, which can assist in the transition from urban to rural policing.

The NZ Fire Commission, in 2001 and 2008, surveyed volunteer rural fire fighters and reported that balancing work and family responsibilities was the most difficult challenge for
the fire fighters (New Zealand Fire Service Commission, 2001; New Zealand Fire Service Commission, 2008). In 2013, a study (Alkema, Murray, & McDonald, 2013) with NZ volunteer fire fighters stated that the main reason that firefighters were leaving the Fire Service was their non-fire service job and family commitments. Participants often acknowledged that they remained volunteer fire fighters because of the support they received from family. The study suggested “it may be worth considering how families and workplaces could be better supported to enable volunteers to stay in” (p. 36).

Conflict in families because of the responder’s work life was examined in a study comparing work-related psychological wellbeing across NZ police, fire, and ambulance workers. The study found that a high level of work-family conflict resulted from the responders’ focus on work demands across all three organisations (Brough, 2005).

Increasing family involvement in the experiences of the responder’s organisation has been found to increase trust and communication benefitting partners, responders, and the organisation (Paton et al., 2011). Referring to first responder organisations Paton, Violanti, Norris and Johnson concluded that it was time to “extend our focus beyond the individual-organisation relationship to include the individual-organizational-familial relationship” (p. 165). These findings strengthen the need for robust research into how partners of responders engage with organisations and how an increase in communication and trust may benefit partners by reducing the impact of secondary trauma reactions.

2.12 Measuring STS in partners of defence and emergency responders worldwide

One of the first published studies of secondary trauma in partners identified what they described as ‘stress by proximity’ (Verbosky & Ryan, 1988). This retrospective analysis of therapy discussions found that emotional stress was experienced by the significant others of US veterans of the Vietnam War who had been diagnosed with PTSD. A number of other studies likewise concluded that STS was evident in partners of US veterans with PTSD who experienced combat in Vietnam (Beckham, Lytle, & Feldman, 1996) and Iraq/Afghanistan (Caska & Renshaw, 2011). Some of the advances in the research on measuring STS in partners of veterans with PTSD came from studies of Israeli veterans who experienced combat in the 1973 Yom Kippur War (Ein-Dor, Doron, Solomon, Mikulincer, & Shaver, 2010; T. Greene, Lahav, Bronstein, & Solomon, 2014) and 1982 War with Lebanon (Mikulincer, Florian, & Solomon, 1995; Solomon et al., 1992). Studies from other countries have included measuring STS in partners of Kuwaiti service members from the Gulf War (Al-Turkait & Ohaeri, 2008), Australian Veterans of the Vietnam War (Westerink &
Giarratano, 1999), Iranian veterans of the 1980-1988 war between Iraq and Iran (Ahmadi et al., 2011), Dutch peacekeepers (Dirkzwager, Bramsen, Adèr, & van der Ploeg, 2005), and Croatian service members (Koic et al., 2002).

In NZ, a qualitative study (Frederikson, Chamberlain, & Long, 1996) of spouses of Vietnam veterans had findings comparable to the Verbosky and Ryan study. The authors called for family treatment programmes because they were “necessary to heal the experiences of the past and to empower these families and to provide them with the personal skills they need to develop a brighter future” (p. 67). A pilot programme that provided mental health services for family members of NZ Vietnam Veterans (Deane, MacDonald, Chamberlain, Long, & Davin, 1998) was set up to evaluate if this intervention would improve outcomes for the family. Overall the families improved in their functioning and found the therapy helpful, but did not continue with their treatment and experienced a decline in their gains. These studies show that secondary trauma research in NZ military is comparable to research findings from other countries.

Very few articles measure secondary stress in non-military partners. Excluding those that will be discussed in Section 2.14.1, three articles addressed secondary trauma with police (A. Davidson, Berah, & Moss, 2006; Dwyer, 2005; Hirshfeld, 2005) and one with firefighter partners (Gawrych, 2010). These articles all reported that partners of these responders deal with issues related to STS, but not all of these studies found that those issues meet trauma symptom criteria for PTSD, which suggests that STS might include more than shared psychological symptom criteria (Gawrych, 2010; Hirshfeld, 2005). Three of the studies (Dwyer, 2005; Gawrych, 2010; Hirshfeld, 2005) recruited police and fire responders along with their spouse in their study and noted that the those responders had concerns about presenting themselves as needing assistance because they were unsure if the information they provided to the researcher would get back to the organisations or the responders’ supervisors. All of the above issues will be discussed in more detail in the sections that follow.

Measuring STS was not, and currently is not, standardised. Many studies use measures which link STS with the PTSD symptom criteria from the DSM (Bjornstad, 2014; Bramson et al., 2002; Ein-Dor, 2010; Franciskovic, 2007; Greene et al., 2014; Herzog, 2011;). However, the standardisation is impacted by the differences in criteria between the different DSM versions as well as by elements that researchers choose to use from the various criteria. In addition, some studies included measures that examined general psychological distress
symptoms, severity of symptoms, and general health questions (Davidon, 2006; Renshaw, 2011). Still others describe care-giver burden (Beckham, 1996; Ben Arzi, 2000; Calhoun, 2002), ambiguous loss (Dekel, Goldblatt, Keidar, Solomon, & Polliack, 2005; Dekel, Solomon, & Bleich, 2005), and changes in quality of relationships (Bramslen, Van Der Ploeg, & Twisk, 2002; Dekel, 2010; Ein-Dor et al., 2010; Meffert et al., 2014) as possible indicators of STS. Creating a standardised measure which could be used for partners to self-evaluate their risk and needs would be desirable, but it may need to include much more than the variables listed above. More research is needed to investigate how individuals succeed or struggle in lives partnered with these high-risk responders.

Identifying how the partners’ symptoms were related to the traumatic experiences of the defence and emergency responders was also not standardised. Variations ranged from only including participants if their responder had a primary traumatic stress diagnosis (Beckham et al., 1996; Verbosky & Ryan, 1988); asking service members to self-report traumatic events and/or symptoms (Bjornestad, Schweinle, & Elhai, 2014; Herzog, Everson, & Whitworth, 2011); and asking the partners to describe the events and/or symptoms they identified in their responder (Pfefferbaum et al., 2002; Regehr et al., 2005).

It is important to acknowledge that there are those who have expressed doubts in the findings from much of the research because they wondered if what was being measured was truly STS. For example, research by Renshaw et al. (2011) asked if what spouses experienced was really general psychological distress and not STS. The study found that fewer than 20% of those who endorsed symptoms on the PTSD measure attributed their symptoms solely to their service member’s traumatic experiences. Most stated that their reactions were unrelated to their service member’s trauma. The authors suggested that a gold standard for researchers to differentiate between STS and general psychological distress include an interview to identify how the participants link the trauma from the service member to their own lives. Acknowledging these concerns, this study will frame relevant questions to attribute recollections or symptoms to the experiences of the responder.

Identifying that STS is occurring and how it is transmitted is a large step towards understanding who is at risk. While there are different theories about measuring and classifying STS there is some agreement about how STS is transmitted to partners, in that:

a) The supporting partner may be vicariously traumatized as he or she empathizes and identifies with the survivor’s experience of traumatic stress, and
b) The supporting partner can be traumatized as he or she encounters the survivor’s symptomatic behaviors (Catherall, 2012, p. 365).

Often “the most important and frequent remedies for people suffering from traumatic and post-traumatic stress are personal, rather than clinical or medical. This includes the naturally occurring social support of family, friends and acquaintances, and professionals who care” (Figley, 1999a, p. 10).

2.13 Social support

There are many reasons why many people who experience psychological symptoms after a traumatic event do not seek help. However, the more social contact and social support they have available to them, the more likely they are to seek help (Gavrilovic, Schützwohl, Fazel, & Priebe, 2005). Social support has long been identified as a method which reduces the negative impact of stress on health as well as decreasing psychological risks, morbidity, and mortality (Cohen, 1988; Flannery, 1990; House, 1987). Significant others who react supportively increase the likelihood of their partner seeking mental health care (Bolton et al., 2003; Chada et al., 2001). Hoyt et al. (2010) found that military members who disclosed traumatic events to spouse, friends, and family exhibited fewer primary traumatic stress symptoms than those who disclosed to therapists. They suggested that family groups be provided with education programmes to teach them how to become more helpful listeners. Thus, social support from the organisation, peers, and partners plays a very important role in how responders manage their trauma (Monson, Fredman, & Dekel, 2010; Regehr, 2009; Solomon, Waysman, & Mikulincer, 1990; Stephens & Long, 2000; Weiss et al., 1995).

In the trauma literature, social support is often discussed in three domains: perceived support, enacted support, and embedded social network (Catherall, 2012; Keyes, 2012). Perceived support refers to an individual’s belief that support will be available when needed. Enacted support refers to actions taken by individuals or organisations, which assist those who are traumatised. The embedded social network is the level of integration of traumatised individuals into a group where they receive support, such as a family relationship, work environment, or peer groups (Catherall, 2012; Keyes, 2012). While each of these domains has different strengths, perceived support has been shown to impact mental health outcomes more than the other support domains (Keyes, 2012; Solomon et al., 1990). When responders do not make use of social support and instead turn to negative (maladaptive) coping techniques, the consequences can be significant and include among other things substance abuse, violence, and even suicide (Figley, 1999b; Violanti, 2007).
Social workers and therapists have been taught that encouragement, emotional assistance, tangible assistance, and companionship are positive social support resources to assist in trauma recovery (Figley, 1983). However, this information is not necessarily readily available to defence and emergency responders or their partners. Rees and Smith (2008) suggest that when information about trauma, including the physiological symptoms and basic tools for addressing trauma, are shared with responders who were previously unaware of the information, they often feel less isolated and more willing to seek help. Regehr, Hill and Glancy (2000) advise that responders in supportive relationships were more likely to seek help after exposure to trauma. In a large study of US military wives of service members with combat experience, K. M. Eaton et al. (2008) found that wives of combat exposed soldiers experienced similar rates of psychological problems as the soldiers, but were much more likely to seek mental health care. However for the most part, there is sparse information about the STS experiences of the partners of responders and what role social support plays in their lives. My study addresses this clear gap in the literature with the intent to answer the questions as conclusively as possible by assessing the impact of social support on STS and providing recommendations to address the shortcomings.

2.14 Literature review guidelines

This section reports the process used in my non-systematic structured review of literature related to STS among partners of defence and emergency responders. This review was specifically focused on secondary stress and social/organisational support in order to expose gaps in the literature and opportunities to address them in NZ. The initial literature review was conducted to inform the methods and measures for this survey. A follow-up review was conducted in early 2016 and helped to inform the discussion of the research findings.

To locate the literature that measured STS and evaluated social/organisational support among the partners of defence and emergency responders, an online search was conducted. A search in 2013 was made of databases of English language published peer reviewed literature (PsycInfo, PubMed, JSTOR, CINAHL, PILOTS) and thesis and dissertations (ProQuest thesis and dissertations, Trove, EThOS). The main search terms were ‘secondary trauma’, ‘compassion fatigue’ and ‘vicarious trauma’. Additional terms included one of the following: ‘police’, ‘fire fighter’, ‘paramedic’, ‘military’, ‘defence force’, ‘ambulance’, or ‘emergency responder’ and either ‘spouse’, ‘partner’, ‘wife’, or ‘husband’. Appropriate Boolean operators and truncation symbols were used as available and required.
Articles were initially included if secondary stress was identified as a main focus of the study and the research was with partners of defence or emergency responders. Over 50 articles were identified as having an STS focus. They were read carefully to see if a qualitative discussion or quantitative measure of social/organisational support or help-seeking was included. This left 12 articles in the literature review. Some used measures for support/help-seeking which were embedded in a larger scale. In these cases if the results did not discuss support/help-seeking, the articles were not included in the review (for example, Caska & Renshaw, 2011).

A brief synopsis of the 12 articles that are similar to the current study will be discussed. To provide context around them, articles are presented in published chronological order and include findings which relate to my study in addition to relevant acknowledged and unaddressed limitations. Section 2.14.2 follows with a more specific overview of how these reviewed articles informed the current study.

2.14.1 Overview of STS and support in partners of responders

The effects of primary trauma on partners of military service members were talked about and written about in the social worker/therapist realm in the early 1980s in books such as *Stress and the Family* (Figley & McCubbin, 1983) and in articles such as ‘Detoxification’ of Vietnam war trauma, a combined family individual approach (Rosenheck & Thomson, 1986). There was also at that time an awareness that social support and organisational support were a key part of the solution. Figley stated in 1985 that “the family in particular and the entire social support system in general serves as an antidote to Post-traumatic Stress Disorder” (p. 284). Twenty years later he was asking the organisations who the spouses could turn to for help (Figley, 2005) and in 2016 he was still pointing out dysfunctions which impede partners from getting help, stating that the “current organizational and leadership structure as it pertains to mental healthcare is critically failing military personnel and their families” (Russell, Butkus, & Figley, 2016). Around 30 years ago researchers began to measure STS in spouses and partners of military veterans, and today organisations are struggle to implement the recommended changes. While the social/organisational support is often recommended to address STS, it has not been as assertively studied in partners of responders. Nonetheless, some research has provided insight into this topic.

The first articles in the reviewed literature measuring STS and social support include studies by Solomon et al. (1992) and Mikulincer et al. (1995). Both were part of a large research project with wives of Israeli Defence Force service members who experienced combat-
related mental health issues. The project used a support scale of their own creation based on Mueller’s (1978) Social Network Inventory, but did not elaborate on the modifications. Research by Solomon et al. was one of the first studies to report measuring STS in partners of military service members. It reported that wives of the combat veterans had increased psychiatric symptoms, felt lonelier, and were more isolated from social networks. The 120 wives who participated in the study were all married prior to the military conflict, which means the military members were in good health and able to pass rigorous physical and mental military requirements. This point dispels any suggestion that assortative mating, which in this case involved choosing to mate with an individual who had similar health issues, was the reason for trauma symptoms in both the military member and their partner. A number of other studies in this review cautioned that STS may result from individuals choosing partners with biological similarities that make both prone to trauma reactions (Calhoun, Beckham, & Bosworth, 2002; Dirkzwager et al., 2005).

Mikulincer et al. (1995) revealed that the wives of diagnosed service members reported less marital intimacy, more negative emotions and increased psychiatric symptoms. In addition, this study stated that wives felt more anxious and hostile if they received more support from their extended families after the war when compared to the wives who received less support. The authors suggested there may be some interesting interactions worth studying between family support and the needs of the wives and cautioned that all support may not be beneficial. This study indicated that they did not measure requested vs. received support which could make a difference toward the receptivity of the support and what the wives needed. The limitations of both studies included cultural influences and societal expectations placed on the wives which may have impacted the results. The authors claimed this may have been specific to Israel. Cultural differences were considered when setting up the NZ study.

In 1999, Westerink and Giarratano published a study examining the impact that PTSD experienced by Australian Vietnam Veterans had on their families. While the study was small, the authors felt the results indicated that Australian partners of war were experiencing STS similar to what was being reported in research in other countries such as US and Israel. This study reported findings of poor family relationships and social dysfunction comparable with those in the Solomon et al. (1992) study. Social support results came from using the Moos and Moos (1994) family environment scale. It found that partners of service members were not seeking counselling for themselves according to responses to a questionnaire which was developed by the researchers.
Calhoun et al. (2002) were the first to validate a previous study by the second author (Beckham et al., 1996), showing a relationship between caregiver burden and psychological adjustment in partners. The 2002 study also reported a relationship between veteran symptom severity and the psychological adjustment of the spouse, but it did not find that the availability of social support mediated this relationship. This small study used a single yes/no question of “Do you have someone who you can trust and confide in?” (p. 208) to measure social support. Including only one question to represent the mediating variable for a complex issue such as social support seems inadequate.

Koic et al. (2002) published a study about wives of Croatian war veterans. This study stated that the spouses whose partners were diagnosed with PTSD were more depressed and anxious and 30% met the criteria for secondary trauma compared to wives whose husbands did not have PTSD. The study included questions related to medical help-seeking from medication, physical therapy, and psychotherapy. This study found no difference in medical help-seeking between wives whose husbands had PTSD versus wives whose husbands did not. Those whose husbands had PTSD rated the treatment outcomes as less effective, meaning the medicines or remedy did not work as often for them, when compared with the ratings given by the wives of veterans whose husbands did not have PTSD. In addition, wives whose husbands were diagnosed with PTSD were less inclined to choose psychotherapy assistance. This study did not acknowledge any limitations of their methods or results. However, I suggest that limitations could have included recruitment bias because it is not clear if any spouses declined to participate or if culturally there was something to be gained by being part of the study. Since this study was published in 2002 and the Croatian war ended in 1995, recall bias was also possible. This study did emphasise the complex environment of the family system which the current study considers, as discussed in Section 3.3.4.

Pfefferbaum et al. (2002) appears to be the first study that measured secondary trauma in spouses of firefighters. The authors engaged with firefighters who had participated in recovery efforts of the 1995 terrorist bombing in Oklahoma City. This study had too few participants to draw meaningful conclusions about the full STS measure. However, the study did find that most partners met some of the criteria for STS and that they used family and friends to cope with symptoms rather than seek professional help. The support/help-seeking questions were from the Disaster Supplement, a companion interview to the Diagnostic Interview schedule for the DSM which is often used with disaster survivors (Robins & Smith, 1983). The authors indicate that professional assistance was widely available to the
partners, but it is unclear if the partners were aware that they could access this assistance. This research will investigate if the partners of NZ defence and emergency responders are aware of support opportunities in addition to their willingness to engage with those opportunities.

In 2005, Dirkzwager et al. conducted a study of female partners of Dutch United Nations peacekeepers. The researchers concluded that secondary trauma of spouses was highly related to the primary trauma symptoms in the peacekeepers. Partners of peacekeepers with PTSD symptoms viewed their relationship as less favourable, had more issues with sleeping, experienced more physical health problems and were more likely to have negative social support than were the partners of peacekeepers without PTSD symptoms. Social support was measured using an adaptation of the Dutch Social Support Questionnaire (van Oostrom, Tijhuis, de Haes, Tempelaar, & Kromhout, 1995) and included positive and negative support measures. For many researchers, this study became a rallying cry for the military service organisations and support networks to increase and evaluate support for the families of service members (Fairbank & Fairbank, 2005; Fals-Stewart & Kelley, 2005; Figley, 2005).

The remaining five articles to address both STS and social support among partners of responders were qualitative which complicates the transferability of the results to other populations. One study was with wives of New York City (NYC), another with partners of Canadian firefighters, one with Canadian paramedics and the last two were dissertations with a small number of military partners.

Menendez, Molloy and Magaldi (2006) focused on 21 wives of NYC firefighters who had been directly involved with the traumatic events at Ground Zero after the attacks of September 11, 2001. This qualitative study found that all of the wives were aware of their responder’s traumatic experiences and, for a time after the attack, almost all displayed some symptoms of trauma reactions, mainly insomnia and anxiety. The study used open-ended questions to ask about social support and found that the wives sought support through other women, particularly other firefighter wives. Most of the wives did not attend counselling although it was available to all of the participants. As in Pfefferbaum et al. (2002), it is unclear whether the partners were aware that counselling was available for them. The research also found that participants were surprised that others shared so many similar experiences. They were interested in getting together at another time to discuss their experiences even though the study took place three years after the attack. This indicates to me that an unmet need for social support persists long after traumatic events.
Regehr et al. (2005) interviewed female partners of Toronto area firefighters and found that spouses experienced physical and emotional loss of connection with their firefighter which were described as secondary consequences of trauma experienced by their responder. This loss was previously lessened by a supportive firefighter community which no longer existed when the interviews took place. Many of the differences between what used to be available to spouses and what was available at the time of the study were attributed to consolidation of fire houses and restructuring in the Fire Service. These conditions are similar to modifications and restructuring in the NZ defence and emergency responder organisations over the last decade.

Another study by Regehr (2005) was the only one in this review to investigate STS and social support among partners of paramedics. The semi-structured interviews asked partners about specific traumatic events that the family experienced, what social supports were available, what social challenges were occurring and what strategies were used to manage those challenges. The study reported that some partners were experiencing symptoms related to secondary exposure causing distress and avoidance, and re-experiencing traumatic events that the responder had shared. Partners were placing their needs second and had learned techniques to de-escalate situations and avoid behaviours or topics that might cause a strong emotional response for the paramedic. The partners in this study were clear that support being offered to their paramedic was not available for them. As with the other qualitative studies in this review, the interviews and open-ended questions provided insight that a purely quantitative examination of the issues might have missed. My research will include a qualitative component in addition to measurable variables.

As part of a PhD thesis, Polizzi (2007) interviewed partners of US combat veterans diagnosed with PTSD after fighting in Vietnam/Korea. The interview themes addressing social/organisational support suggested that spouses would like more education around PTSD and coping strategies. They also wanted to be invited to more social activities, included in support groups and offered couples counselling. Partners managed typical STS symptoms by using tools they had developed over time, but many partners still wanted additional help to manage their own and their veterans’ symptoms almost 30 years after the end of the conflicts.

Williamson (2011) interviewed wives of active duty US service members who had combat-related stress from their experience of fighting in Iraq or Afghanistan. The interview themes revealed that the wives perceived a lack of support from the military system despite its
provision of social activities. They felt that the military did not understand their needs before, during, or after the deployments. Williamson suggested that education around all the processes of military deployments should include an overview of trauma by discussing what is typical, what to look for and how to get help. These last two qualitative studies addressed expectations by the participants that the organisations bear some responsibility to meet their needs. This is an area that the current study will also endeavour to investigate.

2.14.2 Gaps within the literature and lessons for current study

The following sections will discuss differences between my proposed research and the research to date. Some strengths and limitations of the published research will be addressed as it relates to the current study.

Measuring STS: As described previously, there are different ways to measure STS. A number of the reviewed publications used a version of the Symptom Checklist-90 (SCL-90, Derogatis, 1977; SCL-90-R, Derogatis, 1994) as well as the Global Severity Index (Derogatis & Melisaratos, 1983) as indicators of secondary trauma (Calhoun et al., 2002; Mikulincer et al., 1995; Solomon et al., 1992). The General Health Questionnaire (GHQ 28, Goldberg & Hillier, 1979) examines somatic symptoms, anxiety, insomnia, social dysfunction, and severe depression (Westerink & Giarratano, 1999). Others utilised various measures which were based on symptom criteria of PTSD from a version of the DSM (Dirkzwager et al., 2005; Koic et al., 2002; Pfefferbaum et al., 2002; Pfefferbaum et al., 2006). One study (Regehr et al., 2005) described ‘ambiguous loss’ as a way that partners experience secondary reactions. Ambiguous loss was described as uncertainty around whether the responder will be physically or mentally available for activities. Two qualitative studies described consistencies between participant descriptions with symptoms defined in the DSM (Regehr, 2005; Williamson, 2011) and another used descriptive symptoms that aligned with Remer and Ferguson’s 1998 Theoretical model of STS developed for sexual assault trauma victims (Polizzi, 2007).

My aim was to use a measure that had been developed to measure symptoms of exposure to secondary trauma, not to measure symptoms of exposure to primary traumatic stress. Measures which required the defence or emergency responder to have a trauma diagnosis or that required both the responder and partner be included in the study were rejected. These criteria meant that none of the studies in the literature review provided a measure that could be used in this study. Looking then at other literature which measured STS, I discovered that the list of secondary trauma scales is very short. Excluding previous versions of scales
included in this list, I found four measures of STS. They include: a) the Modified Secondary Trauma Scale (Motta, Kefer, Hertz, & Hafeez, 1999; Motta, Hafeez, Sciancalepore, & Diaz, 2001) which is an 18-item scale with Likert style responses developed specifically to assess secondary trauma in non-therapists and assess re-experiencing, avoidance and arousal symptoms based on DSM-IV criteria for PTSD; b) the Professional Quality of Life Survey (Stamm, 2005) which is a 30-item measure of burnout, STS and compassion satisfaction in therapists and other helpers; c) the Trauma and Attachment Belief Scale (Pearlman, 2003), which is an 84-item measure of beliefs about themselves and others, related to esteem, safety, trust, intimacy and control as areas sensitive to trauma reactions; and d) the Secondary Traumatic Stress Scale (STS Scale, Bride et al., 2004), a 17-item scale which measured intrusion, arousal, and avoidance symptoms in professionals related to indirect exposure to trauma through their clients. My research employs a measure that was modified which will be discussed in Section 4.9.4.10, to assess STS symptoms in this study’s population.

Social support measure: The social support measures that have been described in the literature review synopses vary widely, however the studies did provide guidance for specific types of social support that should be investigated. Finding out how supportive the organisations are of their responders was highlighted as possibly having an impact on the lives of the partners (Dirkzwager et al., 2005; Menendez, Molloy, & Magaldi, 2006; Williamson, 2011). My research inquires about organisational support and what expectations spouses have for themselves and their responder partner.

Other areas of support that have been discussed, but need more investigation in this population, include help-seeking with counsellors, other partners of responders, and family and friends. Three studies from this review (Koic et al., 2002; Menendez et al., 2006; Westerink & Giarratano, 1999) found that partners were not seeking professional help. However, a large study (not in this review) of US military spouses found that partners seek help significantly more often than their responder (K. M. Eaton et al., 2008). My study considers this discrepancy.

Negative social support is also an area to consider (Dirkzwager et al., 2005; Mikulincer et al., 1995; Solomon et al., 1992). It could be experienced externally through receiving unwanted support or internally by not disclosing information to others. This perceived negative support may arise because partners feel others can not relate to their experiences or
are unwilling to listen to their issues. Negative social support is also investigated in my study.

This review of the literature clearly found that both qualitative and quantitative techniques were successfully utilised to retrieve rich social support information. Likewise, my research uses mixed methods to investigate how partners of defence and emergency responders engage with social and organisational support.

Currently active defence and emergency responder: Most of the reviewed articles investigated STS and social support in partners of retired combat veterans or retired peacekeepers. A number of these studies were conducted many years after the trauma events, which may have created a recall bias relating both to the information gathered and the coping techniques learned over the passing years (Menendez et al., 2006; Mikulincer et al., 1995; Pfefferbaum et al., 2002; Polizzi, 2007; Solomon et al., 1992; Westerink & Giarratano, 1999). Two studies recruited participants whose responders had experienced a specific traumatic event in the past, but did not indicate if all of those individuals were still part of the fire service (Menendez et al., 2006; Pfefferbaum et al., 2002). Only three studies (Regehr et al., 2005; Regehr, 2005; Williamson, 2011) investigated STS and social support in partners while the responder was still actively participating in high risk activities. My research adds to the literature on partners whose responder are still working in their organisations.

Partners of police, fire, and ambulance: While there is a need for more research focused on social support in partners across all responder groups, there is an even larger gap in the research literature relating to STS in police, fire, and ambulance partners. Of the approximate 50 articles and theses/dissertations that I initially sourced to have measured STS in partners of defence and emergency responders, the vast majority studied military partners with only nine articles investigating partners of police, fire fighter, and ambulance officers (A. Davidson et al., 2006; Dwyer, 2005; Gawrych, 2010; Hirshfeld, 2005; Menendez et al., 2006; Pfefferbaum et al., 2002; Pfefferbaum et al., 2006; Regehr et al., 2005; Regehr, 2005). My study provides additional insight into the lives of these partners.

Stigma towards help-seeking: Stigma towards help-seeking was mentioned in a number of the reviewed studies (Menendez et al., 2006; Mikulincer et al., 1995; Polizzi, 2007; Solomon et al., 1992; Williamson, 2011). Stigma is a word used by many with a variety of definitions, however I will concentrate on social stigma which is focused on mental health issues. The definition I will use is that “stigma exists when elements of labeling, stereotyping,
separation, status loss, and discrimination occur together in a power situation that allows them” (Link & Phelan, 2001). Corrigan (2004) separates stigma into “public stigma (what a naive public does to the stigmatized group when they endorse the prejudice about that group) and self-stigma (what members of a stigmatized group may do to themselves if they internalize the public stigma)” (p. 616).

When dealing with depression, researchers found that both of these types of stigma are common and reduced the likelihood that individuals would seek help from health professionals (Barney, Griffiths, Jorm, & Christensen, 2006). They also found that the more an individual feels that others will stigmatize their seeking help for mental health issues the more negatively their attitude is towards getting help (Wrigley, Jackson, Judd, & Komiti, 2005). Stigma is one of the major barriers that responders need to overcome in order to seek help for mental health issues (Britt, Greene-Shortridge, & Castro, 2007; Hoge et al., 2004; Kauffman, 2010; Ursano, Fullerton, & Brown, 2012; Wester & Lyubelsky, 2005). In a study of Auckland Police where research participants were reassured of the anonymity and confidentiality of their contributions, participants were still concerned that their police supervisors could access their personal data (Packman, 2003). There is strong evidence that those working in military or para-military structures fear that disclosure of mental health issues to their superiors will lead to some type of repercussion such as being treated differently, being seen as weak, harm to their career, or embarrassment (Hoge et al., 2004; Pols & Oak, 2007; Rees & Smith, 2008; Stecker, Fortney, Hamilton, & Ajzen, 2007).

This issue impacts the organisations in NZ. Hoge et al. (2004) found that military services in countries including NZ, Australia, US, UK, and Canada all struggle to resolve the stigma towards help-seeking for mental health issues. By questioning partners of responders about their experiences, I hope to reduce concerns of negative impacts on the responder’s career. Because stigma has such a presence in the defence and emergency responder organisations that could impact help-seeking, my research asks questions about the potentially stigmatising beliefs that partners hold and investigates their impression of their responders’ help-seeking beliefs around mental health issues.

**Data collection:** A number of studies gathered data through paper questionnaires distributed to participants while others used face-to-face or telephone interviews to collect information. While many of the data collection methods were identified as a limitation by the above studies, it is important to keep in mind the technology available at the time of the research, the funding limitations, and what would be culturally and practically acceptable to the
participants. Research into online surveys versus pen and paper has shown that individuals prefer computerised versions (Wijndaele et al., 2007), that online survey responses are more complete, and gather more data than paper versions (Kongsved, Basnov, Holm-Christensen, & Hjollund, 2007). Online surveys have also been found to be more time efficient, reaching larger samples at a lower cost (Evans & Mathur, 2005). According to 2014 statistics provided by the World Bank, 86% of the NZ population use the internet (World Bank, 2016). In addition, statistics on NZ internet use from 2013, state that almost all individuals under the age of 40 (99%) use the internet (Gibson, Miller, Smith, Bell, & Crothers, 2013). Polizzi (2007) pointed out that many suggestions which might benefit current responders and partners, including web-based information portals and mobile devices, may exceed the technical comfort zone of Vietnam/Korean era couples. Vietnam/Korean veteran partners from that study preferred telephone assistance and face-to-face meetings which may not suit the partners of present day couples. Policies and social norms change over time and it is important to understand how individuals communicate within the current technological environment.

This information reinforced the decision to include only participants where the responder works for the organisation at the time the study took place. The information gathered from Statistics NZ about national use of the internet, as described above, indicates that it is appropriate to use an online survey method for this research.

**Couple relationship:** Measuring the relationship of the partner and responder can provide valuable information about how the couple functions in their environment. A number of studies investigated the relationship of the couple to examine intimacy, violence, and hostility (Glenn et al., 2002; Meffert et al., 2014). Some authors studied relationship functioning by including both the partner and the responder (E. S. Allen, Rhoades, Stanley, & Markman, 2010; Dekel et al., 2005). Investigating deeply into these areas is beyond the scope of this study. This study includes questions that relate to sharing information between the partners. To provide an overview of how the participant feels about his or her relationship with their responder, and if it impacts the social support that they receive, the study includes a generic self-evaluation about the health of their relationship.

An area that was indirectly identified in a number of articles was that the relationship had broken down and couples were no longer together (divorced or separated). While some research included a few participants who were no longer married to the individual who experienced the primary trauma, most research excluded them. Divorce is often listed as a
consequence of primary trauma with one study stating that those with PTSD are as likely to marry as anyone else but six times more likely to divorce (J. R. T. Davidson, Hughes, Blazer, & George, 1991). One reason may be that veterans diagnosed with PTSD and their partners have more relationship, parenting and family adjustment problems than those who have been exposed to trauma but do not have PTSD (Jordan et al., 1992). This demographic group could report especially high STS exposure. However, due to recruitment issues which are discussed in Section 5.2.2, the former partners of currently serving defence and emergency responders, were ultimately not included in this study.

Including defence and emergency responder couples: Couples who are both responders are often excluded from research on STS (Renshaw et al., 2011) because they might each have experienced a primary traumatic event. My research includes partners even if they had experienced a primary trauma; thus dual partners were eligible to participate in this research. The partners were asked if they were current or former responders and asked additional questions to clarify their experiences. Extreme caution was taken in setting up the questions and in the analyses phase of those responses.

Resilience: Most of the reviewed studies mentioned that individuals have different ways of reacting to stress. Some partners were seemingly not affected by potentially traumatising situations. Some developed techniques to manage stressful situations. A minority of individuals struggled to cope. Very few of these twelve articles specifically used the terms resilience, hardiness, robustness, or grit when they discussed coping or support. However the wider literature does address resilience. In an article entitled Resilience to loss and potential trauma, Bonanno, Westphal and Mancini (2011) explain that resilience has been “characterized by relatively minor and transient disruptions in functioning, with few if any marked effects on everyday functioning and routines” (p. 515). More than just calling on individual strength, resiliency often involves collective resources and personal perspectives in the context of how much exposure one has to adverse events. The research on resilience around trauma reaction indicates that certain demographic variables, personalities, and access to social support are key predictors of resilience. A number of authors also include in their definition the ability to ‘bounce back’ or recover from stressful situations (B. W. Smith et al., 2008; Walsh, 2002). Models have been developed around resilience with families and used to assist with trauma, including Walsh’s (2002) Family Resilience Framework, McCubbin and Patterson’s (1983) Double ABCX, and McCubbin and McCubbin’s (1993) Family Adjustment and Adaptation Response. While these models may differ in their emphasis on behaviour or their pathways for engaging with families, they focus on
prevention and emphasise tools that families can implement to increase their ability to cope (Meadows et al., 2015). My research includes a measure of resilience.

Information sources for secondary stress management: There are a number of books written specifically for partners of responders. These books address effects of secondary trauma without always using a term such as secondary trauma, vicarious trauma, or compassion fatigue. Books such as Emergency service stress: Guidelines for preserving the health and careers of emergency service personnel (Mitchell & Bray, 1990), I love a fire fighter: What the family needs to know (Kirschman, 2004), In harm’s way--help for the wives of military men, police, EMTs and firefighter: How to cope when the one you love is in a high-risk profession (Matsakis, 2005), and I love a cop, what police families need to know (Kirschman, 2007) exemplify the kinds of stress that responder families face and offer guidance for dealing with these stressors. Other books whose main targets are therapists or social workers also discuss the spouses of responders, providing information for engaging with this population in their caring practices (Catherall, 2004; Figley & Figley, 2009; Paton & Violanti, 2011; Regehr & Bober, 2005). Many books which are not specific to partners of responders but focus on primary traumatic stress, provide education, and coping techniques for STS. One example is When someone you love suffers from posttraumatic stress: What to expect and what you can do (Zayfert & DeViva, 2011). If partners search online for information, they can find numerous sources including ptsd.va.gov, policewives.org, nationalpolicewivesassociation.org, firefighterwife.com, behindtheseenaustralia.com as well as the blogosphere, which shares personal stories from the partners of responders as well as responders themselves. News articles in NZ which address compassion fatigue, STS or vicarious trauma frequently focus on those in the medical profession (Gilmore, 2012; Rolston, 1999). However, media articles recognise that families are affected by the stress brought home by responders (Bayer, 2012; Macdonald, 2005). My research asks if partners get their information about managing stress from the organisations, their responder, or friends who are also responder partners, and how useful they have found that information. It also asks if participants have someone to turn to for informational support.

In summary, the examination of the secondary trauma and social support literature in partners of defence and emergency responders has identified abundant research opportunities. This review has helped to identify specific variables, useful methodologies, overarching theories and specific populations in these organisations to consider in the current study. It has also identified gaps which this research could address to increase understanding of how partners of responders manage their lives with their at-risk service member or
emergency responder. The next chapter describes the theoretical framework used in this research.
3 Theory Framework

Theories help us by filtering our perceptions, sorting out what deserves attention and what to ignore, and reducing to a manageable number the choices of action we should consider (Suchman, Sluyter, & Williamson, 2011).

3.1 Theoretical framework

A theoretical framework for a PhD thesis holds the research together. The framework is a map that organises concepts to delineate and focus the study. It therefore provides structure and cohesion. It mirrors the researcher’s positioning and view of their research topic, including reflection on their assumptions and preconceptions (P. J. Adams & Buetow, 2014; Creswell, 2014). Creswell (2009) suggested a basic framework in which three elements are centrally important to consider in any serious research project, namely: (1) the researcher’s philosophical worldview, (2) the research methodology (which Creswell called ‘strategy of inquiry’) and (3) the research methods. I use this structure to describe my theoretical framework.

3.2 Worldviews: Pragmatism and critical theory

Creswell (2014) defined a worldview as “a general philosophical orientation about the world and the nature of research that a researcher brings to a study” (p. 6). Some other writers connote a worldview by using synonymous terms such as metatheory (Buetow, 2007), paradigm (J. C. Greene, 2008; Lincoln & Guba, 2000), epistemology (Crotty, 1998), and mental models (Phillips, 1996). Each of these terms actually has a different meaning but collectively they describe in abstract and global terms how researchers look at the world, interpret what they see and ultimately know what they know. A researcher’s worldview is influenced by their life experiences, their beliefs, their area of study, and input from advisors and the research environment (Creswell, 2009). It cannot be tested but it guides the methodology and research methods used (Buetow, 2007). Many researchers agree that a theoretical framework can include more than one worldview (Buetow, 2007; Greene, 2008) and have multiple theoretical levels (P. J. Adams & Buetow, 2014; Buetow, 2007). I define my worldview using two overarching theories with each leading to another, lower level of theory. As Figure 3-1 shows, the first worldview is that of pragmatism which leads the research to complexity theory at a lower level and Secondary Traumatic Stress (STS) theory even further down the theoretical hierarchy. The second worldview is critical theory which leads this research to a Kaupapa Māori-consistent approach in the subordinate level.
3.2.1 Pragmatism

One of my worldviews is pragmatism. Competing versions of pragmatism share a commitment to doing ‘what works’. This value can be respectively moral and personal, rationally objective, or democratically populist. It also frees us from what we think we know about the nature of the world, since:

Our identification with our community—our society, our political tradition, our intellectual heritage—is heightened when we see our community as ours rather than nature’s, shaped rather than found, one among many which men have made. In the end, the pragmatists tell us, what matters is our loyalty to other human beings clinging together against the dark, not our hope of getting things right (Rorty, 1980, p. 727).

Rorty (1980) goes on to say that “our glory is in our participation in fallible and transitory human projects, not in our obedience to permanent non-human constraints” (p. 727).

Compatible with pluralism, pragmatism is a “real-world, problem centered” (Creswell, 2014, p. 6) worldview that emphasizes meaningful consequences of experience of this participation. There is no requirement for actions to correspond with, or reflect, an accurate understanding of reality or truth. Rather, operating as tools rather than mirrors, the actions taken are justified to the extent that they suffice to solve real-world problems that affect
people in significant ways, and exceed the costs and other objections. Among other things, pragmatism is also the process of

Adapting to new situations and environments. Our thinking follows a dynamic homeostatic process of belief, doubt, inquiry, modified belief, new doubt, new inquiry, . . . , in an infinite loop, where the person or researcher (and research community) constantly tries to improve upon past understandings in a way that fits and works in the world in which he or she operates. The present is always a new starting point (R. B. Johnson & Onwuegbuzie, 2004, p. 18).

This worldview informs the use of complexity theory discussed later in this chapter.

3.2.2 Critical theory

Critical theory forms the second key pillar of my worldview. It is associated with German American theorists from the 1920s-30s who called their group the Frankfurt School of Critical Theory and included theorists Theodor Adorno, Erich Fromm, Jürgen Habermas, Max Horkheimer, Leo Leowenthal, Herbert Marcuse, and Felix Weil (A. G. Johnson, 2000; Kellner, 2005). The development of critical theory within the group was heavily influenced by Marxist and Freudian arguments as well as the historical context surrounding World War II (Kellner, 2005). The group focused on the changes in society, attributable to mass media communication because of new technologies. Those who controlled this mass communication were the powerful elite, politically dominant, and giant corporations – especially, media companies. New technologies meant that messages easily reached the population masses, and could push the corporate agenda of consumerism. A small group controlled these messages to promote their self-interested agenda. The Frankfurt School suggested that this control over the content of the communication had a large impact on society, an effect they called ‘mass culture’. The School felt that mass culture encouraged populations to exhibit an insatiable desire for consumer products which were “trivial, homogenized, and commercialized and dulls people’s minds, making them passive and easy to control” (A. G. Johnson, 2000, p. 229). The School’s critical theory analysed the mass communication as a form of social control encouraging a ‘one-dimensional society’ (Kellner, 2005).

As critical theory began to be defined differently in different historical contexts and within various disciplines, it thrived (Kellner, 2005). Critical theory began to examine the interests that powerful elite continued to promote and highlighted areas where it did not represent the diversity of a culture and where it perpetuated the marginalization of certain groups.
In the 1960s–1970s critical theory involved

Analysis of the ways in which images, discourses, and narratives of a wide range of cultural forms—from philosophy and the sciences to the advertising and entertainment of the media culture—were embedded in texts and reproduced social domination and subordination (Kellner, 2005, p. 510).

Critical theories were developed within race theory, gay and lesbian theory, feminism, and others societal groups. Such variations of critical theory examined the power structure and advocated empowerment strategies to address findings (Fay, 1987).

I particularly identify with the modern definition of critical theory as a form of theorising that is deeply concerned with exposing hidden interests and contradictions that produce social injustice and, to overcome them, by creating more just social conditions for all people (Kemmis, McTaggart, & Nixon, 2015). This perspective integrates well with my pragmatic worldview because it focuses on making material improvements to society and takes account of the complexity of the social, ethical, historical, political, and cultural contexts of human behaviour (Morgan, 2007). These two worldviews inform the next level of my theoretical framework, Complexity Theory and Kaupapa Māori-consistent approach.

3.3 Complexity theory and Kaupapa Māori-consistent approach

Complexity theory and a Kaupapa Māori-consistent approach provide a framework for understanding the situated actions and interactions of the partners of defence and emergency responders, the responders themselves, the responder organisations, and myself as a researcher.

3.3.1 Complexity theory

Complexity theory is a “scientific amalgam rather than a discrete body of knowledge; it unites a range of theoretical advances and research agendas across the natural, and social sciences” (Chesters, 2005, p. 126). Known as a complex system (sometimes called systems theory) (Simon, 1962), it is non-linear and usually has a large number of elements which engage with each other as well as their environment. Examples of complex systems include the ecosystem, social movements, the stock market, the internet, and business organisations.

Complexity theory is relatively new in the realm of theories. It gained a foothold in the 1970s (Karpiak, 2006), developing from experimental mathematics and thermodynamics and becoming well established in physical chemistry and evolutionary biology (D. S. Byrne, 1998). Used to understand and model predicted events in the hard sciences, Ludwig von
Bertalanffy, a biologist, advocated that these interactions should be applied to social and psychological practices and called this approach “General Systems Theory” (1968, p. 96).

Over the last 40 years, complexity theory has had an influential impact in social science. In public health, complexity theories have been used to model many environments including research into individual behaviour change, programme planning and implementation, evaluation, and knowledge translation and dissemination (Finegood et al., 2012). It has been used to describe the environment of the partners of responders by a number of traumatic stress researchers (Figley, 2005; Koic et al., 2002; McCann & Pearlman, 1990; Regehr & Bober, 2005). Because of its wide use, it is unsurprising that complexity has fashioned at least 45 different definitions between different and even within scientific domains (Greenhalgh, Plsek, Wilson, Fraser, & Holt, 2010; Manson, 2001; Manson & O'Sullivan, 2006; Paley, 2010; Von Bertalanffy, 1968). For a young theory, these vigorous debates are appropriate as the theory gets tested and redefined by those using it in practice and examining it philosophically. As Mason and O’Sullivan (2006) put it, “complexity is beginning to move beyond its initial, almost starry-eyed, exuberance, towards established practice and principles” (p. 689). A more recent development in complexity theory is the complex systems approach of complex adaptive systems (CAS).

### 3.3.2 Complex adaptive systems

Complexity theory is an overarching worldview (Greenhalgh et al., 2010) on which CAS builds by including elements of adaptation which enable elements to change and learn from each other. CAS offers a method for using the insights and data from small-scale experimental manipulations to understand larger-scale patterns and processes (Hartvigsen, Kinzig, & Peterson, 1998, p. 428).

Complex systems can act unpredictably, adapting within the system to external changes and resulting in nonlinear outcomes. An understanding of CAS cannot be accomplished by simply studying each of its parts or by separating out and looking at each component; the system needs to be viewed holistically otherwise what is being researched will not be captured (Begun, Zimmerman, & Dooley, 2003; Kernick, 2006).

CAS are described as networks whose agents gather and share information, learning experiences and actions that are occurring in the system (Dodder & Dare, 2000). Agents could be people, organisms, or molecules but the system those agents operate in is interdependent, interrelated, and linked through a densely connected web of interactions
The system is continuously evolving and agents always interact in a non-linear way through feedback loops that either maintain the status quo or enact change (Kernick, 2006). This non-linear feature means that small changes may exert large effects on the entire system or, under slightly different conditions, large changes could have minimal impact (Begun et al., 2003). The levels in a CAS build on each other and affect other levels. For example, when referring to the ecosystem as a CAS, a lower level agent could be the forest and another lower level agent could be a tree followed by cells that make up the tree. But the boundaries of a CAS are not set. In the above example a CAS could also be the tree, or it could be the tree’s root systems, or the leaf; it is up to the researcher or observer to make that delineation (Kernick, 2006). The order that emerges within a complex system is not pre-determined; the change is not directed by any leader or master cell. The system has order because the constant adjustments made by the interactions with the agents are self-organising (Begun et al., 2003).

The Santa Fe Institute brought the concept of CAS to mainstream research in the 1990s. Ten years later the British Medical Journal and the Institute of Medicine were encouraging researchers working to improve and transform the health system, to move away from linear, reductionist thinking, and endorsed viewing problems and issues with a CAS lens (Best, 2011; Fraser & Greenhalgh, 2001; Plsek & Greenhalgh, 2001; Plsek & Wilson, 2001; D. S. Thompson, Fazio, Kustra, Patrick, & Stanley, 2016). I believe that CAS is a concept that explains the environment of the partners of defence and emergency responders.

3.3.3 Complex systems and the responder environment

The complex system for this research is primarily focused on defence and emergency responder organisations, responders themselves, and their partners. It includes engagement that any of those identified groups have with each other, with other responder family members, and with those who have formal and informal relationships with the defence and emergency responder environment. These relationships can include organisational end-users, affiliates, communities, regulators, government and non-government agencies, and more. These interactions can be formal (a presentation) or informal (tea time conversations), intentional or unintentional, spoken, written, or via body language. The interactions (or feedback loops) are in the actions or inaction of individuals which reinforce current behaviours or modify them. These behaviours may have an immediate impact or they might impact the system slowly over time and in unforeseen areas of the system. Because the
interactions and subsequent modifications are not predetermined or directed by others, they are considered emergent behaviours via a self-organising system.

The defence and emergency responder organisations clearly qualifies as CAS and as such it was important to keep the characteristics of CAS in mind during each aspect of my research. I also considered complex systems, such as the defence and emergency responder organisations, as continuing to evolve within their wider environment. For this study the wider environment included the research environment in NZ.

3.3.4 Complex systems and STS

In line with the above descriptions of complex systems, this section recognizes STS as a kind of theory, or at least a construct, and through recourse to ecological theory, systems theory and complexity theory, conceptualises STS for study. The focus on complexity is critical here because, as trauma researcher, Shakespeare-Finch (2013), explains, researchers are seduced by the simplicity of linear analyses and overlook the complexity of human wellness and mental health. Noting that it is “multivariate across potentially infinite combinations of continua” (Shakespeare-Finch, 2013, p. 269) she advocates for a holistic approach to promoting “mental health, identifying ways in which people manage life’s inevitable tensions, fostering and promoting avenues to successful adaptation, focusing on flexibility of mind and on making sense of the world” (p. 270).

System theories have been employed to describe the responder communities and find solutions to issues experienced by the partners of responders (Galek, Flannelly, Greene, & Kudler, 2011; Mikesell, Lusterman, & McDaniel, 1995; Figley, 1993). Figley (2005) wrote about systems theory when commenting on the Dirkzwager article (which was discussed in Section 2.14.1 stating that “fundamental to system thinking is the notion that perturbations or disruptions introduced by one member have repercussions on others” (p. 228). Koic et al. (2002) described the military family by using systems theory to reveal that “inner stresses are woven into the risks of the family growth and development, whereas outer ones come from adjusting to changed circumstances. Any sudden change, incertitude or danger can lead to stress reactions of the entire system” (p. 296). And Solomon et al. (1992) strongly advocated for a family-systems orientated treatment intervention to prevent STS in partners and facilitate veteran recovery from PTSD.

As described previously (2.8), the vast majority of STS concepts and theories have focused on interactions between traumatised clients and professional caregivers. This conceptual
work does not translate unequivocally to the experiences of the military and emergency responder partners because the partners are not ‘treating’ ‘clients’ and do not have a hierarchy of supervisors or policies to turn to for assistance. Therefore this study seeks to develop and directly test the construct of STS among partners of military and emergency responders. A strength of using complexity theory as part of my theoretical framing of this study aim is that it incorporates psychological, social and community perspectives and assumes they are interactive and provide context around partner experiences. Complex systems theory provides a useful narrative for investigating this environment.

3.3.5 University of Auckland health research guidelines

This research follows the health research guidelines provided by New Zealand’s Ministry of Health and the University of Auckland. Research with human participants is required to follow four key principles of ethical research (University of Auckland, 2013). These need to be considered when designing and conducting ethical research, keeping in mind that the overarching principle is respect for people. The key principles include:

- Autonomy – participants should be well informed about the research and freely able to choose if they would like to participate.
- Beneficence – the research should be focused on providing a benefit to individuals or society as a whole.
- Non-maleficence – the research should minimise the risk of harms both physical and psychological.
- Justice – the research should treat participants fairly and any benefits or burdens resulting from the research should be equally distributed.

All of these principles align with a research approach consistent with the founding document of NZ, the Treaty of Waitangi. While this treaty was signed in 1840 between the British Crown and Māori iwi (tribe) and hapū (kinship groups), it is a living document with a long history. Today its guiding principles commonly relate to partnership, participation, and active protection of Māori interests (Herbert, 2002). Best practice for research in NZ respects these principles by conducting research in culturally appropriate ways (Ministry of Health, 2014).
The University of Auckland’s Human Participant’s Ethics Committee (UAHPEC) requires Māori consultation if the research involves

- human tissue, body fluids or DNA
- clinical trials or intervention studies with Māori participants. If Māori are excluded you will need to justify this exclusion to funding agencies
- population or community studies
- the representation of Māori ways of knowing or being (University of Auckland Medical and Health Science, 2016, para. 4).

Although this research did not meet that threshold of the above requirements, it was unclear who might choose to participate in this research. A culturally safe research approach was therefore included when planning and executing the methodology.

3.3.6 Kaupapa Māori-consistent approach

My goal was to engage with the defence and emergency responder community at all stages of this research and avoid ‘helicopter research,’ where researchers take what they need without leaving anything that the participants might want in return. My aim was to use a participatory research approach, which involves a collaborative approach to question design, data collection, and analysis (Creswell, Plano C., Gutmann, & Hanson, 2003). As a researcher who is non-Māori and not originally from NZ, I sought cultural consultation to support my ability to conduct culturally safe research as discussed further in Section 4.4.2.

For culturally appropriate interactions this research used a Kaupapa Māori-consistent approach and aligned with the Tōmaiora (Māori Health Research Group) guidelines and policies (Faculty of Medical and Health Science, 2016). Many elements of Kaupapa Māori research are described as participatory research (Walker, Eketone, & Gibbs, 2006) with elements consistent with critical theory (R. Bishop, 2008; Denzin, Lincoln, & Smith, 2008).

I worked with Anneka Anderson (Kāi Tahu/Kāti Māmoe), who was the Māori Health research advisor, to ensure this study was of benefit to Māori; that ethnicity data were robust; that I employed non-deficit framing of the research analysis; and disseminated results back to the communities with whom I worked. I interacted with Malakai Ofanoa, the School advisor for Pacific Health research, and Elsie Ho, the School advisor for Asian Health Research to replicate this approach.
Kaupapa Māori means “the Māori way or agenda, a term used to describe traditional Māori ways of doing, being and thinking, encapsulated in a Māori worldview or cosmology” (Ministry of Health, 2006, p. 102). Kaupapa Māori research was developed to return control of Māori research to Māori, mindful that non-Māori researchers have often exploited Māori (Walker et al., 2006).

In Te Ari Tika, Guidelines for Māori research ethics: A framework for researchers and ethics committee members, pure Kaupapa Māori research is “designed by, conducted by, made up of, and benefits, Māori” (Hudson, 2010, p. 10). In this guide, the authors describe a ‘mainstream’ approach to research which “refers to research that may or may not have direct relevance to Māori and where Māori engage as research participants. In these situations researchers are expected to protect the rights and interests of Māori although there is little real involvement in the research process or outcomes” (p. 9). This mainstream approach asks researchers to ask themselves four questions:

1. In what way does this research project impact Māori?
2. If it is appropriate for Māori to be included in this research how would they be included?
3. If included in the research, are they included in an appropriate and respectful way?
4. If Māori consultation is needed, how would they be contacted?

By engaging with Anneka Anderson in the first step rather than the last, protocols were set up to address all these questions. The protocols for this study were developed with Māori participants in mind but also to be appropriate and applicable to all participants regardless of their ethnicity. These protocols are described more fully in Section 4.4.3.

The Kaupapa Māori-consistent approach used in this research also focuses on other aspects of Kaupapa Māori research by integrating: trust-building, relationship building, cultural customs and practice awareness, safety, respect, emotional and spiritual beliefs, and individualism into the research methods. Having outlined the theories that make up my worldview, I now discuss how they inform the methodology of this study.

3.4 Methodology: Mixed methods

A methodology is the study of what methods to follow and why. It describes the strategy (rules or principles) underpinning the design of the project and provides a rationale as to why this plan is appropriate for achieving the desired research outcome (Crotty, 1998). Methods
are the tools or techniques used to implement a methodology. I have chosen to use a mixed methodology approach in this study, where each methodology signifies the use of fundamental methods. Adams and Buetow (2014) suggest that triangulating more than one research methodology can help address weaknesses in any one methodology. However, they caution that mixing methodologies, can also result in “data comparisons that confuse basic assumptions in ways that generate misleading or perhaps even meaningless assertions” (p. 104). To maximise the strengths of each the methodologies and avoid confusion, I will clearly describe when and how they are being mixed in order to generate meaningful results.

This study was always conceived of as a mixed methodology project because the research question cannot be properly answered using only one methodology. Limiting this study to one methodology would not provide a complete picture of the complex experiences of the partners of defence and emergency responders. Therefore, this study combined qualitative and quantitative research in the form of a sequential, mixed method design. Teddlie and Yu (2007) described this approach as using one methodology to inform the subsequent use of another. In this study the qualitative analysis in the form of face-to-face interaction during the interviews preceded the piloting of an online survey with participants. The pilot study informed the cross-sectional survey, which was mainly quantitative in nature.

A mixed method design, by definition, must integrate different methods at some point in the study (R. B. Johnson & Onwuegbuzie, 2004). Buetow (2007) gives three definitions that are used to describe the mixing of methods.

1. Multi-method research (intra-method mixing) refers to mixing methods within qualitative or quantitative research; for example, using questionnaires that contain open and closed questions.

2. Mixed-method research (inter-method mixing) refers to mixing qualitative and quantitative research methods in studies that use the same methodology (as in pragmatism) or different methodologies.

3. Mixed model research mixes quantitative and qualitative methods within or across stages of the research, frequently to answer qualitative and quantitative research questions. (p. 13)

To address the research questions, the study design employed all three of these types of mixing methods. As detailed below, this study would be considered mixed-method research since it involved a pragmatic approach to qualitative and quantitative inquiry. While more specific information will be provided about how each set of methods was used in the following chapter, the study is considered multi-method research because it used an online survey which has both quantitative closed questions as well as qualitative open-ended
questions. Multi-method research also defines: the extent that each method is weighted, if the data are collected sequentially or in parallel; and the purpose for the mixing (Buetow, 2007). In this study the methods were employed sequentially, the quantitative methods have a larger impact on the results, (qual-QUAN-qual) and I doubt that the results would have been achieved with the use of only one method. To address the research questions, the mixed method design phases in this study are considered qualitative (face-to-face interactions) informing the primary data collection of the study which is quantitative (a cross-sectional online survey) followed by feedback of the results from participants (qual → QUAN→ qual) (R. B. Johnson & Onwuegbuzie, 2004).

3.5 How mixed methods fits with pragmatism and complexity theory

The theoretical frameworks of pragmatism and complexity theory guide my mixed methods study design.

Creswell (2014) provided a description which incorporates the writings of Cleo Cherryholmes and David Morgan to exemplify mixed methods and how they fit with the worldview of pragmatism. I have chosen examples from their list to illustrate how pragmatism and mixed methods are pertinent to this research. Because pragmatism does not subscribe to one specific philosophy, this framework permits the inclusion of both qualitative and quantitative assumptions. This then allows for a wider array of choices which encourages the selection of techniques or measures that are fit for purpose. Finally, “pragmatists agree that research always occurs in social, historical, political, and other contexts…and opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis” (p. 11).

Because of the nature of CAS as non-linear adaptable systems, highly dependent on interrelationships that may change over time, research involving these types of systems is particularly suited to using mixed methods. The use of mixed method tools can offer a complementary view of the processes and relationships that can assist in identifying emergent or unpredictable behaviours (Litaker, Tomolo, Liberatore, Stange, & Aron, 2006). Instead of limiting the research to either qualitative or quantitative methods alone, I believe that mixing methods provides a better understanding of how participants navigate their complex system. Because CAS is more than just the sum of its parts, providing different views of the same environment through interviews and survey questions, feedback on results can provide a more comprehensive view of the participants’ environment.
The worldviews of pragmatism and critical theory consider the social, historical, political, ethical, and cultural contexts that equally describe complexity theory and a Kaupapa Māori-consistent approach. This worldview informs the transdisciplinary and mixed methods described in the next chapter.
4 Methods

4.1 Introduction

Having discussed the study methodology in Section 3.4 and 3.5, this chapter discusses my research design, which includes information about my ethics applications and Kaupapa Māori-consistent protocols. Focusing on methods, the remainder of the chapter is divided into three phases: Pre-survey, online survey, and post-survey. For each phase I describe the measurement protocols, recruitment, data collection, and data analysis.

4.2 Research design

In Methods for Disaster Mental Health Research, North and Norris (2006) recommend designing a study around the ‘why’, ‘who’, ‘what’, ‘when’, and ‘how’ of the research. This format frames the research, even when the research environment is complex.

‘Why’ shapes the beginning of the design by asking the questions that need answering but also informs the final steps in the research through interpretation of the data. The rationale for embarking on this research was two-fold. Firstly, this research stems from my experience of studying the help-seeking behaviours of partners of military service members. Secondly, the literature indicates that partners of fire, police and ambulance are an under-researched population worldwide, and there is a dearth of information on the nature of the stress experienced by partners of NZ defence and emergency responders, and their need for support and care. This study addressed gaps in the literature among partners of defence and emergency responders and specifically gaps in secondary traumatic stress (STS) and social support research among this group (2.14.2). The aims were to: (a) Examine the extent to which the partners experience STS; (b) Consider how STS is managed by, and for, the partners; (c) Assess barriers identified by the partners for managing STS; (d) Evaluate resources identified by the partners as useful for managing STS; (e) Analyse relationships between barriers to, and resources for, managing STS; and (f) Evaluate the impact of basic demographic attributes on the relationship between barriers to, and resources for, managing STS.

Selecting ‘who’ is studied affects the strategy of inquiry, sampling plan, and sampling size. Those eligible to participate in this research were the self-defined partners, spouses, girlfriends/boyfriends of current NZ defence and emergency responders (police, fire, ambulance, and military). Because the prospective study participants were a difficult population to reach, it was not feasible to sample randomly within the participating
organisations. Therefore, non-probability purposive sampling was used (Shaghaghi, Bhopal, & Sheikh, 2011). At the outset, the size of the total population of eligible research participants was unknown, mainly because none of the organisations kept records of partners associated with their responders. Statistics NZ enabled me to estimate the size by assuming that the study population follows the age distribution of the total NZ population, by relationship status. Ultimately my aim was to gain information from the responder organisations about how many of their first responders and service members had partners. The NZ Defence Force (NZDF) was the only organisation able to provide these data. Alongside the Statistics NZ Census (2015c) figures, the NZDF data provided a rough estimate of the study population size.

‘What’ is measured and how to measure it are the next steps in designing research. Time, resources, study size, accessibility, and applicability to the research population all have to be considered. The research time frame was constrained to a three to four-year period. The financial resources available to this study were limited to the funding provided for PhD students by the University of Auckland. The size and scope of the study included the major NZ defence and emergency responder organisations. The literature and input from the research participants were essential parts of the design, guiding the variables that would ultimately be assessed. Feedback from participant interviews and a pilot of the survey were used to narrow the topics and were instrumental in selecting the variables to examine in the study (4.9.4). Hypotheses (4.6) and open-ended questions (5.6.2) were constructed to address the research questions (1.3.1).

The ‘when’ indicates the start and duration of the study. The timing was dictated by when the approvals were received from the University (4.4.1) and the supporting organisations (4.4.4), the recruitment of participants (4.5.1 and 4.9.1), and the timely completion of each study phase.

The ‘how’ refers to the ethics and logistics of the study as well as the specific methodologies and methods. The research design addressed ethical considerations (4.4) and engaged a wide variety of subject matter experts who provided guidance on many aspects of this study. These included current and former defence and emergency responders, points of contacts within organisations, psychologists, psychiatrists, sociologists, cultural consultants, and a wide variety of researchers. This research analysed qualitative findings through the use of thematic analyses (4.9.8) and quantitative data through descriptive analyses, hierarchical multiple regression and structural equation modelling (4.9.2). As described in Section 3.4,
this mixing of methods strengthened the study by providing a more complete and robust picture of the complex experiences of the partners of defence and emergency responders. The next section provides more details of how the research was conducted.

4.3 Methods

Figure 4-1 Methods flowchart

If the methods are not appropriate for the research questions, the researcher might learn some interesting things, but what is learned might be very different from what he or she is trying to study (North & Norris, 2006, p. 45)

This research used a mixed methodologies approach as described in Section 3.4 to understand the complex interactions that influence the prevalence and significance of STS among the partners of NZ defence and emergency responders. The findings from the interviews and subject matter experts were used to generate study hypotheses and develop a self-administered anonymous online survey. Following a pilot, user feedback informed the final revised version of the survey. The preliminary results of the online survey were analysed and reported back to some interview participants and organisations. Feedback from the participants, subject matter experts, and organisations was incorporated into the findings and discussion.
4.4 Pre-survey: Ethics approvals

4.4.1 University human ethics approval

An application for ethics approval of the study was made to the University of Auckland’s Human Participants Ethics Committee (UAHPEC). As discussed in Section 3.3.5, this research followed the University of Auckland’s health research guidelines. Draft versions of the participant information sheet (PIS), consent form (CF), online survey, and interview moderator guide were provided to the UAHPEC for review and are detailed in Section 4.5.4 & 4.5.5. Approval was granted on December 5, 2013 (see Appendix A: Ethics approval).

4.4.2 Cultural consultation

Before submitting my ethics application, I sought advice from a number of health specialists at the University’s Tamaki Campus, including those who specialise in specific cultures. For culturally safe and appropriate interactions with all participants, regardless of their ethnicity, a Kaupapa Māori-consistent approach was used. It integrates trust-building, relationships, cultural customs and practices, safety, respect, emotional and spiritual beliefs, and individualism. It was facilitated through meetings in 2013-14 with Anneka Anderson (Anneka), Lecturer, Te Kupenga Haurora Māori (Kāti Māmoe/Kāi Tahu), who served as a cultural advisor. I also corresponded with Rhys Jones, Senior Lecturer, Medical Te Kupenga Haurora Māori, before my ethics application. He agreed to provide cultural consultation as needed and maintained regular communication with Anneka.

I consulted on this research with Malakai Ofanoa (Malakai), the Deputy Director of Pacific Health at the University of Auckland. He agreed to advise me on areas related to the Pacific community; he provided feedback on the Expression of Interest submitted before starting this PhD (December 2012) and the full thesis proposal draft at the end of my first year of study in January 2014. I regularly updated Malakai on my progress during all stages of this research.

I also consulted with Associate Professor Elsie Ho (Elsie), Social and Community Health as the subject matter expert for Asian cultural consultation. In April 2014, Elsie agreed to be a cultural consultant and provided feedback throughout the study.
4.4.3 Kaupapa Māori-consistent protocol

Cultural consulting is a cornerstone for Kaupapa Māori research in order to evaluate its potential impact on Māori (Hudson, 2010). The interactions with the cultural advisors were in part educative and in part designed to support this research. The advice I received was an essential part of my interactions with participants, design of the study, interpretation of results, and suggestions for moving forward.

I recognised the importance of trust-building with participants. Recruitment materials for the study participants provided information about myself, my background as a researcher and military spouse, and my interest in hearing the voice of the partners of defence and emergency responders (see Appendix B: Recruitment letter). Interactions with the focus group and interview participants, as well as individuals who piloted the survey, allowed social time at the beginning of each meeting for shared stories and an opportunity to build relationships. Suitable food and drink were provided if the facility rules allowed. An acknowledgement (koha) was provided to all the interview participants as listed in the participant information sheet (PIS) and consent form (CF). It consisted of a $20 petrol voucher to express my gratitude to them for participating in the research. This koha was in addition to verbal appreciation expressed to participants after each engagement.

Cultural advisors offered to facilitate more formal welcomes and introductions within different communities if there were an occasion for such engagement. Although a formal welcome was not ultimately utilised, participants who self-identified as Māori, Pacific, or Asian were told during the recruitment phase that they could choose to participate in a focus group specific to their culture, for which a formal welcome would be arranged as described in Section 4.5.6.

The safety of individuals is a tenet of Kaupapa Māori research, recognising specifically that different cultures may manifest stress in different ways and for different reasons. Identifying these differences and providing an environment, as described above, where individuals can safely express themselves is critical to cultural engagement. In the event of a participant experiencing a crisis due to the nature of the discussion in a focus group or individual interview, protocols were in place to address the situation (4.5.6) including a role for the cultural consultants during the event and in an after action capacity. Safety is a complex issue including personal, cultural and emotional safety. Additional safety issues are explained in the research methods through the PIS and CF (4.5.5), in the choice of locations (4.5.2), and in planning around recruitment of participants (4.5.1).
The cultural consultants reviewed the online survey questions before the pilot of the online survey and their feedback helped to shape the survey so that it complied with the research protocol. Based on the consultant feedback, modifications were made to the survey (5.3.2). All cultural advisors were also consulted during the data analysis phase of this research.

4.4.4 New Zealand responder organisations approvals and overview

I secured approvals from defence and emergency responder organisations across NZ. Some organisations provided internal points of direct contact who facilitated publicity, connections with potential participants and informational expertise about the organisations. Gaining these approvals was very time consuming. Some involved additional ethics reviews and repeated attempts to communicate with organisational leaders responsible for the final decisions regarding participation. The following sections discuss how I sought approval from each organisation and the meetings held across the duration of the study. This section also includes responses by the organisation to my requests for additional information, specifically: selected demographics of responders and partners, protocols for addressing trauma reactions, procedures to access mental health assistance, numbers of traumatic incidents and responders affected, and types of family engagements offered by the organisation. My reflections on the engagements with the organisations is in Section 7.8.

4.4.4.1 St. John Ambulance

In March 2013, I began discussions with St. John’s clinical research coordinator and clinical development projects manager. By September 2013 I had completed a research registration application, which resulted in a letter of support that was included in my University of Auckland Ethics Committee application. In April 2014 a locality review (St. John’s ethics approval process) was submitted. The feedback from St. John required that I provide additional information to clarify the research project, specifically to explain the cultural support provided for this research, the theory underpinning the research, and an explanation as to why only research questions were put forward and not a fully developed hypothesis. A meeting was held in May 2014 with St. John’s curriculum development manager, policy and planning manager, and clinical research coordinator to review the locality review application. A memorandum of understanding was signed in May 2014 and approval for St. John to support this research was granted on 28 May 2014.

Information provided for study: The information provided by St. John (personal correspondence, August 18, 2015) stated that the organisation does not provide family
inductions or welcomes, nor does it provide any information to the families. St. John stated that “operational debriefs occur on an ad hoc basis dependant on the incident and crew(s)/managers involved”. They also shared that they are working with Australian consultants to develop policy and process for debriefing both operationally and psychologically, which at the time of the correspondence had not been implemented. The demographic information provided by the organisation stated that there were 3,820 ambulance officers within the organisation, of which 1,524 are first responders, 1,375 are emergency medical technicians, 644 are paramedics, and 277 work as intensive care paramedics. Fifty-four percent of the officers are female, the average age of the responders was 45 years old and the average number of years of service was eight.

4.4.4.2 New Zealand Fire Service and Fire Union

In September 2013 I submitted an overview of my research to the NZ Fire Service and in November I met the Principal Advisor of Safety and Wellbeing at the Wellington offices. Before any formal research support from the NZ Fire Service could begin, I was informed that I needed both NZ Fire Unions to support my research.

From November, a number of emails and a phone conversation took place with the NZ Professional Firefighters Union. Support for the research was confirmed in March 2014. I also liaised with the Union Fire Brigades’ Association (UFBA). From November, email exchanges and phone conversations took place, mainly the Membership Support Manager. Final approval for the study came from the Chief Executive Officer on 1 April, 2014. With final approvals granted from the Unions, support for the study from the NZ Fire Service was granted on May 15, 2014. I also sought support from the head of the National Rural Fire Authority, who was also very supportive of this research. At the time of this study the National Rural Fire Authority and the NZ Fire Service were in transition with 12 rural fire districts and 26 territorial rural fire authorities merging into one service to be called Fire and Emergency NZ (FENZ Transition Project Team, 2016). Ultimately FENZ will include 14,000 people, 80% of whom will be volunteers (personal correspondence, October 4, 2016).

Information provided for study: The information provided by the NZ Fire Service (personal correspondence, August 5, 2015 & October 4, 2016) showed there were 1,686 career firefighters: 51 females and 1,635 males. The average length of service for the females was 9.8 years while males served 18.4 years. Among the 6,994 volunteer firefighters 871 identified as female, 6,120 identified as male, and 3 did not identify their gender. The average length of service was 4.6 years for females and 11.3 years for males. Of the 8,680
total the average age of the firefighters was 44 years. The organisation does not provide
welcomes, inductions, or engagement with the partners, however it is currently embarking
on research to better understand the roles that the partners and families play in assisting the
volunteer firefighters, and what kind of impact volunteering has on the partners and families.
A modification to the Fire Service responsibilities in 2014 meant firefighters began
responding to an increased number of medical emergencies. This in turn, increased their
exposure to the deaths of those they were called to help, thus expanding their own risk for
traumatic stress reactions. The Fire Service began a more robust tracking of the fatalities that
individual firefighters attended prompting checks on the health and wellbeing of individuals
who attended a certain number of fatalities. However, there have been inconsistencies in the
documentation of those events. The Fire Service is working to address those inconsistencies.
It has revamped the information provided to their Firefighters including updates to the
Critical Incident and Personal Stress Support programmes (for leaders and peer support
teams). It also has created new brochures, pocket manuals, and posters which provide
psychological first aid tips with the goal of helping them stay well.

4.4.4.3 New Zealand Defence Force

In November 2013, I contacted the NZDF Director of Defence Psychology and was put in
touch with the NZDF Organisational Research Manager. In April, 2014 I completed the
NZDF Deed ProForma for External Researchers. This request for multiple layers of support
was rejected, and no deed was signed, however the NZDF agreed to publicise the study to its
individual members through military channels. The NZDF Family and Community Service
Manager became my main point of contact. Community services programmes, which
provide assistance to military families, are located on Army, Air Force, and Navy bases. I
was invited to discuss the study with NZDF community service programme coordinators
(4.9.1). In 2015 the NZDF began hosting a webpage called Force 4 Families aimed at
providing information to partners and has been regularly adding content to engage the
partners. For partners whose service member is deployed, Homebase is another NZDF
website providing resources around deployment support. The information below providing
demographic information about NZDF personnel did not include specific information on the
Reserve Force. However, publicly available information showed that around 2,000
individuals are in the Reserve Force, three-fourths of whom are attached to the Army (New
Zealand Defence Force, 2016).
Information provided for study: The information provided by the NZDF under an Official Information Act request (personal communication, July 27, 2015) stated that the total number of personnel including Regular Force, Reserve Force, and civilians was 14,034 with 27% identifying as female. Information about the Regular Force personnel identified 2,067 in the Navy, 4,471 in the Army, and 2,416 in the Air Force. This information also explained that 194 Regular Force personnel had a spouse also serving in the Regular Force. The NZDF stated that it addresses “Family Support” in Chapter 4 of the Defence Force Human Resource Manual - Defence Force Order 3 Part 12 “Welfare and Wellbeing” and the “NZDF Welfare Support” in Part 12 Chapter 3 of Defence Force Order 3. It states that it is “not able to provide numbers of personnel referred for assistance for traumatic events because the NZDF does not recognise traumatic events as a unique category for initiating assistance.”

4.4.4.4 Police Association

In October 2013 I sent an email to the President of the Police Association. He expressed interest in the research, approved my engagement with the Police Association and set up a meeting in November of 2013 with the Police Association’s Manager of Welfare Services. I was introduced to the Police Association’s Community Advisor as my main point of contact for further support and to assist with participant recruitment. Official approval to support this research was granted on May 30, 2014.

4.4.4.5 Delayed application to NZ Police

The Police Association, the largest police union in NZ, agreed to publicise recruitment for focus groups and interviews. Because only a few participants were required for the initial phase of the study, I decided at the outset to approach the NZ Police at a later date to recruit for the online survey. Recruitment for this survey required a broader recruitment strategy targeting all the partners of police across the country, while the focus group and interviews were centred on a few locations recruiting a small number of participants. One potential participant however was not recruited through the Police Association and instead heard about the survey through University of Auckland recruitment. This person was the partner of a police officer, as well as a police officer themselves, who wanted to know whether the NZ Police had approved the study. While they were interested in participating, they were unwilling to do so unless the NZ Police had approved the study. Since I lacked this approval, I stopped actively recruiting police participants, and did not re-engage with participants from the NZ Police until I had gained those approvals.
4.4.4.6 New Zealand Police

In July 2014 I connected with the NZ Police Research and Evaluation Committee Coordinator and Senior Research Advisor. In August, I submitted a research application, including paperwork for security background checks for myself and my three supervisors. As per the agreement, I undertook to provide regular research updates and discuss any results prior to publication with my assigned point of contact, a Senior Psychologist with the NZ Police. The research agreement was finalised on November 10, 2014. I was able to engage with police magazine editors to assist with recruiting (see 4.9.1). I also connected with the Director of the NZ Police museum. The museum was interested in having a collaborative exhibition along with the Police Association and include anonymised and de-identified stories shared by the partners about their experiences once my research was completed.

Information provided for study: Information provided by the NZ Police (personal correspondence, August 15, 2015 & October 25, 2016) indicated that the total number of constabulary employees was 9,053 of which 20% were female. The average length of service was 14 years. The Police have a number of classification categories for traumatic risks based on work roles and specific exposure to events and there are various programmes developed to assist police officers. High-risk roles include proactive procedures which can involve three monthly psychological checks. Some traumatic events activate automatic trauma referrals. Individuals may also self-refer through Employment Assistance Programmes or they may identify a colleague as needing assistance through a peer-to-peer programme called Early Intervention. Programmes for families does include a short family session at the Police College Graduation however the Police are well aware that many family members are not present to engage with these sessions. Some districts have family welcome and farewell events, these vary by district and are not universally implemented throughout the organisation. Families of Police officers who are being deployed overseas are provided a very structured individual information session to clearly communicate what families can expect during the deployment. A very new initiative for families, which was informed by my study, involved wellness interventions in districts that experience an unusually heavy workload. At the time this study was implemented, partners in the Far North were invited to informational meetings/dinners which, among other information, included an overview of harms related to job stress and how partners can attend to their own self-care. The NZ Police are well aware that there are still gaps regarding family support within the organisation and are collaborating with researchers to identify ways to address these needs.
4.4.4.7 Wellington Free Ambulance (WFA)

In September 2013, I submitted a communication request through the online portal of the WFA website and met with the Executive Manager of Clinical Services in November 2013 to discuss support for this research. Follow-up communications made clear that the WFA was not keen to participate in any phase of this research. Partners of WFA were not specifically recruited, but participants whose partners worked for the WFA were still eligible to take the survey. Publicly available information indicates that there are over 300 responders work with WFA, including 154 paramedics, 60 patient transfer staff, 45 communication centre staff, and 70 volunteers (Wellington Free Ambulance, 2015).

4.5 Pre-survey: Interviews

The initial stage of my research design involved holding qualitative interviews with participants to inform the subsequent development of the cross-sectional survey. The interviews identified areas of the lived experiences by the partners of defence and emergency responders which the survey could then enumerate. To provide breadth or depth of perspective, participants chose to partake in either a focus group or a personal interview. A focus group “collects data through group interaction on a topic determined by the researcher. In essence, it is the researcher’s interest that provides the focus, whereas the data themselves come from the group interaction” (Morgan, 1997, p. 6). Similarly, personal interviews focus the topic discussion between the researcher/interviewer and a single participant. The following section discusses the processes involved in setting up and executing this phase of the study.

4.5.1 Recruitment of interview participants

Focus groups were the default option but participants could opt instead for a personal interview. Recruitment can be time-consuming and difficult, especially when using specialised populations (Morgan, 1997). The aim was to have three to five interview groups. Having more than five seldom produces many new ideas or concepts (Morgan, 1997). This general rule of thumb depends on the individuals in the groups having similar experiences. Partners (current and former) of military service members and fire, police, ambulance responders were invited to take part. This included volunteer responders and military reservists. To keep the groups as homogeneous as possible, former partners and current partners were not invited to the same interview sessions. Another reason for the separation was to avoid the unlikely event that a current and former partner of the same responder
would find themselves in the same focus group. In addition, urban and rural residents had their own interview sessions because the life of a rural responder versus one in the city could vary significantly (Buttle, Fowler & Williams, 2010). Participants could also participate in sessions organised on the basis of cultural identity. With four distinct groups (current partners rural, current partners urban, former partners rural and former partners urban), and three to five sessions per group, the goal was to hold 12 to 15 focus group sessions.

The Police Association, St. John, NZDF, and the Fire Service agreed to recruit participants for this phase of the study although each organisation used slightly different ways to disseminate the recruitment information. Multiple versions of flyers (for examples see Appendix C: Military spouse recruitment and Appendix D: Recruitment for responders to forward to partners) were provided to the defence and emergency responder organisations for internal distribution. Information about this phase of the research was also provided through email groups of the University’s Faculty of Medical and Health Sciences. The NZ Police Association and St. John sent emails to district representatives to stimulate interest in this phase of the study. The Defence Department sent information to Family Community Personnel representatives and put the information into their base newsletter.

Recruiting for the focus group phase of the study was restricted to Auckland, Christchurch, and the Far North of NZ. These locations were selected based on the advice of the responder organisations and in the context of my budget constraints. This strategy captured a variety of perspectives including those from rural and urban environments, various military services, and participants living in regions affected by the 2010 and 2011 Christchurch earthquakes.

4.5.2 Interview sites

The interviews and focus groups could not begin until interview sites were confirmed. Available meeting rooms at the University of Auckland campuses were not convenient for some participants. Therefore, between May 26 and July 24, 2014, alternative meeting room sites were secured in medical clinics in Kerikeri and Kaitaia in the Far North, in the Auckland University of Technology’s Paramedicine and Emergency Management Faculty of Health and Environmental Science on the North Shore of Auckland, in a medical clinic in Whangarei, and in two locations in Christchurch. A pre-assessment of each location was completed to ensure that the site addressed privacy and confidentiality concerns, was culturally appropriate, was physically safe, and provided good access to toilets. Appropriate locality site access and consent forms were obtained prior to the use of facilities.
Most participants chose the individual interview option and I offered to meet them in the spaces I had assessed as suitable. A few individuals requested that we meet in their home or workplace. Before making those arrangements, I checked that they felt that this space was quiet and private enough for us to speak confidentially and audio-record our conversation, without interruption, for up to 90 minutes.

4.5.3 Focus groups and personal interviews

The purpose of the pre-survey interviews (done either individually or in groups) was to gain an understanding of stress in the lives of current partners of NZ defence and emergency responders. The interviews asked about traumatic events, types of support that partners believe are available and questions about how partners navigate their lives considering the organisational culture. I used a “general interview guide approach with a list of questions so that each semi-structured interview followed a similar line of enquiry” (Patton, 2002, p. 344). Each interview focused on the same topics but follow-up questions varied depending on the responses. This technique was selected to respond flexibly to the needs of participants and research. I will use the term ‘interview’ to represent the individual interviews and the focus groups. I used the same moderator guide for the focus groups and interviews. This is discussed in the next section.

4.5.4 Interview moderator guide

Following Morgan (1997) I started each interview with an overview of the topic, some basic ground rules, and a clear explanation that I was there to learn from the experiences of the participants. This introduction was followed by an icebreaker activity or question (unrelated to the research) and an easy to answer question related to the research. A brainstorming session followed to define post-traumatic stress disorder (PTSD) and secondary trauma, in addition to questions relating to the responder and partner experiences with work-related trauma. The guide also included questions informed by the literature review of help-seeking, resistance towards help-seeking, resilience, social support, and the kind of information provided directly to the partners by the organisations. While the topics within the moderator guide remained the same for all interviews, the order and form in which questions were presented sometimes changed depending on responses from participants. This flexibility contributed to the interview being conversational, emergent and naturalistic.
**4.5.5 Participant information sheet/consent form**

“Voluntary informed consent is the cornerstone of research ethics” (North & Norris, 2006, p. 86). The consent is more than a signed piece of paper from a participant. The consent “includes informing the potential participant of the procedures, potential risks, benefits, and alternatives to the research and then obtaining documentation of permission to proceed” (North & Norris, 2006, p. 86). Individuals who indicated they were interested in the research were provided with a PIS (see Appendix E: Participant information sheet). It introduced the researcher and supervisors and described what the study was about. It explained what was involved should the individual choose to participate. It acknowledged possible risks to participants such as reactivation of memories of stressful events experienced by their responder or themselves, and conflicting thoughts about sharing information within the focus group or with the researcher. Ethical research with participants involves addressing privacy concerns related to the audio-recording of interviews and maintaining the privacy of individuals who share their details with the researcher and possibly other participants (Morgan, 1997). The PIS for this research informed participants that I would be the only one listening to and transcribing the recordings, and recordings would be deleted once the study was completed. Different versions of the PIS used slightly different wording for those attending interviews or focus groups, and for participants who were either current partners or former partners. For participants in focus group sessions, the PIS asked them to respect the privacy of their fellow participants by not repeating to others outside the group what was said inside the focus group. The PIS was provided via email prior to setting up a meeting date so the individual could opt in or out of the study before committing to a meeting. A paper copy was provided in person on the day of the interview.

Potential participants were also given a preference signup sheet (Appendix F: Scheduling groups and individual interviews) that included questions about the region in which they lived; whether they would prefer to participate in a focus group or an individual interview; whether they had a cultural group preference; and what days and times were best for their schedule.

The CF (see Appendix G: Consent form) was provided during the introduction segment of the interviews and was accompanied by a review of the guidelines for interactions. Before each interview I reiterated the PIS/CF guidelines to ensure participants were aware of their rights. The CF included the same information as the PIS, in short bulleted format to facilitate quick reading. Again, slightly different wording was used based on the type of group that the
participant attended. The CF reminded individuals that they could choose to be invited back towards the end of the study to provide feedback on the study results. Participants were not obliged to accept this invitation. Each participant was asked whether they wanted to receive a summary of the overall findings. Participants were asked to sign the CF at the same time.

4.5.6 Plan for distressed participant

Although not ultimately utilised, a plan was put in place to manage an event in which a participant experienced distress during the interview. Options included: briefly pausing the session to allow them to recompose himself or herself; privately discussing whether they wished to continue; and, if they were unable to continue, asking them to suggest someone they would like me to contact to assist them. If the participant decided to continue, a change of topic would have been made. If the distress continued, I would have terminated the interview. In the extremely unlikely event that a suicide intervention became necessary, my role would have been to ensure the participant remained safe until an arrangement was made for professional assistance. A safety monitoring meeting would have been urgently convened with my supervisors and cultural consultants to explore what had happened, why, and to review our responsibilities to the individual concerned and the implications for the study.

4.5.7 Help-seeking informational handouts

All participants were provided with a pamphlet listing websites, phone numbers, and additional information should they need assistance after the focus group/interview session ended. That information included phone numbers and web links to the Depression helpline, Healthline, Lifeline, Youthline, Alcohol and drug hotline, and Samaritans. It also included links to the University of Auckland’s CALM website, Family Services Directory, and the New Zealand Mental Health Foundation (see Appendix H: Additional information). St. John provided pamphlets that I could offer to participants whose responders were their employees.

4.5.8 Analysis protocol of interview data

For the fact-finding segment from the interviews, writing up the analysis in a basic descriptive narrative format is sufficient. Detailed thematic analysis are not required (Stewart, 1990). The interview conversations were transcribed and information that indicated a need for minor adjustments to themes and terminology were defined in a simple descriptive narrative. A summary of how the new themes that emerged from the interviews were used to modify the survey can be found in Section 4.9.8.
4.6 Pre-survey: Hypotheses development

Directional hypotheses, which predict relationship among the variables (Creswell, 2014) were created from information gathered through the literature review, previous research, and analysis of the pre-survey interviews. The following six hypotheses were written to assist in answering the research questions through specific testable scales, measures, and question groups chosen with input from subject matter experts, reviews of similar research, and my prior experience. The hypotheses predict the following model of direct mediating relationships will emerge.

H1: No ‘attendance of activities and events’ offered by organisations will be predicted by:

- no induction or welcome

H2: Lower ‘receipt of stress management information’ will be predicted by:

- no invitation of activities/events

H3: Higher ‘stigma towards help-seeking’ will be predicted by:

- low receipt of stress management information

H4: (a) High ‘emotional non-disclosure’ will be predicted by:

- high stigma towards help-seeking
- low receipt stress management information

(b) Low ‘emotional disclosure’ will be predicted by:

- high stigma towards help-seeking
- low receipt of stress management information

H5: Low ‘emotional/informational support’ for dealing with traumatic events will be predicted by:

- low emotional disclosure
- high emotional non-disclosure

H6: High STS will be predicted by:

- low emotional/informational support
- low relationship satisfaction
Figure 4-2 Hypothesised model of relationships between variables

4.7 Pre-survey: Instrument development

The instrument developed was an online survey classified as a computerised self-administered questionnaire. This online system provided a platform for participants to answer the questionnaire by themselves. It required the participant to have access to the internet through a computer or hand-held device (Weisberg, 2005).

The online survey was created using LimeSurvey version 2.0 (LimeSurvey, 2014) online application. The National Institute of Health Innovation (NIHI) at the University of Auckland hosted the programme on their secure web server and provided an account and technical assistance. LimeSurvey is a free and open source software tool. It requires some basic knowledge of CSS, JavaScript, and HTML. This tool allows anonymity, does not limit the number of questions or participants, and gives participants the option to pause and return to the survey at their convenience without losing their place. Measurement scales included continuous and categorical response options including essay type answers. A branching feature permitted participants to seamlessly skip questions that did not apply to them.

Three sections were created in the survey. Firstly, the introduction repeated the information found in the PIS and CF and asked individuals to confirm their eligibility to participate based on the inclusion criteria (4.2). Secondly, demographic information was sought about the responder and the participant. The questions asked participants to name the organisations in
which the responder worked: Police, Fire (Fire Service or Rural), Ambulance (St. John or Wellington Free), or NZDF (Army, Navy, or Air Force); and to state in what capacity (career/volunteer or active duty/reserve), and for how many years they had worked there. Individuals could choose more than one organisation but were then asked which one they considered their partner’s ‘primary organisation’. If participants indicated they were currently or had previously worked as a military service member or first responder themselves, they were also asked to provide the above information. In addition, participants were asked their age, gender (their own and their partner’s), ethnicity, level of education, and length of time as a couple; whether they had dependent children (plus the age group of those children); and the postal code or town where they currently resided. Where appropriate, the wording for these questions was modelled from the 2013 Statistics New Zealand Census (2015a) (on age, gender, ethnicity, relationship, education). Thirdly, survey question pages included questions about welcomes/inductions, being invited to events, traumatic events experienced by responder and partner, measure of STS, measure of resilience, receipt of stress management information, beliefs about stigma towards help-seeking, emotional disclosure and emotional non-disclosure, emotional and informational support, and relationship health.

At the conclusion of the survey, participants were directed to a website hosted by the Goodfellow Unit at the University of Auckland. The website provided links and hotline numbers for mental health assistance, including information provided by the defence and emergency responder organisations. It went beyond what was made available in paper format during the interviews (4.5.7) by including more information and web links to the responder organisations. The NZ Police, NZ Fire Service, St. John, and NZDF granted permission for the organisational logos to be used on this webpage.

Figure 4-3 displays a screen shot of the additional information that was provided. While taking the survey individuals could be directed to one of three external webpages. One provided information about who was eligible to take the survey for those who did not meet the inclusion criteria, and another provided help-seeking information for individuals who clicked on the link wanting helpline information. Once the survey was completed individuals were automatically directed to a webpage (Figure 4-3 ) that included closing instructions, thanked participants for taking the survey, and provided the help-seeking information. Individuals were automatically forwarded to the
appropriate web page if they did not meet the inclusion criteria, or clicked on the link asking for help or when they completed the online survey.

Figure 4-3 Additional assistance screenshot
LimeSurvey produces output compatible with the statistical programme used to analyse the data. It also provides analytics on the time it took to take the survey, how many individuals completed the survey and, if individuals quit, at what question they stopped taking the survey. Figure 4-4 gives an example of how questions looked in LimeSurvey.

Figure 4-4 LimeSurvey screenshot
4.8 Pre-survey: The pilot survey

The purpose of the pilot survey was to assess the appropriateness of the questions including the terminology used, the readability and fluidity of the questions, and the functionality of the survey platform. The survey was piloted on the most up-to-date version of the following browsers: Firefox, Google Chrome, Safari, and Internet Explorer. It was also tested on tablets and smart phones. There were three phases to the pilot of the survey:

In phase one, the first group piloting the survey consisted of individuals who were not partners of responders. They were mainly colleagues and friends who were willing to test the survey on their own devices. Individuals were emailed a link to access the survey online and asked to make comments on each page before proceeding to the next page. They could take the survey as many times as they liked.

In phase two, partners of defence and emergency responders pilot-tested the survey. The aim was to recruit two partners from each organisation resulting in eight individuals in total. The procedures for engaging them were similar to those used for the interviews in terms of recruitment, meeting locations, and paperwork and introduction procedures (4.5.1). These sessions did not make use of audio-recordings. The moderator guide was adapted to fit the purpose of the interview. The PIS was modified to specify the purpose of providing feedback on the draft survey questions and the online survey tool. Participants self-completed the pilot version of the online survey on a computer or on a mobile device that I provided. They were asked to verbalise any thoughts or concerns about the content or clarity of the questions, the functionality of the survey tool, and make suggestions on how to improve the survey experience. Participants did not need to fill in the answer responses truthfully because their responses were not analysed. Individuals were assured they were still eligible to take the final version of the survey when it became available. Changes to the survey were made prior to the next participant piloting the survey.

Phase three was the final pilot of the survey using the same criteria as phase one but with individuals who did not participate in the first phase. Once modifications were made from the feedback, the survey was placed online and went live.

4.9 Online survey

This section discusses the recruitment, survey measure development, quantitative data analysis, and qualitative thematic analysis. The survey was online and accessible from December 12, 2014 until April 8, 2015.
4.9.1 Recruitment for online survey

Recruitment for this step was intended to be both top-down, by going directly to the NZ responder organisations, and bottom-up by engaging with grassroots programmes set up by/for partners of defence and emergency responders, such as Facebook groups, blogs, and groups associating themselves with the responder organisations. The aim was to reach 250 partners from each of the four organisations, for a total of 1,000 participants. Emails were sent to around 20 defence and emergency responder-affiliated groups including clubs, financial organisations, and religious groups affiliated with the responder groups. There were very few responses from these communications.

A press release recruiting participants to the online survey was distributed through the University of Auckland press office and placed on both the School of Population Health’s News web page and my Faculty’s web page. The article was picked up by Yahoo News, the Daily Post Rotorua, Scoop Education, Live News, and Voxy. All of the defence and emergency responder partners who contacted me about the interviews and those involved in the pilot of the survey were invited to take the survey and share the link with others.

The main source of recruitment was from the responder organisations. St. John sent flyers to each of their stations; placed the announcement on physical bulletin boards at the stations; shared the information on their electronic bulletin and web portal Hub; put out a tweet about the survey; and posted information on their closed Facebook group. The NZ Fire Service posted the survey link through their intranet as well as their closed Facebook discussion groups. The NZ Rural Fire Authority posted the online survey recruitment information on their web portal. In December 2014 and March 2015, the Police Association’s magazine Police News published an article about the study. Figure 4-5 provides an example of one of the articles.
In February 2015, I met with an editor of Ten One, a magazine produced by the NZ Police. Two articles were written about the study. One was placed on the staff intranet in February and the other was published in the printed and online version of the magazine in March 2015 (see Appendix I: Article from Ten One magazine).

To publicise the online survey to partners of military members, the NZDF shared the survey link with those running family and community programmes at the various bases across NZ. I was invited to speak at a Family and Community Service Staff Conference in March 2015 and I was provided a two-hour time slot to discuss my current research as well as my past experiences with US Army programmes. That engagement prompted direct communication with many of the family service coordinators who publicised the survey link to partners of NZDF.

I was interviewed for an article in the North Shore Times entitled ‘Emergency Reactions’ about partners of defence and emergency responders, which included the online recruiting information in the article (McCullough, 2015).

A research Facebook page and Twitter account were created to advertise the survey link and engage with the responder community. Analytics from Facebook found that a number of the posts reached over 600 individuals. With just weeks to go before the end of the survey, I bought advertising through Facebook to boost two of my posts in the hope it would extend their reach. One post reached 4,000 individuals and the other 16,000 individuals, although it is not clear that all of those individuals met the criteria I had requested for my target audience. Twitter analytics indicated that although the site only had 14 followers by the end of the study, a few of the tweets generated 2,000-4,000 ‘impressions’, which is how many
individuals could have potentially read my messages. I continued to engage with these platforms after the survey was no longer available in order to keep followers updated on my research progress.

4.9.1.1 Addressing concerns about non-responder partners taking survey

Concerns from organisations were raised about how to prevent non-partners from taking the online survey. These concerns were addressed in a number of ways. No monetary incentives were provided to those who completed the online survey, thus removing individuals who would take the survey for the chance to win a prize. The survey took around 25 minutes to complete, which seemed long enough to be a disincentive to non-partners of responders. Some of the demographic questions relating to the defence and emergency responders’ job required knowledge about the organisations for the answers to make sense. It is possible that individuals whose responder no longer currently worked for the organisation could have taken the survey, although they would know they were not the target participant since the inclusion criteria were explicitly stated a number of times in the survey. Using a verification system of providing individuals with tokens to take the survey (which they could still do anonymously) would only have been possible if the organisations had direct access to the participants and could have invited them on my behalf to take the survey. The organisations did not have this information and the token system was not used. It was deemed a low risk that individuals not meeting the inclusion criteria would take the survey.

4.9.2 Online survey: Analysis of data

Quantitative survey data were analysed using IBM’s Statistical Package for the Social Sciences Statistics 23 (SPSS). Prior to analysis, data were cleaned, and tests measuring skewness, normality, and collinearity were performed. The online survey was divided into question segments with each segment allotted its own page. Individuals who completed a question segment but did not move on to the next survey page were counted as quitting the survey in that section. Participants who completed the survey but did not meet the requirements for specific analyses (4.9.4.10 and 4.9.7.1), were excluded. Missing data are likely to influence bias, however it is unclear how much must be missing before they become a concern. Some researchers claim that missing data are a concern when more than 5% are missing (Shafer, 1999) but others state more than 10% (Bennet, 2001). Still other researchers claim that the missing data patterns have a greater impact on research results than the amount of missing data (Tabachnick & Fidell, 2012). In this study missing data analyses
will be conducted if missing data exceeded 5% followed by imputation of data if missing data patterns indicate that is necessary. Frequency distribution tables were produced from responses for each question (6.5 to 0) and survey measures were developed (4.9.4). Appropriate published psychometrics scores from the Secondary Traumatic Stress Scale (STS Scale; 4.9.4.10) and resilience scales were reported (4.9.4.5). Multiple Regression tests between the independent, dependent, mediating, and moderating variables were analysed to address some of the research questions and hypotheses (4.9.6). Other hypotheses were investigated using Structural Equation Modelling (SEM) (6.17) with the computer software package Analysis of Moment Structures (AMOS) (IBM SPSS AMOS 22). Analysis of the open-ended questions in the online survey (5.6) used a general inductive (Thomas, 2006) and thematic networks approach (Attride-Stirling, 2001) assisted by NVivo 10, a qualitative data management software programme.

4.9.3 Demographic variables

The demographic section contained 12 main questions which asked about the participant and/or the responder. Questions about the responder related to the organisation they were attached to, if they were career or volunteer, and how many years they had been involved with the organisation(s). Most of the above questions were also asked of the partner if they indicated they too were currently or had formerly been a military service member or first responder. Participants were asked to provide their own and their partner’s gender and how long they had been together as a couple. Questions around age, ethnicity, education level, and number of dependent children, if any, living at home were also asked. Where possible, the 2013 Statistics NZ Census (2015a) wording for the demographic questions was used.

In addition to the above questions, the online survey asked participants to provide either their post code or town where they lived; and they were told the information would be aggregated in order to produce a map. Mapping the geographic data was accomplished with the Esri programme ArcGIS (10.3.1). Aggregation was achieved by utilising the NZ District Health Board boundaries, and providing a count of participants (using centred postcodes) within each boundary.

4.9.4 Survey measure development

To create survey measures for use in regression analysis and SEM, principal components analysis was conducted on selected scales to determine whether the items loaded onto a single component as a measure of the construct validity of the scale. A reliability analysis
followed to check for internal consistency. The Cronbach’s Alpha for each factor used in the regression and SEM analyses are reported in the following sections along with a description of each measure. Not all questions that were asked of participants were included in each measure used for analysis. Notes under descriptive table results in Chapter 6 indicate which questions were included in the regression and SEM analyses.

**4.9.4.1 Offered welcome/induction**

To measure participants’ receipt of an induction, orientation, or welcome from the defence or emergency responder organisations, two questions were created. The first question was measured as a binary response and asked, ‘At any time did the emergency responder organisation have a welcome or induction for you?’ The instructions stated that the welcome could have been received as part of a group or one-on-one. Participants could choose ‘yes’, ‘no’, or ‘don’t remember’. The option of ‘I choose not to answer’ was added during the survey pilot (5.3.3). Participants who answered ‘yes’ to the above question were then asked ‘Did you find that welcome or induction useful?’ They could answer, ‘yes’, ‘no’, or ‘did not attend’. Only the first question was used to create the measure ‘offered induction’ and included in the regression and SEM analyses.

**4.9.4.2 Invited to events**

To measure if participants were invited to activities or events by the responder organisation, two questions were created. The first, measured as a binary response asked, ‘Does the emergency responder organisation invite you to attend any of their activities or events?’ Participants could choose ‘yes’, ‘no’, or ‘don’t remember’. For those who answered ‘yes’ to the above question, a follow-up question asked, ‘Do you attend these activities or events?’ The response options included ‘never’, ‘rarely’, ‘sometimes’, ‘often’, or ‘always’. Only the first question was used to create the measure ‘invited to events’ and included in the regression analysis.

**4.9.4.3 Received stress management information**

To measure if participants had received information about managing stress from the organisation, their responder, and other partners of responders, participants were provided statements about receiving information and asked to state how much they agreed with the statement. For example: “I receive information from my emergency responder’s organisation about managing stress”. Only individuals who answered ‘rarely’, ‘occasionally’, ‘often’, or
‘very often’ were provided with a follow-up statement asking how useful they found the information for example: “I find this information from the organisation useful”.

The ‘received stress management information’ variable included only the two questions relating to the organisation and the responder (excluding the responses gathered about information provided by other partners of responders). It also did not include the follow-up question responses. The ‘received stress management information’ variable was used in both the regression and SEM analyses. Pearson’s correlation between the two variables was calculated ($r = .41, p < .000$). All these questions were scored using a Likert Scale and the wording for all the questions can be found in Section 6.10.

4.9.4.4 Perceived stigma towards help-seeking

The questions about perceived mental health stigma and barriers towards help-seeking were based on a measure developed by Hoge et al. (2004) and Warner et al. (2008 & 2011). Hoge et al.’s foundational questions were developed to screen for barriers to care for US military service members and have been used in numerous studies (Britt et al., 2008; Kim, Thomas, Wilk, Castro, & Hoge, 2010; Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009; Sudom, Zamorski, & Garber, 2012). Warner’s (2008) eight question Barrier to Care Scale was created using seven questions from the original study (Cronbach’s $\alpha = .94$). That study included another scale called ‘Strategies for Overcoming Barriers to Care’ (Cronbach’s $\alpha = .91$).

Because those questions were created for military members to report on their own beliefs about stigma, modifications to the questions were needed so that the partners could answer the questions. In Mental Health Stigma and Military Spouses a master’s thesis, Hermisillo (2013) modified the questions differentiating between what the military spouse believed were barriers to care (four-item Cronbach’s $\alpha = .93$) and what the spouses thought their service member believed were barriers to care (10-item Cronbach’s $\alpha = .88$). That structure was used as a guide to make my study’s questions applicable to partners of NZ defence and emergency responders. The questions assessed the partner’s perception (1) of stigma/barriers and (2) of their responder’s beliefs about the stigma/barriers and scored using a Likert Scale. To avoid confusion in the online survey, the questions were separated between two web pages to differentiate between the partner’s beliefs and the beliefs partners held for their responder. The perceived stigma towards help-seeking and barrier to care variable was named ‘stigma towards help-seeking’.
Of the 14 questions, six related to the partner’s perception of stigma towards help-seeking (for example ‘If my emergency responder were to seek mental health care, he/she would be seen as weak’) and six were the same questions but asked about the perceptions of the responder’s beliefs (for example ‘My emergency responder believes that seeking mental health care would cause him/her to be seen as weak’). The remaining four questions were asked about the responder partner’s beliefs and related to strategies for overcoming barriers to care, for example ‘Direct supervisors remind my emergency responder that it is important to seek care’.

Participants were asked to rate their agreement with each statement on a five-point Likert Scale ranging from ‘strongly disagree’ to ‘strongly agree’. Individuals were also able to select ‘I choose not to answer’ as a response option. Of the 14 questions, eight were used to develop the stigma to help-seeking measure (Cronbach’s α = .95) for use in the regression and SEM analyses. The modified questionnaire can be found in Section 6.11.

4.9.4.5 Resilience Scale

Smith et al.’s (2008) Brief Resilience Scale was used to assess participants’ ability to bounce back from stress. The questions asked about agreement with statements about managing stressful events. The measure consists of six items. Half are positively worded and the other half negatively worded. Participants indicate the extent to which they agree with the statements on a five-point Likert Scale from ‘strongly disagree’ to ‘strongly agree’. The scores are developed by reverse coding the negative items and then finding the mean. Respondents with average item scores under 3.00 on the six-item resilience measure were categorised as ‘low in resilience’, those with scores between 3.01 and 4.29 were categorised as having ‘average resilience’, and those with scores above 4.30 are considered ‘high in resilience’. The published Cronbach’s Alpha ranged between .70 and .91 (B. W. Smith et al., 2008; B. W. Smith, Epstein, Ortiz, Christopher, & Tooley, 2013). In the current study, this scale was not modified and all six items were used in the resilience measure (Cronbach’s α = .88).

4.9.4.6 Emotional disclosure/non-disclosure measure

To assess with whom the participants shared or hid their feelings, the emotional disclosure and emotional non-disclosure measures were used. These scales were originally written for stroke patients (Panogopoulou & Cameron, unpublished data) and have been used in a study with burn injury patients (Reeve et al., 2011). The scales’ terminology was modified with
assistance from Linda Cameron, one of the original authors. The modifications were made so that it was relatable to the current study’s population and read ‘How much have you DISCUSSED your thoughts and feelings about the difficult, upsetting, or very stressful events experienced by your emergency responder from the following people?’ and ‘How much have you HIDDEN your thoughts and feelings about the difficult, upsetting, or very stressful events experienced by your emergency responder from the following people?’ The original scale asks for responses on a four-point scale ranging from ‘not at all’ to ‘very much so’. For this study the response range was initially changed to a five-point scale and the wording was modified to be consistent with other scales in the study. After feedback from the survey pilot, two response options were added: ‘doesn’t apply’ and ‘I choose not to answer’. The scale lists individuals or groups to choose from. Another modification from the survey pilot, altered the wording of some response choices and added three additional groups to make the options relevant to responder partners and NZ-friendly. Those options are (a) my emergency responder, (b) my children, (c) family or whānau, (d) other partners of emergency responders, (e) other emergency responders, (f) friends (not emergency responders or their partners), (g) Kaumātua or community/cultural leaders, (h) spiritual or religious leaders, and (i) professional/medical staff (GP, counsellors etcetera).

It is important to note that these scales are not the opposite of each other and individuals are able to share and hide equal amounts of information. Cameron and Overall (Cameron & Overall, 2016, Manuscript submitted for publication) in a series of studies measured emotional disclosure (expression) and emotional non-disclosure (suppression) and found the effects were distinct from each other when measuring the effect on interpersonal interactions. They concluded that emotional disclosure and emotional non-disclosure should be described as independent constructs and both can be used when examining wellbeing and relationship functioning. In my study some tables and figures abbreviated the variable name by removing ‘emotional’ because ‘emotional disclosure’ and ‘emotional non-disclosure’ were unable to fit easily in the available space.

The emotional disclosure measure ultimately used in this study only included six of the nine categories of people (6.12.1), excluding (g), (h) and (i) (Cronbach’s α =.73). The emotional non-disclosure measure (6.12.2) included all nine listed categories of people (Cronbach’s α =.88).
4.9.4.7 Emotional/informational support measure

To evaluate informational and emotional support available to the partners of responders, a portion of the widely used Medical Outcomes Study (MOS) Social Support Survey (Sherbourne & Stewart, 1991) was adapted for use in this study. The MOS comprises four separate social support subscales: emotional/informational support, tangible support, affectionate support, and positive social interaction. These can be evaluated individually or as a group. The subscale for information and emotional support showed high convergent and discriminant validity with a Cronbach’s α =.96 and that portion was chosen for this study. The directions asked individuals to state ‘How often each of the following kinds of support is available to you if you need it’ based on a five-item Likert Scale ranging from ‘none of the time’ to ‘all of the time’. The current study modified the wording for the directions and the eight chosen items in the scale so that they were appropriate for the study population. Pilot survey respondents found some questions confusing, too similar and presumptuous. That feedback prompted three items to be removed from the measure. The emotional/informational support scale for this study comprised five items, see Table 6-10 (Cronbach’s α =.95).

4.9.4.8 Relationship satisfaction measure

The marital satisfaction measure was developed from a scale found in Rosen-Grandon, Myers and Hattie’s (2004) research. The measure uses three items from the Dyadic Adjustment Scale (Spanier, 1976) and three from the Enriching and Nurturing Relationship Issues, Communication and Happiness Inventory (Olson, Fournier, & Druckman, 1986), all relating to the satisfaction component. These items were the dependent variables in their study for conceptual modelling of marital satisfaction (Cronbach’s α =.79). Component loadings for individual questions ultimately used in my study ranged from .47 to .75. Three of the questions provided a four-item Likert agreement response from ‘strongly disagree’ to ‘strongly agree’, one question provided ‘not at all’ to ‘all the time’ and two provided the binary response options of ‘no’ or ‘yes’.

Those six items were pilot-tested with minor modifications to terms, including replacing ‘Do you confide in your mate?’ with ‘Do you confide in your spouse/partner?’ because in NZ ‘mate’ is mainly used for non-romantic relationships. The pilot test revealed that most reviewers held strong opinions about the questions ‘Do you confide in your spouse/partner’ and resulted in many pilot reviewers asking ‘confide about what?’ It was determined that the emotional disclosure measure would capture this response about confiding in their partner so
the question was removed. In addition the question ‘Do you ever regret that you are in this relationship?’ provoked disbelief, from many of the pilot reviewers, who stated that this was not a serious question. Some of them requested adding a response of ‘sometimes’. It became apparent that ‘sometimes’ would likely be the preferred response and therefore the question was removed because of its lack of discriminatory power. The relationship satisfaction scale for this study ultimately included four questions (see Table 6-13) with a Cronbach’s $\alpha = .84$.

### 4.9.4.9 Life Events Checklist

The Life Events Checklist (LEC) (M. J. Gray, Litz, Hsu, & Lombardo, 2004) is a 17-item checklist developed to screen for experience of traumatic events in service members. This checklist is used prior to the clinical evaluation for potential PTSD. For many years it has been extensively used with military service members (Maguen, Litz, Wang, & Cook, 2004; Maguen et al., 2008; Resick et al., 2015) and non-military populations (Alim et al., 2006; Bae, Kim, Koh, Kim, & Park, 2008; C. L. Gray et al., 2015) to assess potentially traumatic events and psychometrics compared to similar measures (M. J. Gray et al., 2004). It lists difficult or stressful events that sometimes happen to individuals and includes the checkbox options: (a) happened to you personally, (b) you witnessed it happening to someone else, (c) you learned about it happening to someone close to you, (d) you’re not sure if it fits, or (e) it doesn’t apply to you. A revised version of the checklist LEC-5, was created by Weathers et al. (2013) and included a response option stating the event happened as ‘part of my job’.

The LEC-5 was included in this study to determine if partners were aware of stressful and difficult events experienced by their defence and emergency responders. It was used in conjunction with a completed STS Scale to assess inclusion or exclusion from further analysis as described in the following section. Individuals who did not indicate that their own responder had experienced at least one traumatic event were removed from the data set for quantitative analysis. After pilot testing (5.3.3), it was determined that four versions of the LEC should be included in the survey, to avoid confusions about whose life events were being measured and if it was job related. All participants were asked to complete an LEC-5 which only asked about their own personal experiences, and on a separate webpage another LEC-5 which asked about life events experienced by the responder because of their job. Because this measure is usually a self-evaluation, modifications were made to that second measure so that participants were clear they were indicating traumas they believed their service member or first responder had experienced because of their job. Participants who indicated they were either currently a responder or a former responder were provided a
checklist asking about their experiences because of their current or past responder work experiences. All the checklists included an open-ended section for writing in examples of ‘other very stressful events’ which were coded into applicable categories. This section ultimately asks participants to read 32 with some individuals asked to read 51 questions. Wording for the checklist can be found in Table 6-4.

4.9.4.10 Secondary Traumatic Stress Scale

Bride et al. (2004) developed a 17-item measure, guided by The Diagnostic and Statistical Manual of Mental Disorders (4th ed.) (DSM-IV), to identify the frequency of intrusion, avoidance and arousal symptoms because of indirect exposure to traumatic events in social workers. The STS Scale has been widely used in a variety of cultures (Cieslak et al., 2013; Shah et al., 2007) and participant groups (Beck, 2011; Bride, Hatcher, & Humble, 2009; Leinweber & Rowe, 2010; Meadors, Lamson, Swanson, White, & Sira, 2010; Perez, Jones, Englert, & Sachau, 2010; Quintal, 2002; Slattery & Goodman, 2009). The STS Scale has been shown to be a valid measure for measuring STS, Cronbach’s α =.93 (Bride et al., 2004) and Cronbach’s α =.94 (Ting, Jacobson, Sanders, Bride, & Harrington, 2005). It is not being used as a PTSD diagnostic tool. The STS scale could be analysed in a number of ways including using cut-off scores or a subscale algorithm (see Section 6.8) which could indicate the proportion of participants who meet the symptomatic criteria for possible PTSD. Because this scale was developed to evaluate STS with workers regarding their clients’ trauma, a number of modifications to the scale questions and directions were needed. Early in the research process a modified scale was developed and emailed to the main author of the STS Scale, who approved of the modifications. The survey stated ‘The following is a list of statements made by persons who have been impacted by hearing of trauma experienced by their loved one. Read each statement and indicate how frequently the statement was true for you in the past 30 days’. Participants were provided response options based on a five-point Likert Scale ranging from ‘never’ to ‘very often’.

During the interview phase of this research it became clear that the term ‘trauma’ was not an appropriate term to use to gain information about these experiences with all participants (5.2.3). Discussions with key informants, including physicians, psychologists, and mental health researchers in NZ, confirmed this finding for non-medically trained personnel and suggested using a variation of ‘very stressful’ instead of ‘trauma’. The STS Scale was again modified to include new terms for trauma prior to pilot testing, and shared with Dr Brian Bride. Eight questions were modified to describe secondary symptoms in partners of
responders for example ‘I had disturbing dreams about my work with clients’ became ‘I had disturbing dreams about my emergency responder’s stressful experience(s)’. To be included in the analysis, participants would need to complete the STS Scale and indicate that their responder had experienced at least one LEC. Comments from the survey pilot prompted changes to the instructions, including an additional statement that allowed an open-ended answer to ‘other’ and an added response option ‘I choose not to answer’. The modified STS Scale used for this study contained all 17 items (Cronbach’s $\alpha = .94$) (see Appendix J: Modified Secondary Traumatic Stress Scale).

4.9.5 Categorising variables

Once survey measures were chosen they were categorised into two areas of responsibility belonging to the organisation or the partner. Determining who has the responsibility for managing STS issues is debated in the literature (Hunter & Schofield, 2006) and is mainly focused on professional environments. Categorising the variables used in the thesis into areas of responsibility between the organisations and personal responsibility provided a guide for some of the analysis as well as a framework for answering some of the research questions.

The STS literature predominately supports the concepts of offering inductions, inviting partners to events, providing useful information to partners about managing stress, and reducing stigma towards help-seeking as originating from the organisations (Figley, 1999b; Figley, 2005; Gould et al., 2010; Hunter & Schofield, 2006; Paton et al., 2011; Regehr & Bober, 2005). These concepts are identified in this research as how organisations manage STS for the partners.

The remaining variables are identified as how partners manage STS for themselves. The literature identified emotional disclosure/non-disclosure, relationship satisfaction, decisions to attend inductions or events offered by the organisations, and emotional/informational support as associated with an individual’s initiative or self-care plan (Hoyt et al., 2010; Regehr, 2009; Stephens & Long, 2000; Weiss et al., 1995). Although resilience often relies on external resources being accessible, the literature indicates that personal perspective, demographics and personalities are also strong predictors (Bonanno, Westphal & Mancini, 2011) and therefore resilience was also categorised as mainly the responsibility of the partner.
4.9.6 Multiple regression

A hierarchical multiple regression analysis was completed to determine the contribution of each independent variable in predicting the dependent variables following the theoretical model’s pathway (Figure 4-2). In hierarchical multiple regression, the researcher determines the order in which variables are entered (Pallant, 2013).

In this study the theoretical model pathway guides the order in which variables are entered. Hierarchical regression analysis tests the theoretical model’s variables and systematically uses sets of independent variables to test each segment of the theoretical path. For this analysis each dependent variable is the predicted outcome of the independent variables specified in the hypotheses. However, all independent variables that precede the dependent variable in the overall theoretical model are included even if not specified in that hypothesis. Thus, a dependent variable in an early part of the theoretical model’s path becomes an independent variable in the next part of the hierarchical analysis. For example, H6 predicts the dependent variable STS Scale and specifies the independent variables as Emotional/Informational Support, Relationship Satisfaction, and Resilience. Despite not being included in the hypothesis, all other variables from the theoretical model’s path which precede those variables are entered systematically into the hierarchical analysis as they appear on the theoretical model’s path.

In addition to testing the theoretical model’s path, tests for moderating effects in the final model predicting STS Scale were run. New, centred variables were created for all the variables used in the multiple regression analysis except the STS Scale. Interaction terms were created for variables that might be considered moderating, namely gender, ethnicity (NZ European/Māori), age, time as a couple, time as a responder, partner is also a service member or first responder, and having school-aged children. Interaction terms were included in a multiple regression to see if they were statistically significant, and if they were, if they moderated the STS Scale variable. The outcomes from these tests and the multiple regression led to further explorations of the data through the use of SEM.

4.9.7 Structural equation model

Structural equation modelling is often used to test complex hypotheses of how observed and latent variables relate to each other (Hoyle, 1995) and the direction of those relationships (MacCallum & Austin, 2000). Observed variables are those measured within the survey; for example in this data set ‘resilience’ is an observed variable. Latent variables combine
observed variables, which are factored together and then given a new name; for example ‘resilience’ and ‘relationship’ were factored together to create the new variable, ‘tenacity’.

Although, as described in Section 4.9.6, each hypothesis was tested using hierarchical multiple regression, SEM can simultaneously examine multiple statistical questions bringing it more in line with the theoretical concept of complexity theory as used in this thesis. Because a number of variables in the hypothesised model predict more than one other variable and a number of variables also serve both as outcomes and predictors, SEM is an appropriate analysis tool to examine the data (Huta, 2014). A new model was created which categorised variables into areas of responsibilities and similar concepts in order to explain the patterns leading to psychosocial risks for partners of responders.

Most of the variables that had been used in the regression analysis were also used in the new model. The final outcome variable in the regression path was the STS Scale variable which measured the negative consequence of engaging with the defence and emergency responder’s traumatic stress. The SEM conceptualised the STS Scale as a negative outcome but also considered emotional non-disclosure and stigma towards help-seeking as negative consequences. Those three variables together made up the latent variable of ‘psychosocial risk’.

Stigma towards help-seeking was conceptualised both as a consequence (psychosocial risk) and as something perpetuated within the organisation (organisation communication). SEM allows measured variables to sit in more than one latent concept (Little, Lindenberger & Nesselroade, 1999), so stigma towards help-seeking was placed in both of those latent variables. Invited to events was excluded from this model because it failed to factor in with the latent variable ‘organisation communication’.

Relationship satisfaction and resilience were factored together as ‘tenacity’ because they were not outcome variables in the hypothesised model. The remaining variables – emotional disclosure and emotional/informational support (shortened to ‘emo/info support’ in the model) – were factored together as the latent variable ‘positive social engagement’.

4.9.7.1 Preparation of data

AMOS will not produce goodness-of-fit indices, which evaluate the strength of the model, if there are missing data. To evaluate the strength of this model, individuals who did not answer all the questions in each measure were excluded from the analysis. Thirty individuals were excluded because they had missing data. Missing data analyses were run as described
in Section 4.9.2 and no patterns were found, so data were not imputed. Individuals who were responders in the same organisation as their partner were purposefully removed from this analysis and are not considered missing because they may have been provided information from the organisation as employees and not partners of employees. The total number of participants in this data set is 547. How well the data fits the model is described in Section 6.17.1.

4.9.8 Thematic analysis

Thematic analysis in this study was initially guided by the general inductive approach defined as research findings emerging “from the frequent, dominant, or significant themes inherent in raw data, without the restraints imposed by structured methodologies” (Thomas, 2006, p. 238). The general inductive approach seeks:

1. to condense extensive and varied raw text data into a brief, summary format;
2. to establish clear links between the research objectives and the summary findings derived from the raw data and to ensure that these links are transparent (able to be demonstrated to others) and defensible (justifiable given the objectives of the research); and
3. to develop a model or theory about the underlying structure of experiences or processes evident in the text data (Thomas, 2006, p. 238).

In addition to the general inductive approach, analysis of the online survey’s qualitative responses was guided by elements of what Attride-Stirling (2001) called thematic networks. While these two approaches offer very similar guidance for providing a format or framework for condensing/dissecting the raw text data, the terms that I used to describe the categories were taken from Attride-Stirling. The following thematic network terms were used to categorise the data:

(i) lowest-order premises evident in the text (Basic Themes);

(ii) categories of basic themes grouped together to summarize more abstract principles (Organizing Themes); and

(iii) super-ordinate themes encapsulating the principal metaphors in the text as a whole (Global Themes) (Attride-Stirling, 2001, p. 388).

To prepare for qualitative data analysis, I took introductory courses in NVivo 10, a qualitative data management software programme to facilitate data analysis. NVivo was used to store and sort qualitative responses. I uploaded the interview and focus group transcripts directly into the programme to code text and then group the codes into themes. NVivo is compatible with SPSS so, in addition to importing all the qualitative responses that
participants had put into the online survey, I was able to import quantitative variables which enabled me to query the data based on demographic data. This query function allowed word clouds to be created (see Appendix K: Word cloud), which were used in presentations. The query function was most useful for separating the responses to questions by the individual organisation. This allowed participants and the responder organisations to see anonymised and de-identified responses shared by partners from their own organisation.

The NVivo courses, while helpful, only provided an overview of how to use the software. Actually working with the data in the programme continuously over many weeks was necessary to reap the benefits of this programme versus returning to the use of excel spreadsheets and cut out pieces of coloured paper (which I contemplated). My first attempt at coding the data included downloading all of the raw open-ended answers from the survey and familiarising myself with them by iteratively reading the comments, providing terms to describe the basic themes, rereading the data again, and recoding and creating new themes as needed. The rationale for including all open-ended question responses was twofold.

Firstly, a number of participants wrote what they wanted to share at the first opportunity to write free texts, even if it had nothing to do with the subject of the open text. Secondly, I thought that open responses would provide a more robust view of what the participants wanted to share. However, it became clear that most responses were tied to the three final questions that were asked or were in response to “other” for a survey measure. The responses were often worded in such a way that some ideas were taken out of context. I started over a few times. Finally, more comfortable with NVIVO and more familiar with the raw data, I decided to use the three-layer thematic network from the three grouped questions and identify only core themes from ‘other’ open-ended responses to the measures in the survey, as presented in Sections 5.6.1 and 5.6.2. I restarted the above process of reading, coding and recoding until no new themes were identified and I had captured what Thomas (2006) described as the key features of the responses representing the most important themes.

The general inductive approach requires that a protocol be followed to check the trustworthiness of the analysis (Thomas, 2006). One suggestion by Thomas is to use independent parallel coding of the data by another individual. However, from the outset, having a second coder of the data was not feasible for this study and less important than inter-coder agreement on any common set of themes is my ability to defend them against sceptical peer view. A University of Auckland webpage advises staff and students that “with no one ‘accurate’ way to code data, the logic behind inter-rater reliability (and multi-
independent dodders) disappears” (University of Auckland, 2017). Further, in a classroom conversation with David Thomas on May 20, 2015, he emphasised that I should develop, with my supervisors, a pragmatic protocol that checks on the internal consistency or dependability of my data, but that does not necessarily mean that these data need to be independently coded. Use of what Thomas called ‘stakeholder or member checks’ on the themes had always been part of the method but discussed as feedback from participants on the results (D. R. Thomas, personal communication, May 20, 2015). The protocol that was ultimately decided on involved:

1. Preparing a presentation for one of the supervisors with a step-by-step process of how 40 raw data quotes were developed into basic themes.

2. Discussing a consistent strategy for de-identifying quotes.

3. Once basic themes were developed, presenting those themes to participants soliciting feedback.

4. Modifying themes based on the feedback.

Some responses were modified to correct spelling and punctuation issues. It was clear that some respondents had used auto-correct on their mobile devices and when intended responses were clear, those corrections were made as well. In addition, some grammar was modified to help with clarity. Many comments were separated in order to categorise ideas into the appropriate themes. There were occasions where participants had numerous points to make in one sentence and, although the comments would discuss multiple themes, if the point to be made was clear, no modifications were made to the text. This allowed for preserving a rich context around these complex overlapping issues that were shared. However, if the sentence became too complex, words were removed to highlight one of the points being made for that theme. The quotes used in the thesis texts have removed all references to specific organisations and were replaced by generic responder terms because they are used as an exemplar of the basic theme which applies to all organisations.

This analysis is in two parts. In Section 5.6.2 the organising and global themes are provided with a summary of each along with some examples of basic themes. The organisation affiliation to the quote has been removed in this section. The second part is provided in (see Appendix L: Participant quotes from survey). I used the NVivo query tool to categorise the quotes within each theme by organisation. Again the quotes are anonymous and have been de-identified and, where possible, the inter-organisational identification has been removed.
unless it seemed critical to capture the point being made. For example Army, Navy, and Air force became [NZDF], Wellington Free and St. John became [Ambulance Service], Rural and Urban firefighters became [Fire Service], and unless a distinction was made between volunteer/reservist versus career, those distinctions were removed as well. Duplicate or near duplicate quotes were included only once under each organisation’s theme. For example, there were over 40 quotes requesting organisations communicate via ‘email’, so that one word would appear only once under each organisation’s section for general communication. While these quotes take up 34 pages in the appendix they provide an audit trail that transparently shares equally, with participants and organisations, the information that was supplied across the board.

4.10 Post-survey

Once the analysis of the online survey was completed, individuals and organisations who participated in the research were invited to provide feedback about the process and survey results (5.5).

4.10.1 Post-survey: Participant interviews

The aim of the post-survey participant interviews was to involve as many of the original interview and pilot survey participants as were willing to provide feedback. The procedures, meeting locations, and paperwork for engaging with these participants was very similar to the initial pre-survey interviews. One difference was that the time spent on introduction protocols in the first interviews was substituted with a reconnection conversation. The main focus was to encourage the participants to voice their opinions on the online survey process and provide feedback about the meaning and significance of the preliminary results. Preliminary quantitative results with frequency tables and a diagram of the hypotheses and the SEM were presented on laminated sheets. Participants could comment on a poster paper presented at the Australasian Trauma Conference (see Appendix M: Poster). The basic themes (5.6.2) from the open-ended questions were also presented. The participant feedback was taken into consideration when developing organisational and global themes (5.6.2) and discussed in Chapter 7.

4.10.2 Post-survey: Organisational engagement

The post-survey engagement with the organisations involved getting their feedback on the results, which can be seen in Section 5.5, as well as feedback on the whole process of
engaging in this type of research as provided in Section 7.8. It also involved requesting organisational information about: demographics of their own responders within the organisation; specific policies and protocols around themes identified from this research; and any demographic information available on the partners of the responders. This information was provided as an overview of the organisations in Section 4.4.4.

4.10.3 Post-survey: Summary of results

Participants who took part in all phases of this research were offered the opportunity to have a summary of results emailed to them. Those involved in the interviews could indicate their interest on the CF, whereas those who took the online survey could send an email request. Over 80 individuals indicated they were interested in receiving a summary of results.
5 Qualitative Findings: Pre-survey, Post-survey and online survey

5.1 Introduction

This chapter discusses the qualitative findings from this study. Sections 5.2 and 5.3 present findings from pre-survey data collection and includes the initial interviews and the pilot survey. The initial interview findings modified who participated in the research as well as what questions were asked. The information from the pilot further guided which questions were asked and how they were presented online. Section 5.4 focuses on feedback during the survey while 5.5 describes post-survey feedback from select participants and from responder organisations. The final section describes the findings from the survey’s open-ended questions which are analysed using thematic analyses.

5.2 Pre-survey: Findings from interviews

The interview findings guided the types of questions asked in the online survey and appropriate terminology for the survey. Participants were generous with their time and open to sharing their opinions with me. They provided insights into their help-seeking behaviours, everyday lives and feelings about various aspects of being the partner of a NZ military service member or first responder.

5.2.1 Interview participant demographics

Of the 20 individuals who contacted me to participate in the interviews, 12 met with me between July 16 and August 20, 2014. One interview was held in the Coromandel region, having originally been set up as a focus group of five participants. The other interviews were conducted in the Auckland region where I met five individuals at their homes and two at their places of work. I reserved meeting spaces for the remaining interviews which included five individuals who met me at the AUT North Shore campus and seven who met me at either the city campus or Tamaki campus of the University of Auckland.

Although the default engagement with participants in this stage of the study was intended to be focus groups, only one focus group session was organised (with three participants) which lasted just over two hours. Research participants preferred individual interviews. I met with nine individuals and each session lasted between 60 and 90 minutes. A number of interview sessions continued past the recorded time because participants brought up topics for discussion once the recording device was turned off. The interview demographics presented in Table 5-1 provide further information about these participants. Their ages ranged between
27 and 59 years, and they had been in relationships with their responder for as few as two years and as many as 37 years. One individual indicated their responder worked with more than one of the NZ organisations and two participants had previously been responders.

Table 5-1 Interview demographics (n=12)

<table>
<thead>
<tr>
<th>Participants</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>12</td>
</tr>
<tr>
<td>Males</td>
<td>0</td>
</tr>
<tr>
<td>Emergency responder’s organisation*</td>
<td></td>
</tr>
<tr>
<td>Police</td>
<td>2</td>
</tr>
<tr>
<td>Fire</td>
<td>4</td>
</tr>
<tr>
<td>Ambulance</td>
<td>3</td>
</tr>
<tr>
<td>NZDF</td>
<td>4</td>
</tr>
<tr>
<td>Years a couple (mean)</td>
<td>12</td>
</tr>
<tr>
<td>Age (mean)</td>
<td>38</td>
</tr>
<tr>
<td>Ethnicity*</td>
<td></td>
</tr>
<tr>
<td>NZ European</td>
<td>9</td>
</tr>
<tr>
<td>Māori</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
</tbody>
</table>

*Participants could choose more than one option

5.2.2 Excluding former partners

The first modification to result from the focus groups and individual interviews was the removal from the study of ‘former partners’ of current defence and emergency responders. They were removed as eligible participants at the end of the pre-survey interview phase because, although specifically targeted for recruitment, none of them had come forward.

5.2.3 Modification to term ‘trauma’

Early in each interview, participants were asked to discuss traumatic stress events, post-traumatic stress disorder (PTSD), and resilience in general terms. Definitions were solicited from participants and compared with textbook definitions (provided in a participant handout). Discussions were held when these sets of definitions differed significantly. For the most part, participant definitions of traumatic stress, PTSD, and resilience aligned very closely with the research literature. Later in the interview I asked participants if their responder had experienced any primary traumatic events. Some shared relevant events but
many others stated that the experiences of their responder did not rise to the level of traumatic experiences. Later in the interview a number of those participants shared stressful events experienced by their military service member or first responder that clearly met the definition we had used to describe traumatic events. It was apparent that the term ‘trauma’ did not resonate with the participants. Yet one such participant described graphic suicides and car accidents where “they see the brains, they see the innards of these teenagers…and then they have to help clean them up, and then they are just supposed to walk back into the office and carry on.” She went on to describe an intervention that she felt was needed to get her husband to take substantial leave from work because he was not coping with the stress.

The perception that NZ is not a dangerous place may also impact participants’ view of traumatic risks faced by the responders. This came up a number of times, for example, one participant said “maybe if we were in New York I might have different views” and another commented “I suppose you don’t feel they are in danger a lot in NZ.” This understanding could stem from regular communication within NZ that it is an extremely safe society (Al-Sa'afin, 2016; New Zealand Immigration, 2016).

To clarify this issue around the term trauma, I sought feedback from colleagues at a national General Practice and Primary Health Care Research Weekend, which included GP/Researchers from Otago and Victoria University. I also engaged subject matter experts in psychology, psychiatry, and research methods to get feedback on the findings which influenced the development of the online survey. I learned through these subject matter experts that the term ‘trauma’ was not considered a NZ term unless someone was working in the medical field. It was considered much more American in nature and using the term with participants might provide conflicting definitions. It was suggested that I replace that term and instead use variations on ‘very stressful’. Modifications because of this finding are discussed in Section 4.9.4.10. While the term trauma was not used in any section of the online survey to solicit information from participants about extremely stressful or life-threatening events, it is used throughout this thesis to describe those experiences.

5.2.4 Relevance to New Zealanders

A number of participants described behaviours simply as the ‘Kiwi way’. For example, one participant described mental health help-seeking as “the walk of shame, because it is a macho culture here. Even the women are macho in NZ, so there is a cultural thing: I am so tough I don’t need help.” Another stated:
I have encouraged [my responder] to talk with other people but I think as a man in NZ, as well as being in a male dominated society, talking to a counsellor is like ‘NO you do not do that’ and I have suggested this and think it is a very healthy process and that is shot down. I don’t even get it out before that is shot down and even asking him to talk to his Mum, which again is a ‘NO’. So, pretty much he just kind of does his own thing and, if I am lucky, I hear about it.

Another participant stated:

It is a male dominated place, I am not sure any of them would reach out unless it was probably pretty significant, you know that, and this whole idea of being in NZ, the whole just ‘harden up’, that sort of stuff, I think is very prevalent.

One participant stated “you are fighting a Kiwi mentality that says you don’t talk about things, that ‘she’ll be right’, men don’t cry so they don’t get upset about what they see.”

This feedback was used to develop effective questions to measure help-seeking behaviours and stigma towards help-seeking. This ensured that participants could be clear that they were answering for partners’ specific behaviours and not passing judgement on what could be considered cultural norms.

Another issue was found that also related to the Kiwi context. Partners who were looking for information around issues related to being part of a defence or emergency responder’s life were disappointed that they could only find books and articles from other countries. These participants wanted NZ specific guidance. As one participant stated, “they need a book on how to handle the relationship with the [responder]...it would have to have a Kiwi focus” while another shared that she “did google stuff, [and found] general tips that came from America and how to deal with kids’ behaviours, but none of it was from NZ.” Based on those conversations, the survey was modified to ensure that the language and terminology were clearly targeted at a NZ population. In addition, US and UK based websites and applications to assist with managing STS (some which were focused on primary traumatic stress) were excluded from the ‘help’ and ‘additional information’ web page.

5.3 Pre-survey: Findings from pilot

The methods chapter provided information around setting up the survey pilot and discussed modifications to some of the survey measures (4.9.4). This section will provide information about the demographics of participants, the three phases of piloting the survey and specific survey modifications.
5.3.1 Pilot survey demographics

In mid-November 2015, I created a draft of the online survey. Three individuals whose schedules did not allow them to take part in the focus groups or individuals interviews, agreed to participate in the survey pilot. Four additional individuals were also recruited. One of them participated in both the interview and final pilot of the online survey. Table 5-2 describes demographics of partners of defence and emergency responders who piloted the survey. The participants ranged in age from 29 to 57 years and had been with their responder partner for between three and 36 years. One participant indicated that their partner worked with more than one of the NZ organisations and one participant was currently both a partner of a responder and a responder themselves. The piloting of the survey began on November 28 and was completed on December 8, 2014.

Table 5-2 Pilot survey demographics (n=8)

<table>
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</tr>
</thead>
<tbody>
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<tr>
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<tr>
<td>Responder’s organisation*</td>
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</tr>
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<td>2</td>
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<td>3</td>
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<tr>
<td>NZDF</td>
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<td>Years a couple (mean)</td>
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<td>Age (mean)</td>
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<td>Ethnicity*</td>
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<tr>
<td>NZ European</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note. *Participants could choose more than one

5.3.2 Three phases of survey pilot

The survey was piloted in three phases. In the first phase, 17 individuals took the survey and provided comments about grammar and spelling errors, clarity of instructions, and the survey programme interface. Those who were invited to participate in this phase were fellow researchers, family, friends, advisors, and cultural consultants. None was a responder partner or considered a research participant. There were 23 separate pages and all except the first
The comment section captured feedback which I considered in each revision of the survey.

The next phase included the eight previously described partners of defence and emergency responders. It began with three participants individually piloting the online survey. Changes were made to the survey based on their suggestions. Subsequently three more individuals piloted the survey, and again changes were made to the survey. A final version with all changes incorporated was piloted by the last two participants. As described in Section 4.8, all of the meetings for these sessions were in person so the individuals could immediately discuss what they thought of the questions and verbalise any issues they were having with clarity or the online interface. Individuals were asked to share verbally what they thought of the questions, if any of the questions or directions were confusing, if they were reading the question for a second time, and what they liked or disliked about the technical interface.

The final phase of the pilot asked six individuals, who were not responders, to proof read the survey for errors and computer interface issues. As with the first pilot phase, the survey link was emailed and suggestions were noted.

5.3.3 Specific modification to survey from pilot

One major modification resulting from the feedback which affected most questions in the survey was the additional answer response of ‘I choose not to answer’. This addition was necessary because of how LimeSurvey displayed certain questions on the screen. Many questions only appeared after a question was answered in a particular way. To ensure that participants did not miss questions, most questions were mandatory. However, ‘I choose not to answer’ was added to allow participants to move on purposefully to the next section of the survey even if they were not prepared to answer all the questions in that section. Also provided in the directions was an explanation which stated: Because questions in this section can be unintentionally missed, all the questions are mandatory. Should you prefer not to answer a question, please select ‘I choose not to answer’.

Two additional checklists were added to the Life Events Checklist (LEC) section. One was for participants who were also currently responders and one was for participants who were former responders. While the focus of the survey was on the partner, some sections of the survey asked questions about the experiences of the military member or first responder. When the partner was a current or former responder, the questions about partner responses could resonate with the participant’s own experiences. One respondent repeatedly asked
during the responder LEC section “is this about me or my partner?” To address this confusion, participants who were current or former military members or first responders were provided an additional checklist to share their own work experiences before providing answers to what they believed their partner had experienced.

Feedback from the cultural consultants questioned whether the statements provided in the STS Scale would resonate with all individuals experiencing STS. To address this concern, the choice of ‘other’ was provided and a text box opened for individuals to write, in their own words, how they had been impacted by hearing of upsetting, life-threatening events experienced by their responder. Along the same lines, the cultural consultants suggested including additional response options for the emotional disclosure and non-disclosure questions. By including terms such as whānau, Kaumātua, community, and cultural leaders, those options provided more culturally meaningful, safe, and relevant concepts around health and balance around wellbeing.

Many reviewers wanted to be able to access definitions of terms, contact details for the researcher, and additional help information throughout the survey. This information had originally only been provided in the introduction but Figure 5-1 was subsequently added to appear at the top of each question set.

Figure 5-1 Survey definition of terms

In addition, modifications were made to the LimeSurvey interface and terminology to increase the functionality and clarity of the survey.

5.4 Feedback while survey was online

Once the survey was placed online a small number of participants contacted me to say they were having trouble either accessing the survey or progressing past the first drop down menu
in the survey. The issues about accessing the survey seemed to stem from individuals trying to access the survey from the NZ Police organisation. The police removed a block to the survey link and provided updated information on their internal communication page. It was also determined that those using an outdated browser would not be able to use the drop down menu feature which appeared a few questions into the survey. An email response to address survey access was created (Appendix N: Email response to survey participants) but only used a few times. Communication with non-eligible participants is discussed in Section 7.8.

5.5 Post-survey feedback

Partners who had participated in the interviews or the pilot of the survey were invited to provide feedback on the preliminary results as described in Section 4.10.1. Nine of the 19 participants were available to meet between October 23 and November 11, 2014. Feedback from the participants was very positive. Most participants were pleasantly surprised by what they considered a large number of individuals who took part in the survey. The reactions to the quantitative results were mostly neutral except for the secondary stress scores where a large number of individuals were surprised at the percentage of participants who seemed at risk. Most participants stated that the basic themes that emerged from the qualitative analysis resonated with their understanding of the defence and emergency responder environment. The conversations around these basic themes provided insights into the development of the organising themes. A number of the participants commented that they found the hypothesised pathway model, which was shared in Section 4.2, very helpful to understanding the results while a number of others pointed to the simplified SEM, which can be found in Section 7.5.6.2, as the best model that brought the ideas together. Many participants wanted assurance that the organisations would be seeing these results and others wanted to know that partners would have access to the findings.

The Police, Fire, St. John and NZDF were invited to provide feedback on the results. In the first instance, these organisations were provided a draft of a trauma conference poster paper (Appendix M: Poster) which described some qualitative and quantitative results. There were recommendations to modify statistical and grammatical terminology, which was incorporated into the final version. Two of the organisations requested permission to use the poster in their own training. Next the primary point of contacts within the organisations were provided a draft of the preliminary results and offered a presentation on the results. The organisations had very positive feedback about the results and invited me to present to
departments within their organisation. A few of the organisations shared that my research was already informing new interventions, policies, and research.

I received feedback from a number of partners that I met after the survey had been closed down. Some shared that they saw something advertised but it did not appear to be sanctioned by the organisation and, due to safety and security concerns, they chose not to participate. Others were frustrated that they were not aware of the survey and wished they had been given the opportunity to share their experiences.

5.6 Qualitative online survey findings

The remainder of this chapter will present findings obtained through thematic analysis of the online survey questions. There were over 1,400 individual responses to the open-ended questions in the survey. As described in Section 4.9.8, core themes were identified from the open-ended question provided in the STS Scale. The final segment of this chapter analysed participant responses to a group of survey questions using a three-tiered format (Attride-Stirling, 2001).

5.6.1 Themes from STS Scale ‘other’

As described in Section 4.9.4.10 the STS Scale asked participants to rate the extent to which they agreed with a series of statements about their response to hearing of upsetting, life-threatening events experienced by their responder. These questions focused on three specific areas of secondary stress: arousal, intrusion, and avoidance. However, the online survey also included an open-ended segment to capture experience of stress in ‘other’ ways. This segment asked: ‘Please note, the very stressful event(s) experienced by your emergency responder could have happened years ago, but how frequently in the last 30 days have these statements been true for you?’ Seventy-four of the 754 participants who completed the whole section shared such additional experiences. Fourteen commented that the reference to ‘30 days’ was restricting or confusing, prompting removal of this response from the analysis. The analysis aimed to identify behaviours by partners of defence and emergency responders that did not align with the arousal, intrusion, and avoidance domains. Core themes were developed from all the responses. Six core themes were identified as ‘other’ and are presented in Figure 5-2.
One core theme was the feeling of being helpless. As one participant stated, they had “mainly feelings of helplessness and inadequacy in my response to [my responder’s] stressful experience. Not knowing what (if any) questions to ask or just listen to whatever they choose to mention of the event.” Another participant reported “a sense of helplessness due to being unable to assist my husband to work through these experiences.”

The second core theme was associated with participants assigning blame for the trauma. One participant whose partner is repeatedly exposed to death and serious injury, stated:

Poor decision-making and total disregard for the lives of others by the individual causing the ‘accident’ is difficult for me to accept. My acceptance of these peoples’ personal rights is now poor. I am becoming more frustrated and intolerant towards these individuals and their sense of entitlement from society. They are unwilling to own up to their mistakes.

Another said “I experienced anger at my husband’s [co-worker] with an event that happened which resulted in my husband being [injured].” Another participant’s blame gets even closer-to-home in saying “I felt angry at the persons responsible for the stress my husband was going through. This made me feel irritable that my husband was allowing this to be done to him.”

The third core theme shared by participants was associated with fear. Participants were fearful “to be apart from my husband while he’s at work,” “of going out at night alone and being in the house on my own.” One participant had a “fear of something else happening.”

The fourth core theme points out participants’ use of dark humour to address “stressful events [my responder] has attended” by saying “sometimes we joke about it, though it’s not funny.” Another said that they use it as “a coping mechanism” and even if an incident is horrible they “laugh about an aspect of it.”
The last core theme involved having positive feelings after stressful events. One participant shared that they were “proud of their [responder’s] actions” and others said they were “grateful for the crew [their responder] was with at the time for saving him.” Another participant shared “relief he got through it all in one piece.” Others discussed empathy as one respondent said “I know what many of the jobs are like having been to them myself.”

Statements that were representative of the domains already present in the survey included avoidance, “over the years I have heard some very distressing work stories of horrible things and I have told him to stop telling me because it is too much/hard for me to deal with”; arousal, “resentment at these events pervading family life” and “I have been paranoid and jumpy trying to spot his triggers before he did”; and intrusion, “Nightmares constantly reliving some of the more horrific events.”

The discussion chapter will address how these reactions to the traumatic stress can be barriers to help-seeking behaviours (RQ3) or useful to managing STS (RQ4). In addition, Section 7.5.1 discusses how these ‘other’ variables might be included in the creation of an STS Scale based on The Diagnostic and Statistical Manual of Mental Disorders (5th ed.) (DSM-5) criteria.

5.6.2 Organisational interaction themes

This section provides information that helps to address RQ6 which asks if there is a relationship between the resources and barriers identified by partners for managing STS. Three questions from the online survey were part of this analysis. There were 696 participants who answered at least some part of the following question and their responses were analysed. Those participants who answered ‘yes’ or ‘not sure’ that they wanted more direct interaction with their responder’s organisation, were eligible to respond to the open-ended question ‘What type of interaction would you like to have with your emergency responder’s organisation?’ This was followed by two open-ended questions: ‘What more, if anything, would you like the organisation to do for your emergency responder’ and ‘What more, if anything, would you like the organisation to do for YOU as the partner of an emergency responder?’ In total there were 1,183 responses to the three questions.

Figure 5-3 provides an overview of the themes that emerged from the questions. At the base of this figure, participants’ responses were merged into themes called ‘basic themes’. The next level summarises these basic themes with an emergent, more abstract concept called ‘organising themes’. The final level merged the organising themes into ‘global themes’.
Attride-Sterling (2001) argued that both the organising and global themes should “present an argument, or a position or an assertion about a given issue or reality” (p. 389). The following discussion is structured by organising theme. For each organising theme in turn, I will present fundamental basic themes, including representative quotes from research participants.
Figure 5-3 Overview of survey themes

Global

Organising themes

Basic Themes

Self & collective efficacy
managing work-related stress

Societal inclusion & healthy organisations

Direct communication & engagement

Perceived organisational support

Organisational competence

Bullying

Macho

Outmoded thinking

Partner integration

Discrimination

Substance use

Listen to responder & partner

Staff contacts

Long distance issues

General communication

Contact partner when delayed

Induction workshops

Show appreciation

Mandatory debrief & follow-up

Stress reaction training

Formal trauma support

Partner counsellor access

Help-seeking, privacy & confidentiality

Informal support & get-to-know you

Social activities

Benefits entitlements and pay

Staffing

Safety, training & equipment

Work environment

Management

Time off, overtime, shift-work & roster

Benefits entitlements and pay

Staffing

Safety, training & equipment

Work environment

Management

Time off, overtime, shift-work & roster
5.6.2.1 Societal inclusive and healthy organisation

The organising theme of societal inclusion and healthy organisations in Figure 5-4, focuses on the need for more management of what participants deem to be pervasive and mainly undesirable behaviours in the defence and emergency responder organisations. It also includes requests for the organisations to uphold the principles they espouse.

Figure 5-4 Themes for societal inclusive and healthy organisation

One partner summarised this organising theme well by stating that there needed to be “a cultural shift to ensure people are valued and seen holistically.” This shift would need to address the workplace bullying which was a basic theme that emerged. One participant stated that the workplace “not only allows but actively ‘fosters’ a culture of bullying” and goes on to say that it is that environment “which discourages people from getting the help they need after they have had traumatic experiences.”

The work culture is also considered by many participants to be a macho environment. This basic theme was captured in statements about the organisation which needs to “acknowledge that their employees see some very stressful stuff and actually support them with dealing with this instead of making out that they are weak if they are struggling emotionally.”

A number of participants discussed the commonality of outmoded thinking in the organisation by suggesting they should “relook at the 'old boy network' of the [organisation] and make it more family friendly.” That statement addressed two basic themes that emerged, and included the socially outmoded thinking theme as well as partner integration with requests for more inclusion of partners in more areas of the organisation. One participant expressed this by stating “there is also a culture of exclusion of partners from [organisational] activities, both informal and formal.” A different perspective on the basic theme of partner integration was that partners should not be a concern of the organisations.
For example, one participant said “I think sorting my own stresses and difficulties when my husband is away or on lengthy callouts…is really my problem and for me to figure out. I feel no sense of debt or assistance are required from my husband’s organisation.”

Another basic theme of the defence and emergency responder culture was perceived discrimination in these organisations. Participants used terms such as “sexist attitudes”, “ageism”, “gender discrimination”, and “racist” with one participant sharing “My partner feels incredibly upset and unsafe in communal areas because of the Māori bashing. The institutionalised racism is hugely evident.”

Lastly the participants believed that the organisations needed to speak to issues around substance use which addressed sponsoring a drinking culture by “putting fancy names on piss ups.” One participant suggested that organisations need “to constantly remind everyone that it is okay to not be coping – to some degree this is normal. It's not okay when you turn to alcohol, drugs, and gambling.”

Many of the comments from these basic themes addressed how these behaviours go against the stated values of the organisations, impede help-seeking behaviours, and undermine a healthy work and home environment. The comments also point to the historic, endemic nature of the behaviours which participants believed are allowed to continue, are even perpetuated by those in power within the organisations, shut the partners out and impact negatively on the physical and mental health of the responders. The organising theme requesting societal inclusion and healthy organisations sums up these basic themes.

5.6.2.2 Direct communication and engagement

The organising theme of direct communication and engagement focuses on how the organisations could engage and acknowledge the partners and responders in a more transparent and direct way (Figure 5-5). This theme was summarized by a participant who asked that the organisation “be more approachable, less back stabbing, and provide more honest communication.”
An example of the basic theme of *listening to the responder and partner* was provided by a participant saying the organisations “need to listen to advice and ideas from the crews because they are out there doing it and know what works and what doesn’t.” The partners would also like to have their own voices heard and suggest the organisations “seek feedback …from the spouses/families of emergency responders.”

A number of responses requested contact details for individuals working in the organisation in order to find out “who’s who and who to contact if the need arises.” This exemplifies the basic theme of *staff contacts*.

Different comments made up the basic theme of *long distance issues*. Partners who lived in a different town from where the military member or first responder works reported related issues including feeling left out, not receiving direct communication, and a lack of understanding about where to get support. One participant living in a different region to where her responder worked, stated “I didn’t have the support of fellow (organisation) wives. I also don’t have family near, or who understand. The general public doesn’t understand the loneliness and stress.”

Another basic theme related to *general communication*. Participants want to receive newsletters and emails directly because usually the information does not get forwarded to them by their responder. Other respondents commented on the need to provide Facebook groups and online social networking as another avenue of direct communication.

A request by participants for the organisation to be in *direct contact when their partner’s return home would be significantly delayed* (after a shift or while on deployment) appeared as another basic theme. One participant said they would appreciate “a phone call if my husband has been called out to a big incident right when his shift has finished.” Another wanted “confirmation that they know I am the person they contact if something was to go
wrong in a situation.” Partners would like to be notified when the responder is not involved with routine activities which could be a concern or as one participant said “notification that she has been involved in a serious situation, what state she’s in, approximately when she’ll be home so I can be supportive, be home, go pick her up etc.”

Another basic theme involved increased communication with the partners by providing *inductions, workshops* and more information about how to manage life as the partner of a responder. One partner summed up this basic theme by saying they wanted “more involvement generally in my life – they should be the ones pointing us in the right direction. At the moment it is up to the individual to hunt around for information and support networks.” Partners wanted the organisations to ensure that “all families get the same information around briefs” and request “briefings for partners, workshops on stress management for families and more active welfare coordinators.” This information could assist them to identify “warning signs and contact numbers for additional help” and “how to manage the stress and day-to-day practicalities of being in a relationship with an emergency responder.”

*Showing appreciation* was the final basic theme in this section. Partners shared that there was an unmet need to provide “more acknowledgment to families for the massive role they play in supporting the organisation’s biggest asset.” Partners expressed anger “at how underappreciated” they feel and requested “recognition of the role I play in his life that enables him to do his job.” The partners also wished that organisations explicitly recognised the responder’s hard work more because “he gets out there every day and essentially puts his life at risk to help others.”

Many of these basic themes focus on encouraging the organisation to communicate directly with the partner. Getting direct communication about issues relating to a traumatic event experienced by a responder, personal invites to organisational events, or connections with staff may enhance partners’ ability to make informed life choices. Currently these choices are made for them through coincidental or chance encounters with individuals or information. These chances come in a variety of ways. There is a chance that needed information reaches the partner because it was provided to the responder who may share the information. Information may be passed from one partner to the next. It is important to make sure the information is current and correct and provided to all partners so it is available in a crisis situation. When information provision to partners is left to chance, only those ‘in the
know’ can make appropriate choices around that information. These basic themes ask for *direct communication and engagement*, as the organising theme for this section.

### 5.6.2.3 Perceived organisational support for responder and partner

*Perceived organisational support* is an organising theme that focuses on additional assistance that partners want from the organisations to mitigate traumatic stress. These comments address support needed by responders and partners before and after traumatic events.

Figure 5-6 Themes for perceived organisational support

![Diagram of perceived organisational support themes](image)

One of the basic themes was *mandatory debrief and counselling* which addressed what happens after traumatic interactions have occurred. Requests for “formal and informal debriefs” included “peer support” programmes, and “compulsory counselling.” There was also an emphasis on “not just if they want to or feel the need.” Another theme emphasised that partners would like *training to identify stress reactions* in their defence and emergency responders and how to deal with these reactions once identified. One participant requested “information on ways to support my emergency responder. Do I just listen? How do I know when he needs further help? Where do I go for that help?” while others specifically asked for “more seminars on stress and mental health.”

Another basic theme referred to *formal trauma support*. This theme broadly addressed getting support after a traumatic event such as providing “follow-up down the track,” a “stand-down period to allow [my responder] to process things and NOT sending them straight to the next job” and “need to be given regular supervision/counsellor (support) two or three times a year to check they are ok.” Partners also requested “some sort of counselling or professional advice to be available not just for the [responder] but their families” to include couples counselling because “sometimes we are under a lot of relationship stress due to his job.” These requests were part of the basic theme *partner counsellor access*. 
Another basic theme dealt with partners and their responder feeling they would be better supported if organisations addressed the issue of privacy and confidentiality when seeking help for mental health issues and general private family matters. One participant said “my husband feels it is not safe to seek help with any mental health issues that may arise as this information is not keep confidential.”

Equally important is the basic theme of informal support and get-to-know you events which encouraged the organisations to add activities or modify current activities to allow partners to connect more effectively with others. For example, requests were made for more family events to share with the children “what Mummy/Daddy do for a job in a positive way,” while some preferred “events for partners of [responders] to bond…that do not include children.” Some mentioned that current activities “are held during work time when it is not possible as a working spouse to attend.” This theme of providing informal support and get-to-know you activities included providing “more interaction between wives and girlfriends to create a support network during times the other halves are away” and as a way to meet new people when moving to a new location.

The final basic theme for this group addressed social activities and included requests for more sports programmes, “partner sports teams”, and family friendly sports events. Some partners discussed wanting to have “real person interactions” and how “social contact would be an advantage in understanding personalities and circumstances of staff.” Some participants who had made connections through the responder’s work shared those experiences. One participant discussed how they “get together frequently with each other’s spouses and go on holiday together.” The partners see the benefits of these types of activities and believe these connections are important. One participant captured the sentiment that a number of participants articulated “[organisation] families are the only ones that can truly empathise with what it’s like to be part of a family of a [responder]. It can be incredibly hard sometimes.”

These basic themes expressed by the partners indicated a disconnection between the type of support the organisations are providing and what partners perceive is needed or promised for themselves and their responder.

5.6.2.4 Organisational competence

The organising theme for this group addresses the organisations’ core competencies which includes employee skills, coordinating work, available resources, and following policies.
The first basic theme focused on benefits, entitlements and pay. Participants requested “better compensation” regarding pay, reimbursements (fuel and training costs), and benefits and entitlements such as assisting with housing issues and covering health care costs for the responder and partner. As an example of the complexity of this issue, one participant stated “be aware that because of low pay, partners often have to work and when they change schedules with a day’s notice, it puts a huge strain on already struggling families.” This statement mentioned the responder’s schedule (related to the next basic theme) and emphasised how the partner’s financial burden is stressful.

The next basic theme related to staffing issues and focused mainly on lack of staff for high demand/dangerous situations. There was also concern around the routine or daily frontline staffing. As one participant explained “stop demanding two jobs out of one person…that work stress comes home and it doesn’t belong at home.” The next basic theme addresses safety, training and equipment issues. Some of the safety statements related to getting proper equipment like a bullet proof vest and updated communication technology. Training issues focused on the need for more training and the need to upskill, which overlapped with the safety basic themes in that they were frequently mentioned together; for example “enforce safety policies, training refreshers, fitness testing so that I can be confident that the rest of the crew he is working with are skilled and fit enough to pull him out if it goes bad. [That would] help me sleep at night.”

Many issues related to the basic theme of the work environment. One participant said “the work environment around the station can be more difficult than events encountered in the field.” It also impacts on the partners. Many pointed out that “if I know my responder was looked after well, then it would be more reassuring for me to have him do his job” while others shared their frustration around this issue. For example, “I feel they don’t really give a
shit about us, because if they did, they would provide a better workplace for our [responders].”

Requests were made for more supportive and engaged managers as another basic theme. One participant said “I would like to know that he feels looked after by management, that they aren’t just ticking boxes.” In addition, statements were made about how poor management of hours (at work and off work) negatively impacts the partners and responders. This overlapped with the next basic theme: Time off, overtime, shift-work and rostering.

Participants feel a negative impact on their lives when their responder’s hours are mismanaged. The management of time spent away from work meant “holidays and outings cannot be planned in advance.” The reasons varied but a number of participants claimed that there were not enough workers to guarantee cover, the organisation frequently changed planned activities (training/deployment) at the last moment and the organisation reserved the right to revoke time off even if it had already been granted. When responders are home, many feel their time off is not necessarily respected by the organisation. For example, “when he is home, do not call him and have him doing work on his days off.” Overtime issues were also addressed with some wishing their responder could get more overtime but feeling that those who “organise the overtime have made it difficult for him to get the overtime he is due, by calling him at the ‘eleventh hour’.” Others suggested that overtime should not be required to make a living because it “puts huge strain on families at home and the relationship.” Some participants requested that the organisation provide extra hours or days off to make up for extra hours worked, saying “my husband spends weeks and months away at a time, and gets very little time off when he is back. Why not give them an extra afternoon off here and there to make up for the time away?”

The partners expressed their frustrations around the scheduling process requesting that the organisation “keep families in mind. When you change roles and rosters with no consultation, think about the impact on partners and children.” They also discussed how the organisation sets the work-life balance tone and requested that they “encourage care for mental health, not just with advice, but by considering mental health when setting work hours/expectations in the workplace.”

These basic themes are concerned with the organisation’s core competencies relating to knowledge, skills, and behaviours. The comments by the partners encouraged the organisations to improve organisational competencies to reduce negative impacts on their lives and promote the responder’s ability to optimise his/her contribution to the organisation.
5.6.2.5 Self and collective efficacy (global themes)

As described previously (4.9.8), the basic themes provide specific suggestions for action while the organising themes express a more abstract grouping of the basic themes into need categories. The organising themes summarise what the partners are requesting for themselves and their responders in response to the three questions (5.6.2). The global theme takes a macro-view of all of the organising themes.

The global theme of self-efficacy emerged from the organising themes. The partners would like to be empowered to take actions when and if needed, to manage the work-related stress experienced by the responder that finds its way home. The self-efficacy concept was identified by Alfred Bandura in 1977 (Gallagher, 2012) and is defined as “people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave” (Bandura, 1994, p. 71). Importantly, Bandura also found that “unless people believe they can produce desired effects by their actions, they have little incentive to undertake activities or to persevere in the face of difficulties” (Bandura, 2009, p. 1). When speaking specifically about self-efficacy when recovering from traumatic events Benight and Bandura (2004) stated that “self-belief refers to the perceived capability to manage one’s personal functioning and the myriad environmental demands of the aftermath occasioned by a traumatic event” (p. 1130).

But this individualised self-efficacy concept cannot operate alone in the complex environment that makes up the lives of the partners of defence and emergency responders. Individual behaviours often depend on external resources, support, or arrangements by others for the individual to achieve their desired outcome (Zaccaro, Blair, Peterson, & Zazanis, 1995). Participants in this study identified a need for external avenues of support and resources, particularly from the responder organisations. Other sources of potential support included other responders, the partners of responders, family members, agencies that provide funding to the organisations, and professional support providers.

Taking these factors into consideration, I believe that in addition to self-efficacy, the global theme includes collective efficacy. Collective efficacy is defined as “a sense of collective competence shared among individuals when allocating, coordinating, and integrating their resources in a successful concerted response to specific situational demands” (Zaccaro et al., 1995, p. 309).
The requests from partners in the basic themes suggested and sometimes demanded that the organisations do something specific to address concerns. The partners perceived that they, their responders, and the organisations struggle to prepare for, and manage, the stress reactions experienced from work-related activities.

The organising themes suggest focusing specific management attention on creating a healthy organisation, one that upholds the organisations’ stated principles of inclusion. The organising themes also encourage the organisations to communicate and engage directly with the partners; provide transparent information about managing stress from an organisational and individual perspective; and live the values they espouse. As one partner put it “I would like more information, more respect, more communication and an acknowledgement that what we as spouses go through is hard. We are taken for granted and not considered at all and it's not good enough.”

The global themes of partner self-efficacy and collective efficacy contend that there is a relationship between the resources and barriers identified by partners for managing STS which would address RQ6. These themes argue for empowering the partners and building a cooperative, proficient organisational environment to address work-related stress. The next chapter provides results from measures quantifying some of the barriers and resources discussed in this chapter. Ultimately, themes and results will come together in Chapter 7, to suggest recommended actions to take regarding these concepts.
6 Quantitative Results

This chapter provides the results of quantitative analyses used to test research questions one through six (RQ1-RQ6) using the methodology described in Section 4.9. It first presents findings from descriptive analyses of data for each question in the survey, in the same order as the questions appeared to the participants. This chapter then reports on the results of tests of hypotheses using multiple regression analysis and structural equation modelling (SEM). Organisation-specific results can be found in Appendix O: Results by organisation, and include descriptive results and scores for the Secondary Traumatic Stress Scale (STSScale) and resilience measure. No analyses or discussion is provided on the results but as described in Section 4.9.8, it is made available to ensure organisations and participants have equal access to the organisation specific findings.

6.1 Eligibility to participate in survey

Over 1,300 individuals agreed to take part in the survey by choosing ‘I agree to take part in this survey’. When asked ‘Are you in a relationship (married/living together as a couple) with an emergency responder who is CURRENTLY in the New Zealand (NZ) Police, Fire Service, Ambulance Service, or Defence Force?’ 61 participants indicated they were not in such a relationship and 310 quit the survey before answering this question. After this screening, 945 participants moved on to the demographic questions.

6.2 Demographic results and inclusion criteria for each dataset

Completion of the demographic section was required for participants to be included in any of the datasets used in this study. The demographic section contained 12 main questions (4.9.3), but because the experiences of partners varied, some responses prompted additional questions. A total of 25 questions were possible for some participants. The demographic section of the survey was not completed by 110 individuals leaving 835 participants eligible to move on to the rest of the survey. Table 6-1 shows the demographic breakdown of each dataset. Across all datasets, females made up the vast majority of the respondents. While there was a 34% reduction in respondents from the qualitative thematic analysis dataset to the SEM dataset, most of the proportions for the individual variables remained very similar across the datasets. The major exception was for the ‘partner is a current responder’ variable, and this expected outcome is discussed in Section 6.2.3. Participants were between 18 and 73 years old and had been together as a couple from several months to 54 years.
Table 6-1 Demographic information by dataset

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<thead>
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<th>Datasets used for analysis</th>
<th>Qualitative thematic analysis</th>
<th>Multiple regression</th>
<th>SEM</th>
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<tr>
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<td>664</td>
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</tr>
<tr>
<td>Gender</td>
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<td></td>
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<td>583 (87.8%)</td>
<td>500 (91.4%)</td>
</tr>
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<td>Males</td>
<td>99 (11.9%)</td>
<td>74 (11.1%)</td>
<td>43 (7.9%)</td>
</tr>
<tr>
<td>Chose not to answer</td>
<td>13 (1.6%)</td>
<td>7 (1.1%)</td>
<td>4 (0.7%)</td>
</tr>
<tr>
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<td>Years together as a couple (mean)</td>
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<td>NZDF</td>
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<td>203</td>
<td>175</td>
</tr>
<tr>
<td>Years as responder</td>
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<td></td>
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<tr>
<td>Years of service for responder (mean)</td>
<td>14.18</td>
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<td>14.55</td>
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<tr>
<td>Partner is also current/former responder</td>
<td>167 (20.0%)</td>
<td>134 (20.2%)</td>
<td>40 (7.3%)**</td>
</tr>
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<td>13.6</td>
<td>14.0</td>
</tr>
<tr>
<td>Partners working in same responder organisation</td>
<td>118 (14.1%)</td>
<td>94 (14.2%)</td>
<td>0</td>
</tr>
<tr>
<td>Partner former responder</td>
<td>54 (6.5%)</td>
<td>47 (7.1%)</td>
<td>47 (8.6%)</td>
</tr>
<tr>
<td>Years as former responder (mean)</td>
<td>12.4</td>
<td>7.9</td>
<td>7.9</td>
</tr>
<tr>
<td>Ethnicity*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NZ European</td>
<td>710</td>
<td>568</td>
<td>467</td>
</tr>
<tr>
<td>Māori</td>
<td>92</td>
<td>75</td>
<td>62</td>
</tr>
<tr>
<td>Other</td>
<td>128</td>
<td>98</td>
<td>84</td>
</tr>
<tr>
<td>Families with dependent children living at home</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes (under 18 years)</td>
<td>457 (54.7%)</td>
<td>364 (54.8%)</td>
<td>315 (57.6%)</td>
</tr>
<tr>
<td>Age 0-4 years</td>
<td>205</td>
<td>157</td>
<td>141</td>
</tr>
<tr>
<td>Age 5-13 years</td>
<td>298</td>
<td>239</td>
<td>210</td>
</tr>
</tbody>
</table>
### Datasets used for analysis

<table>
<thead>
<tr>
<th>Type of analysis</th>
<th>Qualitative thematic analysis</th>
<th>Multiple regression</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 14-17 years</td>
<td>117</td>
<td>99</td>
<td>82</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Some high school</td>
<td>69 (8.3%)</td>
<td>46 (6.9%)</td>
<td>36 (6.6%)</td>
</tr>
<tr>
<td>High school qualification</td>
<td>170 (20.4%)</td>
<td>131 (19.7%)</td>
<td>102 (18.6%)</td>
</tr>
<tr>
<td>Trade/vocational certification</td>
<td>119 (14.3%)</td>
<td>95 (14.3%)</td>
<td>75 (13.7%)</td>
</tr>
<tr>
<td>Undergraduate diploma</td>
<td>109 (13.1%)</td>
<td>85 (12.8%)</td>
<td>71 (13%)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>218 (26.1%)</td>
<td>183 (27.6%)</td>
<td>156 (28.5%)</td>
</tr>
<tr>
<td>Post graduate degree</td>
<td>131 (15.7%)</td>
<td>111 (16.7%)</td>
<td>94 (17.2%)</td>
</tr>
<tr>
<td>Other/don’t know</td>
<td>19 (2.3%)</td>
<td>13 (2.0%)</td>
<td>13 (2.4%)</td>
</tr>
</tbody>
</table>

Note: *Respondents could choose all that applied therefore total could equal more than 100% **included only individuals currently working for a different organisation from their responder*

#### 6.2.1 Dataset for qualitative analysis

All 835 participants who completed the demographic portion of the survey were included in the qualitative thematic analyses dataset. This dataset was accessed for all analyses of responses to open-ended questions in the survey which are presented in Chapter 5.

#### 6.2.2 Dataset for descriptive and multiple regression analysis

Although 835 participants were included in the demographic portion of the survey, only 694 participants completed the entire survey. The dataset for multiple regression analysis and descriptive statistics ultimately included 664 participants. Participants were removed from this dataset if they did not meet the inclusion criteria established for the STS Scale as described in Section 4.9.4.10. Individuals were also excluded if they indicated that their responder had not experienced at least one stressful event from the Life Events Checklist (LEC) (26 individuals) or if they did not complete the STS Scale (four individuals). In addition to the above demographic data, 20% of participants in this dataset were also responders and 14% were partnered with a responder working in the same organisation.

#### 6.2.3 Dataset for structural equation modelling

The dataset for SEM included 547 participants. Participants were eligible for inclusion in this database if they met the criteria to be included in the multiple regression database. Eighty-seven participants who were also responders working in the same organisation as their defence or emergency responder partner were excluded from this dataset as described
in Section 4.9.7.1. An additional 30 participants were excluded from the dataset because they did not answer every question in the measured scales.

6.3 Mapping participants

Figure 6-1 maps where participants from the qualitative thematic analysis dataset were living in NZ. Of the 835 participants, eight indicated they lived overseas, 20 provided inaccurate postcodes, and two did not answer the question. As described in Section 4.9.3, aggregation was achieved by using the NZ District Health Board boundaries to map the postcodes. The results indicate that all 20 District Health Board areas contained participants.

Figure 6-1: Location in New Zealand of survey participants $n=805$
6.4 Estimating NZ partner of responders population

None of the responder organisations was able to provide demographic information on the partners of their responders. As described in Section 4.4.4.3 the NZ Defence Force (NZDF) was the only organisation able to provide information regarding the partnership status of their Regular Forces, detailing if they were ‘married’, in a ‘recognised relationship’, in a ‘de facto’ relationship, in a ‘civil union’, or single. This information determined that 54% of the NZDF Regular Force service members were in a relationship. This information was compared to the Statistics NZ 2013 Census data (2015c) for individuals in a relationship, between the ages of 15-74 which found that 56% were in a relationship. As described further in Section 4.2, this is the basis for my statements in this thesis that around 50% of responders are in a relationship.

6.5 Organisation welcome/induction

Table 6-2 shows responses to the questions related to being offered a welcome or induction which could have been part of a group or one-on-one. Only individuals who answered ‘yes’ answered the follow-up question. These results show that most respondents reported that they were not offered a welcome or induction. Of those who were offered an induction, almost all attended and the majority who did attend reported finding it useful.

Table 6-2 Results from welcome or induction questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
<th>Alternate answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>At any time did the emergency responder organisation have a welcome or induction for you? <em>(n=661)</em></td>
<td>20.9%</td>
<td>72.6%</td>
<td>6.5% - Don’t remember</td>
</tr>
<tr>
<td>Did you find that welcome or induction useful? <em>(n=138)</em></td>
<td>84.8%</td>
<td>11.6%</td>
<td>3.6% - Didn’t attend</td>
</tr>
</tbody>
</table>

Note. *Included as the ‘offered induction’ variable for regression and SEM analyses

6.6 Invited to events/activities

This question asked participants about being invited to organisational activities or events, for example social functions, sports activities, family activities, get-to-know you events, or holiday parties. Only individuals who answered ‘yes’ were eligible to answer the follow-up question. Table 6-3 shows that not only did the majority of individuals get invited to some sort of activity, but those invited usually attended the activity.
Table 6-3 Results from organisational events questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
<th>Don’t remember</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the emergency responder organisation invite you to attend any of their activities or events ( (n=661) )*</td>
<td>78.1%</td>
<td>20.1%</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you attend these activities or events? ( (n=516) )</td>
<td>1.6%</td>
<td>11.0%</td>
<td>45.2%</td>
<td>32.9%</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

Note. *Included as the ‘invited to events’ variable for regression analyses

6.7 Life Events Checklist (LEC)

As described in Section 4.9.4.9, the LEC was used to assess difficult or stressful events in the participants’ lives as well as events they believed their responder had experienced. If the participant was a current or former responder, they were also asked about events from their work experiences. Table 6-4 reports the percentage of participants who identified a specific life event category as stressful or disturbing. All participants provided responses for both column ‘A’ and ‘B’ specifying their own experience as a partner (For Self), and for their responder partner (For Responder on job). Column ‘C’ was only provided to those who had worked as a former responder (Self on Job as Former Responder) and column ‘D’ for participants who indicated they were currently a defence or emergency responder (For Self on Job as Current Responder). Sixty-three participants quit taking the survey during this section. While participants were excluded from this analysis if their responder did not experience at least one event on the LEC (column B), that was not the case for individuals sharing information about their own experiences (column A). Eleven percent of participants stated that they personally had not experienced even one of the stressful or difficult events. As the table shows, the partners indicated that their responders mainly attended to stressful or disturbing events related to transportation accidents, natural disasters, fire/explosions, and serious accidents.
Table 6-4 Responses to Life Event Checklist

<table>
<thead>
<tr>
<th>Life event category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Natural disaster (for example, flood, hurricane, tornado, earthquake)</td>
<td>45.2</td>
<td>68.8</td>
<td>3.0</td>
<td>13.7</td>
</tr>
<tr>
<td>2. Fire or explosion</td>
<td>12.3</td>
<td>67.5</td>
<td>2.1</td>
<td>13.4</td>
</tr>
<tr>
<td>3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)</td>
<td>48.8</td>
<td>76.4</td>
<td>3.9</td>
<td>15.8</td>
</tr>
<tr>
<td>4. Serious accident at work, home, or during recreational activity</td>
<td>18.5</td>
<td>65.2</td>
<td>3.3</td>
<td>13.1</td>
</tr>
<tr>
<td>5. Exposure to toxic substance (for example, dangerous chemicals, radiation)</td>
<td>6.3</td>
<td>41.3</td>
<td>1.4</td>
<td>7.5</td>
</tr>
<tr>
<td>6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)</td>
<td>25.5</td>
<td>49.5</td>
<td>2.6</td>
<td>11.6</td>
</tr>
<tr>
<td>7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)</td>
<td>5.4</td>
<td>39.9</td>
<td>1.1</td>
<td>8.9</td>
</tr>
<tr>
<td>8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)</td>
<td>11</td>
<td>24.2</td>
<td>1.4</td>
<td>7.5</td>
</tr>
<tr>
<td>9. Other unwanted or uncomfortable sexual experience</td>
<td>20.3</td>
<td>20.2</td>
<td>0.9</td>
<td>6.2</td>
</tr>
<tr>
<td>10. Combat or exposure to a war-zone (in the military or as a civilian)</td>
<td>3.5</td>
<td>22.7</td>
<td>1.4</td>
<td>2.0</td>
</tr>
<tr>
<td>11. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)</td>
<td>1.1</td>
<td>7.4</td>
<td>0.3</td>
<td>2.0</td>
</tr>
<tr>
<td>12. Life-threatening illness or injury</td>
<td>12.5</td>
<td>40.8</td>
<td>2.4</td>
<td>10.2</td>
</tr>
<tr>
<td>13. Severe human suffering</td>
<td>3.2</td>
<td>33.7</td>
<td>1.5</td>
<td>6.6</td>
</tr>
<tr>
<td>14. Sudden, violent death (for example, homicide, suicide)</td>
<td>5.6</td>
<td>58.9</td>
<td>2.1</td>
<td>12.0</td>
</tr>
<tr>
<td>15. Sudden, unexpected death of someone close to you</td>
<td>41.7</td>
<td>51.4</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>16. Serious injury, harm, or death you caused to someone else</td>
<td>3.3</td>
<td>16.9</td>
<td>0.9</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Note. *Only completed if participant was a former responder **Only completed if participant is a current responder *** Question 15 for participants who are also responders or former responders was inadvertently omitted from the online survey; this omission did not materially affect the resulting analysis.
Figure 6-2 shows the total proportions of the respondents who reported stressful life event categories experienced by their responders. Of the 16 categories, over 30% of partners reported that their responder had experienced between five and seven of the life event categories, and around 11% indicated 12 or more of the categories.

Figure 6-2 Distribution of life event categories among responders \( n=664 \)

6.8 Secondary Traumatic Stress Scale

As described in Section 4.9.4.10, the STS Scale asked about the impact of hearing about upsetting, life-threatening events experienced by their responder. It was emphasised that the very stressful event could have been experienced years ago by their responder. Participants answered how often in the last 30 days they agreed with the statements provided.

Secondary Traumatic Stress Scale results were analysed as per the recommendation of Bride (2007). Table 6-5 first presents cut-off scores which place individuals into one of five specific categories based on their responses. Scores on the scale range from 17 to 74. Individuals achieving a cumulative score of less than 28 are interpreted as having ‘little or no secondary trauma’, those with scores between 28 and 37 indicated ‘mild secondary trauma’, those with scores between 38 and 43 indicated ‘moderate secondary trauma’, with ‘high secondary trauma’ indicated if the scores are between 44 and 48 and finally any score 49 and above would indicate ‘severe secondary trauma’. Next, yellow-highlighted statistics reflect
the combination of the moderate, high, and severe categories to indicate the number and proportion of participants meeting criteria for possible post-traumatic stress disorder (PTSD) due to STS. In addition, orange-highlighted statistics indicate the number and proportion of participants who, based on a subscale algorithm (Bride, 2007), met the criteria for PTSD from secondary exposure. These criteria were met if participants rated at least one item on the intrusion subscale, at least three items on the avoidance subscale and at least two items on the arousal subscale as having taken place ‘occasionally’ or more often.

Table 6-5 Secondary Traumatic Stress Scale results

<table>
<thead>
<tr>
<th>Secondary Trauma (n=664)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little or No Secondary Trauma</td>
<td>377</td>
<td>56.8</td>
</tr>
<tr>
<td>Mild Secondary Trauma</td>
<td>151</td>
<td>22.7</td>
</tr>
<tr>
<td>Moderate Secondary Trauma</td>
<td>57</td>
<td>8.6</td>
</tr>
<tr>
<td>High Secondary Trauma</td>
<td>32</td>
<td>4.8</td>
</tr>
<tr>
<td>Severe Secondary Trauma</td>
<td>47</td>
<td>7.1</td>
</tr>
<tr>
<td>Possible PTSD from Secondary Trauma (includes Moderate, High, and Severe)</td>
<td>136</td>
<td>20.5</td>
</tr>
<tr>
<td>Possible PTSD from Secondary Trauma (subscale algorithm)</td>
<td>230</td>
<td>34.6</td>
</tr>
</tbody>
</table>

Note. This table provides an estimation of possible risk for PTSD and is not a diagnosis.

These data were used to answer RQ1 which asked ‘To what extent do the partners of NZ defence and emergency responders experience STS?’ In the above table, 20% of participants appeared to struggle with intrusive, arousal, and avoidance thoughts about the trauma experienced by their responder. When the analysis included only the participants who were also a responder themselves, the results indicated that 23% of partners who were currently responders risk possible PTSD from secondary exposure.

This question segment also provided an option response of ‘Other: If you feel you have experienced something else when hearing of upsetting, life-threatening events experienced by your emergency responder, please share that experience in the space below’. These findings were discussed in Section 5.6.1.

6.9 Resilience

As described in Section 4.9.4.5, respondents were categorised as ‘low in resilience’, having ‘average resilience’, or considered ‘high in resilience’ (Smith, 2013). Table 6-6 shows that 88% of participants were categorised as having low or average resilience.
Table 6-6 Resilience Scale results

<table>
<thead>
<tr>
<th>Resilience</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Resilience</td>
<td>146</td>
<td>22.0</td>
</tr>
<tr>
<td>Average Resilience</td>
<td>435</td>
<td>65.5</td>
</tr>
<tr>
<td>High Resilience</td>
<td>82</td>
<td>12.3</td>
</tr>
</tbody>
</table>

6.10 Received stress management information measure

Three separate questions asked participants how often they had received information about managing stress from the organisation, their responder, and other partners of responders. The Likert Scale choices were ‘never’, ‘rarely’, ‘occasionally’, ‘often’, and ‘very often’. These results are shown in the first part of Table 6-7. Participants choosing any option except ‘never’ were asked a follow-up question about the usefulness of that information which is presented in the second section of the table. Only 31% of respondents reported receiving information about managing stress occasionally or more frequently from their responder and that dipped to around 16% who received that level of information from the organisations.

Table 6-7 Results for received stress management information measure

<table>
<thead>
<tr>
<th>Questions</th>
<th>Never %</th>
<th>Rarely %</th>
<th>Occasionally %</th>
<th>Often %</th>
<th>Very often %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive information from my emergency responder’s ORGANISATION about managing stress (n=658)*</td>
<td>67.6</td>
<td>16.6</td>
<td>10.8</td>
<td>3.3</td>
<td>1.7</td>
</tr>
<tr>
<td>I receive information from my EMERGENCY RESPONDER about managing stress (n=657)*</td>
<td>51.0</td>
<td>18.3</td>
<td>22.2</td>
<td>5.8</td>
<td>2.7</td>
</tr>
<tr>
<td>I receive information from OTHER PARTNERS of emergency responders about managing stress (n=660)</td>
<td>64.5</td>
<td>13.8</td>
<td>15.0</td>
<td>5.2</td>
<td>1.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly disagree %</th>
<th>Disagree %</th>
<th>Neither agree nor disagree %</th>
<th>Agree %</th>
<th>Strongly agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find this information from the ORGANISATION useful (n=219)</td>
<td>3.2</td>
<td>11.0</td>
<td>43.4</td>
<td>38.4</td>
<td>4.1</td>
</tr>
<tr>
<td>I find this information from my EMERGENCY RESPONDER useful (n=329)</td>
<td>1.2</td>
<td>6.4</td>
<td>43.5</td>
<td>42.2</td>
<td>6.7</td>
</tr>
<tr>
<td>Questions</td>
<td>Never %</td>
<td>Rarely %</td>
<td>Occasionally %</td>
<td>Often %</td>
<td>Very often %</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---------</td>
<td>----------</td>
<td>----------------</td>
<td>--------</td>
<td>--------------</td>
</tr>
<tr>
<td>If find this information from OTHER PARTNERS useful (n=238)</td>
<td>2.1</td>
<td>3.4</td>
<td>36.1</td>
<td>47.1</td>
<td>11.3</td>
</tr>
</tbody>
</table>

*Note.* *Included as part of the ‘receive stress management information’ variable for regression and SEM analyses*

### 6.11 Stigma towards help-seeking questions

The questions relating to stigma towards help-seeking were separated into two sections. Table 6-8 reports how much the partner agrees with each statement about seeking help for mental health care. The instructions asked individuals to answer based on their personal beliefs only and warned participants that they would be asked at a later point in the survey how their responder might answer each question. This table shows that the partners believed there is weak messaging from the leaders in the organisations about seeking care, however the majority believed in the benefits of mental health care and know where to get help for themselves if they need it.

Table 6-8 Results from partners’ perception of stigma towards help-seeking

<table>
<thead>
<tr>
<th>Partner perception of stigma towards help-seeking questions</th>
<th>Strongly disagree %</th>
<th>Disagree %</th>
<th>Neither agree nor disagree %</th>
<th>Agree %</th>
<th>Strongly agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>If my emergency responder were to seek mental health care, the organisation’s management/leadership might have less confidence in him/her (n=658)*</td>
<td>7.9</td>
<td>22.3</td>
<td>18.8</td>
<td>33.0</td>
<td>17.9</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, his/her co-workers might view him/her differently (n=661)*</td>
<td>6.4</td>
<td>21.8</td>
<td>17.4</td>
<td>35.9</td>
<td>18.6</td>
</tr>
<tr>
<td>It would harm my emergency responder’s career if he/she were to seek mental health care (n=657)*</td>
<td>8.8</td>
<td>23.1</td>
<td>25.7</td>
<td>25.3</td>
<td>17.0</td>
</tr>
<tr>
<td>If I need it, I know where to get help for mental health issues (n=653)*</td>
<td>5.1</td>
<td>13.2</td>
<td>8.9</td>
<td>45.2</td>
<td>27.7</td>
</tr>
<tr>
<td>Partner perception of stigma towards help-seeking questions</td>
<td>Strongly disagree %</td>
<td>Disagree %</td>
<td>Neither agree nor disagree %</td>
<td>Agree %</td>
<td>Strongly agree %</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>----------------------</td>
<td>------------</td>
<td>-------------------------------</td>
<td>---------</td>
<td>------------------</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, he/she would be seen as weak (n=657)</td>
<td>13.1</td>
<td>25.4</td>
<td>24.0</td>
<td>25.1</td>
<td>12.3</td>
</tr>
<tr>
<td>Mental health care does not work (n=651)</td>
<td>32.3</td>
<td>36.3</td>
<td>25.0</td>
<td>4.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Direct supervisors remind my emergency responder that it is important to seek care (n=626)</td>
<td>10.2</td>
<td>18.5</td>
<td>41.4</td>
<td>22.2</td>
<td>7.7</td>
</tr>
<tr>
<td>Senior leaders/managers in my emergency responder’s organisation send out messages that seeking care would not harm careers (n=612)</td>
<td>19.0</td>
<td>21.1</td>
<td>43.5</td>
<td>11.1</td>
<td>5.4</td>
</tr>
</tbody>
</table>

*Note. *Included as part of the ‘stigma towards help-seeking’ variable for regression and SEM analyses

Table 6-9 reports what respondents believed their responder would think about the statements provided. Thirty individuals quit participating in the survey while answering these questions. This table shows that the partners believed their responder also knew where to get help for mental health issues. When comparing the two response options of ‘agree’ with the two options of ‘disagree’, around half of the partners perceived that their responders agreed there is a stigma towards help-seeking, with 25-30% disagreeing.

Table 6-9 Partners’ perception of their responder’s stigma towards help-seeking

<table>
<thead>
<tr>
<th>Partner’s perception of responder’s stigma towards help-seeking</th>
<th>Strongly disagree %</th>
<th>Disagree %</th>
<th>Neither agree nor disagree %</th>
<th>Agree %</th>
<th>Strongly agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>My emergency responder believes that seeking mental health care might cause the leadership/management to have less confidence in him/her (n=645)*</td>
<td>6.7</td>
<td>18.1</td>
<td>23.4</td>
<td>33.6</td>
<td>18.1</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care might cause co-workers to view him/her differently (n=647)*</td>
<td>6.2</td>
<td>18.2</td>
<td>20.6</td>
<td>36.8</td>
<td>18.2</td>
</tr>
</tbody>
</table>
Partner’s perception of responder’s stigma towards help-seeking | Strongly disagree % | Disagree % | Neither agree nor disagree % | Agree % | Strongly agree %
--- | --- | --- | --- | --- | ---
My emergency responder believes that seeking mental health care would harm his/her career \( (n=643) \)* | 6.5 | 20.8 | 24.9 | 30.0 | 17.7
My emergency responder knows where to get help for mental health issues \( (n=646) \) | 2.3 | 6.7 | 15.5 | 52.3 | 23.2
My emergency responder believes that seeking mental health care would cause him/her to be seen as weak \( (n=644) \)* | 7.8 | 21.9 | 19.7 | 32.9 | 17.7
My emergency responder believes that mental health care does not work \( (n=637) \) | 16.0 | 34.7 | 34.4 | 10.5 | 4.4

*Note. *Included as part of the ‘stigma towards help-seeking’ variable for regression and SEM analyses

### Emotional/informational support measure

Table 6-10 indicates the frequency with which different types of social support were available to help participants manage stressful issues or situations experienced by their responder partner. With the exception of the first statement, ‘someone to confide in’, the remaining questions in this table indicated that the largest percentage of partners claimed to have minimal or a total lack of emotional or information support.

Table 6-10 Results for emotional/informational support measure

<table>
<thead>
<tr>
<th>Emotional/informational support questions</th>
<th>None of the time %</th>
<th>A little of the time %</th>
<th>Some of the time %</th>
<th>Most of the time %</th>
<th>All of the time %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to confide in or talk to about your feelings about your emergency responder’s work ( (n=652) )</td>
<td>22.7</td>
<td>16.4</td>
<td>17.9</td>
<td>22.7</td>
<td>20.2</td>
</tr>
<tr>
<td>Someone who gives you good advice about your emergency responder’s work ( (n=649) )</td>
<td>33.3</td>
<td>19.4</td>
<td>16.0</td>
<td>17.3</td>
<td>14.0</td>
</tr>
<tr>
<td>Someone to share your most private worries and fears about</td>
<td>31.1</td>
<td>19.3</td>
<td>12.5</td>
<td>19.8</td>
<td>17.2</td>
</tr>
<tr>
<td>Emotional/informational support questions</td>
<td>None of the time %</td>
<td>A little of the time %</td>
<td>Some of the time %</td>
<td>Most of the time %</td>
<td>All of the time %</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>-----------------------</td>
<td>--------------------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>your emergency responder’s work (n=646)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Someone to turn to for suggestions about how to deal with a personal problem brought about because of your emergency responder’s work (n=644)</td>
<td>32.1</td>
<td>20.5</td>
<td>12.4</td>
<td>18.2</td>
<td>16.8</td>
</tr>
<tr>
<td>Someone who understands your problems with your emergency responder’s work (n=646)</td>
<td>29.1</td>
<td>19.0</td>
<td>17.3</td>
<td>18.3</td>
<td>16.3</td>
</tr>
</tbody>
</table>

Note. All items were included as part of the ‘emotional/informational support’ variable for regression and SEM analyses

6.12.1 Emotional disclosure measure

Descriptive statistics in Table 6-11 includes responses to the question ‘How much have you DISCUSSED your thoughts and feelings about the difficult, upsetting, or very stressful events experienced by your emergency responder with the following people?’ This table indicates that participants mainly shared information with their responder and did not turn to professionals (cultural/spiritual/medical) to disclose difficult events that they experienced.

Table 6-11 Results for measure of emotional disclosure

<table>
<thead>
<tr>
<th>Emotional disclosure questions</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder (n=650)*</td>
<td>4.6</td>
<td>18.5</td>
<td>27.2</td>
<td>49.7</td>
</tr>
<tr>
<td>My children (n=477)*</td>
<td>53.0</td>
<td>30.6</td>
<td>10.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Family or whanau (n=641)*</td>
<td>21.7</td>
<td>41.5</td>
<td>23.6</td>
<td>13.3</td>
</tr>
<tr>
<td>Other partners of emergency responders (n=647)*</td>
<td>36.3</td>
<td>30.4</td>
<td>18.7</td>
<td>14.5</td>
</tr>
<tr>
<td>Other emergency responders (n=645)*</td>
<td>44.5</td>
<td>33.0</td>
<td>16.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) (n=649)*</td>
<td>23.0</td>
<td>42.4</td>
<td>24.2</td>
<td>10.5</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders (n=513)</td>
<td>96.1</td>
<td>3.1</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>
Emotional disclosure questions | Not at all % | A little % | A moderate amount % | A great deal %
--- | --- | --- | --- | ---
Spiritual or religious leaders (n=529) | 89.4 | 8.3 | 1.7 | 0.6
Professional/medical staff, GP, counsellors etc. (n=622) | 68.3 | 23.3 | 5.9 | 2.4

Note. *Included as part of the ‘emotional disclosure’ variable for regression and SEM analyses

6.12.2 Emotional non-disclosure

Descriptive analysis in Table 6-12 includes responses to the question ‘How much have you HIDDEN your thoughts and feelings about the difficult, upsetting, or very stressful events experienced by your emergency responder with the following people?’ While the majority of participants stated they were not hiding their thoughts and feelings from the professionals (cultural/spiritual/medical) almost 30% claimed they hid a moderate amount or a great deal from those groups.

Table 6-12 Results for measure of emotional non-disclosure

| Emotional non-disclosure questions | Not at all % | A little % | A moderate amount % | A great deal %
--- | --- | --- | --- | ---
Emergency responder (n=641) | 39.3 | 31.8 | 17.3 | 11.5
My children (n=447) | 21.3 | 16.6 | 15.4 | 46.8
Family or whanau (n=622) | 25.9 | 28.3 | 20.9 | 24.9
Other partners of emergency responders (n=543) | 35.2 | 23.2 | 21.9 | 19.7
Other emergency responders (n=535) | 33.1 | 20.7 | 18.1 | 28.0
Friends (not emergency responders or their partners) (n=614) | 29.3 | 25.4 | 20.8 | 24.4
Kaumātua, community/cultural leaders (n=200) | 65.0 | 4.0 | 3.0 | 28.0
Spiritual or religious leaders (n=232) | 61.2 | 9.5 | 5.6 | 23.7
Professional/medical staff, GP, counsellors etc. (n=397) | 54.9 | 16.9 | 12.6 | 15.6

Note. All items were included as part of the ‘emotional non-disclosure’ variable for regression and SEM analyses
6.13 Measure of relationship satisfaction

This section of the survey asked participants how much they agreed with statements on their relationship with their responder. The directions for this question stated ‘Please indicate how strongly you agree or disagree with the following statements about your relationship with your emergency responder’. Table 6-13 summarises the results. Notably, based on the four statements provided in this measure, the vast majority of participants indicated that they were satisfied with their relationship.

Table 6-13 Results for measure of relationship satisfaction

<table>
<thead>
<tr>
<th>Relationship satisfaction questions</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am very happy with how we handle role responsibilities in our relationship (n=663)</td>
<td>2.7</td>
<td>7.1</td>
<td>9.8</td>
<td>39.7</td>
<td>40.7</td>
</tr>
<tr>
<td>I am very happy with how we manage our leisure activities and time we spend together (n=664)</td>
<td>3.6</td>
<td>14.5</td>
<td>12.2</td>
<td>36.1</td>
<td>33.6</td>
</tr>
<tr>
<td>I feel very good about how we each practice our religious beliefs and/or personal values (n=663)</td>
<td>2.0</td>
<td>4.1</td>
<td>21.4</td>
<td>39.8</td>
<td>32.7</td>
</tr>
<tr>
<td>In general how often do you think that things between you and your partner are going well (n=656)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note. All items were included as part of the ‘relationship satisfaction’ variable for regression and SEM analyses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.13.1 Organisation interaction

The final survey questions asked participants to respond in their own words. In the first segment, participants were asked ‘would you like to have more direct interaction with your emergency responder’s organisation?’ Participants who answered ‘yes’ or ‘not sure’ were asked the follow-up question, ‘what type of interaction would you like to have with your emergency responder’s organisation?’ The next segment asked ‘what more, if anything, would you like the organisation to do for your emergency responder?’ and ‘what more, if anything would you like the organisation to do for YOU as the partner of an emergency
responder?’ Qualitative analysis of responses to these questions were presented Section 5.6.2.

6.14 Relationship between variables

Standard deviations, means, and Pearson correlations for key study variables are summarised in Table 6-14. As the table indicates, the STS variable was weakly negatively correlated at the .001 level with emotional/informational support, relationship satisfaction and resilience variables and weakly positively correlated at the same significance level with stigma and emotional non-disclosure variables.
Table 6-14 Standard deviations, means, and Pearson correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>M (SD)</th>
<th>STS Scale</th>
<th>Offered induction</th>
<th>Invited to events</th>
<th>Receive stress info</th>
<th>Stigma towards help-seeking</th>
<th>Emotional disclosure</th>
<th>Emotional non-disclosure</th>
<th>Emo/info support</th>
<th>Relationship satisfaction</th>
<th>Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS Scale (n=664)</td>
<td>1.70 (.69)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Offered induction (n=661)</td>
<td>.21 (.41)</td>
<td>.06</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Invited to events (n=664)</td>
<td>.78 (.42)</td>
<td>-.09*</td>
<td>.08*</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Received stress management information (n=662)</td>
<td>1.73 (.86)</td>
<td>.07</td>
<td>.26***</td>
<td>.14***</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Stigma towards help-seeking (n=663)</td>
<td>3.28 (1.02)</td>
<td>.24***</td>
<td>-.12**</td>
<td>-.17***</td>
<td>-.17***</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Emotional disclosure (n=657)</td>
<td>2.27 (.64)</td>
<td>.03</td>
<td>.14***</td>
<td>.11**</td>
<td>.24***</td>
<td>-.14***</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Emotional non-disclosure (n=645)</td>
<td>2.31 (.94)</td>
<td>.38***</td>
<td>.02</td>
<td>-.06</td>
<td>.03</td>
<td>.28***</td>
<td>-.12**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Emotional/informational support (n=653)</td>
<td>2.75 (1.34)</td>
<td>-.14***</td>
<td>.17***</td>
<td>.20***</td>
<td>.28***</td>
<td>-.26***</td>
<td>.43***</td>
<td>-.17***</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Relationship satisfaction (n=664)</td>
<td>4.08 (.80)</td>
<td>-.21***</td>
<td>.09*</td>
<td>.11**</td>
<td>.14***</td>
<td>-.32***</td>
<td>.18***</td>
<td>-.19***</td>
<td>.21***</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Resilience (n=663)</td>
<td>3.47 (.75)</td>
<td>-.32***</td>
<td>.03</td>
<td>.10**</td>
<td>.02</td>
<td>-.19***</td>
<td>.04</td>
<td>-.19***</td>
<td>.14***</td>
<td>.24***</td>
<td>–</td>
</tr>
</tbody>
</table>

*Note. n represents number of participants for the Mean and Standard Deviation analyses

*p <.05. **p <.01. ***p<.001 (2 tailed)
6.15 Hierarchical multiple regression

As referred to in Section 4.9.6, the following tables show results of multiple regression analysis and provide results for the hypothesis applicable to that analysis. The regression analysis is guided by the theoretical model’s pathway. Statistical significance is set at $p < .05$. It is common practice to use the term ‘predicted’ when describing variables that may account statistically for variance in the dependent variable. The text summarising these analyses focused on the final regression model but earlier models were reported to show indirect effects on the dependent variables. Once the contributions of the independent variables on predicting the dependent variables were analysed, an SEM was developed to simultaneously test the variables as both outcome and predictor variables as described in Section 4.9.7.

6.15.1 Invited to events/activities

Table 6-15 Summary of regression analysis predicting invitation to events ($n=661$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>$B$</th>
<th>CI</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offered induction</td>
<td>.08</td>
<td>.08</td>
<td>[.00, .16]</td>
<td>2.00</td>
<td>.046</td>
</tr>
</tbody>
</table>

Note. $\beta$=standardised coefficient beta; $B$=unstandardised coefficient; CI= 95% confidence interval for B; $p$=significance.

This table shows a simple linear regression to explore H$_1$ which states that being offered an induction or welcome by the organisation is positively associated with being invited to events. As indicated in the above table, offering an induction or a welcome appears to be a significant predictor of whether or not partners receive an invitation to events from the organisation.

6.15.2 Receive stress management information

Table 6-16 Hierarchical regression analysis for variables predicting receiving stress management information ($n=659$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>$B$</th>
<th>CI</th>
<th>$t$</th>
<th>$p$</th>
<th>$R^2$</th>
<th>$F$ for $\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.07</td>
<td>49.16***</td>
</tr>
<tr>
<td>Offered induction</td>
<td>.26</td>
<td>.56</td>
<td>[.40, .71]</td>
<td>7.01</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>$B$</th>
<th>CI</th>
<th>$t$</th>
<th>$p$</th>
<th>$R^2$</th>
<th>$F$ for $\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.08</td>
<td>9.44**</td>
</tr>
<tr>
<td>Offered</td>
<td>.26</td>
<td>.54</td>
<td>[.38, .69]</td>
<td>6.81</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

induction          |         |      |         |      |      |       |                      |
Hierarchical regression analysis tested H2 that being invited to events predicts participants receiving stress management information. This table indicates that being invited to events and offered an induction significantly predicted participants receiving stress management information.

### 6.15.3 Stigma towards help-seeking

Table 6-17 Summary of hierarchical regression analysis for variables predicting stigma towards help-seeking (n=659)

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>B</th>
<th>CI</th>
<th>t</th>
<th>p</th>
<th>R²</th>
<th>F for ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td>.01</td>
<td>8.17*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offered induction</td>
<td>-.11</td>
<td>-.28</td>
<td>[-.47, -.09]</td>
<td>-2.86</td>
<td>.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td>.04</td>
<td>18.28***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offered induction</td>
<td>-.10</td>
<td>-.25</td>
<td>[-.44, -.06]</td>
<td>-2.57</td>
<td>.010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invited to events</td>
<td>-.16</td>
<td>-.40</td>
<td>[-.59, -.22]</td>
<td>-4.28</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td></td>
<td>.05</td>
<td>10.29*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offered induction</td>
<td>-.07</td>
<td>-.17</td>
<td>[-.36, .03]</td>
<td>-1.67</td>
<td>.095</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invited to events</td>
<td>-.15</td>
<td>-.37</td>
<td>[-.55, -.18]</td>
<td>-3.89</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Received stress info</td>
<td>-.13</td>
<td>-.15</td>
<td>[-.25, -.06]</td>
<td>-3.21</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. β=standardised coefficient beta; B=unstandardised coefficient; CI=95% confidence interval for B; p=significance; R²=squared multiple correlation, Δ=change in R²; significance of F change = *p <.05. **p <.01. ***p<.001.

As shown in the table above, being invited to events and receiving stress management information had direct effects on predicting perceived stigma towards help-seeking, while offering an induction or welcome had an indirect effect on predicting perceived stigma towards help-seeking. This analysis tested H3 and found that low receipt of stress management information predicts higher perceived stigma towards seeking help for mental
health issues. Being invited to events also had a statistically significant inverse association with the stigma variable.

6.15.4 Emotional non-disclosure

Table 6-18 Summary of hierarchical regression analysis for variables predicting emotional non-disclosure (n=641)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>B</th>
<th>CI</th>
<th>t</th>
<th>p</th>
<th>$R^2$</th>
<th>F for $\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offered induction</td>
<td>.02</td>
<td>.05</td>
<td>[-.14, .23]</td>
<td>0.49</td>
<td>.626</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offered induction</td>
<td>.02</td>
<td>.06</td>
<td>[-.13, .24]</td>
<td>0.60</td>
<td>.550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invited to events</td>
<td>-.06</td>
<td>-.14</td>
<td>[-.32, .03]</td>
<td>-1.60</td>
<td>.110</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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*Note.* $\beta$=standardised coefficient beta; $B$=unstandardised coefficient; $CI=95\%$ confidence interval for $B$; $p$=significance; $R^2$=squared multiple correlation, $\Delta$=change in $R^2$; significance of $F$ change =$^{*}p<.05$. $^{**}p<.01$. $^{***}p<.001$.

Hierarchical regression analysis tested $H_4(a)$ and found that greater perceived stigma towards help-seeking significantly predicted participants’ not sharing thoughts and feelings about the difficult, upsetting, or very stressful events experienced by their responder. Contrary to $H_4(a)$ with the significant value set at .05, receipt of stress management information was not significantly associated with emotional non-disclosure. Offering inductions or being invited to events had no effect on predicting emotional non-disclosure by the partners about stressful events experienced by their responder.
6.15.5 Emotional disclosure

Table 6-19 Summary of hierarchical regression analysis for variables predicting emotional disclosure \( (n=641) \)

<table>
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<th>Variable</th>
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<th>( B )</th>
<th>CI</th>
<th>( t )</th>
<th>( p )</th>
<th>( R^2 )</th>
<th>( F ) for ( \Delta R^2 )</th>
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</thead>
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<td>.24</td>
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<td>.000</td>
<td>.02</td>
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<td>.23</td>
<td>[.11, .35]</td>
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<td>.000</td>
<td>.04</td>
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<td>[.04, .28]</td>
<td>2.71</td>
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<td>[.09, .21]</td>
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<td>[.02, .27]</td>
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<td>[.09, .21]</td>
<td>4.98</td>
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*Note: \( \beta \)=standardised coefficient beta; \( B \)=unstandardised coefficient; CI=95% confidence interval for \( B \); \( p \)=significance; \( R^2 \)= squared multiple correlation, \( \Delta \)=change in \( R^2 \); significance of \( F \) change = *\( p <.05 \). **\( p <.01 \). ***\( p <.001 \).*

As discussed in Section 4.9.4.6, the emotional disclosure and emotional non-disclosure variables measure different concepts and should not be viewed as the opposite of each other.

Table 6-19 indicates that receiving stress management information significantly predicted greater disclosure of thoughts and feelings relating to the difficult and upsetting or very stressful events experienced by the responder as indicated in \( H_4(b) \). Stigma towards help-seeking had an indirect effect on predicting emotional disclosure (model 4), but did not have a direct effect (model 5). In addition to the variables tested by this hypothesis, being offered
an induction or welcome was associated with greater emotional disclosure. Higher levels of emotional non-disclosure were associated with lower levels of emotional disclosure. An indirect effect was observed with invited to events as seen in the first three models. Importantly, however, these analyses demonstrate that being offered an induction or welcome and receipt of stress management information remained significant predictors of emotional disclosure after controlling for emotional non-disclosure. The relationships of these predictor variables with emotional disclosure are independent of their relationships with emotional non-disclosure.

### 6.15.6 Emotional/informational support

Table 6-20 Summary of hierarchical regression analysis for variables predicting emotional/informational support (n=636)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>$B$</th>
<th>CI</th>
<th>t</th>
<th>p</th>
<th>$R^2$</th>
<th>$F$ for $\Delta R^2$</th>
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</thead>
<tbody>
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<td>.000</td>
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<td>[.36, .85]</td>
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<td>.000</td>
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<td>.001</td>
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</table>
The regression analysis that tested H5 is found in Table 6-20. Higher emotional/informational support is predicted by higher levels of invitations to events, receiving (versus not receiving) stress management information, lower levels of perceived stigma towards help-seeking, lower levels of emotional non-disclosure, and higher levels of emotional disclosure. The early model association between offered induction and emotional/informational support is no longer evident.

### 6.15.7 Secondary traumatic stress

Table 6-21 Summary of hierarchical regression analysis for variables predicting partner STS (n=635)
<table>
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<th>Variable</th>
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<th>$p$</th>
<th>$R^2$</th>
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The variables predicting STS Scale are shown in Table 6-21. This analysis tested H6 and found that higher STS is predicted by lower emotional/informational support, lower evaluation of the relationship, and lower resilience. In addition to the variables tested by this hypothesis, higher perceived stigma towards help-seeking and emotional non-disclosure were significant predictors of higher STS, and remarkably so was higher emotional disclosure. Being offered an induction and receiving stress management information had indirect effects on predicting STS as their early model association at the p< .05 level is no longer apparent.

6.15.8 Testing for moderating effects

As discussed in Section 4.9.6, testing for moderating effects would help to address RQ 5 about whether the relationships of resources/barriers with STS vary according to gender, ethnicity, age, time as a couple, time responder in service or having school-aged children. Due to the numerous and exploratory nature of the analyses, as well as the large sample size, the significance level was set at p < .01. Analysis of the interactions showed none of those variables was significant on its own and only the interaction of gender with resilience accounted for a slight variation in the STS Scale outcome variable (Δ R² =.01, Δ F(1, 618) = 9.78, p = .002). Examination of the interaction plot showed that women have a greater slope, meaning that the relationship between resilience and STS Scale is stronger for women than for men. With the small sample of men, this finding should be interpreted with caution and subjected to replication with a larger sample of men in future research.
6.16 Summary of analyses

The regression analyses exposed many more direct effects than were anticipated by the hypothesised model (Figure 6-3). Because of these direct effects within the model, these regression findings prompted me to generate a modified model to be tested in SEM. Structural equation modelling (4.9.7), “permits complex phenomena to be statistically modelled and tested” (Schumacker & Lomax, 2004, p. 5). The aims were thus shifted from the multiple regression which analysed independent variables predicting different dependent variables in stages, to grouping variables within areas of responsibilities (4.9.5) to explore a more complex understanding of the impacts among the responder partners.

Figure 6-3 Model with hypothesised direct effects and non-hypothesised direct effects indicated

Note. Solid lines = hypothesised direct significant effects; Dotted lines = non-hypothesised direct significant effects; Blue lines= negative relationship; Black lines = positive relationship.

6.17 Structural equation modelling

As defined in Section 4.9.7 the variables in boxes represent observed variables measured by research questions in the survey and have the same traits as those with the same names in the regression analysis; the ovals represent unobserved (also called latent) variables, which indirectly assess the relationship of measured variables in that group. In the SEM ‘offered induction’, ‘received stress management info’ and ‘stigma towards help-seeking’ are all measured variables and indicators of communication provided to the partner by the organisation called ‘organisation communication’. Emotional and informational support (shortened in figure to ‘emo/info support’) and ‘emotional disclosure’ are measures of a
supportive environment accessible to the partner when dealing with issues relating to the responder’s stressful events ‘positive social engagement’. ‘Tenacity’ in the partner was measured with the variables of resilience and relationship. ‘Stigma towards help-seeking’, ‘emotional non-disclosure’, and ‘STS Scale’ represented the ‘psychosocial risks’ of being in a relationship with a military member or first responder who has experienced traumatic events. Section 4.9.7 describes the choice of variable and the preparation of the data.

6.17.1 Model fit

Assessing model fit must be completed before interpretation of causal relationships can proceed. A fit model indicates the capability of that model to consistently replicate the data (Kenny, 2014). To declare a model fit, clear steps must be taken. Besides the data preparation described above, the sample size should be compared to each free parameter to verify that it is sufficiently large (Tanaka, 1987). A conservative estimate of a large enough sample size is 20 per parameter (Kenny, 2014). The data set used in this research has a sample size of 27 for each parameter \((n=547\), distinct parameters to be estimated =21\) and is large enough for SEM. The next step is to look at the Chi-Square goodness-of-fit test.

Chi-Square goodness-of-fit test

Hoyle (1995) described the most commonly used index of ‘goodness-of-fit’, the Chi-Square \(\chi^2\), as a measure of the “badness of fit” (p. 7) of the researcher’s proposed model. The test is an analysis of discrepancy between the sample and the observed covariance (Hu & Bentler, 1995). In this test a lower probability value \((p<.05)\) means that the researcher’s model is not a perfect fit to the data and a rejection of the researcher’s model is expected (Tanaka, 1987).

The Chi-Square value for my proposed model equalled 58.56 with \(df=23\) and probability level=.000 indicating that it is not the absolute best model to fit the data.

The use of the Chi-Square measure was initially very popular with the promise that “an objective test could thus replace subjective judgment” (Hu & Bentler, 1995, p. 77), but it became clear that it had limitations, especially for social and behavioural scientists. Subjectivity for many researchers remained and the use of adjunct fit indices became an acceptable and alternative measures of the goodness-of-fit (Hoyle, 1995).

One of the limitations mentioned above is that SEM is sensitive to sample size with larger samples (over 200) resulting in Chi-Square statistical significance and therefore a rejection
of the hypothesised model. This is one reason other indices are frequently used to estimate relative model fit (Cunningham, 2010; Hoyle, 1995; Hu & Bentler, 1995; Tanaka, 1987; Kenny, 2014). To rely solely on the Chi-Square value “may lead a researcher to reject a model which, in fact, deviates from the population model in a trivial way” (Tanaka, 1987, p. 135). Based on this information and a sample size of 547, alternate measures of fit are used for this model.

Alternate measures of fit

There has been long-running and vigorous debate about fit indices when using SEM (Hoyle, 2012; McDonald & Ho, 2002). Hoyle (2012) suggested these alternate indices be governed by rules of thumb which “reflected the improvement of a specified model over a model that assumed no relations between the variables” (p. 10). McDonald and Ho (2002) describe absolute fit indices as “functions of discrepancies (and sample size and degrees of freedom)” while “relative indices compare a function of the discrepancies from the fitted model to a function of the discrepancies from a null model” (p. 72).

The following relative fit indices which McDonald and Ho (2002) found to be most common will be used to determine goodness-of-fit: (a) the goodness-of-fit index (GFI), (b) the comparative fit index (CFI), (c) the incremental fit index (IFI), (d) the Tucker & Lewis index (TLI) also known as the non-normed fit index (NNFI), (e) the normed fit index (NFI) and (f) the root mean square error of approximation (RMSEA).

The absolute fit indices used in this study are the relative Chi-Square (CMIN/DF) and the RMSEA.

The CMIN/DF, which is described as less sensitive to sample size, should be less than 5.0 (Schumacker & Lomax, 2004). It is recommended that the RMSEA be lower than .08 with $p$ (called PCLOSE in AMOS) >.05 (Hu & Bentler, 1998). This model has a CMIN/DF of 2.55, the RMSEA is .05, and PCLOSE equals 0.35.

The GFI, IFI, TLI, NFI statistics range from 0 to 1.0 with values greater than .90 indicating a good fit (B. M. Byrne, 1994; Hu & Bentler, 1999). The GFI for this model is .98, IFI is .94, TLI is .90, and the NFI is .90. The CFI for this model is .94 which exceeds the .93 or higher criterion recommended by Byrne (1994). Based on this information, the SEM analysis could proceed.
6.17.2 Explanation of variance in model

As Figure 6-4 shows, the model explains 72% of the variance in the main dependent variable (psychosocial risk) and 25% and 17% respectively of the mediating constructs, positive social engagement, and tenacity. Notably, positive social engagement accounts for 68% of the variance in emotional and informational support. Receiving information about managing stress from the organisation and responder (receive stress management info) contributes slightly more to organisation communication than evaluation of the stigma towards help-seeking or being offered an induction or welcome by the organisation. Emotional and informational support contributes more to ‘positive social engagement’ than ‘emotional disclosure’. What this model shows at its core is that higher levels of organisation communication positively influences positive social engagement, which is positively associated with tenacity. Higher levels of tenacity explains the reduction of psychosocial risk. The standardised and unstandardised parameter estimates for this model can be seen in Table 6-22.
Figure 6-4 Negative effects in partners of responders managing secondary traumatic events
The following table shows the parameter estimates and the significance levels for the model, standard errors are in parenthesis.

Table 6-22 SEM parameter estimates

<table>
<thead>
<tr>
<th>Parameter Estimate (n=547)</th>
<th>Unstandardised (Standard Errors)</th>
<th>Standardised</th>
<th>p</th>
</tr>
</thead>
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<tr>
<td><strong>Measurement Model Estimates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation communication --&gt; Received stress management info</td>
<td>3.16 (.66)</td>
<td>.66</td>
<td>.00</td>
</tr>
<tr>
<td>Organisation communication --&gt; Offered induction</td>
<td>1.00</td>
<td>.43</td>
<td>na</td>
</tr>
<tr>
<td>Organisation communication --&gt;Stigma towards help-seeking</td>
<td>-1.46 (.39)</td>
<td>-.24</td>
<td>.00</td>
</tr>
<tr>
<td>Positive social engagement --&gt;Emotional disclosure</td>
<td>1.00</td>
<td>.53</td>
<td>na</td>
</tr>
<tr>
<td>Positive social engagement --&gt;Emo/info support</td>
<td>3.28 (.52)</td>
<td>.82</td>
<td>.00</td>
</tr>
<tr>
<td>Tenacity --&gt; Resilience</td>
<td>.99 (.15)</td>
<td>.51</td>
<td>.00</td>
</tr>
<tr>
<td>Tenacity --&gt; Relationship satisfaction</td>
<td>1.00</td>
<td>.49</td>
<td>na</td>
</tr>
<tr>
<td>Psychosocial risk --&gt; STS Scale</td>
<td>1.00</td>
<td>.59</td>
<td>na</td>
</tr>
<tr>
<td>Psychosocial risk--&gt;Emotional non-disclosure</td>
<td>1.30 (.17)</td>
<td>.57</td>
<td>.00</td>
</tr>
<tr>
<td>Psychosocial risk --&gt;Stigma towards help-seeking</td>
<td>1.18 (.17)</td>
<td>.47</td>
<td>.00</td>
</tr>
<tr>
<td><strong>Structural Model</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation communication --&gt;Positive social engagement</td>
<td>1.02 (.23)</td>
<td>.50</td>
<td>.00</td>
</tr>
<tr>
<td>Positive social engagement --&gt; Tenacity</td>
<td>.48 (.10)</td>
<td>.41</td>
<td>.00</td>
</tr>
<tr>
<td>Tenacity --&gt; Psychosocial risk</td>
<td>-.87 (.15)</td>
<td>-.85</td>
<td>.00</td>
</tr>
</tbody>
</table>
7 Discussion, recommendations and conclusions

7.1 Introduction

Numerous studies around the world have focused on the health and wellbeing of police, fire, ambulance, and military personnel after work-related traumatic events have put them at risk of primary traumatic reactions (Brough, 2004; Bryant & Harvey, 1996; Figley & Sprenkle, 1978; Marmar et al., 1996; Marmar et al., 2006; Witteveen et al., 2006). Furthermore, partners of defence and emergency responders are at risk of developing secondary trauma from interactions with their responder’s stress reactions (Figley, 1999b; Regehr, 2005; Regehr et al., 2005; Solomon et al., 1992). This risk threatens the health and wellbeing of partners and, in turn, the capability of partners to provide social support to their responders and thus to positively mediate primary trauma reactions in the defence and emergency responder (Hoyt et al., 2010). Very few studies have focused on measuring secondary traumatic stress (STS) and social support in the partners of defence and emergency responders. I am unaware of any studies which have measured STS in partners of NZ defence and emergency responders.

The present study was designed as a mixed methodologies approach to examine what social resources or barriers influence symptoms of STS in this population. The partners of responders who work for the NZ Police, NZ Fire Service, St. John Ambulance, Wellington Free Ambulance, and NZ Defence Force (NZDF), as well as the organisations themselves, were invited to participate in this mixed methods research and give feedback on the study findings to articulate their concerns or viewpoints on the study results.

As described in Chapter 3, this study was framed by complexity theory to conceptualise the environment of partners of responders as a non-linear system in which, as exemplified by a quote attributed to Aristotle, ‘the whole is more than the sum of its parts’. Engagement with all aspects of the research and participant environment is underpinned with a Kaupapa Māori-consistent approach. My worldview is further shaped by pragmatism and critical theory.

This current chapter will provide an overview of the participant characteristics and major findings. This is followed by a summary of answers to the research questions posed, and hypotheses tested, making comparisons with similar research by others, when appropriate. The implications of the results, study strengths, and limitations will be discussed in the context of existing literature. This chapter concludes with suggestions for further research,
implications of the research results for the NZ defence and emergency responder organisations and my reflections on the research process.

7.2 Purpose of the study

This study set out to assess how the partners of NZ defence and emergency responders respond to high-risk work-induced stress experienced by their responder.

The aims were to:

a) Examine the extent to which the partners experience STS.

b) Consider how STS is managed by, and for, the partners.

c) Assess barriers identified by the partners for managing STS.

d) Evaluate resources identified by the partners as useful for managing STS.

e) Analyse relationships between barriers to, and resources for, managing STS.

f) Evaluate the impact of basic demographic attributes on the relationship between barriers to, and resources for, managing STS.

As discussed in the literature review (Chapter 2), a number of studies have described influences on the lives of the defence and emergency responder partners, which could impact STS. Those were considered in the current study and include: emotional attachment to individuals whose work involves high risk of exposure to primary traumatic stress (Calhoun et al., 2002; T. Greene et al., 2014); negative social support networks (Dirkzwager et al., 2005); resilience to stress (Melvin, Gross, Hayat, Jennings, & Campbell, 2012); relationship quality (Bramsen et al., 2002; Dekel, 2010; Ein-Dor et al., 2010; Meffert et al., 2014); and stigma towards help-seeking (Menendez et al., 2006; Mikulincer et al., 1995; Polizzi, 2007; Solomon et al., 1992; Williamson, 2011). These concepts, input from participant interviews, subject matter expert discussion and my previous research in this area helped me to hypothesise a model of how social support and social barriers influence STS in the partners of defence and emergency responders. As Figure 7-1 demonstrates, each path section represents a hypothesis tested in this thesis and provided the basis for the measures used in the survey. An online survey was created and piloted with recruitment assistance from the emergency organisations. The survey invited current partners of NZ defence and emergency responders to reveal the barriers they encountered and resources they use to manage the
stressful experiences shared by their responder. The following sections discuss the findings as they relate to the research questions and hypotheses.

Figure 7-1 Hypothesised model (hypothesised directions indicated)

### 7.3 Overview of participant characteristics

Of the estimated 16,000 partners of NZ defence and emergency responders, over 800 partners from all across NZ participated in this study. This level of participation was a significant achievement considering that there were no direct avenues for recruiting participants. Recruiting mainly relied on partners reading organisational magazines, responders sharing information about the study and word of mouth. Partners who participated in the research were predominantly female. This corresponds with most of the literature investigating partners of defence and emergency responders. To estimate the number of responder partners, data were gathered from two different sources. The responder organisations do not specifically collect data about the partners of responders. As noted in Section 4.4.4.3, the NZDF were the only organisation who had access to information regarding the partnership status of their Regular Forces. The NZDF data indicated that 54% of their Regular Forces were in a relationship. The only other data available for comparison came from Statistics New Zealand 2013 Census data (2015c). Of the NZ population between the ages of 15 and 74 years of age, 56% were determined to be in a relationship. Therefore I roughly estimated that around half of all the responders are in a relationship.
Other demographic measures of interest were analysed in relation to 2013 NZ Census data (2015b). Eleven percent of participants self-identified as Māori, which is slightly less than the 15% that ethnically identified themselves as Māori in the Census and 85% of the participants identified themselves as NZ European which is more than the 74% reported from the Census. Because the partners who identified as Pacific in this study were less than 2% of the study population as compared with over 7% in the Statistics NZ population data, no further analysis with this variable was possible.

The NZDF was also the only organisation able to provide information about dual partners within their organisation; two percent of NZDF Regular Force members had a spouse who was also an NZDF Regular Force member. This information excluded Reserve Force members. This study included participants who in addition to being a partner of a responder, were also responders themselves providing an infrequently shared perspective on their experiences as a partner.

Participants who identified as the partner of Police, Fire, and NZDF were proportionally evenly represented in this study. However, with only 10-13% of participants in this study coming from Ambulance partners, this emergency responder group was heavily under-represented. This result was possibly due to how the organisations communicated the study with their responders and how responders usually received information from the organisational hierarchy. Subject matter experts and interview participants shared that the Police and Fire Service pushed information through channels with which responders were required to interact to perform their duty. NZDF targeted partners through their family services portals while Ambulance personnel for St. John provided information via territorial managers. I understand that some of the Ambulance managers put printed information on bulletin boards at the stations, while others shared the information electronically.

7.4 Overview of major findings

Using the Secondary Traumatic Stress Scale (STS Scale), almost 80% of the participants in this study have no, little, or mild STS, while 20-35% appear to be experiencing intrusive, arousal, and avoidance symptoms related to the trauma experienced by their responder. Studies using the STS Scale describe similar results with social workers and welfare workers whose responses met the symptomatic criteria for PTSD (Bride, Jones, & MacMaster, 2007; Bride, 2007). These findings enrich the literature around STS and partners of defence and emergency responders.
The current study also found that partners are not being offered, or are unaware of, opportunities provided by the organisations that would assist them in navigating their lives with a responder. The vast majority of participants were not offered an induction/welcome or stress management information from the organisation. Importantly, these participants strongly indicated that they would like more engagement and information from the responder organisations.

This study also established that, for the most part, the hypothesised model was supported with direct effects on six of the nine variables predicting STS Scale. These variables included stigma towards help-seeking, emotional disclosure, emotional non-disclosure, emotional/informational support, relationship, and resilience.

The structural equation modelling (SEM) used all the predictor variables, except ‘invited to events’, and demonstrated that positive engagement from the organisations provided positive benefits for the partners and decreased the psychosocial risks to the partners. These results are supported by the thematic analysis of the qualitative data, which indicated that the partners need improved self-efficacy to feel empowered to identify, possibly prevent, and manage stressful events experienced by the responders. Improving this environment is supported by Benight and Bandera (1994) who referred to self-efficacy as a protective factor across a wide variety of traumatic events and found that “people who believe they can surmount their traumatization take a hand in mending their lives rather than have their lives dictated by the adverse circumstances” (p. 1144). These findings also identified that partners want the organisations to improve their collective efficacy. They would like the organisation to provide a supportive and competent environment which helps the partners to make informed choices related to the experiences of their responders.

Current secondary traumatic theories do not precisely describe resources and barriers associated with STS as experienced by responder partners. This is mainly because these theories have been developed around a working professional exemplar where organisational processes, professional development protocols and work-life balance regulation are key to secondary stress outcomes (2.8). This study examined secondary traumatic experiences of the partners of responders guided by constructs of secondary traumatic stress and complexity theory. Many of the findings from the STS Scale, resilience, and variables investigating social support are relatable to STS research with professional caregivers. This study describes a lack of resources and barriers to care for STS because the partners are not considered part of the responder organisations. In the professional care-giver environment, a
company, an association or a supervisor is tasked with certifying or supporting that profession, be they psychologists, counsellors, or social workers. While the current research puts variables into general areas of responsibility, it has demonstrated synergies with current understanding of STS; shown that responder organisations are not tasked with, or provide, basic STS preventive measures to partners; and highlighted an unmet need to take account of contextual differences between partners and clinical professionals. Future researchers who are developing or testing STS theories should consider these differences, as should responder organisations in addressing issues of secondary effects with partners.

7.5 Summary of results for research questions and hypotheses

This study examined six research questions addressing how partners manage their own experiences in relation to work-induced stress experienced by their defence or emergency responder, and six hypotheses associated with a hypothetical model. The following section reviews each research question, summarises the results and discusses the findings.

7.5.1 Secondary traumatic stress

The first research question (RQ1) asked to what extent the partners of NZ defence and emergency responders experience STS. This is the first study of which I am aware to measure STS in partners of NZ defence and emergency responders. Using the modified STS Scale measure, this study found that 20-35% of the participants could be suffering from possible PTSD from secondary exposure to traumatic events experienced by their defence or emergency responder. This prevalence is comparable with the 21% found in a study of wives of firefighters (Gawrych, 2010) and slightly lower than the 28% found in a study of police wives (Dwyer, 2005), although these studies used the Modified Secondary Trauma Questionnaire (Motta et al., 2001) and not the STS Scale. Other studies of STS in partners of military service members utilising various measures linked to The Diagnostic and Statistical Manual of Mental Disorders (5th ed.) (DSM-5) symptoms for PTSD resulted in a wide range from 3% (Bjornestad et al., 2014) to 10% (Dekel, Levinstein, Siegel, Fridkin, & Svetlitzky, 2016), 24% (Renshaw et al., 2011), and around 30% (Al-Turkait & Ohaeri, 2008; Frančišković et al., 2007). One study found that all participants who were partners of military veterans with PTSD had either moderate or severe STS symptoms (Ahmadi, Azampoor-Afshar, Karami, & Mokhtari, 2011). None of the reviewed studies used the STS Scale as their measurement tool to explore STS in partners of responders. The variations in the studies could be related to differences in the measures, or due to the specific populations.
since a number of the above studies were with partners of veterans who had long ago left the military work environment.

While this study found 20% of partners could be experiencing possible PTSD from secondary exposure, most participants (56.8%) experienced few or no symptoms. Still, 35% rated at least one item on the ‘intrusion’ subscale, at least three items on the ‘avoidance’ subscale and at least two items on the ‘arousal’ subscale as having taken place ‘occasionally’ or more often.

*Partners who are also responders:* The qualitative responses indicated that a number of partners who are also responders want more support. As one participant said “stop assuming that because I am in the same organisation that my resilience is high and I do not need support.” The results from the STS Scale when including only partners who are also responders indicate that they experience symptoms related to STS by similar proportions (23%).

*Secondary Traumatic Stress Scale modified for NZ population:* I will briefly discuss the presurvey findings (5.2) as they relate to how I modified the STS Scale in three specific ways. The first modification focused on a scale that could be used with responder partners. As the literature shows, there is no consistent commonly used measure of STS in the studies of partners of defence and emergency responders. I chose to measure STS by modifying a scale that had been frequently used in social workers (Bride et al., 2004). The modifications were necessary to explicitly connect the trauma incidents experienced by the responder with the trauma related responses among their partners. I recognise that the original scale was created to test STS among professional helpers. It was created to examine effects on individuals whose relationships with their clients are defined by specific boundaries and expectations. Partners, on the other hand, are in a different type of relationship, one that is often described as intimate partners. Military members and emergency responders share an array of conversations and behaviours with professional helpers as well as their partners, which may be related to traumatic experiences. However, couples have mutual expectations, obligations and shared lived experiences that are multifaceted and may be impacted directly or indirectly by the high-risk responder environment even if the responder does not verbalise traumatic work experiences (Catherall, 2012). I modified the questions to reflect that this survey was aimed at partners and not professional helpers. To safeguard that the modifications were in keeping with the scale’s purpose I was in communication with the main author, Dr Brian Bride, about the changes I proposed to the scale.
The second need for modifications focused on appropriate terminology for the NZ context. The term ‘trauma’ did not resonate with many partners although the very stressful and life-threatening experiences they described during the interviews met the definition. Some participants had difficulty using the term to describe harms that were psychological not physical. In pre-survey interviews, after mutual agreement on the definitions of primary and secondary trauma, a number of participants claimed their responder did not experience any traumatic events. Later in the interview those partners shared extremely stressful, life-threatening events that their responder experienced which impacted on their own behaviours. I initially thought that some participants did not want to share potentially stigmatising information and only did so after they felt they could trust me later in the interview. However, subject matter experts pointed out that the term ‘trauma’, although used clinically, was a more ‘American’ and less a ‘Kiwi’ term and so they suggested I use alternative terms. The STS Scale instructions and all references to trauma within survey questions were replaced with events classified as ‘very stressful’, ‘difficult’, ‘upsetting’, and ‘life-threatening’. I received feedback from Dr Bride about these modifications to the instructions confirming acceptability of use (personal correspondence, 2014). I also adopted NZ spelling of words. I believe these modifications improved the relatability of the statements with the participants.

Finally, discussions with the cultural consultants for this thesis prompted the addition of an open-ended question asking participants to share ‘other experiences when hearing of upsetting life-threatening events’. An analysis of the responses found that most statements could be categorised using the criteria already represented within the survey, however a few additional themes emerged. These themes included helplessness, blame, fear, dark humour, and positive feelings. As described in 4.9.4.10, the questions within the STS Scale were based on the DSM IV PTSD criteria measuring intrusion, arousal, and avoidance symptoms. Although specific analysis of the DSM criteria is beyond the scope of this thesis and my area of expertise, I did choose to use a measure (STS Scale) that was based on the DSM IV criteria. Therefore, I will briefly discuss these ‘other’ symptoms and how they relate to the symptoms in the DSM. Changes to the PTSD criteria used to create the STS Scale, were made in a newer version of the DSM (DSM-5). They include splitting one of the three clusters into two to create a fourth cluster, adding a few new symptoms, and shuffling a few others into different clusters (Friedman, n.d.). The added cluster focuses on negative changes in thought and mood and incorporates blame and fear (American Psychiatric Association, 2013). Symptoms measuring the lack of positive feelings and dark humour fit this fourth
criterion as well. A future measure of STS among partners of defence and emergency responders using the newer DSM-5 clusters could address most of the additional themes emerging from the open-ended question. To be diagnosed with PTSD, in the DSM IV, individuals needed to experience helplessness, intense fear, or horror immediately after the trauma but the DSM V removed this requirement for diagnosis (National Center for PTSD, 2016). Future researchers interested in creating a newer version of the STS Scale using the DSM V symptom criteria should consider including most of the additional symptoms. A new measure for partners of defence and emergency responders might include questions around helplessness. Alternatively, a separate measure of self-efficacy could be applied to studies with partners, since researchers believe helplessness arises from individuals believing they cannot change their situation (Brandtstädter, 1992).

7.5.2 Partner and organisation management of STS

The second research question (RQ2) asked how the partners of defence and emergency responders manage STS. To address this research question, variables were placed into areas of responsibilities as discussed in Section 4.9.5, which were primarily accountable either to the partners or to the responder organisations.

Summary of how organisations manage STS for partners: Most participants (73%) were not provided an induction or welcome and were never (68%) or rarely (17%) provided stress management information by the organisation. Including the responders themselves as a proxy for the organisations, over two-thirds of participants never or rarely received information for managing stress from their responders. Many partners felt that they did not understand their responder’s work environment or why it operates the way it does and felt excluded even though the job has a huge impact on their personal lives. As one participant said “the absence of direct correspondence, this in itself excludes partners” and another stated “make me feel included/part of the [responder] family.” Feelings of belonging are indicated as a preventative measure for stressors (Cohen & McKay, 1984) and evidence has demonstrated that well informed partners can impact positively on emergency organisations and the wellbeing of responders (McGonigle et al., 2005).

Organisations should take note that about half of the partners who did receive information from the organisation or the responder felt the information was useful (agree/strongly agree) compared with only around 10% who did not feel that information was useful (strongly disagree/disagree). As noted in Section 4.4.4 some of the organisations do indeed offer welcome/inductions, welfare support, wellbeing support, and outreach to partners, however
this study’s qualitative findings indicate that many partners from all responder organisations are unaware of support being provided and want more orientations, workshops, and direct communication from the organisations. This direct communication and engagement from the organisation should detail information describing how the organisation works and what the regular expectations are of the responders as well as the partners. The partners also described wanting more education around traumatic stress. They wanted to learn how to recognise traumatic stress and the best ways to support their responder after potentially traumatic experiences. They also requested that the organisations increase support for their responder and themselves when potentially traumatising experiences occur.

Providing non-stigmatising messages around seeking help for potentially traumatising experiences are also mainly the responsibility of the organisations. The qualitative and quantitative results show that partners clearly feel that the organisational environment still stigmatises help-seeking for mental health issues. These results are unsurprising and not unique to any individual responder organisation (Harvey et al., 2015) and apply to a number of western military forces including NZ (Gould et al., 2010). The literature also shows that there do not appear to be widely accepted interventions that defence or emergency responder organisations can implement to quickly reduce the stigma and barriers to mental health care. Instead researchers recommend an overhaul of the traditional methods of intervention, traumatic stress education, and how mental health services are provided to responders (Britt et al., 2007; Hoge et al., 2004). The partners expressed as much in their statements, requesting that the leadership at all levels encourage help-seeking and stamp out the bullying and macho environment that impedes access to care. The partners emphasise a need for policy changes on how, when and where responders are offered care for potentially traumatic events. Partners had a number of suggestions to specifically address the stigma their responders experience towards seeking counselling.

Frequently proposed suggestions were to have automatic, mandatory referral to counselling for potentially traumatic events, or regular scheduling of support sessions, even without a trauma event so that every responder is ‘in counselling’ as a normal part of working in a high-risk job. In terms of their own views around help-seeking, the vast majority of the partners knew where to get help (73%) and disagreed with a statement saying that seeking help would not help (71%). Research has shown that the partners of responders have fewer concerns for themselves around stigma towards help-seeking, and providing this care for the partners may encourage the service members to seek help (K. M. Eaton et al., 2008).
A final responsibility of the organisation is to invite partners to events and activities so they can connect with other partners of defence and emergency responders, and share experiences and social support to mediate the risk of STS. Although most partners (78%) were invited to events by the organisations, qualitative findings indicate that many suspected that the events were set up without the oversight or awareness of senior managers in the organisation. Many partners felt that the organisation should organise and fund these activities.

Summary of how partners manage STS for themselves: Offering the activity or events is a responsibility of the responder organisation, while attending these events is up to the partners themselves. The vast majority (87%) of partners who were invited to these events attended at least some of the time. Qualitative findings indicate that the partners see the benefits of connecting with other partners of responders. One partner stated “I would like to know that partners of other [responders] would be available for discussion if necessary…in case something happened.” While many participants wanted more events and activities often the requests were in conflict with the requests by others. For example, a number of suggestions were for more and fewer events for children, more and fewer sporting events, and more and fewer events that include alcohol. There were also requests for events to accommodate the partner’s own working hours or the children’s school activities.

The partners are also responsible for their social support. Increasing the emotional and informational support of partners is a very complex issue without quick easy solutions. Ideally the organisations would provide support opportunities by bringing together partners and providing educational opportunities by sharing researched evidence about the importance of emotional and informational support for the partners and the responders. Organisations can inform the partners about where and how to access support, but ultimately this concept relies on partners accepting or possibly creating their own support networks.

About half the respondents from this study did not feel they had someone who could provide emotional or informational support to them for their problems or worries because their partner was a military member or first responder. Surprisingly, around 30% who felt unsupported stated they had emotional/informational support ‘none of the time’. The qualitative findings discuss being without support because of issues related to moving, which put partners into environments far from their usual support networks. Partners also discussed shift-work or deployments as barriers to socialising. Family and friends do not always understand how shift-work and deployments impact everyday life and the kind of support that would be most useful for the partners. As one participant explained “it would be nice to
talk to other partners [like me] as I only know the odd one that I get introduced to by chance, because my friends don't understand the shift-work or the worry.”

Another aspect of social support that is the responsibility of the partners involves how much, and with whom, the partners share or hide their thoughts and feelings about the difficult, upsetting or very stressful events experienced by their responder. While organisations can provide education to the partners which identify emotional disclosure as generally benefiting an individual’s wellbeing, and emotional nondisclosure reducing wellbeing, it is the responsibility of the partner to engage. Three quarters of partners reported sharing a moderate to a great deal of information with their responder, with around 35% sharing the same amount with partners of other responders, friends who were not responders, and family. Around 30% of partners withheld their thoughts and feelings from their responder, but 45% concealed a moderate amount to a great deal of information from families and friends. In the qualitative section of the survey, participants expressed a desire to meet and engage with partners who were in similar circumstances to themselves. The partners also felt they were not given the opportunity to meet other partners of responders. Partners felt they would be more open to talking about their experiences with other responder partners than with their friends or families who are unfamiliar with the defence or emergency responder environment.

Fewer than 10% of partners stated they shared a moderate amount or a great deal with professional/medical personnel or Kaumātua/community or spiritual/religious leaders. However, over 55% of partners indicated they hide nothing from these groups. Partners may not share this information because they are concerned about betraying the confidences of their responder, because they are not educated on identifying the symptoms of secondary trauma, or because they were not asked a direct question around how they manage information shared by the responders. Educating the partners about the symptoms of STS and encouraging them to share experiences of symptoms with the professional/ community personnel is one step that can be taken. Another is to encourage the professional/ community personnel to find out if clients are partners of responders and inquire about how they manage their lives around the stressful activities experienced by their responders.

Resilience is also a responsibility of the partners, although in common with social support and stigma, a number of factors are possibly out of the partners’ control. Research on resilience around trauma reaction indicates that the level of exposure to trauma, the partners’ personalities, and access to social support are key predictors of resilience (Bonanno et al.,
The resilience measure for this study was a self-evaluation of the ability to ‘bounce back’ or recover from stressful events. Two-thirds of the participants recorded ‘average resilience’. Almost all those with high resilience reported ‘no, little, or mild’ STS. A number of US military initiatives aim to build resilience in the partners of service members (Erbes, Meis, Polusny, & Compton, 2011; Harms et al., 2013) and many partners believe that it has been very beneficial to their life (Farmer, 2014; Mitchell, 2013).

Relationship satisfaction is also a responsibility of the partners. The vast majority (70-80%) of partners indicated being very satisfied with their relationships. The qualitative findings however indicate concern that traumatic stressors on the job have direct and indirect impacts on the relationships. A number of participants mentioned that consequences included perceived higher divorce rates and higher use of alcohol or drugs by the responder, affecting the relationship. One participant linked a traumatic work incident directly to infidelity by the responder because the organisation did not encourage the responder to seek professional help.

### 7.5.3 Barriers

Barriers to care variables for managing STS in the hypothesised model were identified as ‘stigma towards help-seeking for mental health issues’ and ‘emotional non-disclosure of distressing information related to the experiences of the responder’.

The third research question (RQ3) asked what barriers to managing STS the partners of defence and emergency responders identified. To evaluate if these variables had a significant impact in the model, Hypothesis 3 ($H_3$) (predicting perceived stigma towards help-seeking) and Hypothesis 4 ($H_4(a)$ - predicting emotional non-disclosure) are discussed in addition to qualitative responses from the survey.

$H_3$ is supported, meaning that low receipt of stress management information is associated with higher stigma towards help-seeking for mental health issues. In addition to the hypothesis, the regression analysis indicated that not being invited to events by the organisation was associated with the outcome variable. $H_4(a)$ is partially supported. Emotional non-disclosure of distressing information relating to the experiences of the responder was associated with higher stigma towards help-seeking. However, contrary to this hypothesis, receipt of stress management information was not statistically significantly associated with emotional non-disclosure. From these hypothesised model pathways, the
participants identified perceived stigma and emotional non-disclosure variables as barriers to managing STS. These findings were reiterated in the qualitative analysis.

Barriers to care for managing traumatic stress in the qualitative portion of the survey often included stigma. A number of the comments were similar to the statements provided in the stigma to help-seeking variable in the model such as “welfare have a strong stigma related to them that both [responders] and their partners distance themselves from because they are related to counselling services/mental health issues and there are confidentiality breaches.” Others suggested ways of addressing the issue “the stigma associated with stress related health issues is still old school. Management need to talk more about it and treat it like other health related matters so that it is normalised – and addressed more openly.”

As previously discussed (4.9.4.6), the emotional non-disclosure variable in the model measured how much partners hid from others, information on trauma experienced by their responders. The partners shared why they believed their responders did not disclose traumatic information. One partner detailed that their responder “won’t go to counselling as he feels it will bring things out he doesn't want to acknowledge.” Others discussed the lack of emotional disclosure by the responder because “he often has trouble telling me [about stressful events] as he does not want to upset me with what has happened.” The partners did not directly discuss their own specific experiences with hiding information, but they often described wanting support from people with whom they felt they could share information. For example, one participant needed “extra support or information, so I know who to turn to and feel comfortable contacting/asking them.”

Other barriers to care for STS that partners identified in the qualitative discussions were related to feelings of helplessness, blame, and fear. Excluding positive or neutral comments, the emergent qualitative statements could easily have been categorised into themes of helplessness, blame, or fear, with an often overlapping theme of anger. While I chose to thematically analyse the narrative in a different way, partners identified a significant lack of resources as barriers to managing secondary stress, as discussed in the next section.

7.5.4 Resources

Resources for managing STS in the hypothesised model were identified as ‘offered a welcome/induction’, ‘invited to events’, ‘receiving stress management information’, ‘disclosing information about traumatic events experienced by responder’, ‘emotional or informational support related to being the partner of a responder’, ‘resilience’, and
‘satisfaction within the relationship’. The core aspects of these variables have been discussed in the literature as mediating traumatic stress symptoms, most frequently related to the professional carer (Adams, Figley & Borcarino, 2008; Baird & Kracen, 2006; Boscarino, Figley & Adams, 2004; Day & Anderson, 2011).

The fourth research question (RQ4) asked what resources the partners of responders identified as useful to managing STS. To evaluate if outcome variables had a statistically significant impact within the model, $H_1$ predicting invitation to events, $H_2$ predicting receipt of stress management information, $H_4(a)$ predicting emotional disclosure, and $H_5$ predicting emotional and informational support are discussed in addition to qualitative responses from the survey. Independent variables (for example, offered induction, relationship satisfaction, and resilience) that were not outcome variables in this model are also discussed in addition to qualitative findings.

*Invitation to activities/events, welcome/induction and receiving stress management information:* $H_1$ is supported, meaning that infrequent invitation to activities and events offered by organisations was associated with not being offered a welcome or induction. $H_2$ was also supported by the finding that low invitation to events was associated with low receipt of stress management information. Although not hypothesised, offering a welcome or induction also had a statistically significant association with receiving stress management information. Qualitative findings provided many statements to support invitation to events as a resource.

One partner said “continuing the social occasions so we get to know each other better so that if the time came we needed to seek one another out we would feel more comfortable doing so.” Most comments focused on requesting more events or events where none existed. This also applies to the welcome/induction and stress management information. One partner stated “I've never seen any info (if it even exists) of advice for partners of [responders] (info on stress, how best to support them etc.).” Another partner commented:

> In my experience, partners/family members never really get to see what goes on or what day to day life is really like for the emergency responder. An introduction or information type event would probably help this. It could be as simple as a who we are, what we do type thing to help understand the stresses placed upon emergency responders, and how to spot signs that they may need help.

Partners clearly identified that providing inductions, events and stress management information were resources that they felt would empower them to make informed decisions for themselves and their responder.
Emotional disclosure and emotional/informational support: $H_4(a)$ was partially supported, meaning that low emotional disclosure of traumatic events experienced by the responder was predicted by lower receipt of stress management information. However, higher stigma towards help-seeking did not predict low emotional disclosure. $H_5$ was supported in that higher emotional/informational support was predicted by higher emotional disclosure and lower emotional non-disclosure. Other statistically significant variables predicting higher emotional/informational support in this analysis included invitation to events, receiving stress management information, and lower perceived stigma towards help-seeking. These resources were frequently discussed in the qualitative portion of this study, specifically to assist the partners in addition to assisting their responder. Participants identified that sharing information with responder partners is a resource to help them manage symptoms, in the words of a participant “there is a reason why being the partner of an emergency service person is called a widow maker – it so often makes a widow of intimate relationships. Only fellow spouses understand that.” While that quote is a very different interpretation on what is often a literal definition of responder organisations being ‘widow maker’, it certainly highlights the point that fellow partners rely on each other to be understood.

Emotional/informational support was also frequently discussed as a resource in many different ways. Participants identified counselling and professional and informal support groups as resources to assist them with managing their lives as the partner of a responder. They also suggested implementing direct communication strategies with partners to improve support for the partners to access. One participant requested that the organisation “ensure assistance is available to the family unit as a whole and individually. Family often bear the brunt of anger and emotional breakdowns and need assistance to handle such situations.”

Resilience and relationship: The resilience and relationship variables were found to be very strong resources for partners. Hypothesis 6 ($H_6$), which will be discussed in the next section, found that partner resilience and the relationship satisfaction within the regression model were negatively associated with STS. Partners in the qualitative sections identified the importance of keeping the relationship healthy as a resource to managing stress. One participant stated they wanted to have “couples counselling available, he can access counselling for himself but not for us as a unit and sometimes we are under a lot of relationship stress due to his job.”

Resilience was also discussed as a resource to provide the foundation for responders to excel at their jobs. One participant stated “I would like them to recognise the value of a strong
family which ultimately becomes the rock that allows the employee to respond and do their job well.” The implication is that if partners are not resilient, but suffer and need responders’ attention, it is more difficult for responders to perform their duties. Participants also criticised assumptions about who is resilient. For example, one partner said “stop assuming that because I am in the same organisation that my resilience is high and I do not need support.”

Other resources used by participants to address secondary effects included acknowledging positive feelings such as pride, gratitude and humour. For example, one participant discussed the “scars” because of talking about the events at the responder’s work, but is focused on the positive aspects:

We the partners, with or without families are there to help deal with what they have dealt with during their shift, some good some not. But when I married my partner I married the job, I never wanted him to change. It was important to support him, he and I always talked about some cases, some left scars, and are never forgotten, I know I wouldn’t change my thoughts, I’m proud of what my husband does, and the many lives he's helped save.

Others describe humour as a coping mechanism. While light-hearted humour has been found to reduce STS in a study of responders who combat child exploitation, dark humour that is less jovial may indicate a decrease in psychological well being (Craun & Bourke, 2014). Some partners expressed pride in what the responders do. They also indicated that they were thankful for support provided to their responders and themselves during difficult times. Gratefulness is often described as a resiliency trait because it increases an individual’s use of emotional and instrumental support and is considered a resource for mediating stress (Wood, Joseph, & Linley, 2007).

7.5.5 Impact of demographic variables

Research question five (RQ5) asked if the relationships of resources/barriers with STS vary according to gender, ethnicity, age, time as a couple, time the responder is in service and having school age children. None of the demographic variables moderated the STS Scale outcome directly and only the interaction of gender with resilience slightly moderated the STS Scale variable in the final analyses of the hypothesised model, as noted in Section 6.15.8. Partners did however mention a few demographic and other variables in the qualitative section. Age and time as a couple were discussed, with partners’ suggestions that new or younger partners would benefit from inductions, being invited to events and education about trauma reactions. Having children was described as adding a level of
difficulty to managing stress from being a partner of a responder. Other areas that participants felt had an impact on stress management included family income, employment status of partner, employed partner with children, partner employed as shift-worker, and additional employment by the responder outside of the responder organisations.

7.5.6 Relationship between STS barriers and resources

Discussion around H₆, summing up the qualitative data as well as the SEM analysis, addressed research question six (RQ6) which asked if there was a relationship between the resources/barriers that were identified by partners and STS.

7.5.6.1 Regression analysis of relationship between barriers and resources

Hypothesis 6 stated that high STS will be predicted by low emotional/informational support, low relationship satisfaction, and low resilience. This hypothesis was supported through analysis of variables using hierarchical multiple regression. These variables, in addition to high stigma towards help-seeking, high emotional non-disclosure, and high emotional disclosure, had a statistically significant association with higher STS.

**Emotional disclosure:** The last variable, emotional disclosure, may seem out of place in increasing STS, and in some respects it is. For the most part, emotional disclosure is considered a positive resource for individuals managing trauma reactions and is encouraged (Greenberg & Stone, 1992; Hemenover, 2003; Pennebaker, 1997). However, studies with trauma survivors have found that not all disclosure is equal and some disclosure can have negative effects (Hoyt et al., 2010). The emotional disclosure variable used in the regression and SEM excluded the professional helpers (Kaumātua, community leaders, spiritual/religious leaders and medical personnel and counsellors) who are more likely to have been trained to discuss traumatic events safely. A number of study participants recognised this aspect of emotional disclosure. One participant summed up how disclosing traumatic events to untrained individuals could be harmful and provided suggestions for the organisation to address this issue:

> Offer support to deal with the nature of the [responder’s] job and how best to support them without compromising integrity and family relationship. At times I believe the nature of the job itself puts strain on daily life and there is no support for the families on how to best deal with it all, let alone when the responder goes through a significantly stressful situation at work. At times, families can do more harm than good when unsure/unaware, putting at risk relationships within the family circle. I believe it is important for families to learn and receive education on how best to support the responders, understand what they deal with, their responsibilities and
their roles. Lack of knowledge of some can come across in family circles as unsupportive/unhelpful, therefore putting extra emotional stress/pressure on the responder.

This quote exemplifies the complex interactions between barriers and resources. It acknowledges the everyday stressors of living with a responder and requests pre-emptive resources from the organisation to provide support, education and training around managing significantly stressful events at work. This participant describes the help offered by family members as possibly providing welcome assistance. However, because of the lack of welcome/induction (barrier), lack of training about stress reactions (barrier), and unclear expectations around responsibilities, the attempts to help may backfire.

The hypothesised model with all significant pathways indicated is presented in Figure 7-2 and prompted further analysis of the relationships between the barriers and resources through SEM.

Figure 7-2 Model indicating significant direct hypothesised pathways

7.5.6.2 SEM analysis of relationship between barriers and resources

As Section 4.9.7 described, I created a second model using SEM to examine the relationship between the variables. This model grouped all the variables from the regression analysis (except ‘invited to events’) into four factors called latent variables as shown in Figure 7-3 which demonstrates a simplified diagram of the SEM. This diagram was often used to
present the data to those unfamiliar with this type of analysis (see Section 6.17 for the full model).

Figure 7-3 Simplified SEM

The model fit was acceptable as described in Section 4.9.7. While there was one interaction effect on the resilience factor which could be contributing to unaccounted variance in the model, the fit was still acceptable. The model found that higher levels of organisational communication positively predict positive social engagement which positively predicts tenacity. Higher levels of tenacity predict a reduction of psychosocial risk. This analysis indicates a need for organisations to increase stress management education and provide a welcome/induction for partners. It also indicates a need to reduce messages within the organisation that stigmatises help-seeking for mental health issues.

The following thematic analysis of the statements provided in the survey provides a more robust overview of what the partners feel they need for themselves and their responders to better manage the complexities of their lives as the partner of a military service member or first responder and reiterates this model’s findings.

7.5.6.3 Thematic analysis of relationship between barriers and resources

As described in Section 5.6.2, the themes which emerged from the qualitative analysis were developed from answers to three questions. As discussed previously, the first question asked
partners about the type of interactions they would like to have with the organisations. The second question asked what more the organisations can do for the partners and the third question asked what more the organisation can do for the responders. The findings described ‘basic themes’ which emerged from the narratives of the participants. These themes were synthesised into four ‘organising themes’ which describe what the partners request, and then into ‘global themes’ signifying what these requests mean for the partners and organisations.

**Societal inclusion and healthy organisation:** The comments synthesised into this organising theme addressed behaviours that went against the stated core values of the organisations such as integrity, professionalism, and commitment. Partners described organisational environments which foster substance use, bullying, machismo thinking, discrimination, exclusion of partners, and a patriarchal outmoded approach that undermines a healthy work environment for the responders and negatively impacts the partners.

**Direct communication and engagement:** This organising theme focused on partners requesting direct communication with the organisation. Communication intended for partners should not rely on indirect methods of communicating (via responders or word of mouth) but should go directly to the partner for all types of events and scenarios. This communication includes induction/workshops/contact information, communication when the responder would have a significant delay in returning home, invitations to any events/activities, and notification of the responder’s involvement in traumatic events. The partners would like the organisations to listen to what they have to say and to express their gratitude to the partners. Direct communication and engagement with the organisation would provide opportunities for partners to make more informed choices in crisis and non-crisis situations.

**Perceived organisational support:** The perception of organisational support provided to the partners and the responders was the main focus for this theme. This theme addressed direct and indirect ways to prevent or mitigate traumatic stress reactions in the responders and partners. Direct strategies address the inclusion of mandatory debrief or counselling after traumatic events; modifications to protocols for how responders are supported after an event; counsellor access for partners of responders who have experienced traumatic events; and educating partners to identify and assist their responder and themselves with stress reactions. Indirect strategies to mitigate traumatic stress reactions include ensuring the confidentiality of responders is respected; decreasing the stigma towards help-seeking; and provision of
formal/informal supportive activities to create opportunities for partners to form their own networks with other partners of responders.

Organisational competence: The final organising theme addressed areas considered core competencies of any organisation including employee skills, coordinating work, available resources, and following policies. In contrast to the core values discussed in the first organising theme, these were not about responsibilities to societal expectations or norms. Instead they focused on functionality, processes and what kind of impact these had on the responders and partners. These basic themes described the impact on the partners’ life, pay, staffing, responder training, management, physical work environment, shift-work, time off, overtime, and assignment of duties. Improvement of the organisational competencies would reduce negative impacts on the lives of the responder and partner, and improve work and home environments to optimise the responders’ abilities to contribute to the organisations.

Global themes- self and collective efficacy: The global themes present my assessment of what emerged from the organising themes and what it represents for the partners and organisations. These global themes work in tandem. The first involves empowering self-efficacy in the partners to manage potentially stressful effects of being in a relationship with a military member or first responder. Self-efficacy in this context “reflects the belief of being able to control challenging environmental demands by means of taking adaptive action” (Schwarzer, 1992, p. ix). To take these actions, individuals depend on the societal environment to provide social support, information, modelled behaviours and resources (Zaccaro et al., 1995). The second global theme therefore advocates improving the collective efficacy of the organisations. Collective efficacy is the shared belief of a group in its ability to “organize and execute the courses of action required to produce given levels of attainments” (Bandura, 1997, p. 477). The external avenues of support and resources that partners could potentially access include family members, friends, and formal community support programmes. The advocacy for collective efficacy in this global theme focuses on the beliefs, actions, and competencies of the responder organisations in addition to the direct and indirect exchanges with partners.

7.5.6.4 Summary of relationship between resources and barriers

This study found that the partners are at risk of STS and that forms of social support would decrease this risk. Integrating the qualitative thematic analysis findings with the quantitative results produces a full picture of the outcomes of this research. Self-efficacy is one of the best predictors of coping (Skinner, 1992) as illustrated by Benight and Bandura (2004), who
stated that “people who believe they can surmount their traumatization take a hand in mending their lives rather than have their lives dictated by the adverse circumstances” (p. 1144). This action however relies on the amount of direct or indirect “information in the environment available to individuals about the best strategies for reaching desired and preventing undesired outcome, and about the self’s capacity to enact those strategies” (Skinner, 1992, p. 93). For partners to recognise protective behaviours and take actions in their challenging environment they need opportunities for support and advice that consistently, dependably, and predictably result in desirable outcomes (Skinner, 1992). While a few of the responder organisations offer some opportunities for support and advice, this study has found that most partners are unaware of these opportunities. A number of partners described feeling helpless to address issues they face and are frustrated by and angry about how they are treated. Even individuals who feel a sense of control often experience helplessness (Seligman, 1975). Not all participants from this study felt this way, but a number of those who felt included advocated on behalf of those left out. As one participant said:

> Partners of responders who are responders themselves are probably not so affected, however I can see great room for improvement if I put on my ‘being a partner hat,’ it would be great for the organisation to improve or come up with ideas/initiatives which improve the feeling of inclusiveness for the partners.

### 7.6 Study strengths, limitations and implications for future studies

One limitation of this study is that the cross-sectional nature of the study precludes straightforward assessment of causation among direct and indirect associations between the study variables. Future studies could use a prospective longitudinal study to examine the impact on partners of engagement/lack of engagement from the responder organisations. Another limitation of the study involved the interpretation of the SEM. The adequate fit of the model to the data through ‘alternate measure of the goodness-of-fit’ (6.17.1), is not evidence that the model is the best possible, since competing models could better fit the data (Hoyle, 1995). For example, it is possible that the one interaction effect from gender on the resilience factor could be contributing to unaccounted variance in the model, future researchers should consider examining the impact of gender differences on STS. Additionally, the model should be validated using a supplementary sample (Schumacker & Lomax, 2004). This was not feasible for the timeframe of this PhD; however, it could be considered for future studies.

A further limitation of the survey involved recruitment. Feedback from participants who missed out on taking the survey (5.4) indicated that many partners were unaware the survey
was available or that their responder’s organisation supported the research. Ultimately, only around 6% of eligible partners took part in the study. The low uptake of the survey in general, but specifically by male partners and ambulance partners, makes it difficult to determine whether participants represented the entire population. Future studies should consider advertising directly to the partners through the organisations and clearly indicating that the organisations endorse the study. Prospective research in NZ could include the partners not eligible for this study but at high risk of trauma reaction including: NZ Response Teams, Urban Search and Rescue, NZ Customs Service, NZ Coast Guard, NZ Land Search and Rescue, hospital emergency department trauma teams, and retired or inactive responders from all of these groups.

Finally, representativeness is in question because of possible response and selection biases. Some participants might have taken part because they were experiencing symptoms of trauma reactions. It is also possible that those most affected by STS were unable or unwilling to participate. However, the qualitative analysis has attempted to provide sufficient depth of information for readers to assess the transferability of the study findings.

Complexity theory was the theoretical framework guiding this investigation into STS and social support among partners of NZ responders. Despite my conceptually framing the research in holistic, non-linear terms, the quantitative arm of the study investigated a limited number of variables using predominately linear analysis.

One of the study’s strengths involved the wide scope of this research. My study included the largest defence and emergency responder organisations in NZ and collected a substantial amount of information from partners of NZ defence and emergency responders, much of it for the first time. This survey also provided an opportunity for NZ partners to have their voices heard on issues relating to their experiences of being the partner of a NZ responder. A final strength of this study involves the mixed methodologies approach. Engaging with the partners and encouraging their input into the study, enabled this research to incorporate real world experiences and terminology that may be specific to NZ partners of defence and emergency responders. The quantified results and the qualitative themes provide a robust explanation of these experiences, the impact on participants, and the implications for change.

### 7.7 Suggestions for organisations and partners

This study found that direct engagement between partners and the organisations by including a welcome/induction and access to stress management information decreases the
psychological and social risks to the partners. The environment that the partners of responders negotiate every day is complex and multifaceted, with variations that exist between organisations and even within organisations. Therefore there are no simple ‘one size fits all’ resolutions. But the findings of this research do offer suggestions for improving the self-efficacy of the partner and collective efficacy of the organisations.

The main suggestion, which is not unique to this research, encourages organisations to recognise the important impact that partners have on the health, wellbeing, and readiness of the responder as well as the organisation (Figley, 1999b; Figley, 2005; Regehr & Bober, 2005). To gain the benefit of this positive impact requires the inclusion of partners in organisational activities, education, and communication. The findings from this study addressed a wide variety of issues that impact the lives of the partners of defence and emergency responders and their ability to prepare for, or manage, the stress shared by their responders. These issues include the organisational competencies, the way healthy societal norms are represented within the organisation and how the organisation engages with and supports responders and their partners.

Accepting that partners have an important role to play in achieving the desired outcomes of both the responder and the organisation is an important first step. It will require the organisation to implement or adjust its existing engagement with the partners. Using the results from this research, I will focus on how six broad suggestions may help to integrate partners into the organisation. Four of these recommendations are aimed at all organisations, one at organisational/governmental entities, and one at partners. Due to the complex and constantly changing environments, these groups may need to modify their approach to find the engagement mechanisms that suit their population at that time.

Firstly, I recommend that the organisations obtain and maintain updated contact details for partners of their responders. Knowing who the partners are, and enabling organisations to communicate with them, is an essential step towards providing an inclusive environment for partners. The organisation should to be very clear about what type of information the partners will receive through this channel and how they can ‘opt out’ or ‘opt back in’ to receive different types of communication. It is incumbent on the organisation to emphasise potential benefits responders and their partners will gain from providing the contact details.

Secondly, I suggest organisations provide welcome/inductions for the partners of their employees, which systematically includes new partners, no matter how long the defence or emergency responder has been involved with the organisation, and no matter where the
partners are geographically located. The welcome or induction should provide an overview of the organisation, expectations of the responder’s role within the organisation, common challenges facing new partners, where to access information from the organisation and, at the first opportunity, an introduction to other partners within the organisation. Partners ought to be welcomed into new units or sections when the responder shifts jobs, and provided with an overview of new responsibilities, staff contact details in the new environment as well as an introduction to fellow partners. Organisations must recognise that they may only have a few opportunities to make a good impression on partners, so the invitations should be earnest and inclusive of partners who may feel they do not fit the stereotypical partner mould. These perceptions that organisations care about partners are important for workplace productivity and reducing turnover (T. D. Allen, 2001; S. C. Eaton, 2003; Rosen & Durand, 1995). My study found that these types of engagement with partners minimise psychosocial risks associated with being the partner of a military member or first responder.

Thirdly, my suggestion for organisations is to transparently share with the partners what programmes are available or what changes are being made within the organisation to address stress reactions, even if, at this time, those programmes offer very little for the partners. All the defence and emergency responder organisations that assisted with this study are acutely aware of the risks regarding primary trauma and their responders. All organisations are actively implementing or modifying programmes and policies to assist their employees; but only a few organisations have family components within their initiatives. This knowledge of existing programmes or policies provides partners with the ability to make informed decisions. It also shares with partners how the organisations are prepared to address traumatic stress issues. This information can guide partners as to how to help themselves if they are struggling with STS or, at the very least, how to assist their responder if they are struggling with primary trauma reaction. Sharing what the organisations are doing, and the process that individuals go through to get help, can also positively shape the perception the partners have around the competencies of the organisation to address traumatic stress.

Finally, I recommend that the organisations provide training for partners around managing stress. The training should identify the risks of primary stress that responders may experience and how they may affect the partners. It should include strategies known to reduce negative effects of trauma reactions and provide suggestions for managing those reactions should the responder or the partner experience traumatic stress. It ought to counteract the perceptions the responders may hold around stigma towards help-seeking. In addition, the training needs to identify common maladaptive behaviours and offer techniques
to build resiliency. This means that the organisations need direct channels that partners can go through to support these types of engagements.

Organisations and governmental entities should provide unified and clear messages about risks, prevention and management of primary trauma for NZ defence and emergency responders and their partners. These entities need to create and uniformly adopt guidelines similar to those outlined by Australia in the recent publication, *Expert guidelines: Diagnosis and treatment of post-traumatic stress disorder in emergency service workers* (Harvey et al., 2015). The clear similarities of risk and stigma towards help-seeking and low uptake of care within responder organisations, warrants a nationwide policy to address issues specifically for NZ’s defence and emergency responders. Adopting clear guidelines about risks of primary trauma, diagnosis, assessment, treatment, and returning to work would result in better informed organisations, responders, and partners. Currently the NZ Ministry of Health offers *A guide for emergency response workers and their managers* (2010) and suggests:

> Stress prevention and management should be addressed in two critical contexts: the organisation and the individual. Adopting a preventive perspective allows both workers and organisations to anticipate stressors and shape responses, rather than simply reacting to a crisis when it occurs (para. 2).

Based on my research I propose that this prevention and management should include a third critical context: partners. The partners of NZ defence and emergency responders need to be included as important stakeholders within any guide, policy statement, or initiative that addresses prevention, management, or treatment of traumatic stress with NZ defence and emergency responders.

Partners, for their part, need to be able to engage actively with any communication, activity, or event (in person or virtually) offered by the organisations where they are included. Interacting with what is available will provide greater opportunities to connect with other partners who share their experiences, tap into potential support opportunities, as well as provide insight into the inner workings of the organisation. Some segments of organisations have Facebook and social groups that are ongoing, others have grassroots programs initiated by partners. I encourage partners to ask the organisation about how to connect with existing groups and to share with organisations their interest in being a part of the extended responder organisational family. I also encourage partners to seek out other partners through formal programmes or informal engagement, so that institutional knowledge around being a partner of a responder can be shared. Most importantly, partners need to actively practice self-care for their physical and mental health, which in addition to the above suggestions may involve
requesting assistance from responder sources (organisational welfare support, educational resources possibly from overseas) or external to the organisations, for example GPs, counsellors and community help programmes.

7.8 Researcher reflections

When I embarked on this research, a number of my colleagues suggested that my study would be well received by the responder unions as well as the organisations and that I should simply ‘phone up’ and have a chat with those in charge. I was not prepared to make that cold call, but I did send introductory emails providing an overview of the study. It turns out that for the most part, those in charge were very interested in communicating or making someone available to discuss this research with me. I did not anticipate that I would get support from so many organisations. I engaged with my point of contacts who put me in contact with many individuals within the organisation who were already very busy with their primary jobs, but these statisticians, publicity personnel, mental health professionals, and others were generous with their time and skills. That backing continued with the partners themselves who liberally gave their time, shared their experiences, and provided words of encouragement. In fact, of the partners who engaged with this research, there were very few negative comments about the study itself, with only one quote that stood out from the survey “I think you type of people cause emergency workers to have ‘problems’ with mental health.”

I communicated with 15 individuals who did not meet the inclusion criteria because their responder had retired or their responder worked within another type of organisation. Some of those individuals were angry that they were not included. One in particular felt that the military, police, fire, and ambulance services receive all the attention when it comes to trauma research, and that their organisation was equally, if not at higher risk, of trauma reaction. The social media engagement via Facebook and Twitter involved hundreds of individuals but because of the anonymity of the survey it is not known if those that were engaging online eligible to participate in the study. Some individuals shared information which provided interesting perspectives. A few individuals, fully aware of the STS impact on partners, were shocked that a study on this topic even needed to be researched, because the outcome was so obvious to them. Others were not aware of STS and wondered if it really existed. Much of the feedback was positive, with comments offering encouragement and support for my research, and expressing relief that partners were getting overdue attention. A number wanting to be included in future research that could incorporate their perspective.
While this study was very time consuming, it was also extremely energising. The enthusiasm expressed by others for this study sometimes rivalled my own and it felt good to engage with individuals and groups who agreed that the experiences of these partners needed attention. Incorporating all the findings into succinct suggestions from this research was challenging. It was difficult because I have been on both sides: as a partner of a responder and as someone who has created and implemented programmes and policies within responder and other organisations. I empathise with the challenges faced by the organisations and the partners. I expected to be able to develop recommendations that shared the responsibilities for improving the quality of life of the partners as well as the health of the organisation. Ultimately, however I concluded that most of the responsibilities lands squarely with organisations. While organisations and partners can improve joint engagement in many ways, the organisations need to initiate and then maintain engagement with partners. They have an obligation to actively promote health and wellbeing initiatives for their responders. This obligation includes developing and executing strategies to engage with new and existing partners of defence and emergency responders to maximise their ability to access resources and minimise their psychosocial risks.

7.9 Conclusions

This study builds on the growing literature on STS and social support that is not related to professional caregivers, specifically by adding to understanding of STS among partners of defence and emergency responders. The models presented in this thesis found that a number of social support variables directly and indirectly impact STS in partners of responders. The SEM indicates that communication by organisations through increasing welcome/inductions and stress management information reduces the psychosocial risks to the partners of defence and emergency responders. The qualitative aspect of this study supported these findings and suggested that partners of responders need improved access to tools (education, training, and direct communication) from the organisations to act in an informed manner to assist their responder and themselves with issues related to traumatic events. These findings are consistent with many other researchers’ recommendations that defence and emergency responder organisations need to provide different components of support to the partners to mitigate the psychosocial risks associated with being the partner of a military member or first responder (Figley, 1999b; Figley, 2005; Regehr & Bober, 2005). This research suggests that following these recommendations will not only reduce the risks for partners, but will also increase their ability to provide the kind of support that benefits their responder and
ultimately increase organisational readiness. NZ is highly dependent on defence and emergency responders being fully ready to maintain the safety, national security, and wellbeing of the public they serve. Protecting the mental health of the partners of military members and first responders plays a large part in this need to ensure that NZ defence and emergency responders are equipped for their duty.
Appendices

Appendix A: Ethics approval

Office of the Vice-Chancellor
Research Integrity Unit

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE

05-Dec-2013

MEMORANDUM TO:
Assoc Prof Stephen Buetow
Gen.Practice & Primary Hlthcare

Re: Application for Ethics Approval (Our Ref. 010832)

The Committee considered your application for ethics approval for your project entitled The Impact of Secondary Trauma on the Spouse/Partner of New Zealand’s Emergency Responders.

Ethics approval was given for a period of three years.

The expiry date for this approval is 05-Dec-2016.

If the project changes significantly, you are required to submit a new application to UAHPEC for further consideration.

In order that an up-to-date record can be maintained, you are requested to notify UAHPEC once your project is completed.

The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals if you wish to do so. Contact should be made through the UAHPEC Ethics Administrators at humanethics@auckland.ac.nz in the first instance.

All communication with the UAHPEC regarding this application should include this reference number: 010832.

(This is a computer generated letter. No signature required.)

UAHPEC Administrators
University of Auckland Human Participants Ethics Committee
c.c. Head of Department / School, Gen.Practice & Primary Hlthcare
Mr Peter Huggard
Anna Stowe Alrutz
Appendix B: Recruitment letter

Are you the Spouse/Partner of a Police, Fire Service or Ambulance Officer?

As a partner of an emergency worker, we know you are doing everything you can to support your emergency responder so they can perform their work duties. However, being a partner of someone in this line of work, you may sometimes experience stress as a result of individual incidents that your emergency worker might have been exposed to. I would like to talk with you about how you manage the positive and negative experiences of life as the partner/spouse of an emergency responder.

I am recruiting participants for small focus groups in your area. If you would prefer to have discussions with your own group, I am happy to coordinate a focus group with spouses/partners that you already know. I am also scheduling one-on-one interviews for those who cannot make the focus group times. These sessions will take about two hours.

The purpose of this study is to improve understanding of stress in the lives of partners of New Zealand’s emergency responders. This study will ask about:

- types of stress, if any, you might be experiencing, including hearing about traumatic events
- your beliefs relating to work stress your partner may have experienced
- types of supports that you feel are available to you
- general questions about how you manage your life with someone who trains for hazardous duty

The information gained from these sessions will help me create a survey that will be posted online later this year and can be taken by all partners of New Zealand’s emergency responders.

Researcher information: For 20 years I was a military spouse actively involved with family support programs. This research is for my PhD and combines my interest in health communication and family advocacy. If you would like to participate or would like more information, please contact me at s.alrrta@auckland.ac.nz or you can call me at 021 810 4180. I will send you additional information and details about the meeting dates and locations.

Please feel free to forward this email to spouses/partners of any police, ambulance, military and fire service personnel you believe would like to participate in this focus group.

This research was approved by The University of Auckland Human Participants Ethics Committee on December 5, 2012, for three years until December 5, 2015, Reference Number 010832.
Appendix C: Military spouse recruitment

Are you a Military Spouse PARTNER?

If so we would like to talk with you about your experiences. The information you provide will help us create an online survey which will be made available for all military spouses. Focus groups will be offered in your area or we can coordinate ones with other spouses/partners that you already know.

Topics include:

- types of stress you might be experiencing, including hearing about traumatic events
- types of support that you feel are available to you
- general questions about how you manage your life with someone who trains for hazardous duty

Are you:

- [ ] the spouse/partner of a currently serving Army, Navy or Air force personnel
- [ ] willing to participate in a confidential group or individual interview in your area

For more information about this study or to sign up, please contact researcher Stowe Alrutz at s.alrutz@auckland.ac.nz or 09 923 6608 or 021 202 4180. This study has University of Auckland Human Ethics Approval (reference 010832)
Appendix D: Recruitment for responders to forward to partners

Are you a Police, Fire, Ambulance or Military service member AND have a current or former partner/spouse?

If so, a research study needs your help. We recognize that emergency workers sometimes experience stressful events which can impact all parts of their lives. We would like to talk with your partner/spouse or former partner about their lives partnered with an emergency worker.

Topics include:

- types of stress, if any, partners experienced, including hearing about traumatic events
- partners beliefs regarding work stress experienced by their emergency responder
- types of support that partners feel are available to them
- general questions about how partners manage the positive and negatives in their life with someone who is an emergency responder

If you are:

✓ a currently serving Police, Fire, Ambulance or Military service member
✓ have a partner/spouse OR a former partner/spouse

Please ask your partner/spouse or former partner/spouse to contact researcher Stowe Alruz at s.alruz@auckland.ac.nz or 09 923 6608 for more information about this study or to sign up.

This study has University of Auckland Human Ethics Approval (reference 010832).
Appendix E: Participant information sheet

PARTICIPANT INFORMATION SHEET- INTERVIEW
SPouse/PARTner OF EMERGENCY RESPONDER

Research Title: Secondary Trauma’s Impact on the Spouse/Partner of New Zealand’s Emergency Responders

Student Investigator: Ms. Stowe Alrutz, PhD student
Department of General Practice and Primary Health Care
Email: s.alrutz@auckland.ac.nz
Telephone: 64 9 373 7599, extension 86608
Cell number: 021 202 4180

Principal Investigator: Associate Professor Stephen Buetow
Department of General Practice and Primary Health Care
Email: s.buetow@auckland.ac.nz
Telephone: 64-9-373 7599, extension 86241.

Co-Investigator: Dr. Peter Huggard
Department of Social and Community Health
Email: p.huggard@auckland.ac.nz
Telephone: 64-9-373 7599, extension 84500.

Co-Investigator:
Professor Linda Cameron
School of Psychology
Email: l.cameron@auckland.ac.nz
Telephone: 64-9-373-7599

Researcher Introduction
For 20 years I was a military spouse actively involved with family support programs. This research is for my PhD and combines my interest in health communication and family advocacy.

Introduction
The purpose of this study is to improve understanding of stress in the lives of current and former spouses/partners of New Zealand emergency responders. This study will ask about the types of stress that these spouses are experiencing, including traumatic events that can cause them stress, types of support that spouses feel are available and general questions about how spouses manage their lives with emergency responders.

Invitation
You are invited to take part in this research study because
- you are currently a partner or spouse of a New Zealand emergency responder
- your partner works as a paid or volunteer employee of the New Zealand police, fire, ambulance or military service
- you are at least 18 years of age

Your participation is completely voluntary, meaning you do not have to take part in this study. If you do choose to take part, but then change your mind, you are free to leave the study at any time, without giving a reason. Benefits or services that are provided to you or your emergency responder partner will not be affected if you do not choose to take part in this study.

What happens in the study?
If you decide to take part
- your participation will involve a one on one interview with the student researcher Stowe Alrutz
- you will be asked to provide feedback about questions that will be in an online survey
- the session will be about one hour long
- the session will take place at a mutually agreed upon time and location
• the session may be digitally recorded and transcribed by the researcher to ensure accuracy
• you will be provided with a small “thank you” voucher, redeemable at a local store.
• even if you agreed the session could be recorded, you can have the recorder turned off at any time
• you have the right to leave the interview at any time
• you will be given a hand-out providing contact information should you need assistance during or after this session
• you have one week after the interview is completed to withdraw any information you provided to this study

During this interview you will be asked to share:
• feedback on the draft survey questions and the online survey tool
• information about trauma that may have been experienced by your emergency responder
• your attitudes/experiences with stressful events related to being an emergency responder spouse/partner
• your attitudes about seeking help for stress symptoms
• your support network during stressful times
• general information about what it is like being a spouse of an emergency responder

You can decide not to discuss topics of your choosing.

You may be invited to another interview near the end of the study to discuss your feelings about the research findings. Again this is voluntary and even if you chose to take part in the first interview, you will not be obligated to take part in follow up interviews. Final interviews will likely take place around the middle of 2015.

What are the discomforts and risks?
The foreseeable risks or discomforts associated with participating in this study are minimal. They mainly involve the possibility of distress prompted by personal memories and attitudes towards trauma events shared by your emergency responder. There may also be uncomfortable memories about times you sought or did not seek support or help during stressful times. You may have conflicting thoughts about sharing information with the student researcher. You may experience the same feelings you have had in the past when discussing these topics with others.

Every attempt will be made to help you feel safe. The interview will be stopped if any harmful effects appear. An information sheet will be provided for call hotline and website links in the event you have questions after the session is completed.

What are the benefits?
Some benefits might include increasing your own awareness of traumatic stress, social support and help seeking behaviours. You may also be providing valuable insight into the culture that surrounds the spouses of emergency responders. Sharing this information can assist the researcher to generate a more accurate survey which will be filled out by spouses/partners and former spouses/partners of emergency responders. The result of that survey may help researchers and educators develop appropriate interventions or provide information to individuals like you.

Anonymity and confidentiality
The student researcher will use the information collected from the participants in a non-identifiable way. The student researcher will not provide information about who attended interview sessions to anyone, including the emergency responder organisation. Computer files will be password protected. All study materials will be locked in an office filing cabinet at the University of Auckland and be accessible only to the lead investigator for 6 years after the study ends. Electronic files including survey data and audio recordings will then be deleted. All printed material will be destroyed through the confidential document destruction service at the University of Auckland.

What will happen to the results?
The data collated will be used for this student PhD research project. Articles may be prepared for academic journals and conferences. A brief report summarising the results of the research will be sent to those individuals and organizations who request a copy.

Participant concerns
Please send any questions about this study to the Principal Investigator at s.budow@university.ac.nz

For any queries regarding ethical concerns you may contact The University of Auckland Human Participants Ethics Committee, The University of Auckland, Office of the Vice Chancellor, Private Bag 92019, Auckland 1142. Telephone 64-9-373 7599, extension 83711.

Ethical approval
Approved by The University of Auckland Human Participants Ethics Committee on December 6, 2013 for three years until December 05, 2016, Reference Number 010832.
Appendix F: Scheduling groups and individual interviews

Scheduling Group and Individual Interviews for

Spouse/Partner of Emergency Responder

Group and individual interviews are currently being recruited for the Auckland, Christchurch and Northland areas. If you have an already established group of emergency responder partners, I can arrange to meet with your own group at a location of your choice. If you prefer to meet for an individual interview that can be arranged.

Where would you prefer to meet?

☐ Auckland
☐ Burnham
☐ Christchurch area
☐ Far North
☐ Whangarei area
☐ Other __________

What time of day would you be able to meet? (tick all that apply)

☐ Morning (10 AM — 12 PM)
☐ Afternoon (1 PM — 3 PM)
☐ Evening (6 PM — 8 PM)

Which days would you be able to participate? (tick all that apply)

☐ Monday
☐ Tuesday
☐ Wednesday
☐ Thursday
☐ Friday
☐ Saturday
☐ Sunday

This research aims to provide a culturally safe environment for all participants in all sessions. Some participants may prefer to engage in a group discussion within their own cultural group. Please indicate your preference:

☐ I have no preference
☐ I prefer a group session which emphasises Māori cultural background
☐ I prefer a group session which emphasises Pacific cultural background
☐ I prefer a group session which emphasises Asian cultural background
☐ I prefer a group session which emphasises (other-please state group) ____________

OR

☐ I prefer to have a focus group with my already established group

If you are unable to participate in a group session, would you meet with the researcher for a one-on-one interview?

☐ Yes- if I am unable to attend a group session, I will meet one-on-one.
☐ No- I only want to do a group session.
☐ I only want to do a one-on-one interview, not a group session

Special note for dual emergency responder couples: If you and your partner are BOTH emergency responders (police/fire/ambulance/military), you both are eligible to participate in all parts of this study. However, due to the nature of the discussions, I would suggest setting up an individual interview session or if you prefer to attend together I can coordinate a separate session for the two of you.

An email with specific details of times and locations will be sent to you shortly.
FOCUS GROUP CONSENT FORM: SPOUSES/PARTNERS

RESEARCH TITLE: Secondary Trauma’s Impact on the Spouse/Partner of New Zealand’s Emergency Responders

STUDENT RESEARCHER: Stowe Alutzu

☐ I have read and understood the Information Sheet for the Spouses/Partners of Emergency Responders.
☐ I have had the opportunity to discuss this study and ask questions of the researcher, Stowe Alutzu, and I am satisfied with the answers I have been given.
☐ I understand that taking part in this study is voluntary and that I may withdraw from the study at any time without needing to give a reason.
☐ I understand the focus group session will last between one and two hours.
☐ I understand I may choose to speak as much or as little as I like during the session.
☐ I understand that the focus group session is audio-recorded and may be transcribed by the student researcher.
☐ I understand that I can leave the focus group at any time. However once the focus group has begun, withdrawal of my individual statements will not be possible.
☐ I know whom to contact if I feel unwell after the focus group session.
☐ I understand that although the researcher will take every safeguard to preserve the confidentiality of the data, the researcher cannot guarantee participants in the group interviews will keep information private.
☐ I understand that no material which could identify me will be used in any reports on this study.
☐ I understand that the data for this study will be stored for six years in a safe place at the University of Auckland’s Department of General Practice and Primary Health Care and will be destroyed thereafter. Electronic files will be deleted. All printed material will be destroyed through the confidential document destruction service at the University of Auckland.
☐ I have been given the researcher’s information and contact details, and I know who to contact if I have any concerns or questions about the study in general.

I would like to receive a summary of the findings (please circle one response): No Yes

I agree to respect the privacy of my fellow participants by not repeating what is said in the focus group to others (please circle one response): No Yes

I ___________________________ (full name) hereby consent to take part in this study.

Signed ________________________ Date ____________________

To receive a summary of the findings, my email address is: ____________________________

Full names of researchers: Assoc. Professor Stephen Buetow, Dr. Peter Huggard & Stowe Alutzu

Approved by The University of Auckland Human Participants Ethics Committee on December 5, 2013 for three years until December 5, 2016. Reference Number 010382.
Appendix H: Additional information

Additional Help Options

Phone:
Depression helpline freephone: 0800 111 757 Talk to a trained counsellor who can discuss your situation and find you the right support. Available 24 hours a day, 7 days a week. www.depression.org.nz

Lifeline freephone: 0800 543 354 Lifeline’s telephone counselling service provides 24 hours a day, 7 days a week counselling and support. www.lifeline.org.nz

Samaritans freephone: 0800 726 666 If you need someone to listen, call Samaritans at any time. They offer non-judgemental, confidential support to anyone in emotional distress and are available 24 hours a day. www.samaritans.org.nz

Healthline freephone: 0800 611 116 Provides free advice from trained registered nurses.

Youthline freephone: 0800 376 633 or free text 234 Provides 24-hour telephone and text counselling services for young people. www.youthline.co.nz

Alcohol and drug helpline freephone: 0800 787 797 Offers free confidential information, insight and support on any problem, issue or query you have about your own or someone else’s drinking or drug taking.
Māori line: 0800 787 798 Pasifika line: 0800 787 799 www.alcoholdrughelp.org.nz

Other Support:
The Family Services Directory. Looking for support for you and your family? This Directory lists organisations in your area that can help. www.familyservices.govt.nz/directory/
The CALM Website. Computer Assisted Learning for the Mind. With a focus on mental resilience, managing stress, anxiety and depression, healthy relationships & finding meaning in life www.calm.auckland.ac.nz
New Zealand Mental Health Foundation provides free information on a wide variety of mental health needs for individuals and families www.mentalhealth.org.nz
Partners’ survey still open

Partners of police officers have until the end of the month to have their say on matters of stress.

Readers rose to the occasion after an online Ten One Extra story last month publicised a research survey into stress experienced by partners of emergency responders, arising from the emergency responder’s work.

By early March, 143 Police partners had undertaken the survey – 50 in the five days immediately after the Ten One Extra story.

A total of 427 surveys had been completed by Police, Fire, Ambulance and Defence partners, with 101 being from partners who were emergency responders themselves.

There were 167 responses from Fire, 68 from Ambulance and 65 from Defence.

Stowe Airutz, who is conducting the research for her PhD at Auckland University, says some respondents had emailed to tell her how helpful they found the process, and how the work could help spouses into the future.

The research arose from work Stowe – a former military spouse – did for her Masters degree. Before creating the survey she interviewed and held focus groups with partners of Kiwi emergency responders and had discussions with subject matter experts.

She then carried out a limited pilot survey before opening the current survey up to the four service organisations.

The results will be fed back to the pre-survey groups for their impressions. Stowe will report back on her findings to Police and the other organisations, which have all endorsed her research.

Participants remain anonymous. In households where both partners are emergency responders, both are encouraged to participate. The survey is open until 31 March and can be found at https://survey.nhi.auckland.ac.nz/surveys/index.php/765815/lang-en
Appendix J: Modified Secondary Traumatic Stress Scale

The following is a list of statements made by partners/spouses who have been impacted by hearing of **upsetting life-threatening events experienced by their emergency responder**. Read each statement, then indicate how frequently the statement was true for you in the past thirty (30) days.

Please note, the very stressful event(s) experienced by your emergency responder could have happened years ago. But after hearing about the event(s), how frequently in the last 30 days have the following statement been true for you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt emotionally numb.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. My heart started pounding when I thought about my emergency responder’s experience(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. It seemed as if I were reliving the stressful event(s) experienced by emergency responder</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I had trouble sleeping</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I felt discouraged about the future</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I felt upset when reminded about my emergency responder’s stressful experience(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I had little interest in being around others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I felt jumpy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I was less active than usual</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I thought about my emergency responder’s stressful experience(s) when I didn’t intend to</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I had trouble concentrating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I avoided people, places, or things that reminded me of my emergency responder’s stressful experience(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I had disturbing dreams about my emergency responder’s stressful experience(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I wanted to avoid my partner</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I was easily annoyed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I expected something bad to happen</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. I noticed gaps in my memory about stressful event(s) experienced by my emergency responder</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Other: If you feel you have experienced something else when hearing of upsetting, life-threatening events experienced by your emergency responder, please share that experience in the space provided.
Appendix K: Word cloud
Appendix L: Participant quotes from survey

The following quotes were provided by participants to answer questions provided in the online survey. There were over 14,000 quotes provided by participants, not all are included in this section. The examples are provided under ‘basic themes’ by organisations. Many quotes were removed if the statement was the same as one already presented from a partner within the same organisations. Many similar quotes remain to share the various perspective on a similar topic.

Direct Communication with Partners and Commitment to Responders

Listen to responder and partner

Police (listen to responder and partner)

- They need a more modern communication system between junior staff and families with the more senior staff. Something like a feedback form to comment on the level of support and constructively critique the performance of more senior staff.
- Opportunities to provide feedback, suggestions or changes directly to the organization.
- Listen to him, really listen to him rather than micro managing situations from afar and bypassing those at the front line.
- Listen to their suggestions on how the organisation may be improved and implement where they can.
- Ability to communicate concerns/negativities/positives.
- Take the staff at the ‘chalk face’ seriously instead of accusing them of not coping. Very frustrating indeed.

Fire (listen to responder and partner)

- Support him in his duties. His direct report is very seldom available to listen to his concerns and when he is available his cell phone is constantly ringing and my partner feels he never gets listened to with any degree of genuine concern.
- Listen to his concerns about on the job safety.
- Listen to what they are saying as an organisation. One example is the inadequate radios causing huge communication issues. These problems have been mentioned repeatedly, but seem to be falling on deaf ears.
- A forum to discuss issues.
- They need to listen to advice and ideas from the crews because they are out there doing it and know what works and what doesn’t!
• The fire service is authoritarian and do not take complaints seriously - volunteers have no protection and nowhere to turn to when they are treated unjustly - the rules of natural justice do not seem to extend to volunteers

**Ambulance (listen to responder and partner)**

• Listen more to volunteers.
• A survey to allow feedback on current working conditions, i.e. understaffing, forced overtime, missed meal breaks, which is by far the biggest stressor in this job and the cause of low morale and job dissatisfaction.
• Listen to their needs/wants more, and act on them.

**Defence (listen to responder and partner)**

• Listen more and come up with solutions together as opposed for the one rule for all approach which rarely works, because people feel like they are being told what to do and have no say in any matters.
• Survey him yearly on how they are feeling.
• I would like the NZDF to actually ask the families/partners what they would like from them, rather than assume that the information that is provided is what is wanted.
• To be able to offer feedback about how things could improve for the future.
• More involvement in posting/career decision making.
• Listen to his goals for career movement and progression.

**Staff contacts**

**Police (staff contacts)**

• Supply of contact and support information for partners.
• Make it easy to find the right contact etc.
• I do think it's important to meet the people that may come knocking on your door if ever things go bad for one’s emergency responder - just in case.
• A list of the people who he is working with and possibly a catch up with them so you’re comfortable with the people that he/she is working closely with.
• I try to get close with his colleagues and boss but they change often so it’s difficult to keep up and know who to contact if something were to go wrong at work.
• Knowing supervisors better.

**Fire (staff contacts)**

• Who's who and who to contact if the need arises
• Interact with staff
• Emails for whoever are key contacts regarding welfare of my partner and who I can contact when I am worried.

**Defence (staff contacts)**

• direct lines to his boss for any concerns,
**Long distance issues**

**Fire (long distance issues)**

- Difficult in our situation as my responder lives in one place and works his 4 days in a city [over 200] kms away.
- Transfer him to the region we now reside in instead of expecting him to commute [over 500] kms each way each week because there are no vacancies in our home location.

**Defence (long distance issues)**

- Contact with out of town families.
- One thing I would comment on is the lack of cohesion between services. My husband is in a tri-service corps and works on [one NZDF service] base rather than an [different NZDF service] base. While he was overseas on a mission, [neither] support services contacted me or arranged correspondence with me (despite arranging it for all other partners of the mission, and despite being down the road from me) - my correspondence was dealt with from [NZDF distantly located base]. I was not invited to any meet ups that are supposedly held [at the base near me]. I think the official channels should get the correspondence and interaction right.
- The [NZDF] should be more considerate of requests by having work locations close to home. Not sending them away to different camps for more than 6 months (obviously this does not including posting on ship).
- for me we live in a different area to the rest of the organisation so it would be nice for them to say- well these support networks are in the area you live in if you need them - we live in an area of a different section of military so I imagine they'd have a similar set up to the one we are a part of.
- Make him have postings nearby so he’s not always away from me.
- Provide support groups or meetings closer to where I live which is a distance away from where the emergency responder is based. Facebook contact or social events nearer to my home.
- I think it is challenging as we can’t afford to live in [town near base] - so we buy further away, this impacts ability to pop down to different events.
- Living in [one part of the country], when the main base of the organisation is in [another part of country], means I have no direct contact with them at all now. Contact was better when we lived in [same location]. There appears to be no support for partners/families posted to [current location].
- More contact with families not posted to [base].
- When [service members] are away and family are outside of base would be nice to have the opportunity to link with other bases for community based activity.
- My partner can be away for 3 or more months at a time and we do not live in the military housing area and because of this no one ever checks on us to make sure we are ok while my partner is away.
- As my husband was posted to another city, it would be nice to be checked up on every once in a while.
- To give more support. A personal experience for me recently is my husband was away on a 12 month deployment with the [NZDF]. I did have a POC but rarely heard from them as they were very busy with their own lives and lived in a different region. To make it worse we live in a different region to any defence camps so I didn't have the support of fellow defence wives. I also don't have family near, or who understand. The general public doesn't understand the loneliness and stress of a partner deployed, especially for such a long time. Or the huge amount of pressure on the partner at home to be a single mother with no support or breaks, apart from having to pay for the child to go to daycare a couple of days a week just to get a break. I was receiving the monthly
[magazine] and they had in there who you could contact if you needed help, but quite frankly I would never reach out to a stranger. Perhaps a suggestion could be of making the POC visit or call a certain amount of times through the deployment.

- It also would be good to have support networks for those who are not living in housing areas and therefore don't get given information about who to contact etc.

**General communication**

**Police (general communication)**

- Phone call occasionally.
- Involved in communications – emails family activities definitely get to know you events.
- Love lots more information directed directly to me not via my partner as he doesn't pass the information on.
- Know more about what is going on, all we hear is rumour etc.
- Regular contact about what's been happening.
- Any kind of connection.
- Give me information each time he changes squad.
- Provide more information about the organisation changes and news, being a police officer is lifelong for both me and my husband.
- Regular updates on support available through the police.
- It would be nice to know more about what was going on at the organisation so I could share in the ups and downs and be more aware of specific initiatives etc.
- More information about the nature of the work of emergency responder, direct invitations of partners/spouses to emergency responder's social function.
- Newsletters for partners.
- Direct contact from senior personnel and HR team when my husband's job is being affected - in our case restructuring - providing clear information about outcomes and his options.
- Email updates perhaps.
- The welfare department in [town] sends welfare bulletins, with helpful hints and tips, via police employees emails, maybe these should be sent to the family email address, or an advisory put on to forward to family members.
- I have met a lot of co-workers partners who are not emergency responders. I think there is a definite need for at least emails sent to partners so they feel included.
- Communication to events made to the non-emergency responder, so that he doesn't choose to not share the event - e.g. he doesn't choose to spend leisure time around people he has to work with and has not social interest in, but the kids and I might benefit from meeting others - especially when we are just new to an area.
- More discussions about what is going on as guys will only tell you what they think you want to hear.
- Communicate better, politics seem to cause more stress than offenders.
- Communication from HR (are they not there to help?) about wellbeing. In the 1990's communication was regular from a family liaison officer.

**Fire (general communication)**

- Personal contact.
- Emails.
- Communication on all levels could be greatly improved - being included is my major grief at the moment.
- I guess they could keep us informed - my partner gives me the welfare society newsletters etc. but from what I understand many other partners never see them!
Better communications with the families would be good. I have never had any contact with anyone from the fire service to let me know he is getting a medal or any kind of recognition, I normally find out by chance of any events happening.

- Regular contact about what's been happening.
- Communicate with me.
- Would like to be more included or asked to be involved in the organising of social functions.
- Update by email when on long deployments.
- Maybe have someone who phones the one at home to see if they need assistance with anything (e.g. after school care at short notice, or maybe something small needs an immediate fix at home as it has broken when the partner is away on a long deployment).
- Increase communication about what is happening while they are away.

**Ambulance (general communication)**

- I wouldn’t mind an annual newsletter.
- Emails.
- It would be nice if they communicated more with the partners of staff. Invited them to events and made them feel more welcome.
- Social events via e-mail newsletter.

**Defence (general communication)**

- Emails to keep us in the loop.
- Clearer lines of communication.
- Provide more information directly to partners rather than relying on personnel to pass things along.
- More emails about dates for courses, field exercises, functions etc.
- Access to schedules with major events (exercises, courses etc.).
- More contact from the organisation to me directly and no through my partner.
- Contact us on a regular basis to see how we are doing and offer support, especially if they are away on deployment.
- We get monthly newsletters but I think when they are away it'd be good for someone from the [NZDF] to contact us to just check how everything is going.
- More contact with chain of command to let families know what is planned for the [service members].
- A friendly, how are you going? Not too invasive, but definitely a friendly face.
- Email me directly about events.
- Keep me in the loop about events or support networks back here to make it feel less like I’m on my own.
- I think it would be helpful if you were personally (even if by group email) invited to events and that there were more informal events (coffee/tea evenings) even if your partner is not posted away.
- Provide private communication outside of work - such as email/phone calls to offer assistance and appointments outside of the main place of work.
- Communication, communication and communication.
- Functions and maybe contact to see how things are going not just stuff that gets sent out to everyone.
- An accessible website with upcoming dates, important work commitments and supported activities, invitations.
- Develop an interactive website.
- Regular updates actually being regular. Ensuring all families get the same information around briefs that are being held.
- Making sure that we as partners are also included in things where there are events organized.
- Better communication of deployment dates and exercise dates to allow families to be prepared.
- Provide accurate timely information regarding times away in the field in order to allow families time to plan.
- I get zero communication so I have no idea what is available.
- More newsletters sent home (currently they only send you 'support' information when they are on deployment).
- When the men go on exercise it would be nice to have maybe an MP or an RP or someone to just do a check up on us partners in the housing area, and can update us on what's happening or just to check if we are okay. It's hard having to constantly check Facebook or your phone for messages from your partner when they are on exercise because most of the time there is zero phone usage.
- Facebook group/email thread/forum for partners.
- Updates on deployments directly from the [NZDF] to families of servicemen/women (e.g. via email) rather than just seeing updates on the news or Facebook.
- NZ navy Facebook page is great.
- More communication during deployments, above and beyond the stock-standard, irrelevant partners briefs before and after (if you even get one).
- I [manage some social media] for [NZDF] dependents (eww to that word) and quite often senior management will contact my husband about issues I have raised but no one seems to directly contact me.
- I don't know but am over the current unaccompanied posting which is breaking me & tearing our family unit apart. So disappointed with [current] exercise where the [NZDF] would not communicate a message to my husband for him to call me when a series is stressful issues occurred.
- Would be great to get email from the org -having said that as I was once a Reservist I know others there and can just call if I need to.
- Poor communication that isn't just targeted at "some" partners e.g. those who make the most noise - should be more inclusive of all.

**Contact Partner When Delayed**

**Police (contact partner when delayed)**

- Updates on finishing times.
- I hate knowing he's at a job and I don't know if he's okay, if he's had something to eat, when he'll be home. I tend to know from media that there's a job on and when he doesn't come home, I make the assumption that he's involved.
- The knowledge that if something happens to him whilst at work they know to contact me first (especially if he isn't able to tell them).
- Understand that partners at home don't always know where they are and if they plan to be late that they have the availability to let family know this.
- Confirmation that they know I am the person they contact if something was to go wrong in a situation.
- I have previously phoned the station during incidents, I was told nothing and made to feel like a nuisance. I appreciate that they're busy dealing with an incident, but I would like to be told that he's safe, that everything's in hand, that he's being looked after. I wouldn't expect to be updated regularly but I would appreciate a bit of contact and a bit of reassurance.
- Keep us more updated when they are on deployment. They were just gone for 6 weeks and I didn’t hear anything from the Police!!
• Ability to receive communication from or about my partner when he is out of telephone range.

Fire (contact partner when delayed)

• A phone call if my husband has been called out to a big incident right when his shift has finished so I don't worry when I can't get hold of him on his phone.
• I think it would be nice if their welfare officer made formal contact with all partners, so if a responder was injured at work, it would not be a stranger ringing the partner to let them know.
• Keep me up to date at times of emergency about the welfare of my partner in the Fire Service.
• Provide me direct update of the unfolding situation and the status of my husband (instead of reading about it in the news), or hearing about it via Facebook.
• In the event of disaster responses (e.g. Christchurch earthquake) regular updates from the NZ Fire Service would have been both useful and comforting.
• Communicate to wives on the big jobs when responder gone for hours.
• There was one particular incident and really the only incident that has affected my husband greatly and I would have liked to been kept in the loop because then I could have supported him maybe better or differently. This incident involved a baby that died after the incident and the person that caused the injury was never brought to justice.
• When my partner is deployed, I would like updates on his situation. As it stands I have to watch the news to find out what is going on or rely on info gathered by my own service.
• My husband is put into dangerous situations and stressful situations. When deployed with to Christchurch during the earthquakes, I had no contact whatsoever from them.
• Keep me informed when she is out on a job.
• I think for some of the worst events, suicides and violent events there should be a mandatory communication sent quickly to the partner, this can alert them to be supportive and even when the responder hasn't mentioned anything you can know that you need to be talking or watching out for any signs of angst with your partner, in case they are bottling things up.
• Somehow inform us if they are going to be a long time at a call out so when can inform our children and not stress so much as to what they are attending etc.

Ambulance (contact partner when delayed)

• Notification that she has been involved in a serious situation, what state she's in, approximately when she'll be home so I can be supportive, be home, go pick her up etc.
• When my partner is out I want to know where she is and how the job is going. When will she return?

Defence (contact partner when delayed)

• More contact with the families to ensure we know what’s happening, where our partners will be, and who to contact if we need them while they are away.
• Allow me to pick my own POC who might be outside my partner's immediate line management.
• Also touching base when things change suddenly - crash postings. I have never received an email or call personally from any of the support staff. It means that you have no connection to the support network. Some find it hard to reach out for help, so a step forward from the organisation would be great.
Induction/workshops

Police (induction/workshops)

- More information about what they may go through at work.
- Info on ways to support my emergency responder. Do I just listen? How do I know when he needs further help? Where do I go for that help?
- The knowledge of who he works for, an understanding of his role and what his job entails.
- Communication on what they do for a job.
- Talks or lectures related to both general life, say parenting, and specifically police family issues.
- Would not want a lot or intrusive involvement, but to know a line of communication / contact regarding who I could go to or how to get help if needed it, would be good.
- A web portal that is accessible by anyone at any time so members of the extended family or even friends can go to when they feel as though their loved one needs help with stress incidents.
- Offer more information about support available for partners and the emergency responder.
- More induction for new members of the emergency services families that is relevant and practical.
- Offer stress management courses.
- It would also be good to have more information on what support is available to spouses (if any) as I know nothing.
- More information about systems/procedures/policies of the emergency responder industry.
- Interaction and education.
- Support options for emergency responders, so we know the avenues as well, if the emergency responder is reluctant to seek help.
- Be more informed about what to expect when certain things happen at work.
- Perhaps a package for the partner on what to expect of your emergency responder partner at the start of their career and another at 10 year intervals so that as life/ family circumstances change, so does the package.
- Pamphlets sent out each year with ways to get help, and how, and what could be involved in getting help.
- Many years ago we attended a 2 day conference (run by the police association) specifically for staff and spouses of 1, 2 and 3 man stations which was great. There were supposed to be more of these held but of course 'budget constraints' put paid to that. A real shame!

Fire (induction/workshops)

- Maybe the fighters are aware of assistance they may be given e.g. counselling, but many families know of no such support. The families of fighters should be informed directly and updated annually.
- Induction/introductory events.
- I've never seen any info (if it even exists) of advice for partners of firefighters (info on stress, how best to support them etc.). Something like that would be a nice gesture.
- Let us know what support services are available for us as a family and for my partner.
- I think there needs to be more support offered in terms of what they do and deal with. Where to go for help etc.
- Activities so kids could understand more what dad does at work in an appropriate manner/situation.
• It would be good to have more info of how others manage partners working shiftwork, and always being 'on call' etc.
• Information about what types of events they have recently dealt with and how we can best support them; share ways to cope with the stresses, shift worker issues, etc. from more experienced members; a forum for us to share our stresses/issues we have in dealing with an emergency response worker.
• Perhaps if there was a web based resource centre available with advice on how best to support emergency responders following stressful events. This could include warning signs and contact numbers for additional help.
• Welcome pack. New families welcome.
• Information about the job and how to manage shift work, get to know you events.
• Details of how to contact etc.
• Open discussions about the way things are being run, and the long term goals of the brigade.
• I'd never thought of induction till now but like the idea. I have had no communication with NZFS, some more interaction could be good.
• Organised meetings or evenings with a speaker on topics relevant to my responder.
• Give me some sort of support network or any kind of information about how to manage the stress and day to day practicalities of being in a relationship with an emergency responder.
• Information on what they do and meeting partners.
• Better information about what to expect as a partner.
• Pamphlets sent out each year with ways to get help, and how, and what could be involved in getting help.

Ambulance (induction/workshops)

• Seek feedback or support information for the spouses/families of emergency responders.
• Also in my experience partners/family members never really get to see what goes on or what day to day life is really like for the emergency responder. An introduction or information type event would probably help this, it could be as simple as a who we are what we do type thing to help understand the stresses placed upon emergency responders and how to spot signs that they may need help.
• Family induction and meetings like the American army does
• Team building activities!
• Group meetings with partners/spouses on issues we face.
• Provide information on support services or even just a POC that is available should we want to reach out and discuss concerns/issues.

Defence (induction/workshops)

• Someone for the children to talk to, too many boys of deployed parents are struggling to cope while parent is away. This topic comes up constantly on the dependents shared pages, we as partners need help with this.
• I would like more info and importance placed on being happy at home to be happier at work especially on deployments.
• Information sessions.
• More involvement generally in my life - they should be the ones pointing us in the right direction. At the moment it is up to the individual to hunt around for information and support networks. I just worry that some spouses wouldn't have that confidence to seek that information out themselves.
• Give me a proper welcome and introduction.
• Once a year have a mail out of what they can do to help me and my family.
• Emails and presentations about different support networks and also social activities.
- I would love an email from them at times about what is going on or upcoming events or training.
- Pre-deployment briefings for partners; workshops on stress management for families.
- More non-social events like briefings where we get info on field exercises, time through the year when he will be expected to be away etc.
- More organised and better advertised support during difficult times e.g. when a loved one is deployed or on a long training exercise/course away from home.
- First aid courses.
- Provide information and support for those that are struggling having a partner or spouse away from home. If there already is some then make it more known.
- Induction, so you have a better understanding of the system.
- Information and services relating to health
- Induction days for partners and kids.
- I think there is a lot to be learnt from the Christchurch earthquakes - it is not over yet. For me or the kids it is still a big part of our lives. UNFORTUNATELY!

Show appreciation/recognition

Police (show appreciation/recognition)

- Acknowledge partners sacrifices.
- Treat him with a bit of respect, acknowledging his work experience and expertise.
- Value and appreciate them for all they give every day.
- More involvement of the family at certain times so the organisation shows families how important they are and recognise the sacrifices families make for the job.
- Acknowledge the hard work he does every day and appreciate that he does his job because he wants to make a difference not sit in an office filling out paperwork about everything that doesn't matter. He gets out there every day and essentially puts his life at risk to help others and he never asks for anything in return. It'd be nice to see the NZ Police appreciate that.
- Recognition of the role I play in his life that enables him to do his job (i.e.: direct via email/phone as well as indirect via social/family functions)
- To recognise and value the pivotal role family plays in his life.
- Acknowledge me.
- Each emergency responder needs to be considered as an individual, and not a number.
- Consider us, and the impact these types of jobs have on the emergency responders families.
- More recognition for staff/families who have worked under extreme conditions e.g. [many] homicides in over a year does impact on families - some form of thank you would be appreciated.
- The dept (at a national level) needs to know what is going on in the regions - too many staff are not being recognised or given assistance when they have a large workload. Issue is resourcing. A number of experienced staff leaving because of the lack of resources and feeling undervalued.
- Care about emergency responders as people first, not numbers or dollars.
- Show that they are valued in meaningful ways.
- More acknowledgement to families of the massive support they play in supporting the organisations biggest asset.
- I guess acknowledgment from local management rather than being totally overlooked.
- Thank you notes/cards from bosses.
- Great acknowledgement of great work. The job is hard work, long hours and most of the time thankless- there is no reason for this. If senior managers stopped patting themselves on the back and gave the frontline leaders positive feedback when they give the discretionary effort then they would feel far more valued.
Fire (show appreciation/recognition)

- Value him, he does an amazing job and he loves being a firefighter.
- Just some recognition of the roles that partners play - between shift work & natural disasters it can get a bit much.
- We the partners, with or without families are there to help deal with what they have dealt with during there shift, some good some not. But when I married my partner I married the job, I never wanted him to change. It was important to support him, he and I always talked about some cases, some left scars, and never forgotten, I know I wouldn’t change my thoughts, I'm proud of what my husband does, and the many lives he's helped save. The fire service should also. Without people whom care they wouldn't function, it takes a lot of compassion and strength.
- I would like the Fire service to recognise us the partners for all our service, without us, the partner’s help, things would be different.
- A token of thanks for working Christmas day would be appreciated.
- The volunteer firefighters seem to have a backbone based on a social support network for one another and the community they serve. This same network does not exist in the full time (paid), urban, firefighters. The firefighters themselves are treated well but no recognition is given to the families and how difficult it can be to miss Christmas, school holidays and special events. Sharing the burden of the job and working alongside someone with a rotating shift. This has effected how I am able to structure work hours while raising the family with a sick child. There is a welfare society within the fire service but this is run and funded by the firefighters for the firefighters and not by management.
- Recognise the families that support your workers and the sacrifice they make to family life.
- Recognise fairly across the organisation if multiple people have gone above and beyond (i.e.: put own life at risk).
- Recognition of fellow emergency responders.
- A little more appreciation.
- More recognition that they are volunteers therefore it is not a paid job and is not always possible to put the fire service and the required training first.
- Acknowledgement from them that the work creates stresses for the family.
- My husband has a career in fire and is a volunteer, I would like to see that they are thanked more for the fact call outs can be at any time and can interrupt family events.
- Just recognise we are a part of it as well. We get woken up at all times of the night too. The only time I can see we are thanked is when your partner gets a gold star and you get to sit up on stage at the presentation event and a bunch of flowers, you have to wait 25 years for this- thanks. My husband does appreciate this and feels bad when he interrupts our plans. I do understand that what he does is important and save assets and lives and I wouldn't have it any other way. What he does is part of our lives and makes him who he is.
- Treat us with respect and provide a fair means to resolve disputes.
- Recognition as he is a rural firefighter people think that they are not as professional as the fire service.
- Assist in the full recognition of the effort put in by the fire service.
- Just be acknowledge as the supporting party of a responder would be nice.
- Respect the service they provide to the community.
- Thank you notes.

Ambulance (show appreciation/recognition)

- To feel valued as another support person for their staff member.
I don't want to be buddies with management, but families sacrifice a LOT so the one can be a member, be nice to acknowledge that once in a while

- Appreciate their volunteer system more.
- Stop ignoring us, and make us feel valued.
- To feel like they care about my husband.
- Recognise the effect that stressful situations involving our partners has on us.
- Treat my partner better
- Acknowledgement of the families support and sacrifice.
- Treat him like he should be and recognise the length of time that he has contributed to the service
- The organisation should recognise its contribution given by partners of members such as the fire service. Recognise the partners of its fire staff and the time they give up with interrupted family functions etc.
- Be more approachable, less back stabbing, more honest communication, give much more credit.

**Defence (show appreciation/recognition)**

- Recognize the family sacrifice(s).
- I would like to be actively sought out by the defence force to remind us we are valued as supporting partners.
- Recognition when they have gone above and beyond their role.
- Ensure the emergency responder feels more valued by NZ public.
- Acknowledge the time and effort put in to supporting someone in the defence force - not always done.
- Show appreciation towards partners.
- Value their contribution more.
- More recognition of partners and family in general.
- Even if it's just one update halfway through an exercise or deployment, or just a brief check in it would be really appreciated to show they really do respect family life and what their employees are sacrificing for them.
- I would like recognition that it is hard for us as well.
- Don't make us feel worthless because of my husband’s rank, value our family.
- Respect his loyalty to them.
- Show that [NZDF] understand that without their spouses support, many would have left the service. Acknowledge us too.
- Acknowledgement that wearing both hats (a responder myself and a wife) results in additional stressors over and above the wearing of just one of those hats.
- Regularly acknowledge the social and family impacts of performing roles especially for people who are not working just 9 to 5, and something other than lip service.
- I would like more information. More respect, more communication and an acknowledgement that what we as spouses go through is hard. We are taken for granted and not considered at all and it's not good enough.
**Perceived Organisational Support Theme**

**Mandatory debrief/follow up and counselling**

**Police (mandatory debrief, follow up and counselling)**

- Better communication and support following traumatic events until they are resolved. Follow-up down the track.
- Contact, communication and support after traumatic events, and follow-up after some time has passed as well.
- Compulsory counselling after a stressful event
- My husband is able to debrief within his team - his supervisor is always accessible
- Compulsory counselling and / or support so staff aren't perceived as weak because everyone has to do it.
- Have organized debriefings following stressful situations and be made to see a psychologist yearly to make sure there are no signs of post-traumatic stress.
- More regular check-ups on health both physically and mentally. It's all on the individual to seek help if needed rather than the organisation checking on their employees
- NZ Police are very proactive with Welfare Officers appointed to support staff and psychologists available to meet employees one on one as needed. Also incident debriefs are mandatory for employees. I appreciate the support they provide and believe it is really important to have this support in place.
- Provide monthly meetings with counsellors that are confidential & non-optional.
- I do think that some sort of mandatory counselling should happen after particularly traumatic jobs rather than it being an option (which is never taken!).

**Fire (mandatory debrief, follow up and counselling)**

- Compulsory counselling post-traumatic events.
- Compulsory incident debriefing and counselling session for all staff attending incidents involving fatalities.
- Counselling should be compulsory and regular wellness checks are done just like the physical testing, this includes screening for depression and drug and alcohol use. Counselling should be once a fortnight, this will take away the stigma around tough men.
- Trauma is caused to these people in so many different ways. Also that when they need help they are expect to go their bosses or their own peers which they won’t, it needs to be more available to have a debrief or counsellors available then and there after major events. Not just to tell them it’s available or even if they have a place they know they can ring without their work place is not involved.
- Provide more support following being put in life threatening situations (formal and informal debriefs, compulsory counselling).
• More compulsory debriefing post a certain set of events i.e. death of child, particularly stressful/traumatic event at work, not just it’s here if you want it.
• I think ALL fire fighters who have attended a traumatic event should meet with a counsellor, not just ‘if they want to or feel the need’.
• Organised mandatory debriefing after events such as attending a fatal MVC, death etc.
• Enforce counselling after he has been in a life threatening situation or had a serious injury. This could be one on one and/or with family who have been impacted as well.
• Debrief after serious cases.
• [Fire Service] in [location] are pretty close knit and get along well and debrief together - unsure if this is protocol or not but they are great.

Ambulance (mandatory debrief, follow up and counselling)

• Support/debrief after major stressful incidents. Currently nothing is done and they continue to the next job.
• Automatic contact after a stressful job.
• Be a bit more proactive in how they follow up with their staff after high stress situations.
• Don't just offer counselling. Make it mandatory that they talk with professionals periodically, to pick up on stress.
• Proposed 'hub and spoke model means that staff do not have the opportunity to debrief with each other at their stations after a stressful event they can only rest in public view in ambulance.
• Debriefing for traumatic events especially paediatric deaths.
• Better debriefing after difficult jobs, and perhaps compulsory debriefing sessions after a certain amount of time. It's very clear that he has PTSD. He wakes up at night screaming and kicking/ hitting sometimes.
• There is no 'debriefing' protocols for emergency responder/paramedics to talk with, this is why partners /wives/husbands are the strong shoulders.

Defence (mandatory debrief, follow up and counselling)

• Mandatory debriefing/supervision for each service person.
• Compulsory counselling after a serious incident.
• I would like to see more of the mental well-being looked after like compulsory psychology sessions for all emergency responders.
• I would like them to make a more concerted effort in his mental health. He still suffers from the effects of things that happened when he was in [conflict], he is not the same man that went over there and they seem to think that he had his allotted counselling and he should be fine now, but who really sees their friends blown up and just moves on??
• Perhaps compulsory counselling if they are involved in a traumatic incident (rare, but it does happen).

Stress Reaction Training

Police (stress reaction training)

• Provide information on how my partner would be supported following a traumatic event.
• There needs to be more to help families and partners to understand the stressors of the job and what to do if you think your partner isn't coping.
• More information and support available for understanding the stress the emergency responder deals with and how, as a partner, we are supposed to manage it.
• Access to information for partners and family regarding situations where their safety is compromised and if that person is killed or seriously injured on the job.
• Implement 'mental health' days or programmes promoting relaxation/yoga/meditation or the like.
• Info about helping them through tough jobs.
• Unsure of what to say or do after knowing he has attended stressful event don't want to push him to talk to me about it but want him to know he can if he needs to as he often has trouble telling me as does not want to upset me with what has happened.
• Reinforce messaging that it's a tough job and sometimes you need extra help to manage - it's not weak, it actually shows strength to seek help.

**Fire (stress reaction training)**

• Give information on stress management what to look for etc. even just as a reminder to the partners of the different traumatic events so we are aware as it's easy for us to carry on with day to day things when our partners may still be dealing with events that we have forgotten or might not have known happened.
• Not for me but for new wives/partners, an induction explaining the stresses the emergency responder may be under and how to help.

**Ambulance (stress reaction training)**

• Support that stress is a very real symptom and needs to be addressed. Provide an anonymous support system that can allow him or others to talk
• Perhaps more information on accessing psychological support services, or a contact person if I have any concerns.
• Offer support to deal with the nature of their job and how best to support them without compromising integrity & family relationship. At times I believe the nature of the job itself puts strain in daily life & there's no support for the families on how to best deal with it all, little alone when the responder goes through a significantly stressful situation at work. At times, families can do more harm than good when unsure/unaware. Putting at risk relationships within the family circle. I believe it's important for families to learn & receive education on how best to support the responders, understand what they deal with & their responsibilities & roles. Lack of knowledge of same, can come across in family circles as unsupportive/unhelpful, therefore putting extra emotional stress/pressure on the responder. In the long run this could potentially lead to mental illness (PTSD, anxiety disorders, depression, etc.).

**Defence (stress reaction training)**

• Give him information about managing stress as he is more likely to listen if it comes from them
• Recognition and acknowledgement that stress increases as rank increases especially when deployed and during critical incidents. Senior staff need more support and debriefing about their personal experiences not less than their staff.
• More acknowledgement that the partners and families of responders bear the brunt of the effects of deployment and critical incidents not the workplace, we need support to assist them to work through their issues and thoughts, and this assistance needs to come person to person not in booklet handed out as a second thought.
• Emails and constant communications from his squadron/bosses etc. about stress management and how to manage our relationship when he can’t talk to me about anything but things in the news make it clear that something is happening for them or could happen for them.
• Be more active in supporting those who don't ask for support, often my responder will struggle with life at home or struggle being away when he is deployed but will not reach out to anyone.
- Make it clearer for him what support there is for him, as he is in a senior role and sometimes it appears to me like everything is aimed at supporting the lower ranks and not him
- Provide seminars for handling stress, or providing access to non-NZDF counselling services.
- Support group and info on what is expected of our partners as what they may experience.
- NZDF ensure that they are safe spiritually and mentally and that if they are any unusual signs that something is not right address them straight away don't wait
- I think it would also be useful if superiors informed support people of stressful/traumatic experiences that have occurred and that there was regular follow ups with the partners (not just the serving person) particularly taking into account that something doesn't just "get better" after a few months and that you can't be expected to "get over something" within a set amount of time.

**Formal trauma support**

**Police (formal trauma support)**

- Support for partners and direct contact, especially following traumatic events.
- More contact from supervisors with regards to how they are managing with stress.
- Take better care of frontline staff, more acknowledgement of the work that they do, greater support across all areas including backing there frontline staff especially in the media when required, may help reduce of fear of being hung out to dry or used as a scapegoat
- Greater access to support services (counselling etc.) without stigma, encourage involvement and partner support.
- More direct and genuine personal support, not multi-layered levels of gobbledegook, jargon and too much bureaucracy.
- When husband is involved in traumatic events it would be nice to have some contact made directly with myself rather than secondhand through him as more often than not he talks to me.
- To ensure better support is available through legislation. Emergency responders are subject to multiple events causing an accumulation of stress. Currently ACC legislation only provides assistance in respect to a single event which essentially leaves responders at risk of having no support from their organization.
- More support following dealing with traumatic/serious events. At the moment lip service only is provided by the department around supporting staff after attending serious incidents.
- More regular check-ups on health both physically and mentally. It's all on the individual to seek help if needed rather than the organisation checking on their employees.
- Acknowledge that stress doesn't just affect the individual- have measures in place to support the partner of and children of the affected spouse. Whilst I acknowledge that getting the affected individual the help that they require - immediate family are mostly ignored/forgotten.
- When the police are 'attacked' by the media the police organisation should speak up immediately. I get so angry when the media speculate and the police say nothing, the police should back their officers more and ensure the publics confidence.
- Phone calls from Welfare Officers to check in on emergency responder from time to time, and also family as a whole.
- Have more contact, be more aware of the toll being in the Police can play on families. It's well supported by both formal research and anecdotal evidence that having a partner in the Police can create issues at home and destroy relationships and I am experiencing that right now. My husband is not equipped with the tools to address the issues either and is noticeably withdrawing.
If I had answered these questions 10 years ago, when my husband was a general duties cop, I think my answers would have been a lot different. Life as a general duties cop (and the partner of one) was a lot more stressful. Having said that, we did have support from the department in the form of counselling back then.

We are the ones that have to deal with the fallout at the end of our partner’s day.

My understanding is that the organisation and senior staff members are aware of potential mental health issues that can arise with the job, and the avenues to support if required. Well done NZ police!

He never sought help for himself, which I believe is a real problem. It led to burn out. However his section/colleagues were very supportive of each other.

My partner deals with major incidents regularly and I have only known him be contacted by Welfare once. He didn't get anything from the meeting and said it felt like police were just ticking a box somewhere.

As an indication of how useful Welfare is, when large amounts of police staff were losing their jobs, Welfare sent an email to them all with advice on writing a CV. There was no other response from them until staff complained. There is no expectation that police welfare will be useful. Welfare tends to work out of a district HQ, which is too far away from us. That may be why they tend not to come up here, it might be different for staff living near an HQ. There is nothing set up in each station, nobody monitors staff welfare at a local level. Perhaps somebody should.

More support. It is terribly lacking. They leave any help until it is well too late.

Pastoral, emotional and physical support from the organisation/leadership team when my husband has been involved for long periods of time dealing with hideous crime. In the time we have been together I have had personally one welfare phone call check which I think is exceptionally poor when you consider the police values of respect, professionalism and now, empathy.

Anything! Names of counsellors or support networks or even names of other partners to contact and talk to.

I work for the same organisation and still don’t receive any literature or support about stressful events attended by my husband, he was supposed to attend mandatory counselling after Christchurch Earthquake and didn't but it was never followed up. Emails or anything would be appreciated.

NZ Police - I work for them as well so can get what I need when I need it.

I have access to EAP at work so should I need it, it is easily accessible.

As a policeman's wife for [many] years the police family were great, but I never received anything from the organisation as such.

Most of the individuals who have been my emergency responder's boss throughout his career have been kind and supportive, having themselves been on the 'front line' and knowing the impact the job has had on their own spouses and families.

The whole team is very supportive of me and all look out for everyone's family :)

Immediate supervisors for my husband are great on checking on his welfare regularly and offering backup/support to him. As he is sole charge officer in a station with a large geographical area this is reassuring (to me at least) knowing that help will be on its way quickly if needed.

I think the Police in general look after their guys’ welfare whilst overseas.

If they supported him a little more, then I would feel comfortable that he was ok and didn't need me to help him through things (which I feel somewhat of an obligation to do now).

Maybe they need to be given regular supervision/counsellor 2 -3 times a year to check in they are ok., repeat psychological testing from when they entered the police to see how the job has impacted on them.

Families’ communications liaison NOT WELFARE related.

It would be nice to have an organisation for partners of the NZ police.

Welfare officers should engage with families / partners even when things are going well just to see how things are. Many years ago when he was a constable and involved in
stressful situations his sergeant would call me. Now he is more senior I never hear from anyone.

- Being checked on by a welfare officer. Used to happen frequently but since major 'budget cuts' this service appears to be almost obsolete. Even if no help was needed at the time of their visit it was nice to know that help was close by if something changed.

**Fire Service (formal trauma support)**

- More contact from supervisors with regards to how they are managing with stress.
- Ensure they know how to access support and welfare services, provide peer support systems if and when required.
- More communication following the involvement of the emergency responder in a stressful/difficult situation.
- Volunteer advice to all on mental healthcare without it having to be sought.
- Partners are not advised of anything unless the partner tells you. Basically partners do not exist to their employers. It would help where partners are involved especially being involved about what on the job can do with regards to the stress and mental health concern which can be caused by work. It is H&S wellness that really needs to be looked at in their workplace. Do I need support at times? Absolutely, most partners wouldn’t even think about how their partners are affected in their workplace and what effects it has on them. I think it would help having more understanding of what help is out there for them and us.
- Following serious life threatening incidents contact me to ensure I am ok, and to offer me any other support for my husband.
- Support for dependents of shift working emergency responders.
- Support when he is overseas or away for longer periods
- Offer support and understand my responder is under pressure and assist them not condemn them or dismiss them.
- Would like to have more support offered when incidents affect me or my emergency responder.
- I would like for the Fire brigade both volunteer and permanent to keep close records of responder’s exposure to fatalities and in particular their first fatality. Unfortunately my partner had a very bad reaction to first fatality and this was noted by absolutely no one. In this situation the absence of any follow up call by ANYONE to check on him I found totally unacceptable. Please note this was when he was in volunteer brigade not permanent.
- Specific access to stress management training and mental health care.
- **SUPPORT OFFERED AND SHOWN IN STRESSFUL SITUATIONS.**
- It’s a hard place for those organisations to be in, how much ‘mothering’ to do without being overbearing.
- I feel that my husband is very well looked after by the fire service. They were very on to it after the February earthquakes and we all got contacted to make sure we were ok and if we needed anything.
- I think the fire service provides enough support for my emergency responder and he doesn’t seem effected by stressful events so far.
- Have better mental support people that are ACTUALLY fire fighters and not people who do not know what they are talking about!
- Provide a better support team for spouses on a regular basis.
- NZ Fire Service needs to offer the opportunity for regular sessions with a mental health care worker. They need to think of the people and not just regard the service or job in a general business model. It is very different!
- Perhaps checking with partners about how they feel or giving a contact for someone to talk to after a stressful event would be a good idea.
- I have little confidence that the organisation could do anything to support me as they seem to do a terrible job supporting their own staff.
Ambulance Service (formal trauma support)

- Provide more peer support from paid staff for volunteers for the work they do for the ambulance.
- Be more pro-active in peer support after traumatic jobs.
- Make the peer support position and what it stands for more available for responders.
- Yearly free medical check-ups that include a mental health check-up.
- When my responder has been to a very difficult job (generally involving death), please offer follow up support like a phone call to make sure they are okay.
- More frontline support for staff dealing with suicides or traumatic events. Giving them a stand-down period afterwards to allow them to process things. NOT sending them straight to the next job.
- More support in general...their focus seems to be around money not staff
- As I am also involved with [ambulance Service], there is nothing extra they could do for me as a partner that they don’t do (or should do) now for me as a volunteer
- Nothing I am fine and have a very strong support network in health.
- Provide official and formal peer support services for partners of emergency responders.
- There seems to be no support from management for the staff. Generally they seem to rely heavily on each other for support post traumatic events etc. There's no real debrief time or stand downs after significant events.
- Greater support both formal and ad hoc.
- Some sort of organisational peer support with the partners of fellow staff.
- If my responder has been to a horrible job, please let me know as generally they will come home and not tell me anything, they become very distant and snappy due to not being able to discuss what has happened to them, I just have to try and figure it out and help them the best way I can.

Defence (formal trauma support)

- I would love if the [NZDF] could provide more support for wives/partners particularly when our loved ones are away or struggling at work.
- In my case my husband went through an injury which left him with some serious mental health issues. He received some support once he eventually asked for it, was hospitalized, however I never was offered any support. I had no idea where to go to ask for assistance and felt as though we were left to struggle through on our own. Thankfully because of the help he received we were able to get through that stage but I'm sure other couples who may go through situations such as that, without help may not be able to save their relationship. Making it clear and obvious that the [NZDF] as an organisation supports and encourages couples individually and together would be great. Also making it widely known where we as spouses can turn to in times of trouble would be great as well.
- Mental health services should be more easily offered annually.
- I'd just like to know they take both physical and emotion check-ups regularly. Don't want to feel they battle thru at work.
- Acknowledge that stress doesn't just affect the individual- have measures in place to support the partner of and children of the affected spouse. Whilst I acknowledge that getting the affected individual the help that they require - immediate family are mostly ignored/forgotten.
- Give more mental health support.
- Be more active in supporting those who don't ask for support, often my responder will struggle with life at home or struggle being away when he is deployed but will not reach out to anyone.
- Acknowledge that he might still require support for his PTSD and not have his experiences forgotten.
• [NZDF] should have provided him with more support when he returned from combat operations.
• Be supportive when he is going through times of stress, make him feel safe and like he can trust them, encourage him to seek mental healthcare
• Provide more support for the children of deployed personnel.
• Regular general medical checks, mine avoids the doctor but should go.
• Have someone who is there to support partners who aren't in the camp or who also work.
• My husband is very resilient to stress but could not handle the stress he was under when deployed to [overseas] and had an extra-marital affair.
• Give them more support and guidance on their future. Have more faith in them.
• You are well looked after while they are deployed, but it's all the trainings and the normal stress of everyday that gets overlooked
• Currently my husband is being looked after well. But if something goes wrong at work I will worry for him as there will be few that will understand.
• Ideally [NZDF] knows what is expected of them. At the moment some staff are employed to help dependents but they are unaware of families that are doing things on their own. In fact the family liaison persons around the bases of the [NZDF] are unaware of who unaccompanied families are in their area and who has a partner deployed, unless you go and see them yourself! No one seems to be in charge and there is no self-review by the [NZDF]. The powers that be seems to think that someone else is taking care of the families and as a result no one is at all involved. Everyone talks the talk, but no one walks the walk. Only on one deployment did the support person get it right and to this day I am grateful. Also the family liaison person needs to be appointed for what they can achieved for families, not because that person won't make waves and point out the short comings of the senior staff.
• I think there should be more contact with the partners of serving people and it shouldn't solely be for people whose partners are away for lengthy times. I think the family support services should be checking up on everyone, be it by email/phone, popping round in the evenings. I believe there is a lack of contact for partners of service people especially when you consider that many serving people all live in the same street (or the attendees of events are cliquey and you can be made to feel unwelcome). People are reluctant to step up and be accountable and the ‘old fashioned values’ of family (including extended) has gone. People no longer know your neighbours or pop round uninvited.
• Not sure as I am an emergency responder as well for the same organisation, I am not seen by the organisation simply as a ‘wife’ but am expected to behave as an [NZDF] officer. This limits my level of candidness I can express in any social interaction. I end up not fitting properly in either camp. It can be very isolating to be a wearer of the uniform as well as a ‘partner’.
• Stop assuming that because I am in the same organisation that my resilience is high and I do not need support. Recognise that some people who are placed into welfare support roles because of their professional positions sometimes have their partners away too and need support themselves.
• I think they are doing a great job supporting the people that work for them - there is a lot of support and I know this as my emergency responder has just been in charge of about [large number of] people, and he took a lot of time to ensure the mental well-being of his [service members] was looked after.
• A family support organisation like DCO in Australia which coordinates coffee groups, educational and psychological support for children who have to move often, and employment advice for partners.
• Offer counselling when they come back from deployment and put action plans in place to help them to settle back into family life.
• More active welfare coordinators and padres with families especially when emergency responder in away.
- At the moment the welfare officer organises coffee groups etc. As I am a full time worker these are always at inappropriate times for me. It has always been hard for me to break into the "click" of [NZDF] wives as I am not a stay at home mother.

**Partner Counsellor Access**

**Police (partner counsellor access)**

- Access to support services (counselling etc.), be more proactive in encouraging partner involvement / support, education initiatives, so partners do not feel ‘in the dark’ and ‘outsiders’.
- Ensure assistance is available to the family unit as a whole and individually. Family often bear the brunt of anger and emotional breakdowns and need assistance to handle such situations.
- Sometimes I need to talk to someone else to deal with what he has been involved in and I would prefer it was someone impartial and trained rather than friends or family.
- Joint counselling session with partner - my partner sees lots of trauma and violence.
- Psychological support for families of emergency responders
- The police can put in place all the support in the world but individual have to take up the support given to make a difference. However when someone is identified and gets support the same should be offered to their partner.
- Giving us access to a mental health practitioner for free would be helpful.

**Fire (partner counsellor access)**

- Free counselling for partners maybe?
- Counselling is a major. Counselling for the firefighters too, because they have to deal with some heavy stuff. Some of the stories about attempted suicides and car crashes my hubby has come home and told me are horrific and sometimes I have to tell him to stop! I don't know how they would all feel with all that in their minds. I couldn't sleep if it were me!

**Ambulance (partner counsellor access)**

- An option for counselling when required.
- Access to confidential independent mental health at the organisation’s expense.
- Counselling

**Defence (partner counsellor access)**

- Some sort of counselling or professional advice to be available not just for the military personnel but their families.
- Couples counselling available, he can access counselling for himself but not for us as a unit and sometimes we are under a lot of relationship stress due to his job.

**Help-seeking privacy and confidentiality**

**Police (help-seeking privacy and confidentiality)**

- My husband feels it is not safe to seek help with any metal health issues that may arise as this information is not keep confidential. He has even heard of situations where officers have had their previous metal health issues used against them in job interviews. There would need to be a guarantee that mental health issues/discussions with health professionals was off limits and totally confidential if you wanted to encourage these
workers to seek help for these issues. Otherwise this culture of not reaching out for help will never change.

- Ensure that by coming forward it is kept confidential so it does not make them feel as though they are weak or cannot handle the job
- Welfare have a strong stigma related to them that both police members and their partners distance themselves, both because they are related to counselling services/mental health issues and there are confidentiality breaches.
- A way of communicating concerns knowing with absolute certainty that it won't fall back on my spouse. Often they share really concerning stuff and there is no way to help ensure future safety without it being obvious who the info has come from.
- A confidential outlet for concerns where the info is filtered back to those who need to know without identification of officer or family etc.

**Fire (help-seeking privacy and confidentiality)**

- I think if my partner sought counselling, for example, because of one of the devastating things he sees as part of his jobs, it would have to be top secret because his colleagues would have a field day, for sure. If the Fire Service came to the party in terms of minimizing this juvenile culture I believe it would provide a more supportive environment for the people who we rely on to 'keep it together.'
- Just look after my husband and protect his privacy if and when he seeks help.
- Ensure a non-judgmental work place and guarantee privacy

**Ambulance (help-seeking privacy and confidentiality)**

- Compulsory debriefing sessions need to stop being used to gather dirt and harass staff (against current written policy of course but it doesn’t stop it happening).

**Defence (help-seeking privacy and confidentiality)**

- Less busy bodies nosing in areas that don’t concern them.
- It’s important that family information is kept private and confidential.
- Keep any communication confidential. I should be on base and hear people talking about confidential information about my friends.

**Informal support groups/get to know you activities**

**Police (informal support groups/get to know you activities)**

- Help networking with other partners.
- Support groups for partners/spouse.
- More partner inclusive events to give partners opportunities to get to know each other - not just once a year Christmas parties.
- More social functions. I do not know who my husband spends his time with.
- Involve us with other partners. Get to know us as their partners. Organize events where this can happen.
- I would like to have a name for the faces mentioned in conversation at home. I think some social contact would be an advantage in understanding personalities and circumstances of staff.
- Encourage family gatherings so people get to know one another - helps develop a support network.
- I'd like to feel more connected to his workmates.
- Perhaps informal network for partners of emergency respondents of similar experience.
- A support system to encourage all of us spouses to be able to network and socialize.
• Social functions & family activities - just to get to know them better
• Cities are different to rural stations. There is less dependency on the police environment in cities compared to rural areas where the job and colleagues are a big part of your life. We have lived in the city for many years and I know hardly any of the staff or their partners whereas prior in a rural setting I knew all staff and supervisors and their partners made an effort to have regular catch ups

**Fire (informal support groups/get to know you activities)**

• More social support and get to know the wives more in case anything happens as these are the people that get your issues.
• Include us and the families of firefighters more, we rarely get to know the people they work on shift with let alone other firefighters and their families. Firefighter families are the only ones that can truly empathise with what it’s like to be part of a family of a firefighter, it can be incredibly hard sometimes.
• Provide a better support team for spouses on a regular basis.
• I think there needs to be more help available to the partners. The wives and girlfriends/partners. Sometimes I feel like I never see my husband a lot of the time so if there were some kind of "club" we could get together regularly to bond over common things like being alone when they on night shift.
• It would be nice to talk to other partners as I only know the odd one that I get introduced to by chance, because my friends don't understand the shift work or the worry.
• Get to know the other families in the service.
• Fortunately the experiences my partner has had to date have not been too extreme or distressing for either of us but I would like to know that partners of other rural firefighters would be available for discussion if necessary. Perhaps some preparation for in case something happened.
• I guess continuing the social occasions so we get to know each other better so that if the time came we needed to seek one another out we would feel more comfortable doing so.
• Perhaps have an evening where you get to meet other partners that may be just new to the organisation that is not part of a general social function
• Maybe have events for partners to introduce them to make sure new partners have a support system within the area. In [location] everyone is very social and very welcoming to new comers.
• Would like to meet and get to know the people he works with but also their partners to form a bit of a community and support network. People who aren't involved with emergency responders don't understand the impact to be in a relationship with one.
• We already do a lot of social functions and we get together frequently with each other’s spouses etc. And go on holiday together.

**Ambulance (informal support groups/get to know you activities)**

• Get to know events, BBQ's.
• I believe social functions to get to know them.
• Be nice to have a meet and greet with other spouses/partners. It is always hard to date a shift worker.
• Get to know you events for new staff.

**Defence (informal support groups/get to know you activities)**

• More social events to meet other military partners and their families which is important for support and solidarity while our military partners are away from home
• [Reserve NZDF] involving the families into things as we don't get to meet the other families so feel like we have no support or anyone to go to.
• More inaction between WAGs to create a support network during times the other halves are away.
• Make more effort in getting to know people without children in particular.
• We've just moved to a new camp and I don’t know anyone it would be nice to meet the partners and persons he works with even high rankies.
• Events to get to know other families that are left behind when they are on long trips
• Meet the crew type functions.
• More opportunities to mix with their peers and partners so we get to know each other better for support etc.
• To meet other partners in the same boat as me.
• Meeting the people he works with and their partners so I have better support. It feels like the [NZDF] doesn't think of partners or make it easier for them/ they don't get to know us.
• More gatherings for people without children to get to know others who are in the same situation
• Get to know you events. We moved to a new city [a while ago], there still has not been any type of welcome for the children and I or social event where we can informally meet other work mates and their families.
• Make more of an effort to get to know the families of the emergency responder, and make regular opportunities for us to get to know the others at his work place, so when he is away for extended periods and I need extra support, or information, I know who to turn to and feel comfortable contacting/asking them
• Interaction that help you meet other partners because they all know what you're going through and they're the best support when the guys are away
• An opportunity for personnel to meet families of others and for partners to meet other partners, widening that support base when the emergency responders need to go away to sea.
• More support/ladies gatherings to air concerns.
• I think being an emergency responder family/partner can be very different to the usual relationship or family situation and at times it can be hard to understand or talk to people who are not in similar situations or professions.

Social activities

**Police (social activities)**

• Social functions, NZ Police do not provide these as they are considered an extravagance for a government agency.
• Sports activities.
• More family style activities like dinners.
• I am happy with the social functions, family activities and so on offered, and feel comfortable about accepting or declining depending on the occasion and the timing.
• More children’s days so the kids can see what mummy and daddy do for a job in a positive enlightened way.
• Social events e.g. BBQ's and family type activities.
• Invites to events.
• Family get-togethers, initiated by the Police, NOT the association.
• Social functions are organised by the staff/groups not by the department.
• Should be more department organised events.
• Not sure, I find that at any social activities the guys (or gal) end up together talking shop and the women (or man) end up socialising on their own.
• Small stations have their own staff social functions/support networks. This is an important part of living/surviving in small communities that bring their own unique
issues which affect not just the serving officers, but their family also. You have to live alongside the 'client', your kids go to school with them.

- I just find the police organisation to be very unsociable, which is really sad.
- Don’t think they have any functions because I never hear about them!
- To be personally invited to functions/events etc. - it never happens, you always feel left out.
- Not a lot, we have deliberately kept our main social life away from police to keep a balance at home. We have some police friends that are close but we tend to keep jobs as jobs not a lifestyle.

**Fire (social activities)**

- Sports activities would be good.
- Social functions, family things etc. at Christmas time when he isn't home, have something for the families!
- Invite us to whanau event.
- Regular invites for our entire family (kids included).
- Currently the only interaction is end of year functions, throughout the year would be good.
- Real person interactions.
- More local get togethers for local brigade
- More social functions to get together with the other partners.
- They could fund ladies nights so we can get to know each other, some volunteer services do a great job on this. There should also be funding for family days.
- Anything and as much as I could!
- A few social events here and there is nice but it doesn't help in terms of impact on family time.
- In the past ten years my emergency worker's organisation has organised only two events that included partners (two award ceremonies). There have been social and sports activities organised by other members of the organisation and paid for by those members or us.
- Interaction is arranged from time to time by the staff themselves (i.e. the social club). I believe there is resentment that the Fire Service itself does nothing.
- Having now raised my family I would probably die of shock if the management put on a Christmas party for the kids. Could be a nice surprise though.
- Social activities used to happen but now they don't seem to care enough about ‘the people’ to do this. Anything would be better than what they have.
- They are great. Family day at Christmas time is a neat time for the kids to celebrate their dad and be a part of [Fire Service].....this is the thing that takes their dad away during the night and other crazy times at the drop of a hat.

**Ambulance (social activities)**

- Social events/parties.
- Sports.
- Social functions organised for small team groups.
- Social involvement for partners & there family's.
- Family days and social get togethers.
- More family involvement programs
- Group activities
- Social activities used to happen but now they don't seem to care enough about "the people" to do this. Anything would be better than what they have.
- Not sure ... there seems to be very little to no interaction now, so something more would be better than nothing.
- It is always hard with emergency workers as someone always has to work. They have a social committee that organizes events that we attend and the partners get together outside of the organization.

**Defence (social activities)**

- More social events to meet other military partners and their families which is important for support and solidarity while our military partners are away from home.
- Social functions, family things etc. at Christmas time when he isn't home, have something for the families!
- Social functions - we don't often know unless partner tells us.
- Social events that aren't on a Sunday - anything would be nice as we always miss out.
- Whanau activities.
- Children are well catered for - however 'adult' time with my emergency responders team and other partners would be beneficial I believe.
- A few more instances for group socialising to meet some of the other partners.
- Play groups for the preschool children.
- Many activities are held during work time when not possible as a working spouse to attend or daughter to attend from school. Need more on weekends/evenings
- I feel as though the [NZDF] organisation is more catered for children of the emergency responder- More events/functions/activities for families (including partners, parents, siblings etc.).
- Involve him more socially and not just sport.
- Events for partners of respondents to bond over - that do not include children. Most events held are for partners of respondents that have children.
- Family day on the ship before they deploy (as done in the UK); holiday parties.
- Partners sports teams
- Sports days and outings.
- I think they are doing well - prior to having a child, most activities were geared towards families and stay at home mums, when in reality, there is a very diverse group of people who are partners.
- Events organised by the [NZDF during deployment] are all based around children, for example coffee groups with a bouncy castle for kids. There are many people like me who don't have kids and are left at home alone when the partner deploys who would benefit from meals out, or walks through the [bush], beach days, sports etc. not focused on kids. Or perhaps organising non kid focused events and organising a day care so the adults can get out and about with the people who are left home alone. I attended a kid focused event to meet new people and was not welcomed because "it's easy" for me not having to look after kids by myself and was ridiculed for finding my partner being away hard because of feeling alone.
- Anything would be better than nothing.
Organisational Competence

Benefits/ entitlements and pay

Police (benefits/entitlements and pay)

- Also they are grossly underpaid for what they have to deal with
- Better pay. Compared to other private organisations risk and stress factors are taken into account and the remuneration reflects this. Considering what he could walk into on a daily basis, and if he should lose his life in the job, it's pretty low.
- Pay the Police a live able wage that reflects the stress they endure.
- Pay rise - they don't need financial stress on top of the stress of the job.
- Be paid for all the extra hours they work. Receive an allowance for training new recruits on the road, as this can take up to 2 years, which can be mentally fatiguing.
- Better pay. A lot of people would not do the job.
- Pay more for the expectation that they drop everything when required and change hours! Doesn't work in with family life.
- Remuneration increase to reflect the cost of living
- More benefits like the army has e.g. dental, mortgage interest, health.
- A stronger police association Union (not weak and have no balls).

Fire (benefits/entitlements and pay)

- Although a volunteer, he provides the time and his travel but his fuel costs are incurred for each training and callout. He travels [about 15 km] each way from home to station, and we pay $2.30 litre for petrol! I'm sure others feel this way too.
- All I want and expect from the NZ Fire Service is that they be a good and fair employer and to pay a rate that reflects the nature of the job. Pay them more. They deserve it.
- Fire Service to increase their wages accordingly as they now deal with more death due to co-responding with Ambulance.
- I would like to see the NZ fire service provide a medical insurance scheme for my partner.
- I would like them to pay him a lot more for being in such a dangerous job.
- Better pay to take the financial stress off, so he can focus on his job and not always looking for other jobs to top up the bank account.
- Turn his volunteer role into a paid job. He spends enough time at it already!
- Pay him for overtime and extreme callouts beyond his salary.
- The pay situation must be improved. Fire Fighters aren't even on pay parity with teachers! I believe Police rookies start on the same wage as a senior fire fighter who will have done five to seven years service before they get that same pay. It should not be required to do huge amounts of over time (58 - 72 hour weeks are standard, 90 hour weeks are not unheard of) to lift the pay. This then puts huge strain on families at home
and the relationship. My husband is too tired to do anything and is of little help to me at home. He has to hold down a second job because we struggle to make ends meet on the flat pay in the fire service! I don't think the Fire Service as an organisation have ever asked how families of Responders are coping. Life is not good!

Ambulance (benefits/entitlements and pay)

- Treat them with respect at pay negotiating time!
- Sort out the annual pay negotiation in good faith and on time. Instead of dragging it out for months. Very stressful.
- Pay more money- lol.

Defence (benefits/entitlements and pay)

- Higher salary would be nice as we live in [high cost of living area] and I am unable to work due to severe health issues. Having 3 children on one low salary means we are struggling financially.
- More support for the families and partners financially, we leave our homes, school and jobs to move with our partner and it’s really difficult to find a job to help stay on top of the bills etc. until a job becomes available.
- When a cost is incurred for undertaking an activity or requirement as a partner of an emergency responder don’t hide behind conditions of service that a partner has no visibility of or has not even agreed to.
- Provide health care in all areas. Mental and physical. Automatic sign up of partners and offspring. So that GP is just down the road. Provide food services to family if need be. Emergency personnel (most lower ranked) don't get paid well enough to support family and often times they are the only source of income because partners at home looking after children and limited with time for study/work due to moving away from support networks like family/close friends.
- Provide medical and dental support.
- I would like more support. Other military’s around the world show a lot more support for their families - free accommodation, free dental and healthcare (I know this as I have close friends in other military’s around the world).
- Have spouses covered under their healthcare as well.
- Be aware that because of low pay, partners often have to work and when they change schedules with a day’s notice, it puts a huge strain on already struggling families.
- Provide better maintenance on housing that is provided. Worrying about housing can be stressful.
- Stop taking away the 'privileges' of being in the NZDF.

Staffing

Police (staffing)

- The Police I feel are not supportive of their members and frontline staff are over-worked and the Police in general are understaffed for the frontline.
- Provide more staff on the front line would reduce my partner’s stress and the flow on to me.
- More staffing especially when on frontline and dealing with confronting situations.
- More support for rural towns by way of staffing and cover for annual leave, especially over xmas and summer.
- Provide better resourcing so they are not attending dangerous situations alone.
- Provide the correct number of staff to meet the demands of the job. Senior management expect too much from too few.
• Make safety paramount. There should always be 2 staff on at any one time so that if a job comes in at night or there is cause to think it is perhaps more dangerous, they can attend together. Even if something went down and one has attended alone at least there is backup in the same town.
• Focus on getting more resources - people!
• Staff are an organisation’s biggest asset. If they (and their families) are not looked after - they leave - what a waste of ability/intellectual property.
• Stop demanding 2 jobs out of one person (plan ahead, so that he doesn't have to cover someone else's leave because the manager didn't bother to find a short-term replacement). That work stress comes home and it doesn't belong at home.

Fire (staffing)

• Not having paramedics working single crewed would make me feel a lot more confident when my husband is working in a rural environment as he does regularly particularly at night where a 3 hour round trip is the norm.
• Better staffing on frontline, to ensure staff have meal breaks and don’t get given job at 1 min before end of shift.
• Stop single crewing at night, have more respect for them.
• More thought for the effects of the new purple calls on staff, more thought to breaking up crews (moving staff) who have bonded and work together as a team - their internal support structure should be protected too.

Defence (staffing)

• I think because of the position my husband is in it’s harder as there's [only a few] people who can do that job.
• Providing additional personnel support to his organisation to enable the workload to decrease.

Safety/training/equipment

Police (safety/training/equipment)

• More safety measures in place.
• Provide better resourcing so I have the confidence that everything is being done to ensure my significant other is safe in their job serving the community.
• Ensure my partner is safe. The days where police officers should have to work on their own at nights putting themselves at extreme danger should be gone. Money isn’t everything. Ask the partners or families of those where there partners did not come home from shift.
• Run more proactive courses for staff morale.
• Get qualifications recognised by NZQA.
• Encourage her not to bring work home.
• More tactical training so he felt better actual firearms training not simulator.
• More positive measures to encourage physical activity and increase fitness.
• More training.
• Bullet proof vest to protect him, I think it is the stupidest thing that they don’t have them!!!!!!!!!
• Allow decisions to be made at bottom level on appropriate safety equipment to be warn (such as Tazer) where it is not a one size fits all job. Police to focus on safety equipment as well as resourcing of staff.
• Better equip the police.
Fire (safety/training/equipment)

- Make sure they are safe, they also attend calls where station officers do not have experience and huge risks are taken by sending them into situations where they shouldn't be, including fires, where unknown chemicals are burning, hangings when they themselves are not paramedics, but learn only basic CPR.
- Enforce safety policies, training refreshers, fitness testing so that I can be confident that the rest of the crew he is working with are skilled and fit enough to pull him out if it goes bad (currently none of these consistently happen) = helps me sleep at night.
- Be more supportive. Because of the limited number of management staff for critical incidents, my husband is expected to work nonstop and with short turnaround. This is a health and safety risk.
- Provide a safer working environment in rural areas by not having paramedics working single crewed where transporting distances to hospital and fatigue are a huge factor.
- Better support for the crew in the form of up to date gear and communication equipment!

Ambulance (safety/training/equipment)

- Take the front line staff safety more seriously.
- More experienced officers in charge. Officers need to have qualifications for their rank.
- Be more proactive in promoting/training the members who deserve it.
- Do they know the crew even exists? They front up for training expenses and the odd social but most training is organised locally with no apparent oversight.
- Better training.
- More medical training.

Defence (safety/training/equipment)

- When deployments aren't happening let them go to places that need help like Vanuatu and be aid workers. So they get the life skills and do something meaningful in the wide world not just locally.
- More organised training.
- Better postings to allow for growth rather than being stagnant - means intakes post him are surpassing him skill wise, medal wise, experience wise, position wise.
- Provide the right equipment and accurate ROE's when deploying from the first deployment - not as time/money allows.

Work environment

Police (work environment)

- Use best person for the job recruiting and opportunities.
- Be a responsible employer and provide assistance that will not inhibit promotion or be seen by managers as not coping if assistance taken up.
- Not put single female cops with married men & vice versa at work.
- My ER has felt incredibly let down by senior staff who have taken action in insensitive, and dishonest ways - very stressful. I hope that the NZ police will soon look at the impact of recent changes (fiscally-driven) on staff morale and find ways to foster a sense of trust in the organisation.
- Remove at least some of the barriers she experiences that make her job so stressful. We both feel that the 'on the job' stress is far easier to handle than the 'office and relationship' stress. Just trying to get things done is probably the biggest stress.
- Hmmm, I feel that they don't really give a shit about us, because if they did they would provide a better workplace for our partners.
• Not sure they are interested in the "partners". They aren't overly interested in their staff. It's all about how to save money and gain money.
• Actually be interested in the person who is suffering from stress instead of focusing on covering/managing the "risks" to the organisation. Management is not concerned with the individual - what they say and what they do are at odds with each other.
• Treat her better would be better for me.
• The greatest stress we experience as a couple comes from the insensitive manner in which persons in positions of power go about their decision making with no regard for the impact of their actions on their officers and the families of those officers.
• Just treat my husband a lot better than they currently do right now!! He puts his life on the line every time he puts that blue uniform on and gets better treatment out on the street by the criminals than by the organisation he works for, what is up with that??
• I do feel that the government and administrators of the NZ police have lost touch with everyday policing needs and simply makes things harder by continually cutting resources and not putting the needs of their staff ahead of $$$
• Look after our partners in turn you are looking after us.

Fire (work environment)

• When promotions are offered in the NZFS ensure the best person gets the job rather than considering other political factors or to keep the loudest person happy and quiet.
• When renewing work contracts it is not unusual to bring in new management which plays its "restructuring games". Having lived through several of these and one that took 7 years, causing stress to families so severe that many quit or got so sick they had to leave is poor form. This is not a company to be run like one on the NZ stock exchange. Firefighters and other emergency workers can't strike and can only take limited action. Management can improve. It is not a proud thing that the university has used a case study of the firefighters dispute in settling contracts as a "what not to do" and "how could they get it so wrong" example in their lectures.
• Combine the fire organisations & make the NEW organisation work 100%
• Focus on some of the stress causing issues that are not related to response events. The work environment around the station can be more difficult than events encountered in the field, but management seem to be inept at dealing with them. They sometimes seem to actively foster unsettled work environments.
• Ensure continued support and employment, or at least communicate or give certainty about future employment, to my partner in order to reduce family stress about the possibility of redundancy
• The city bosses need to get off their seats and visit more often the city sub-stations and rural stations, and stopping going on about KPI's etc. and actually ask how the men and women are, especially after bad incidents. It's left to the older guys on shift to counsel the young ones after incidents.
• If you can't deal with the negative issues of the "job" then you shouldn't be doing it.

Ambulance (work environment)

• Personally, I work in the field of mental health and know pretty well how to self-care, however, I do think that [ambulance service] could make more of an effort to care for their staff. If I know my first responder was looked after well, then it would be more reassuring for me to have him do his job.
• The new structure is better than the old where TLs shrugged and OTMs generally only made contact for negative reasons. At least having territory managers makes them feel like they're more than a "bum on a seat".
• If they sort the other issues out [work issues] then the home life will be sorted.
• Just support my partner. He loves his work and always wants to do his best for them.
• Make me believe that they are looking after my emergency responder.
- Just care more. This is part of their "motto" however staff believe this is actually "to care so long as you're not staff".
- Employment conditions are deplorable and focus is all about the organisations own image, rather than looking after their staff.
- Addressing issues would make him happier in his job and he wouldn’t arrive home frustrated and angry at [ambulance service].

**Defence (work environment)**

- Consider the impact of not knowing how long partner may be employed for.
- Become an ORGANISED organisation in ALL areas.
- Lighten the work load.
- I have found from experience that everything is pretty much left up to the individual and you shouldn't try to challenge the system or organisation. The organisation works well for the majority but if you happen to fall between the 'cracks' then it does not.
- Be more flexible, be more understanding about things outside his control for example medical conditions.
- Too many to list. Not a good place to work.
- Rein in people who play the family friendly card and/or glide time as a mechanism to limit what they do or participate in, whilst working for their respective organisation. This results in other people having to take up the slack, because of choices they have made. They need to ensure this is enforced across ALL uniformed and civilian staff and service providers across ALL branches of the service. If they don't like it then they should leave as it is a clear indication of their selfish attitudes when it comes to displaying one of the [NZDF’s] key values of COMRADESHIP.

**Management**

**Police (management)**

- Stop using constables and non-sworn staff for management to ladder climb.
- I would like police hierarchy to take more responsibility for the job that our frontliners do, not criticise which they are very good at doing from behind a desk, because they are not on the front line any more.
- More supervision on a regular basis not just for roles that deal with highly sensitive issues.
- Way more support from management for frontline staff.
- Stand up more for those on the front line who are the ones now dealing with increasingly difficult people, and respect decisions that they make in the rural community.
- There have been far too many cuts and no fight from senior management HQ.
- In general I believe the NZ Police is a very well structured organisation that looks after its staff very well. The only improvement would be less politics involved in promotion & career movement.
- Get rid of the staff that are in senior positions that really shouldn't be in them. These people who are supposed to be leaders, let their units down.
- My personal opinion is that they don't really give a shit about the personnel putting their lives on the line every day, and it seems that management have no idea what they have to put up with, and bad management has a flow on effect.

**Fire (management)**

- Support him more with staff performance and misconduct issues. He is currently required to manage staff and when he has issues the management never back him up.
- Better management of personality clashes and issues instead of ignoring it.
• Hire professional managers who understand employees’ rights and basic HR skills (rather than promoting people into such positions because they are a good firefighter).
• The managers don't care, they are just looking after themselves and trying to protect themselves from any fall out.
• Work more like a business than a family. Very slack in processes which causes stress and unhappiness when everyone runs around doing as they want.
• I would like to know that he feels looked after by management, that they aren't just ticking boxes. They do nothing for their staff working on Christmas day for instance.
• More leadership on interpersonal issues.
• I just feel like management doesn't really care about the "little people", being the firefighters who are actually responding.

**Ambulance (management)**

• Have a better management structure, care more for their staff.
• There seems to be a widespread disparity on how individual staff are treated by immediate supervisors and management. If like my partner you are not in the "in crowd" you don't seem to get the same opportunities as others.

**Defence (management)**

• Treat everyone the same.
• Face time with managers who actually care and understand the challenges.
• Actually be interested in the person who is suffering from stress instead of focusing on covering/managing the "risks" to the organisation. Management is not concerned with the individual - what they say and what they do are at odds with each other.

**Time off/overtime/shift work & roster**

**Police (time off)**

• More flexible hours or able to get days off for occasions.
• To be more realistic and honest about the importance of family and genuinely encourage a healthy work/life balance.
• Be flexible and realise the responder has a life outside work.
• Respect his time off. Also lawyers ringing him on his days off just because they are at work!! If he doesn’t answer his work phone they call our home phone!
• More leave/time off to spend with family immediately following particularly stressful events where loss of life is involved.
• Be more considerate of leave applications for family events.
• Have opportunities to create a better work life balance.

**Police (overtime)**

• Recognise that if he works overtime then every amount of that overtime should be paid for or compensated for with time off in lieu. This has a huge impact on our family and social life.

**Police (shift work and roster)**

• Consider sabbaticals at certain years of service to retain experienced staff, without the penalty of resuming district or nation strength once the sabbatical is complete. Look at other country's ideas for retaining staff, I think it is Australia where you can take a 25%
reduction in pay to have one in every five years off work. Allow national movement without the penalty of losing your home station. Basically look after the men and women who have given most of their adult life to the job and allow them some flexibility as they often don't want to leave the job but would do well with a year off or a year of some form of change. And without this option at present the NZ police is losing and burning out experienced staff.

- Already have a reasonable interaction with partner’s co-workers but my shifts can interrupt this.
- Send him home on time.
- I think the structure of shift work needs to be seriously addressed in the Police. I think the manner in which rosters are allocated is clumsy at best and my partner is frequently exhausted from shifts that have no regard to other position obligations e.g., court attendance.
- Social functions are often on working days due to them working shift work.
- Work out a better shift roster - the current 8 week roster is very hard on family life and you cannot remember it.
- Provide flexibility so they can spend time with their families when really needed.
- Create a better roster pattern e.g. 6 on 4 off (2 days/lates/nights) the current one is all over the place. This would allow for better/easier planning for family time, plus more consistent time off.
- Spouse’s careers and family activities/holidays are impacted when police have to work long stressful hours.
- Get the roster system right.
- As a relationship between two emergency responders, it is very different to the ‘normal’ type relationship everyday people have. Rosters and clashing shifts make for an interesting dynamic at times especially when you don't see each other or only ever in passing.
- I am also on rosters and when he has changes it impacts on our family. For instance we had 3 months over xmas where we didn’t have a day off together due to late roster changes for him.

**Fire (time off)**

- When he is home, to not call him and have him doing work on his days off
- Look into recruiting more members so he can take time off over holidays etc. Have an incentive, like a bonus or something, that the members can work towards to become better involved...that would remove stress from my life.
- Our New Year’s Holiday away was ruined due to a work callout when he had pre booked annual leave, he never received any thanks from his boss and in fact he actually ended up losing money for going to that call that took [many] days. I felt I wanted to contact the boss and tell him how it affected our family and me as well. But I never would for fear of affecting my husband’s job.

**Fire (overtime)**

- The crew that organise the overtime have even made it either difficult for him to get the overtime he is due, by calling him at the "eleventh hour“ or sending him to stations that our quite a distance away, even though his own station has a spot that is open and is usually offered to those based at that station first. As far as I’m aware, my husband's experience is not unique, but common practice within the NZ Fire Service. I don't exactly know how the organisation can address this issue, but it is an issue that should be addressed - especially with regards to the inequality of how the overtime is distributed/organised. There have been a
number of complaints from different people within the Service that I have heard about.

**Fire (shift work and roster)**

- Recognise the impact shiftwork has on families/relationships.
- More information about how others live the life of shift work etc.
- Actively promoting and fundraising and recruiting new members to take the stress of the few members who are currently doing double the work. If the guys are out all night on a call, most of the time their bosses don't find it a valid excuse to take half a day off to sleep and recover. The fire service could offer a "sick note" as such to force employers to allow them to have half a day off.
- Awareness of the impact on family life when a partner is away on multi-day deployments, particularly in situations where they have children and both partners work. This puts a huge increased workload on the one remaining at home - with often short or no notice, with the juggle of children, employment and trying to keep a household running (plus feed the sheep, the dog, the chooks...).
- I have met many fire crew members over the years while my husband has been in the Fire Service. Some don't come out with the same partner, due to the long stressful shifts.

**Ambulance (time off)**

- Better resources in people as qualified so my partner can take leave or manage his fatigue better & not have to work 90 hour weeks because his off sider has leave/illness etc.
- Not expect them to be at the organisation’s beck and call at the drop of a hat.

**Ambulance (shift work and roster)**

- I think the [ambulance service] should look better after their staff and acknowledge the stress of the job, the long shift work and what is expected of them besides the emergencies they have to attend.
- Recognise my husband’s long hours of work so he can come home in good form & not be stressed about how much sleep he's getting.
- Make partners of new staff understand what night shifts and stressful work related calls can do to them.
- [Ambulance Service] changed the shift times that has been stressful and disruptive to family life. Instead of 7am to 6pm it is now 6am to 6pm it’s only an hour but it makes a huge difference, the household wakes at 5am now. They need to show that they genuinely care for their staff and their families.
- When you marry an emergency worker you accept that your social life is disrupted, that you will attend lots of events on your own and you support your partner in the amazing job that he does for our community BUT change the shifts back to 7am start 6pm finish far more suitable to family life and less disruptive. I have seen no proof that the new shift times make a difference to patient care.
- Consider the work life balance and that shift work takes its toll on people after a while

**Defence (time off)**

- Keep them at home more. Postings are pointless are rip families apart. Have a bit more consideration for the woman and children standing behind your [service members]
• Better resources in people as qualified so my partner can take leave or manage his fatigue better & not have to work 90 hour weeks because his off side has leave/illness etc.
• Allow for more downtime. He has currently had 2 weekends down time in the two months. This has caused a lot of stress at home and our 2yr old boy is constantly pining for his father. He doesn't understand that his father is working, not running away from him.
• Be a bit more flexible when they are not away and in the field i.e. picking up the children from daycare or have a sick day to look after them. Some jobs look at the partner as unreliable if they are always having to go home for the kids.
• More sleeping times while away on [exercise], there is no time for them, no real weekend when they are [exercise], and they are expected to work ungodly hours into the night.
• They also need to practice what they preach and be more considerate of families - my husband spends weeks and months away at a time, and gets very little time off when he is back. Why not give them an extra afternoon off here and there to make up for the time away?
• Make sure that sometime during the year that a person has some time to spend with their family alongside.
• It would be nice if they could respect requests for leave for important things like family gatherings weddings sickness and stuff instead of picking and choosing when it's okay and when it's not.
• Don't take away leave when given.
• Don’t change plans so much and so abruptly, so holidays or outings are be organized in advance. Currently holidays and outings cannot be planned in advance due to circumstances with work changing rapidly, e.g. placed on duty, change of dates ship is deployed or returned.

Defence (shift work and roster)

• Clearer information regarding deployment dates, keep both the emergency responder and family well informed ahead of time not the week of deployment.
• Give them more time to prepare when going away and be certain they are going away and don't stuff them around.
• Don’t muck him around, give him written roaster not verbal.
• Stop changing dates of courses, meetings etc. as often many other events have had to be scheduled to allow my partner to attend something only to have it cancelled at short notice which is frustrating.
• Be more organised! Very last minute with decisions. Families can't plan ahead in terms of dates because organisation constantly changing schedule.
• Give him clear instructions about his timings and what his objective is because sometimes it's difficult to plan things around his working times
• Don't send them on open ended trips. Families should be given a date to look forward to. It's extremely unfair almost as if they have no regard for us left at home.
• Having your loved one leave for extended periods of time is hard enough, not knowing when they will be back and how long they are gone for doesn't help.
• I would like the organisation to be firm with dates and to not be such a Mickey Mouse organisation. I would like the organisation to be more considerate of families that are trying to have a life outside of the organisation, thus would provide a better quality of life for all concerned.
• Be consistent with plans (obviously not with natural disasters etc.) but every time my husband goes away on course or an exercise the plans are all over the show, dates are always changing last minute, it makes it hard to try and have a semi normal family life.
• More consideration needs to be taken when sending people into the field/posting. We have had situations of 2 days’ notice before going into the field. Not easy with kids and working full time myself. Most career advancement means often being posted away from your home town. For many partners this means giving up your job. It makes it difficult to advance your own career.

• Stop pissing around with half ass plans.

• I would like you to stop sending my husband away when there no requirement for him to be there. Show some loyalty.

• I can't tell you how many times I have taken leave to go on breaks or spend time with my husband to then find out that they have changed plans last minute. I cannot describe to you the frustrations of preparing yourself and your children to say goodbye to your husband/father just to do it all again the following days/weeks. As previously stated, I work shift work as a [similar organisation] and so the time I get with my husband is very special and often is limited, so we like to make the most of it with our family and it is often ruined by his organisation for something that could have been organised long before the last minute.

Societal Inclusion and Healthy Organisations

Bully

Police (bully)

• For local managers to display professional leadership rather than petty responses and bullying.

• 100% support would be good get rid of bullying!!!

Fire (bully)

• Addressing workplace bullying.

• Deal with bullying in the workplace instead of sweeping it under the carpet.

• My emergency responder's workplace not only allows but actively 'fosters' a culture of bullying which absolutely appals me. My partner deals with it incredibly well, but it is that mean culture which discourages people from getting the help they need after they have had traumatic experiences.

• Stomp on verbal and psychological bullying quickly.

• I was told by others in the Fire Service (early on in my husband's career) about the Fire Service being a ‘rumour mill’ or labelled as ‘the NZ Fire Circus’. My husband has experienced first-hand how rumours have affected relationships with others in the Service, even those whom he has never met (he may run these people at another station, to find out what they have heard about him or how they have slandered him).
I know my husband is bullied by some of his work colleagues - but he doesn't want to say anything or it will make things worse. Some of the things people have said to his face are extremely rude and nasty.

A receptive supervisor rather than the previous narcissistic bully.

**Ambulance (bully)**

- ‘Weed out’ the paid staff that use encouraging words towards volunteer staff.
- Support their staff and stamp on the bullying culture.
- Stop the work place bullying.
- Be honest recognise families and partners are affected by bullying behaviour of senior managers especially since all those English people have been bought into NZ.
- Stop the bullying tactics.

**Defence (bully)**

- I think just being aware of the stresses that come with the job and not belittling them for things they haven't had guidance or training in because the boss "thinks" they should know what they are doing even though they've never done that role before.
- Also hierarchy and position is abused often.
- More support and less bullying.
- Less hierarchical culture and blame.
- My partner is in a management role. I have constantly heard stories of how younger/lower ranked staff are bullied. What I find difficult is when it is brought to my partner’s attention, it appears difficult for those above him to act i.e. educate/reprimand. I have been told that is the [NZDF] culture - it happened to them when they were younger as well. This doesn't make it right. I think the bullying mentality of the [NZDF] needs to be dealt with.

**Macho**

**Police (masculine)**

- The organisation sees dealing with incidents as part of the job, they believe officers are trained adequately and should just get on with it.
- They need to be able to stand up for themselves and not feel like they'll look weak.
- They need to continue to foster a pro communication environment for everyone rather than the old-school 'get on with it' mentality where the new boys are bottom of the pecking order and their opinions are not heard and they have no safe way to suggest ways in which more senior staff could better support them without consequences.

**Fire (masculine)**

- Keeping chipping away at the macho culture.
- Who is going to admit that they need help in front of their 'masculine' colleagues??

**Ambulance (masculine)**

- Break the culture of having to be tough.
- Acknowledge that their employees see some very stressful stuff and actually support them with dealing with this instead of making out that they are weak if they are struggling emotionally.
Defence (macho)

- [NZDF] changes boys into macho. Be respectful of their partners, he used to be but he is getting more selfish since he entered a new section in the [NZDF].
- To support emergency personnel with mental issues. They have a ‘toughen up’ or ‘get over it’ attitude towards mental issues.

Outmoded thinking

Police (outmoded thinking)

- Remove the stigma around getting mental health help.
- [Direct interactions] as it exists at the moment is very little, there would need to be a big shift in attitudes and culture to make this be effective.
- A cultural shift to ensure people are valued and seen holistically rather than just as a resource.
- Push them to take advantage of support structures. My husband is extremely unlikely to ever engage any mental health support networks.
- Inform them about mental health services they can access. Make these accessible in a confidential manner. Make these normalized so to prevent stigma around using them.
- Relook at the ‘old boy network’ of the [section] and make it more family friendly.
- The stigma associated with stress related health issues is still old school. Management need to talk more about it and treat it like other health related matters so that it is normalised - and addressed more openly.
- Perhaps less judgmental need for counselling from time to time.
- NZ Police needs to be: open, be honest, be an organisation of leaders instead of managers, get more experience outside of a military based organisation to learn how to deal with staff and treat them with respect instead of like a number, when they reach headquarters they should spend time on the street and have regular meetings with the partners of police members to understand what life is like for those who support members on the street, they could be more proactive in the way they approach learning, training and allow their members to ask questions and not fear they will be reprimanded at a later date, they should take time to reflect on their passage to HQ and how it was for them as a constable, Sgt etc., they should stay in touch with their members, they should not come to conclusions and assumptions ‘about the way it used to be when I was in the job’ because they have not been on the street for a significant period so how could they know, they should ALL complete their PCT so they can assist the public should an emergency arise and not be overweight, they are an example and yet they struggle to fit into their own shirts, they should support one another.
- Be consistent in their decision making, teach the male leaders to talk and not shout, to listen and not shout, to establish the facts and then make judgments, to lead by example and not manage, but lead, there is an enormous difference, to acknowledge the support of partners and not just give it lip service, to smile, to be more understanding, to acknowledge that it isn't like it used to be "in their day” and find out what it is like today, go and learn more about EQ.
- Acknowledge people make genuine mistakes while on the job and this world of ridiculous political correctness does not mean every mistake needs to be punished but more reviewed, explained and managed according to its severity, not managed due to the emotions of senior management with NO idea of what really happens.
- Currently the act of seeking support is considered a negative response/laden with stigma.
- The organisation is better prepared to deal with the aftermath these days and do have certain things in place for officers and support staff. However no matter what an organisation does it will only be successful if barriers are dropped by individuals (mainly men) to realize that they sometimes do need help. My husband and I have been through a
number of bad work incidents over the years and he has never once relied on the Police for support or been offered it.

- Recognise stress is not weakness, neither is asking for help through Workplace Assistance.

**Fire (outmoded thinking)**

- Information about where to go to when needing support and help. That professional help is available to the partners. I understand that they are told at work after a stressful emergency call out it is available but most of them never use it. Partners are never told about what is available. Also I know that the staff are scared of opening up about how they feel, as seen to be weak, also that if they open up that they may break. My hubby has recently had a breakdown and is in denial that anything is wrong and that his work has affected him. He is closed off and also has gotten worse over the years about controlling everything in his life, including me. He never talks about feelings and has almost disconnected his feelings. I have supported him and talked to him. He won’t go to counselling as he feels it will bring things out he doesn't want to acknowledge.
- Be more open-minded to staff seeking support for mental health.
- Management need to make it plain to staff that the seeking of assistance with mental health issues resulting from the work we do, is not perceived to be a weakness. Ensure that it will not harm their career development opportunities! Currently staff are reluctant to seek help as they are concerned as to the likely repercussions to their career progression.
- NZ Fire Service needs to grow up and stop being so petty about vollies vs career fire fighters. The key thing is to focus on what is best for the communities they serve surely.

**Ambulance (outmoded thinking)**

- Regular reminders about seeking help. Change the way mental illness is viewed. Currently the organisation has a negative overall attitude in STATIONS, not necessarily in the way information is down-streamed from the top of the organisation.
- Management need to get out of the old way of thinking "all will be alright" and "people need to harden up". Complaints need to be taken seriously by management.
- They seem to be somewhat undervalued by the culture that deems them as just helpers and carriers. I know my partner has worked hard in her training, is passionate and seems capable. If she feels less than more qualified practitioners, is she going to seek good mental health help or seek conversations with managers regarding these issues? Not if there is a power imbalance.
- Be more user friendly and be there more with supporting their paid staff because the culture tends to be more about the volunteers and the paid staff get left out of a lot of things.
- More emotional support, without stigmatizing the value of distress tolerance & emotional competence/readiness.

**Defence (outmoded thinking)**

- Not blame her for her mental illness caused by an event that happened working. Poor leadership of the situation and management of her has affected career significantly and she wants to leave. Better management and sensitivity is needed, be realistic.
- Make it easier for them to spend more time at home without feeling guilty.
- The stigma associated with stress related health issues is still old school. Management need to talk more about it and treat it like other health related matters so that it is normalised - and addressed more openly.
- Make it clearer that troubles with mental health will not influence their future career if handled properly e.g. if they seek care and improve. Also encourage them to speak up to
superiors about stresses they may experiencing whether it is work related or not so allowances can be made/ advice can be given.

- My partners unit would have to have a complete change of culture in order to put less stigma on those requiring help for mental health and other issues.
- I think the army should make seeking help less of a stigma, but this would take a major shift in culture from the bottom up and the top down.
- Change the culture to allow for more emotional support. Easier said than done.
- There is a view that if you are seen by an NZDF counsellor the Defence Force will be aware of this and it will harm your career.
- Reduce stigma surrounding needing time off for family commitments or feeling obliged to attend work over caring for family/spouse.
- Help him feel that suffering from depression is not a bad thing, offer support and don't discriminate.
- Continue to reduce stigma regarding seeking help to manage mental health and stress.
- A reduction of stigma attached to being emotionally affected by a buildup of stressful and/or traumatic events; a normalisation of this.

**Partner integration**

**Police (partner integration)**

- NZ Police make me feel as though my responder's work has nothing to do with me. During stressful incidents, they don't even look after him well.
- There is also a culture of exclusion of partners from Police social activities, both informal and formal i.e. Xmas parties.
- Acknowledge that they have partners and families despite the secret nature of the job.
- Remember where they came from, what their own path to Police HQ was and remember that their staff have families and the decisions they make can affect these families significantly.
- Feels very much like a closed club and if there ever is a get together spouses/families are usually not invited and when they are the "team" generally don't engage in conversation outside of work talk.
- Make the environment more family friendly with events.
- Treat us as a package deal. Include us as part of the organisation (e.g. as an associate member) for stuff that affects us, either directly or indirectly. Sometimes our partners don't talk to us about work stuff because they don't think we "get it" - but we want to get it.
- Make me feel included/part of the police family.
- Over the last couple of years I have become quite negative towards the dept. I gave up a career to work part-time to look after our children - we had no family in the city we were posted to. I have watched my husband age, take on a lot of stress, receive no thanks from senior management for a job well done but when things go wrong have the same people phoning covering their backsides. Friends with similar qualifications, no staff management, have less stressful jobs with better work conditions and pay. I would like to see him leave and get a less stressful job and hopefully live a long life. Department does not value experience, and no thank you for solving a number of [crimes] in a short timeframe. Apparently focus is on prevention but there are families and society who rely on [criminals] being caught. I don't expect anything from the department now - our children are young adults and it's a bit late for me to get a career!
- I'm completely unsurprised that there is a high divorce rate among police. As a spouse, it's very isolating and would be hard if you didn't have strong support from family or friends outside of people within the organisation.
- This is an interesting question given I sit as both a responder and responder's partner. There is really NO direct contact with partners that I have ever come across personally. I think this is a short fall. I can see how non responder partners could feel isolated. Even
xmas parties for kids - the info is fed via the responder partner. It would go a LONG way in terms of inclusiveness to start directing correspondence directly to the partner and families of responders. Just by the absence of direct correspondence, this in itself excludes partners. Being given the ability to sign up to be able to receive info would be positive. So 1) there is not such a reliance on information to come via the responder 2) there is a sense of inclusion.

- Partners of responders who are responders themselves are probably not so affected, however I can see great room for improvement if I put on my being a partner hat, for the organisation to improve or come up with ideas/initiatives which improve the feeling of inclusiveness for the partners.

Fire (partner integration)

- Speaking directly about the NZ Fire Service full time employees: I would like them to recognise the value of a strong family which ultimately becomes the rock that allows the employee to respond and do their job well.
- Some sort of supportive interactions! Even other older emergency responders don't seem to fully understand the difficulties faced by partners at home, particularly with a young family.
- Be thought of more - I think they forget that we are the ones that go without sometimes, like our plans get ruined because of call outs.
- Can't answer. Partners are never told anything about anything. We have no information on how to deal with anything
- I don't want, need or expect the Fire Service to do anything for me. My husband is in a job that requires him to attend incidents that are directly related to tragic happenings of all kinds. This is what the job is! It is silly to think that I, as his wife, would be upset by his attending such incidents. For goodness sake, that is what the Fire Service exist for. A case of if you can't handle the heat then stay out of the kitchen.
- They have enough to worry about looking after their employees.
- As a partner of a fire fighter, I feel that the organisation goes above and beyond on what they do for spouses. Not many other companies would care that much about their employees’ partners.
- I think sorting my own stresses and difficulties when my husband is away or on lengthy callouts, or even coping with the disruption of regular short term callouts is really my problem and for me to figure out. I feel no sense of debt or assistance are required from my husband’s organisation. I require them to make sure he is as safe as is practical.
- My emergency worker's organisation has a hard enough time treating their own members/workers with respect, I have very little confidence that they could do anything right to include partners.

Ambulance (partner integration)

- Just some acknowledgement of the fact that partners exist.
- Recognise that family is important and needs to be considered when they make decisions about staffing.
- Be a bit more family friendly and partner friendly
- I would like them in emergencies to support the wives like they promise.
- There is a reason why being the partner of an emergency service person is called a widow maker - it so often makes a widow of staff’s intimate relationships. Only fellow spouses understand that. [Ambulance Service] don't make it clear they value their staff, why would they stretch to show they care about their families??!!
Defence force (partner integration)

- Positive experienced role models for those in de facto or new marital relationships or young families would be beneficial just someone to bounce off or speak to.
- Making work hours and the expectations in the workplace more 'family friendly' and less intense/stressful.
- The [NZDF] already does a lot, there are many briefs my partner tells me about dealing with things like PTSD how to handle witnessing comrades getting tortured and abused (including raped) when caught by the enemy, there are mental health briefs and an onsite pastor for those with religious needs. I think there is an available therapist. But it would be nice if the [NZDF] could also provide briefing on how not to push partners away after coming back from a deployment or exercise. Other than that the [NZDF] already does a lot.
- Instead of always focusing on pulling them away from the family group- maybe a session focusing on the importance of family to them and their work.
- Promote the value of family- stop minimizing it.
- Less dismissive of concerns about family welfare and more accepting of partners and families within the [NZDF] structure. At the moment it seems that families are an inconvenience, and the force is doing its upmost to send the troops away as much as it can even though they are not deploying.
- I would like more information. More respect, more communication and an acknowledgement that what we as spouses go through is hard. We are taken for granted and not considered at all and it's not good enough.
- [My responder] would have liked to know I was being taken care of a little more - I just made sure he knew I could handle it all while he was away, so he could do his job better. It's a big load to carry sometimes.
- Let them feel like they can put their families first sometimes! We always seem to come second to the army, I know this isn't always possible. But maybe that could be more from my husband than the organisation itself. I don't think he feels like he can say no that won't work for us, and we just have to follow whatever has been decided.
- The defence force is useless in supporting families and keeping them informed.
- None on a personal level the [NZDF] are not a family friendly defence force and are happy to see relationships end so I feel it is not the best place/ people to be too involved with.
- Actually take the time to get the truth rather than glossing over events that affect the whole family, at no time has anyone taken the time to find out about how my children have or have not coped. There are many hidden costs, including many broken marriages due to the inertia from the organisation and lack of honest support, they do not practice what they preach and their words are good but no follow-up action.
- Treat [responder] like people. They have families that are not defence personnel and we should be treated like human beings with lives and careers not just additional people to send on a posting. To threaten a person’s career prospects because their family won't post out of an area is disrespectful to the whole family, and especially the enlisted person who has served their country for over 20 years.
- The [NZDF] is a good community but they lack follow through when it comes to "respecting family life and personal relationships".
- More support when it comes to family commitments. The whole reason I was released from the [NZDF] is because it was not practical for us to both serve while raising a young family.
- It makes sense that there isn't much a focus on military spouses as we aren't the ones in the [NZDF].
Discrimination

**Police (discrimination)**

- Be more inclusive.
- Being a white, middle aged man is now a penalty despite being very good at his job.
- Ageism - in an interview asked was he applying for the job as wanting to step back from [section] and into something less taxing. Implied looking for position to semi-retire! He was 55 two people who got job were under 50.
- There is a lot of racial and gender discrimination in the police now. If you are a female that is not a NZ European, then you will go far. Doesn't matter if you are good at the job or not, as long as you have unique racial/gender qualities, then you have more chance of moving up the ranks. That is absolute rubbish. What happened to being good at your job?!!

**Fire (discrimination)**

- The Fire Service needs to be more approachable and not discriminate against him with the problems they have allowed to happen and caused his stress and sickness.
- Don't discriminate against someone who is ill and still goes to work each day putting on a brave face, doing good for the public.
- The sexist attitudes of many of the old school is annoying and tiresome.

**Defence (discrimination)**

- More Māori friendly cultural support for when racism is a norm in meetings/the mess and joe rooms.
- Make the whole organisation more Māori friendly. Look at the racism against Māori that is evident and distressing in the [NZDF]. My partner feels incredibly upset and unsafe in communal areas because of the Māori bashing. The institutionalised racism is hugely evident.

**Substance use**

**Police (substance use)**

- It would be good for some of the social events not to be based around alcohol.
- Activities for families that don't revolve around alcohol or watching sport!

**Fire (substance use)**

- Drinking culture in the fire service is bad, and they shut their partners out. Personally I would like to see the fire service have drug and alcohol testing in the services as a work place HS as I know a lot of people in the services abuse it and are at work. This is concerning as they are meant to be looking after the public but this is all hidden and not discussed. Sorry but have to say it, because it is something that upsets me. Where am I meant to go with that?? Who is going to listen? The fire service are the good guys right? Which the union protect. My question to my hubby is: if you know that someone you are working with is using drugs or comes to work at 7 am, knowing that they have been out drinking until 2 - 5am in the morning, do you want this person to be working on someone we know or our kids in the event of an emergency?? I feel that there are staff who do self-medicate to help them through things that they personally can’t cope with and it needs to be dealt with on a huge scale. It is the first time I have had a place to say this, so thank you as I hope this helps.
• More free beer

**Defence (substance use)**

• It needs to constantly remind everyone that it is okay to not be coping, to some degree this is normal, it is not okay when you turn to alcohol, drugs & gambling.
• Dealing more directly with the negative drinking culture in their organisation.
• Not just functions for them only to get shit-faced, that's all their ‘functions’ are for.
• There is a strong drinking culture in the [NZDF] as it is without encouraging it further by putting fancy names on piss ups.
• Include partners in more social events - some that don't always revolve around alcohol would be nice.
Appendix M: Poster

What happens at work goes home

Stowe Alrut, PhD Candidate
Supervisors- Associate Professor Stephen Buetow, Dr Peter Huggard and Professor Linda Cameron

Research question
“Is to extent do the partners of New Zealand’s Emergency responders experience Secondary Traumatic Stress?”

Study Overview

12 participants
July-Aug 2014

Pre-Survey Interviews

Poster Online Survey

Online Doc: 2016 April 2015
62% completed survey

38 people including 8 participants Nov-Dec 2018

Results

STSS cut-off scores place individuals into one of five categories. Based on DSM-IV criteria, participants could have PTSD due to secondary exposure if they score in the Moderate, Higher or Severely categories.

Resilience Scale measures the ability to bounce back or recover from stress. Higher resilience is assessed to be more beneficial for managing stress.

Comparing resilience scores with STSS scores:
30% of the 32% (or 96.7%) of participants scoring “high resilience” also scored either “low, mild or mild” on the modified secondary traumatic stress scale.

Demographics

1. 664 included in analysis
2. 85% females and 15% males
3. 156, 763% Fire Service, 27% Police & 6% Ambulance
4. 29% volunteers (Firefighting) & 24% NDF
5. 50% of participants also emergency responders

Conclusion

While almost 80% of the participants in this study have low, mild or mild Secondary Trauma, 30% appear to be struggling with intrusive, emotional and avoidance thoughts about the trauma experienced by their emergency responder. Emergency responder partners may need more techniques to manage these secondary exposures to traumatic events. The vast majority of individuals who scored high on resilience also scored low on the STSS. This may suggest an opportunity to provide partners with tools to increase their resilience.

References


Acknowledgements

1. Thanks to all the partners who generously give their time and energy to make this study possible.
2. We appreciate the support provided by the New Zealand Police, Fire Service, Rural Fire Authority, Saint John Ambulance, Defence Force, Police Association, UNIA, and NDFP.

Contact email: Stowe Alrut (s.alrut@auckland.ac.nz)
Appendix N: Email response to survey participants

Thank you so much for letting me know about this issue.
I have checked the survey to see that it is still functioning correctly and right now it seems to be working.
There are a number of possible explanations for why the survey is not recognising your answer.

**Up to date browser for website access**
This survey was piloted on the most up to date version of the following browsers: Firefox, Google Chrome, Safari and Internet Explorer.
If needed, update your browser to the latest version or switch to a different browser on your computer or handheld device (phone or tablet).

**Firewalls/Security:**
Another issue might be your location. If you are completing the survey where there might be security measures in place from a work or public computer, please try to take this survey from a home computer or personal device.

**Handheld Devices:**
This survey was successfully piloted on a few hand held devices however, different device have different allowances. Check your settings to see that you are using the most up to date version of your device.
Please let me know if these suggestions did not work, I am sure others will be having similar issues and won't contact me about them. I really want to make sure everyone who is eligible can take the survey. I appreciate your help.

Kind Regards,
Stowe

Almost everyone knows someone who is an emergency responder. Please help me publicise this online survey for partners/spouses of New Zealand’s Police Officers, Firefighters, Paramedic/Ambulance Officers and Defence Force Service Members.
Share on Facebook Research with partners/spouses of NZ emergency responders and on Twitter @NZPartnerstress.
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Stowe Alrutz
PhD Candidate
General Practice & Primary Healthcare
School of Population Health, University of Auckland
Phone: 09 373-7599 ext: 86608
s.alrutz@auckland.ac.nz
Appendix O: Results by organisation

This appendix provides survey responses filtered by organisation. A very brief description of the measure is provided. Details describing the participants, the survey, each variable and each measure can be found within the thesis.

Secondary Traumatic Stress Scale and Resilience Scale

The questions related to the STS Scale asked individuals about the impact of hearing about upsetting, life-threatening events experience by their defence or emergency responder. The following tables presents cut-off scores which placed individuals based on their response into one of five specific categories listed below. The row in purple indicates participants who could be experiencing PTSD due to STS which is a combinations of the moderate, high and severe categories.

The resilience questions was measured an individual’s ability to bounce back from stress. The questions asked about agreement with statements that were provided about managing stressful events and calculated scores which placed individuals into ‘low resilience’, ‘average resilience’ or ‘high resilience’ categories.

Table A-1 Results for STS Score and resilience measure (NZ Police partners)

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<thead>
<tr>
<th>Partners of NZ Police (n=179)</th>
<th>%</th>
</tr>
</thead>
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<tr>
<td><strong>Secondary Trauma</strong></td>
<td></td>
</tr>
<tr>
<td>Little or no secondary trauma</td>
<td>44.7</td>
</tr>
<tr>
<td>Mild secondary trauma</td>
<td>30.7</td>
</tr>
<tr>
<td>Moderate secondary trauma</td>
<td>12.8</td>
</tr>
<tr>
<td>High secondary trauma</td>
<td>6.7</td>
</tr>
<tr>
<td>Severe secondary trauma</td>
<td>5.0</td>
</tr>
<tr>
<td>Possible PTSD from secondary trauma (includes moderate, high and severe)</td>
<td>24.6</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td></td>
</tr>
<tr>
<td>Low resilience</td>
<td>24.6</td>
</tr>
<tr>
<td>Average resilience</td>
<td>65.4</td>
</tr>
<tr>
<td>High resilience</td>
<td>10.1</td>
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</tbody>
</table>
Table A-2 Results for STS Score and resilience measure (fire partners)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>%</th>
</tr>
</thead>
<tbody>
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<td><strong>Secondary Trauma</strong> (n=219)</td>
<td></td>
</tr>
<tr>
<td>Little or no secondary trauma</td>
<td>67.1</td>
</tr>
<tr>
<td>Mild secondary trauma</td>
<td>18.7</td>
</tr>
<tr>
<td>Moderate secondary trauma</td>
<td>6.8</td>
</tr>
<tr>
<td>High secondary trauma</td>
<td>3.2</td>
</tr>
<tr>
<td>Severe secondary trauma</td>
<td>4.1</td>
</tr>
<tr>
<td>Possible PTSD from secondary trauma (includes moderate, high and severe)</td>
<td>14.2</td>
</tr>
<tr>
<td><strong>Resilience</strong> (n=218)</td>
<td></td>
</tr>
<tr>
<td>Low resilience</td>
<td>20.6</td>
</tr>
<tr>
<td>Average resilience</td>
<td>66.1</td>
</tr>
<tr>
<td>High resilience</td>
<td>13.3</td>
</tr>
</tbody>
</table>

Table A-3 Results for STS Score and resilience measure (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of ambulance (n=84)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secondary Trauma</strong></td>
<td></td>
</tr>
<tr>
<td>Little or no secondary trauma</td>
<td>51.2</td>
</tr>
<tr>
<td>Mild secondary trauma</td>
<td>26.2</td>
</tr>
<tr>
<td>Moderate secondary trauma</td>
<td>9.5</td>
</tr>
<tr>
<td>High secondary trauma</td>
<td>4.8</td>
</tr>
<tr>
<td>Severe secondary trauma</td>
<td>8.3</td>
</tr>
<tr>
<td>Possible PTSD from secondary trauma (includes moderate, high and severe)</td>
<td>22.6</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td></td>
</tr>
<tr>
<td>Low resilience</td>
<td>11.9</td>
</tr>
<tr>
<td>Average resilience</td>
<td>73.8</td>
</tr>
<tr>
<td>High resilience</td>
<td>14.3</td>
</tr>
</tbody>
</table>
Table A-4 Results for STS Score and resilience measure (NZDF partners)

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partners of NZDF (n=203)</strong></td>
<td></td>
</tr>
<tr>
<td><em>Secondary Trauma</em></td>
<td></td>
</tr>
<tr>
<td>Little or no secondary trauma</td>
<td>59.6</td>
</tr>
<tr>
<td>Mild secondary trauma</td>
<td>18.2</td>
</tr>
<tr>
<td>Moderate secondary trauma</td>
<td>5.9</td>
</tr>
<tr>
<td>High secondary trauma</td>
<td>4.9</td>
</tr>
<tr>
<td>Severe secondary trauma</td>
<td>11.3</td>
</tr>
<tr>
<td>Possible PTSD from secondary trauma (includes moderate, high and severe)</td>
<td>22.2</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td></td>
</tr>
<tr>
<td>Low resilience</td>
<td>24.1</td>
</tr>
<tr>
<td>Average resilience</td>
<td>63.1</td>
</tr>
<tr>
<td>High resilience</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Life Events Checklist (LEC)

The following figures indicate the total proportions of the respondents who reported stressful life event categories experienced by their military member or first responder.

Figure A-1 Distribution of life event categories among NZ Police $n=179$
Figure A-2 Distribution of life event categories among NZ Fire Service \(n=219\)

Figure A-3 Distribution of life event categories among ambulance services \(n=84\)
Results for ‘offered welcome or induction’, ‘invited to events’ and ‘received stress management information from organisation’

The following results exclude information from participants who also work as a responder in the same organisation with their partner. Individuals whose responder work in more than one organisation indicated they were answering this question as the partner of someone working in that organisation. Only individuals who answered ‘yes’ to the initial question were able to answer the follow up question.

The follow-up question responses were collapsed in the following way: ‘agree’ (strongly agree and agree), ‘not sure’ (neither agree nor disagree) and ‘disagree’ (disagree and strongly disagree).
Table A-5 Receive stress management information results (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>Never %</th>
<th>Rarely %</th>
<th>Occasionally %</th>
<th>Often %</th>
<th>Very often %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive information from my emergency responder’s organisation about managing stress (<em>n</em>=151)</td>
<td>80.0</td>
<td>11.3</td>
<td>6.0</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree %</td>
<td>Neither agree nor disagree %</td>
<td>Agree %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find this information from the organisation useful (<em>n</em>=30)</td>
<td>16.7</td>
<td>50.0</td>
<td>33.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A-6 Welcome or induction results (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>At any time did the emergency responder organisation have a welcome or induction for you? (<em>n</em>=151)</td>
<td>25.2</td>
<td>71.5</td>
<td>3.3-don’t remember</td>
</tr>
<tr>
<td>Did you find that welcome or induction useful? (<em>n</em>=38)</td>
<td>84.2</td>
<td>13.2</td>
<td>2.6-didn’t attend</td>
</tr>
</tbody>
</table>

Table A-7 Invited to events results (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the emergency responder organisation invite you to attend any of their activities or events? (<em>n</em>=151)</td>
<td>65.6</td>
<td>32.5</td>
<td>2.0-don’t remember</td>
</tr>
<tr>
<td>Do you attend these activities or events? (<em>n</em>=99)</td>
<td>35.4</td>
<td>1.0</td>
<td>63.6-occasionally</td>
</tr>
</tbody>
</table>
Table A-8 Receive stress management information results (NZ Fire Service)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>Never %</th>
<th>Rarely %</th>
<th>Occasionally %</th>
<th>Often %</th>
<th>Very often %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive information from my emergency responder’s organisation about managing stress ((n=179))</td>
<td>87.2</td>
<td>6.7</td>
<td>5.0</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>I find this information from the organisation useful ((n=25))</td>
<td>4.0</td>
<td>52.0</td>
<td>44.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A-9 Welcome or induction results (NZ Fire Service)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>At any time did the emergency responder organisation have a welcome or induction for you? ((n=180))</td>
<td>13.3</td>
<td>81.1</td>
<td>5.6-don’t remember</td>
</tr>
<tr>
<td>Did you find that welcome or induction useful ((n=24))</td>
<td>95.8</td>
<td>4.2</td>
<td>0-didn’t attend</td>
</tr>
</tbody>
</table>

Table A-10 Invited to events results (fire partners)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the emergency responder organisation invite you to attend any of their activities or events? ((n=179))</td>
<td>86.0</td>
<td>13.4</td>
<td>0.6-don’t remember</td>
</tr>
<tr>
<td>Do you attend these activities or events? ((n=154))</td>
<td>53.9</td>
<td>0.6</td>
<td>34.5-occasionally</td>
</tr>
</tbody>
</table>
### Table A-11 Receive stress management information results (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of ambulance</th>
<th>Never %</th>
<th>Rarely %</th>
<th>Occasionally %</th>
<th>Often %</th>
<th>Very often %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive information from my emergency responder’s organisation about managing stress (n=61)</td>
<td>91.8</td>
<td>1.6</td>
<td>4.9</td>
<td>0.0</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Disagree %</th>
<th>Neither agree nor disagree %</th>
<th>Agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find this information from the organisation useful (n=30)</td>
<td></td>
<td>40.0</td>
<td>60.0</td>
</tr>
</tbody>
</table>

### Table A-12 Welcome or induction results (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of ambulance</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>At any time did the emergency responder organisation have a welcome or induction for you? (n=61)</td>
<td>8.2</td>
<td>90.2</td>
<td>1.6-don’t remember</td>
</tr>
<tr>
<td>Did you find that welcome or induction useful (n=5)</td>
<td>80.0</td>
<td>20.0</td>
<td>0-didn’t attend</td>
</tr>
</tbody>
</table>

### Table A-13 Invited to events results (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of Ambulance Service</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the emergency responder organisation invite you to attend any of their activities or events? (n=61)</td>
<td>72.1</td>
<td>26.2</td>
<td>1.6-don’t remember</td>
</tr>
<tr>
<td>Do you attend these activities or events? (n=44)</td>
<td>38.6</td>
<td>0</td>
<td>61.4-occasionally</td>
</tr>
</tbody>
</table>
Table A-14 Receive stress management information results (NZDF partners)

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>Never %</th>
<th>Rarely %</th>
<th>Occasionally %</th>
<th>Often %</th>
<th>Very often %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive information from my emergency responder’s organisation about managing stress ($n=175$)</td>
<td>42.9</td>
<td>30.3</td>
<td>20.0</td>
<td>5.1</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Disagree %</td>
<td>Neither agree nor disagree %</td>
<td>Agree %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find this information from the organisation useful ($n=30$)</td>
<td>11.9</td>
<td>42.6</td>
<td>45.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A-15 Welcome or induction results (NZDF partners)

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offered welcome or induction ($n=175$)</td>
<td>21.1</td>
<td>69.1</td>
<td>9.7-don’t remember</td>
</tr>
<tr>
<td>Did you find that welcome or induction useful ($n=37$)</td>
<td>75.7</td>
<td>16.2</td>
<td>8.1-didn’t attend</td>
</tr>
</tbody>
</table>

Table A-16 Invited to events results (NZDF partners)

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>Yes %</th>
<th>No %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invited to events ($n=176$)</td>
<td>79.0</td>
<td>17.6</td>
<td>3.4-don’t remember</td>
</tr>
<tr>
<td>Do you attend these activities or events? ($n=139$)</td>
<td>35.3</td>
<td>61.9</td>
<td>2.9-occasionally</td>
</tr>
</tbody>
</table>

**Stigma towards help-seeking**

The following questions investigate how much the partner agrees with the statements provided. The question responses were collapsed in the following way: ‘agree’ (strongly agree and agree), ‘not sure’ (neither agree nor disagree) and ‘disagree’ (disagree and strongly disagree).
Table A-17 Results from partners’ perception of stigma towards help-seeking (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>Agree %</th>
<th>Disagree %</th>
<th>Not sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>If my emergency responder were to seek mental health care, the organisation’s management/leadership might have less confidence in him/her ((n=176))</td>
<td>58.0</td>
<td>27.3</td>
<td>14.8</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, his/her co-workers might view him/her differently ((n=178))</td>
<td>63.5</td>
<td>24.2</td>
<td>12.4</td>
</tr>
<tr>
<td>It would harm my emergency responder’s career if he/she were to seek mental health care ((n=176))</td>
<td>51.7</td>
<td>26.2</td>
<td>22.2</td>
</tr>
<tr>
<td>If I need it, I know where to get help for mental health issues ((n=177))</td>
<td>72.9</td>
<td>20.4</td>
<td>6.8</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, he/she would be seen as weak ((n=177))</td>
<td>45.2</td>
<td>28.2</td>
<td>26.6</td>
</tr>
<tr>
<td>Mental health care does not work ((n=177))</td>
<td>7.9</td>
<td>66.7</td>
<td>25.4</td>
</tr>
<tr>
<td>Direct supervisors remind my emergency responder that it is important to seek care ((n=169))</td>
<td>29.6</td>
<td>29.6</td>
<td>40.8</td>
</tr>
<tr>
<td>Senior leaders/managers in my emergency responder’s organisation send out messages that seeking care would not harm careers ((n=166))</td>
<td>13.2</td>
<td>41.0</td>
<td>45.8</td>
</tr>
</tbody>
</table>

The following questions asked to what extent participants agreed with statements regarding their responder’s beliefs.

<table>
<thead>
<tr>
<th></th>
<th>Disagree %</th>
<th>Agree %</th>
<th>Not sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>My emergency responder believes that seeking mental health care might cause the leadership/management to have less confidence in him/her ((n=172))</td>
<td>19.2</td>
<td>58.7</td>
<td>22.1</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care might cause co-workers to view him/her differently ((n=172))</td>
<td>17.4</td>
<td>60.5</td>
<td>22.1</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would harm his/her career ((n=172))</td>
<td>21.5</td>
<td>55.2</td>
<td>23.3</td>
</tr>
<tr>
<td>My emergency responder knows where to get help for mental health issues ((n=174))</td>
<td>7.5</td>
<td>81.6</td>
<td>10.9</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would cause him/her to be seen as weak ((n=172))</td>
<td>26.2</td>
<td>56.4</td>
<td>17.4</td>
</tr>
<tr>
<td>My emergency responder believes that mental health care does not work ((n=170))</td>
<td>50.5</td>
<td>18.9</td>
<td>30.6</td>
</tr>
</tbody>
</table>
Table A-18 Results from partners’ perception of stigma towards help-seeking (NZ Fire Service partners)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>Agree %</th>
<th>Disagree %</th>
<th>Not sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>If my emergency responder were to seek mental health care, the organisation’s management/leadership might have less confidence in him/her ((n=219))</td>
<td>42.0</td>
<td>33.3</td>
<td>24.7</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, his/her co-workers might view him/her differently ((n=219))</td>
<td>44.8</td>
<td>32.9</td>
<td>22.4</td>
</tr>
<tr>
<td>It would harm my emergency responder’s career if he/she were to seek mental health care ((n=219))</td>
<td>29.7</td>
<td>39.7</td>
<td>30.6</td>
</tr>
<tr>
<td>If I need it, I know where to get help for mental health issues ((n=216))</td>
<td>75.0</td>
<td>16.2</td>
<td>8.8</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, he/she would be seen as weak ((n=217))</td>
<td>28.1</td>
<td>50.2</td>
<td>21.7</td>
</tr>
<tr>
<td>Mental health care does not work ((n=213))</td>
<td>5.1</td>
<td>71.8</td>
<td>23.0</td>
</tr>
<tr>
<td>Direct supervisors remind my emergency responder that it is important to seek care ((n=211))</td>
<td>33.2</td>
<td>23.7</td>
<td>43.1</td>
</tr>
<tr>
<td>Senior leaders/managers in my emergency responder’s organisation send out messages that seeking care would not harm careers ((n=203))</td>
<td>16.2</td>
<td>36.0</td>
<td>47.8</td>
</tr>
</tbody>
</table>

The following questions asked to what extent participants agreed with statements regarding their responder’s beliefs.

<table>
<thead>
<tr>
<th></th>
<th>Disagree %</th>
<th>Agree %</th>
<th>Not Sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>My emergency responder believes that seeking mental health care might cause the leadership/management to have less confidence in him/her ((n=214))</td>
<td>30.4</td>
<td>43.0</td>
<td>26.6</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care might cause co-workers to view him/her differently ((n=214))</td>
<td>29.4</td>
<td>49.5</td>
<td>21.0</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would harm his/her career ((n=213))</td>
<td>32.9</td>
<td>36.1</td>
<td>31.0</td>
</tr>
<tr>
<td>My emergency responder knows where to get help for mental health issues ((n=212))</td>
<td>10.4</td>
<td>75.0</td>
<td>14.6</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would cause him/her to be seen as weak ((n=214))</td>
<td>38.3</td>
<td>41.1</td>
<td>20.6</td>
</tr>
<tr>
<td>My emergency responder believes that mental health care does not work ((n=213))</td>
<td>52.1</td>
<td>13.2</td>
<td>34.7</td>
</tr>
</tbody>
</table>
Table A-19 Results from partners’ perception of stigma towards help-seeking (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of ambulance</th>
<th>Agree %</th>
<th>Disagree %</th>
<th>Not sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>If my emergency responder were to seek mental health care, the organisation’s management/leadership might have less confidence in him/her (n=84)</td>
<td>51.2</td>
<td>28.6</td>
<td>20.2</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, his/her co-workers might view him/her differently (n=83)</td>
<td>51.8</td>
<td>28.9</td>
<td>19.3</td>
</tr>
<tr>
<td>It would harm my emergency responder’s career if he/she were to seek mental health care (n=83)</td>
<td>42.2</td>
<td>27.7</td>
<td>30.1</td>
</tr>
<tr>
<td>If I need it, I know where to get help for mental health issues (n=83)</td>
<td>61.5</td>
<td>25.3</td>
<td>13.3</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, he/she would be seen as weak (n=84)</td>
<td>33.3</td>
<td>41.7</td>
<td>25.0</td>
</tr>
<tr>
<td>Mental health care does not work (n=83)</td>
<td>14.4</td>
<td>53.3</td>
<td>32.5</td>
</tr>
<tr>
<td>Direct supervisors remind my emergency responder that it is important to seek care (n=78)</td>
<td>26.9</td>
<td>35.9</td>
<td>37.2</td>
</tr>
<tr>
<td>Senior leaders/managers in my emergency responder’s organisation send out messages that seeking care would not harm careers (n=77)</td>
<td>19.5</td>
<td>48.1</td>
<td>32.5</td>
</tr>
</tbody>
</table>

The following questions asked to what extent participants agreed with statements regarding their responder’s beliefs.

<table>
<thead>
<tr>
<th></th>
<th>Disagree %</th>
<th>Agree %</th>
<th>Not Sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>My emergency responder believes that seeking mental health care might cause the leadership/management to have less confidence in him/her (n=81)</td>
<td>27.2</td>
<td>55.5</td>
<td>17.3</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care might cause co-workers to view him/her differently (n=82)</td>
<td>23.1</td>
<td>54.9</td>
<td>22.0</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would harm his/her career (n=82)</td>
<td>30.5</td>
<td>48.8</td>
<td>20.7</td>
</tr>
<tr>
<td>My emergency responder knows where to get help for mental health issues (n=83)</td>
<td>7.2</td>
<td>73.5</td>
<td>19.3</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would cause him/her to be seen as weak (n=81)</td>
<td>30.9</td>
<td>48.2</td>
<td>21.0</td>
</tr>
<tr>
<td>My emergency responder believes that mental health care does not work (n=80)</td>
<td>57.5</td>
<td>15.1</td>
<td>27.5</td>
</tr>
</tbody>
</table>
Table A-20 Results from partners’ perception of stigma towards help-seeking (NZDF partners)

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>Agree %</th>
<th>Disagree %</th>
<th>Not sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>If my emergency responder were to seek mental health care, the organisation’s management/leadership might have less confidence in him/her ($n=200$)</td>
<td>54.0</td>
<td>30.0</td>
<td>16.0</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, his/her co-workers might view him/her differently ($n=202$)</td>
<td>57.4</td>
<td>25.7</td>
<td>16.8</td>
</tr>
<tr>
<td>It would harm my emergency responder’s career if he/she were to seek mental health care ($n=200$)</td>
<td>47.0</td>
<td>30.0</td>
<td>23.0</td>
</tr>
<tr>
<td>If I need it, I know where to get help for mental health issues ($n=198$)</td>
<td>75.3</td>
<td>16.2</td>
<td>8.6</td>
</tr>
<tr>
<td>If my emergency responder were to seek mental health care, he/she would be seen as weak ($n=200$)</td>
<td>41.5</td>
<td>34.5</td>
<td>24.0</td>
</tr>
<tr>
<td>Mental health care does not work ($n=199$)</td>
<td>4.0</td>
<td>72.9</td>
<td>23.1</td>
</tr>
<tr>
<td>Direct supervisors remind my emergency responder that it is important to seek care ($n=189$)</td>
<td>28.1</td>
<td>31.7</td>
<td>40.2</td>
</tr>
<tr>
<td>Senior leaders/managers in my emergency responder’s organisation send out messages that seeking care would not harm careers ($n=185$)</td>
<td>18.9</td>
<td>40.5</td>
<td>40.5</td>
</tr>
</tbody>
</table>

The following questions asked to what extent participants agreed with statements regarding their responder’s beliefs.

<table>
<thead>
<tr>
<th></th>
<th>Disagree %</th>
<th>Agree %</th>
<th>Not Sure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>My emergency responder believes that seeking mental health care might cause the leadership/management to have less confidence in him/her ($n=198$)</td>
<td>22.7</td>
<td>56.0</td>
<td>21.2</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care might cause co-workers to view him/her differently ($n=200$)</td>
<td>26.0</td>
<td>57.5</td>
<td>16.5</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would harm his/her career ($n=197$)</td>
<td>25.4</td>
<td>54.3</td>
<td>20.3</td>
</tr>
<tr>
<td>My emergency responder knows where to get help for mental health issues ($n=198$)</td>
<td>9.1</td>
<td>72.2</td>
<td>18.7</td>
</tr>
<tr>
<td>My emergency responder believes that seeking mental health care would cause him/her to be seen as weak ($n=198$)</td>
<td>24.2</td>
<td>57.0</td>
<td>18.7</td>
</tr>
<tr>
<td>My emergency responder believes that mental health care does not work ($n=195$)</td>
<td>47.2</td>
<td>13.4</td>
<td>39.5</td>
</tr>
</tbody>
</table>
Emotional and informational support

The following tables indicate the different types of social support available to partners when issues or situation arise because their partner is an emergency responder. The responses to these questions have been collapsed so that ‘none of the time’ is listed as ‘never’; ‘some of the time’ and ‘a little of the time’ are combined into ‘sometimes’; and ‘all of the time’ and ‘most of the time’ are combined into ‘frequently’.

Table A-21 Results for emotional/informational support (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>Never %</th>
<th>Sometimes %</th>
<th>Frequently %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to confide in or talk to about your feelings about your emergency responder’s work (n=176)</td>
<td>21.0</td>
<td>34.6</td>
<td>44.3</td>
</tr>
<tr>
<td>Someone who gives you good advice about your emergency responder’s work (n=176)</td>
<td>38.6</td>
<td>30.1</td>
<td>31.2</td>
</tr>
<tr>
<td>Someone to share your most private worries and fears about your emergency responder’s work (n=175)</td>
<td>26.3</td>
<td>36.0</td>
<td>37.8</td>
</tr>
<tr>
<td>Someone to turn to for suggestions about how to deal with a personal problem brought about because of your emergency responder’s work (n=175)</td>
<td>34.9</td>
<td>29.2</td>
<td>36.0</td>
</tr>
<tr>
<td>Someone who understands your problems with your emergency responder’s work (n=176)</td>
<td>33.0</td>
<td>34.7</td>
<td>32.3</td>
</tr>
</tbody>
</table>

Table A-22 Results for emotional/informational support (NZ Fire Service partners)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>Never %</th>
<th>Sometimes %</th>
<th>Frequently %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to confide in or talk to about your feelings about your emergency responder’s work (n=214)</td>
<td>25.7</td>
<td>30.4</td>
<td>43.9</td>
</tr>
<tr>
<td>Someone who gives you good advice about your emergency responder’s work (n=212)</td>
<td>34.9</td>
<td>32.6</td>
<td>32.6</td>
</tr>
<tr>
<td>Someone to share your most private worries and fears about your emergency responder’s work (n=211)</td>
<td>36.0</td>
<td>27.0</td>
<td>37.0</td>
</tr>
<tr>
<td>Someone to turn to for suggestions about how to deal with a personal problem brought about because of your emergency responder’s work (n=210)</td>
<td>36.7</td>
<td>32.4</td>
<td>31.0</td>
</tr>
<tr>
<td>Someone who understands your problems with your emergency responder’s work (n=210)</td>
<td>30.0</td>
<td>40.0</td>
<td>30.0</td>
</tr>
</tbody>
</table>
Table A-23 Results for emotional/informational support (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of ambulance</th>
<th>Never %</th>
<th>Sometimes %</th>
<th>Frequently %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to confide in or talk to about your feelings about your emergency responder’s work (n=81)</td>
<td>32.1</td>
<td>33.3</td>
<td>34.6</td>
</tr>
<tr>
<td>Someone who gives you good advice about your emergency responder’s work (n=81)</td>
<td>38.3</td>
<td>33.3</td>
<td>28.4</td>
</tr>
<tr>
<td>Someone to share your most private worries and fears about your emergency responder’s work (n=80)</td>
<td>36.3</td>
<td>31.3</td>
<td>32.6</td>
</tr>
<tr>
<td>Someone to turn to for suggestions about how to deal with a personal problem brought about because of your emergency responder’s work (n=80)</td>
<td>36.3</td>
<td>31.3</td>
<td>32.5</td>
</tr>
<tr>
<td>Someone who understands your problems with your emergency responder’s work (n=80)</td>
<td>37.5</td>
<td>30.0</td>
<td>32.5</td>
</tr>
</tbody>
</table>

Table A-24 Results for emotional/informational support (NZDF partners)

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>Never %</th>
<th>Sometimes %</th>
<th>Frequently %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to confide in or talk to about your feelings about your emergency responder’s work (n=201)</td>
<td>18.9</td>
<td>37.8</td>
<td>43.3</td>
</tr>
<tr>
<td>Someone who gives you good advice about your emergency responder’s work (n=200)</td>
<td>26.5</td>
<td>43.0</td>
<td>30.5</td>
</tr>
<tr>
<td>Someone to share your most private worries and fears about your emergency responder’s work (n=200)</td>
<td>30.0</td>
<td>32.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Someone to turn to for suggestions about how to deal with a personal problem brought about because of your emergency responder’s work (n=199)</td>
<td>26.1</td>
<td>35.7</td>
<td>38.2</td>
</tr>
<tr>
<td>Someone who understands your problems with your emergency responder’s work (n=200)</td>
<td>23.0</td>
<td>35.5</td>
<td>31.5</td>
</tr>
</tbody>
</table>

**Emotional Disclosure**

These tables show responses for the following question ‘How much have you DISCUSSED your thoughts and feelings about the difficult, upsetting, or very stressful events experienced by your emergency responder with the following people’.
Table A-25 Results for emotional disclosure measure (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder ((n=177))</td>
<td>4.5</td>
<td>16.9</td>
<td>29.4</td>
<td>49.2</td>
</tr>
<tr>
<td>My children ((n=129))</td>
<td>63.6</td>
<td>24.8</td>
<td>7.0</td>
<td>4.7</td>
</tr>
<tr>
<td>Family or whanau ((n=177))</td>
<td>16.9</td>
<td>44.6</td>
<td>26.6</td>
<td>11.9</td>
</tr>
<tr>
<td>Other partners of emergency responders ((n=174))</td>
<td>43.1</td>
<td>28.7</td>
<td>16.7</td>
<td>11.5</td>
</tr>
<tr>
<td>Other emergency responders ((n=175))</td>
<td>42.3</td>
<td>37.7</td>
<td>15.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) ((n=177))</td>
<td>16.9</td>
<td>40.7</td>
<td>33.9</td>
<td>8.5</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders ((n=142))</td>
<td>97.2</td>
<td>2.8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spiritual or religious leaders ((n=143))</td>
<td>88.8</td>
<td>8.4</td>
<td>2.8</td>
<td>0</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. ((n=167))</td>
<td>64.1</td>
<td>29.9</td>
<td>3.6</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Table A-26 Results for emotional disclosure measure (NZ Fire Service partners)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder ((n=212))</td>
<td>5.2</td>
<td>22.6</td>
<td>28.3</td>
<td>43.9</td>
</tr>
<tr>
<td>My children ((n=177))</td>
<td>44.6</td>
<td>35.0</td>
<td>13.0</td>
<td>7.3</td>
</tr>
<tr>
<td>Family or whanau ((n=210))</td>
<td>26.2</td>
<td>40.5</td>
<td>20.0</td>
<td>13.3</td>
</tr>
<tr>
<td>Other partners of emergency responders ((n=213))</td>
<td>39.9</td>
<td>32.4</td>
<td>15.5</td>
<td>12.2</td>
</tr>
<tr>
<td>Other emergency responders ((n=212))</td>
<td>47.2</td>
<td>33.0</td>
<td>12.3</td>
<td>7.5</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) ((n=214))</td>
<td>27.6</td>
<td>39.3</td>
<td>22.4</td>
<td>10.7</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders ((n=171))</td>
<td>97.1</td>
<td>1.8</td>
<td>.6</td>
<td>.6</td>
</tr>
<tr>
<td>Spiritual or religious leaders ((n=176))</td>
<td>93.2</td>
<td>5.7</td>
<td>.6</td>
<td>.6</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. ((n=209))</td>
<td>77.5</td>
<td>14.4</td>
<td>5.7</td>
<td>2.4</td>
</tr>
</tbody>
</table>
Table A-27 Results for emotional disclosure measure (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of ambulance</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder (n=82)</td>
<td>3.7</td>
<td>13.4</td>
<td>29.3</td>
<td>53.7</td>
</tr>
<tr>
<td>My children (n=58)</td>
<td>50.0</td>
<td>36.2</td>
<td>12.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Family or whanau (n=78)</td>
<td>29.5</td>
<td>48.7</td>
<td>16.7</td>
<td>5.1</td>
</tr>
<tr>
<td>Other partners of emergency responders (n=81)</td>
<td>44.4</td>
<td>27.2</td>
<td>17.3</td>
<td>11.1</td>
</tr>
<tr>
<td>Other emergency responders (n=80)</td>
<td>38.8</td>
<td>23.8</td>
<td>23.8</td>
<td>13.8</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) (n=83)</td>
<td>25.3</td>
<td>53.0</td>
<td>14.5</td>
<td>7.2</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders (n=64)</td>
<td>93.8</td>
<td>4.7</td>
<td>0</td>
<td>1.6</td>
</tr>
<tr>
<td>Spiritual or religious leaders (n=68)</td>
<td>86.8</td>
<td>10.3</td>
<td>2.9</td>
<td>0</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. (n=82)</td>
<td>64.6</td>
<td>29.3</td>
<td>4.9</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Table A-28 Results for emotional disclosure measure (NZDF partners)

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder (n=199)</td>
<td>4.5</td>
<td>18.1</td>
<td>23.1</td>
<td>54.3</td>
</tr>
<tr>
<td>My children (n=130)</td>
<td>56.2</td>
<td>26.9</td>
<td>10.8</td>
<td>6.2</td>
</tr>
<tr>
<td>Family or whanau (n=195)</td>
<td>17.9</td>
<td>39.5</td>
<td>26.2</td>
<td>16.4</td>
</tr>
<tr>
<td>Other partners of emergency responders (n=199)</td>
<td>23.6</td>
<td>32.7</td>
<td>23.1</td>
<td>20.6</td>
</tr>
<tr>
<td>Other emergency responders (n=198)</td>
<td>46.0</td>
<td>32.8</td>
<td>17.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) (n=195)</td>
<td>23.1</td>
<td>44.6</td>
<td>20.0</td>
<td>12.3</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders (n=150)</td>
<td>94.7</td>
<td>4.7</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>Spiritual or religious leaders (n=157)</td>
<td>87.3</td>
<td>10.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. (n=183)</td>
<td>65.0</td>
<td>23.5</td>
<td>8.7</td>
<td>2.7</td>
</tr>
</tbody>
</table>
**Emotional non-disclosure**

These table provide responses to the following question ‘How much have you HIDDEN your thoughts and feelings about the difficult, upsetting, or very stressful events experienced by your emergency responder with the following people’.

Table A-29 Results for emotional non-disclosure measure (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder (n=176)</td>
<td>39.2</td>
<td>33.5</td>
<td>15.9</td>
<td>11.4</td>
</tr>
<tr>
<td>My children (n=121)</td>
<td>18.2</td>
<td>15.7</td>
<td>12.4</td>
<td>53.7</td>
</tr>
<tr>
<td>Family or whanau (n=175)</td>
<td>25.7</td>
<td>26.3</td>
<td>24.6</td>
<td>23.4</td>
</tr>
<tr>
<td>Other partners of emergency responders (n=144)</td>
<td>39.6</td>
<td>20.1</td>
<td>16.7</td>
<td>23.6</td>
</tr>
<tr>
<td>Other emergency responders (n=143)</td>
<td>32.9</td>
<td>20.3</td>
<td>18.2</td>
<td>28.7</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) (n=168)</td>
<td>28.6</td>
<td>24.4</td>
<td>23.2</td>
<td>23.8</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders (n=50)</td>
<td>60.0</td>
<td>6.0</td>
<td>2.0</td>
<td>32.0</td>
</tr>
<tr>
<td>Spiritual or religious leaders (n=60)</td>
<td>60.0</td>
<td>6.7</td>
<td>8.3</td>
<td>25.0</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. (n=109)</td>
<td>54.1</td>
<td>16.5</td>
<td>13.8</td>
<td>15.6</td>
</tr>
</tbody>
</table>
Table A-30 Results for emotional non-disclosure measure (NZ Fire Service partners)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder (<em>n</em>=205)</td>
<td>47.8</td>
<td>31.2</td>
<td>12.2</td>
<td>8.8</td>
</tr>
<tr>
<td>My children (<em>n</em>=165)</td>
<td>25.5</td>
<td>20.0</td>
<td>17.0</td>
<td>37.6</td>
</tr>
<tr>
<td>Family or whanau (<em>n</em>=195)</td>
<td>33.3</td>
<td>30.8</td>
<td>17.4</td>
<td>18.5</td>
</tr>
<tr>
<td>Other partners of emergency responders (<em>n</em>=171)</td>
<td>43.3</td>
<td>22.2</td>
<td>17.0</td>
<td>17.5</td>
</tr>
<tr>
<td>Other emergency responders (<em>n</em>=171)</td>
<td>42.7</td>
<td>21.1</td>
<td>12.9</td>
<td>23.4</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) (<em>n</em>=196)</td>
<td>37.2</td>
<td>25.5</td>
<td>17.3</td>
<td>19.9</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders (<em>n</em>=71)</td>
<td>74.6</td>
<td>4.2</td>
<td>2.8</td>
<td>18.3</td>
</tr>
<tr>
<td>Spiritual or religious leaders (<em>n</em>=80)</td>
<td>68.8</td>
<td>10.0</td>
<td>5.0</td>
<td>16.3</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. (<em>n</em>=124)</td>
<td>66.1</td>
<td>13.7</td>
<td>6.5</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Table A-31 Results for emotional non-disclosure measure (ambulance partners)

<table>
<thead>
<tr>
<th>Partners of ambulance</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder (<em>n</em>=79)</td>
<td>39.2</td>
<td>30.4</td>
<td>19.0</td>
<td>11.4</td>
</tr>
<tr>
<td>My children (<em>n</em>=53)</td>
<td>18.9</td>
<td>20.8</td>
<td>15.1</td>
<td>45.3</td>
</tr>
<tr>
<td>Family or whanau (<em>n</em>=74)</td>
<td>25.7</td>
<td>27.0</td>
<td>20.3</td>
<td>27.0</td>
</tr>
<tr>
<td>Other partners of emergency responders (<em>n</em>=64)</td>
<td>32.8</td>
<td>20.3</td>
<td>23.4</td>
<td>23.4</td>
</tr>
<tr>
<td>Other emergency responders (<em>n</em>=67)</td>
<td>32.8</td>
<td>17.9</td>
<td>25.4</td>
<td>23.9</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) (<em>n</em>=77)</td>
<td>28.6</td>
<td>22.1</td>
<td>16.9</td>
<td>32.5</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders (<em>n</em>=32)</td>
<td>62.5</td>
<td>3.1</td>
<td>3.1</td>
<td>31.3</td>
</tr>
<tr>
<td>Spiritual or religious leaders (<em>n</em>=36)</td>
<td>58.3</td>
<td>8.3</td>
<td>5.6</td>
<td>27.8</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. (<em>n</em>=55)</td>
<td>52.7</td>
<td>12.7</td>
<td>20.0</td>
<td>14.5</td>
</tr>
</tbody>
</table>
Table A-32 Results for emotional non-disclosure measure (NZDF partners)

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>Not at all %</th>
<th>A little %</th>
<th>A moderate amount %</th>
<th>A great deal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency responder (n=198)</td>
<td>31.3</td>
<td>31.3</td>
<td>23.7</td>
<td>13.6</td>
</tr>
<tr>
<td>My children (n=122)</td>
<td>19.7</td>
<td>10.7</td>
<td>15.6</td>
<td>54.1</td>
</tr>
<tr>
<td>Family or whanau (n=194)</td>
<td>19.1</td>
<td>26.3</td>
<td>23.2</td>
<td>31.4</td>
</tr>
<tr>
<td>Other partners of emergency responders (n=177)</td>
<td>24.3</td>
<td>27.1</td>
<td>31.1</td>
<td>17.5</td>
</tr>
<tr>
<td>Other emergency responders (n=167)</td>
<td>23.4</td>
<td>21.6</td>
<td>21.0</td>
<td>34.1</td>
</tr>
<tr>
<td>Friends (not emergency responders or their partners) (n=189)</td>
<td>21.7</td>
<td>28.0</td>
<td>23.8</td>
<td>26.5</td>
</tr>
<tr>
<td>Kaumātua, community/cultural leaders (n=50)</td>
<td>56.0</td>
<td>4.0</td>
<td>6.0</td>
<td>34.0</td>
</tr>
<tr>
<td>Spiritual or religious leaders (n=60)</td>
<td>51.7</td>
<td>13.3</td>
<td>6.7</td>
<td>28.3</td>
</tr>
<tr>
<td>Professional/medical staff, GP, counsellors etc. (n=116)</td>
<td>44.0</td>
<td>23.3</td>
<td>15.5</td>
<td>17.2</td>
</tr>
</tbody>
</table>

**Relationship Satisfaction**

This measure asked participants to indicate how strongly they ‘agree’ or ‘disagree’ with the statements provided about their relationship with their responder. Answers have been collapsed in the first section where ‘no’ represents ‘disagree’ and ‘strongly disagree’; ‘neutral’ represents ‘neither agree nor disagree’; and ‘yes’ represents ‘strongly agree’ and ‘agree’. In the final question ‘usually’ incorporates ‘almost all the time’ or ‘often’; ‘sometimes’ was not modified however ‘rarely’ and ‘never’ is represented by ‘infrequently’.
Table A-33 Results for relationship satisfaction measure (NZ Police partners)

<table>
<thead>
<tr>
<th>Partners of NZ Police</th>
<th>No</th>
<th>Neutral</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am very happy with how we handle role responsibilities in our relationship (n=179)</td>
<td>10.6</td>
<td>11.2</td>
<td>78.2</td>
</tr>
<tr>
<td>I am very happy with how we manage our leisure activities and time we spend together (n=179)</td>
<td>20.7</td>
<td>12.8</td>
<td>66.5</td>
</tr>
<tr>
<td>I feel very good about how we each practice our religious beliefs and/or personal values (n=179)</td>
<td>6.7</td>
<td>17.9</td>
<td>75.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Infrequently</th>
<th>Sometimes</th>
<th>Usually</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general how often do you think that things between you and your partner are going well (n=178)</td>
<td>2.2</td>
<td>12.4</td>
<td>85.4</td>
</tr>
</tbody>
</table>

Table A-34 Results for relationship satisfaction measure (NZ Fire Service partners)

<table>
<thead>
<tr>
<th>Partners of NZ Fire Service</th>
<th>No</th>
<th>Neutral</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am very happy with how we handle role responsibilities in our relationship (n=219)</td>
<td>8.7</td>
<td>11.9</td>
<td>79.4</td>
</tr>
<tr>
<td>I am very happy with how we manage our leisure activities and time we spend together (n=219)</td>
<td>16.9</td>
<td>10.5</td>
<td>72.6</td>
</tr>
<tr>
<td>I feel very good about how we each practice our religious beliefs and/or personal values (n=219)</td>
<td>5.0</td>
<td>21.0</td>
<td>74.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Infrequently</th>
<th>Sometimes</th>
<th>Usually</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general how often do you think that things between you and your partner are going well (n=214)</td>
<td>2.8</td>
<td>9.8</td>
<td>87.4</td>
</tr>
<tr>
<td>Partners of ambulance</td>
<td>No %</td>
<td>Neutral %</td>
<td>Yes %</td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
<td>------</td>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>I am very happy with how we handle role responsibilities in our relationship ((n=84))</td>
<td>6.0</td>
<td>7.1</td>
<td>86.9</td>
</tr>
<tr>
<td>I am very happy with how we manage our leisure activities and time we spend together ((n=84))</td>
<td>16.7</td>
<td>16.7</td>
<td>66.6</td>
</tr>
<tr>
<td>I feel very good about how we each practice our religious beliefs and/or personal values ((n=83))</td>
<td>4.8</td>
<td>25.3</td>
<td>69.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Infrequently %</th>
<th>Sometimes %</th>
<th>Usually %</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general how often do you think that things between you and your partner are going well ((n=83))</td>
<td>0</td>
<td>12.0</td>
<td>88.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partners of NZDF</th>
<th>No %</th>
<th>Neutral %</th>
<th>Yes %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am very happy with how we handle role responsibilities in our relationship ((n=202))</td>
<td>10.9</td>
<td>7.9</td>
<td>81.2</td>
</tr>
<tr>
<td>I am very happy with how we manage our leisure activities and time we spend together ((n=203))</td>
<td>16.2</td>
<td>11.3</td>
<td>72.4</td>
</tr>
<tr>
<td>I feel very good about how we each practice our religious beliefs and/or personal values ((n=203))</td>
<td>6.4</td>
<td>24.1</td>
<td>69.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Infrequently %</th>
<th>Sometimes %</th>
<th>Usually %</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general how often do you think that things between you and your partner are going well ((n=201))</td>
<td>2.0</td>
<td>14.9</td>
<td>83.1</td>
</tr>
</tbody>
</table>
References


fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized (pp. 51-81). New York: Brunner/Mazel.


Social Psychiatry and Psychiatric Epidemiology, 47(6), 1001-1011.


Crampton, D. J. (2014). *Comparison of PTSD and compassion fatigue between urban and rural paramedics* (Doctoral dissertation). Retreived from ProQuest Dissertations and Theses. (3558333)


The following exchange happened on ResearchGate (https://www.researchgate.net/messages/383098317)
Permission to use Figure from "The relationship Between Personnel Support Programs and Readiness

Anna Stowe Alrutz

Mar 19, 2016

Dr. McGonigle,

I am a PhD candidate at the University of Auckland studying secondary trauma with spouses of emergency responders in the NZ police, fire, ambulance and defense force. I would like permission to use your Figure 2 "Links between personnel support programs and readiness receiving support in the literature", from Military Psychology, 2005 in my PhD thesis. This conceptual model provides a very clear visual for the relationship between support programs and readiness found in the literature at the time and fits very well with the findings in my own research.

My current supervisors are Peter Huggard (University of Auckland) and Linda Cameron (University of Auckland and UC Merced) and my Master's thesis Supervisor was Charles Figley while he was still as Florida State.

Kind Regards,
Stowe Alrutz
PhD Candidate
General Practice & Primary Healthcare
School of Population Health, University of Auckland
Phone: +64 9 373-7599 ext: 86608
s.alrutz@auckland.ac.nz

Tim McGonigle to you

Mar 21, 2016

Hi Stowe,

I am happy to grant you permission to use the figure you request. Best of luck with your study.

Tim