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Health Assessment For Loved Ones: Development And Validation Of A New Instrument To Measure Well-Being In Military Spouses

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Dedication

This Dissertation is dedicated to the civilian spouses and loved ones of our military Service members. To my military sisters, you have been with me since this mission began. It has been my honor and my privilege to help and to serve you. Please know that without your friendship, encouragement, and support, this project would not have been possible.

HEALTH ASSESSMENT FOR LOVED ONES: DEVELOPMENT AND VALIDATION OF A NEW INSTRUMENT TO MEASURE WELL-BEING IN MILITARY SPOUSES

by

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DISSERTATION

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Thank you, Lord, for calling on me and equipping me to do this work, and for directing my path. In all that I do, May I be blessed with the courage to commit it back to you. Prov. 16:3

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Abstract

Since 2001, over 2.7 million US troops have deployed in support of the ongoing conflicts in the Middle East. Combat stress and deployments affect Service members, and consequently affect their spouses/intimate partners. In addition, these spouses often act as the social support system to other spouses experiencing traumatic events, such as death, injury, or illness of their deployed soldier. These indirect exposures to trauma may make spouses vulnerable; yet little research has focused on how the lived experiences of spouses of deployed and returning US Service members have affected their well-being. The purpose of this three-part study was to develop and validate a new instrument to assess the well-being of civilian spouses and partners of active and Veteran US Service members who have been indirectly exposed to combat trauma stress. The three phases of the study included a total of 410 civilian spouses and partners of OEF/OIF/OND active and Veteran US Service members. Study participants were recruited from non-Department of Defense-affiliated online public and private support groups or web pages for civilian spouses and partners. They were almost all (99%) female and ranged in age from 19-60 years. In Phase One (n=22), the Health Assessment for Loved Ones (HALO) pilot instrument was developed by adapting relevant items from constructs found in existing instruments and the literature, and by generating new items using the perspectives of military spouses gathered during individual interviews. During Phase Two (n=182), participants completed an anonymous, online pilot instrument and psychometric properties were assessed. Following factor analysis, 21 items were retained, loading on four specific constructs associated with their unique experiences. The results of this phase of the study provided empirical evidence of the measurement properties of the HALO, including estimates of internal consistency, test-retest reliability and construct validity of the total instrument and subscales. The overall 21-item instrument showed a strong estimate of

internal consistency (α= .927) and high test-retest reliability (ICC=.983). Similarly, the four subscales, corresponding to dominant themes (role overload, emotional distress, intrusive arousal and social avoidance) also showed strong levels of both internal consistency (α=.905, α=.863, α=.779, α=.822) and test-retest reliability (ICC=.967, .982, .945, .971) respectively. During Phase Three (n=206), participants completed an anonymous, online survey that included the 21-item HALO instrument and two well-established criterion measures, the *RAND 36-Item Health Survey 1.0 Questionnaire* and the *Social Support Survey (MOS-SSS*). Spearman's (ρ) bivariate correlations, computed between the HALO total and subscale scores and the subscale scores of the two criterion measures, ranged from -.434 to -.776. All Spearman's (ρ) correlations were significant at the 0.01 level (2-tailed). The results of this assessment of concurrent validity suggest the items within the HALO subscales accurately and adequately reflect the newly constructed domains, and that the four subscales are associated with a wide range of valid, theoretically similar and relevant emotional health and social support variables. This study provides evidence that the HALO is a reliable and valid instrument to measure the unique experiences that may affect the well-being of military spouses.

Keywords: military spouses, indirect trauma exposure, scale development, well-being

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Chapter 1: Introduction

Since 2001, over 2.7 million US troops have deployed in support of Operation Enduring Freedom (OEF; Afghanistan) and Operations Iraqi Freedom and New Dawn (OIF, OND; Iraq). Over forty percent have deployed multiple times. The Department of Veterans Affairs (2014) reported that 57% of the OEF/OIF/OND Veterans the VA has treated have been diagnosed with mental health disorders. In order of prevalence, these include posttraumatic stress disorder (PTSD), depressive disorders, neurotic disorders, affective psychoses, alcohol dependence syndrome, nondependent abuse of drugs, drug dependence, and sexual deviations and disorders. These disorders create ongoing behavioral, physical, and emotional problems for Veterans; and in turn, inordinate emotional stress for their spouses and families (Dept of VA, 2011).

It is estimated approximately 20% of returning troops will experience posttraumatic stress symptoms (IOM, 2010). Over fifty percent of US Service members are married, and these combat trauma-based symptoms have been related to an increase in family violence, substance abuse, depression, suicide, and divorce rates in returning Veterans (Dept of VA, 2011).

While the Service member experiences the actual trauma, their significant others may experience "secondary traumatization" (Figley, 1986). Prolonged contact with a traumatized person may lead to symptoms that mimic PTSD (Figley, 1995; Goff & Smith, 2005). In professional practitioners, this is commonly referred to as secondary traumatic stress and compassion fatigue (Bride & Figley, 2009) and defined as "a state of exhaustion and dysfunction-biologically, psychologically, and socially- as a result of prolonged exposure to compassion stress and all that it evokes" (Figley, 1995, p. 2), and is related to witnessing the suffering of others (Figley, 2002).

Qualitative research findings suggest that compassion fatigue is equivalent to secondary

traumatic stress disorder (STSD) and includes symptoms that mimic posttraumatic stress disorder (PTSD) such as re-experiencing the primary traumatized person's event, avoidance of reminders and symptoms of increased arousal (Bride, Robinson, Yegidis, & Figley, 2004; Figley, 1995, 1997). In fact, PTSD and STSD differ only in relation to exposure. That is, PTSD results from direct exposure to a traumatizing event, while STSD results from indirect exposure to a traumatizing event via emotional and physical contact with an exposed significant other or professional care provider (Dekel & Solomon, 2006; Figley, 1995; Goff & Smith, 2005).

In 2013, the new DSM-V criteria for traumatic stress clarified that the stressor does not have to be experienced firsthand (APA, 2013). The DSM-V states that the person "was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence" through "direct exposure, witnessing (in person), indirectly (by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental), or repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties" (APA, 2013). In applying these criteria to military spouses, these stressors then may begin during deployment; and thus, there may be several potential sources of trauma for spouses of deployed Service personnel.

Little is known about how and when indirect trauma exposure affects spouses (Figley, 1997; Goff & Smith, 2005; IOM, 2010). A recent review of over 250,000 medical records of female spouses of active duty Army personnel suggests those with husbands that had deployed were more likely to be diagnosed with mental health issues and to use mental health services than were spouses whose husbands had not deployed. Multiple and longer deployments increased the frequency of reports of these diagnoses and comorbidity of additional symptoms (Mansfield et al., 2010).

Emotional reactions of spouses to deployment and reintegration have been characterized based on qualitative descriptions from spouses of Veterans experiencing combat trauma over the past 30 years in Canada, Vietnam, Rwanda, Somalia, Yugoslavia, Afghanistan, and Israel (Calhoun et al., 2002; Calhoun & Wampler, 2002; Figley, 1997; Guest et al., 2006; Lyons, 2001; Verbosky, 1988). These spouses have reported an array of emotions and interpersonal difficulties, and exhibited symptoms of chronic stress, such as depression, somatic complaints, sleep disorders, anxiety, panic, hyper-vigilance, and agoraphobia (Figley, 1997; Goff et al., 2006; Lyons, 2001; Manguno-Mire et al., 2007).

Interpersonal difficulties reported include problems with self-disclosure, communication problems, substance abuse, family cohesion, marital discord, domestic violence, role strain, caregiver burden and/or burnout (Calhoun et al., 2002; Calhoun & Wampler, 2002; Figley, 1997; Goff & Smith, 2005; Klaric et al., 2010; Lyons, 2001; Manguno-Mire et al., 2007). Despite these reports, ambiguity still exists about how indirect exposure to combat affects the well-being of US military spouses.

According to the U.S. Department of Defense Casualty Status 6,833 deaths have been reported and an additional 52,311 US troops have been injured during these conflicts (DoD, 2015). Studies suggest that indirect trauma experiences affect the Service member's confidants and social support systems (Renshaw et al., 2011). In addition, during deployments the spouse of a deployed soldier often acts as the social support system to other spouses experiencing traumatic events, such as death, injury, or illness of their partners. These types of indirect trauma exposure may also make spouses more vulnerable to issues that affect their overall well-being.

However, little research had been conducted to develop ways to measure how the secondary effects of combat trauma and injury affect the well-being of the spouses of US Service

members. Traumatology experts and scale developers have confirmed that the existing tools that assess practitioners have not been adapted to measure secondary traumatic stress and compassion fatigue in US military spouses (B. Bride, personal communication, May 2011; C. R. Figley, personal communication, March 2009). Therefore, an instrument specific to this population can serve multiple purposes.

1.1 Statement of the Research Problem

This three-part study gathered information from the perspective of military spouses to develop and validate a new instrument to assess the well-being of civilian spouses of active and Veteran Service members who have been indirectly exposed to combat trauma stress.

1.2 Theoretical Framework

According to the theory of Secondary Traumatic Stress and Military Veteran Caregivers' conceptual model, exposure to a traumatic event is necessary to develop secondary traumatic stress (Bride & Figley, 2009). The stress is considered secondary because the exposure to trauma, in this case combat trauma, is indirect; and vicariously experienced while in the role of a caregiver. The stress is communicable through an emotional connection to the primary sufferer via an expression of empathy. It has been noted that military spouses suffer symptoms similar to the secondary traumatic stress and compassion fatigue experienced by professional practitioners (Dekel & Monson, 2010; Figley, 1995, 1997; Goff & Smith 2005; 2009; Guest et al., 2006).

Many of these researchers have proposed that the indirect exposure comes from within the Service member-spouse dyad; however, in addition to this form of exposure, the pilot work of current study suggested another factor not considered in previous models may affect spouses—the exposure to other military spouses experiencing stress related to combat trauma. Therefore, the spouse's indirect trauma stress and vulnerability may begin even before the

Service member returns from a deployment.

In addition, the findings of studies published over the past three decades supported the exploration of other factors that influence the development and outcomes of indirect exposure to trauma in military spouses. These constructs guided the study of the specific issues affecting spouses indirectly exposed to combat stress. Each of these constructs are defined and operationalized in the next chapter in the review of the literature. By studying these factors, we are able to gain a better understanding of how these events affect the well-being of spouses and how their secondary trauma symptoms differ from those of professional caregivers.

1.3 Purpose of the Dissertation Study

The purpose of this three-part study was to develop and validate a new instrument to assess the well-being of civilian spouses of active and Veteran US Service members who have been indirectly exposed to combat trauma stress. The Health Assessment for Loved Ones (HALO) was developed and tested to address the needs of this special population.

1.4 Theoretical Terms Applied to Spouses

Using the military spouse perspective, the current study gathered information that may help assess the specific constructs affecting US military spouses indirectly exposed to combat stress and trauma. Each of these military spouse specific constructs is discussed in detail in the final chapter. Below is an overview of the relationship between the theoretical constructs.

Traumatic exposure. In the professional client/patient dyad, professional caregivers go through a process during treatment whereby the traumatized client relives in detail the traumatic experience. This emotional exchange repeatedly exposes the professional to the disturbing trauma imagery (Bride & Figley, 2009). For the military couple, the trauma exposure is specific to combat trauma and stress, and is experienced by a significant other. Therefore, in the

development of military spousal trauma, the nature of this exposure may differ. This may not only include knowing about a combat trauma experienced by their spouse, but also include exposure to trauma experiences of other close military Service members and families, who have experienced combat trauma, repeated deployments, injuries, and casualties.

Empathic engagement. Empathy enables an individual to understand how another person feels and is sensitive to their emotions; however, since the emotions are vicariously felt or enjoyed through an imagined involvement at an intellectual distance, the empathizer does not truly share in the experience of suffering (Hardee, 2003). Empathy may be basic or trained. Basic empathy is "a universal developmental human trait" and trained empathy is "a clinical skill state" (May & Alligood, 2000). The bond between caregiver and sufferer may ultimately lead to sympathy—"having common feelings, harmony of or agreement in feelings" (from *sym-* together or with + *pathos* feelings, emotion, suffering, sensation, and experience) which causes 'whatever affects the one person to similarly affect the other' (Merriam-Webster, 2008).

For the military couple, there is an emotional connection and familiarity to the sufferer not present in the professional dyad. The level of intimacy brought about through past reciprocal emotional disclosures and experiences is shared by both members of the military dyad.

Support mechanisms. The resources available to the professional healthcare provider differ from the social and organizational support mechanisms that are available to the military spouse, both within and outside of the military culture and community.

Risk factors. The risk factors found in the professional and personal life of healthcare providers differ from the multiple risk factors specific to the lived experiences of the military spouses that may affect their overall well-being.

Post-traumatic outcomes. The final theoretical construct focuses on professional care

providers and their issues of *secondary traumatic stress*, also known as *compassion stress*, and is operationalized as the more user-friendly phrase *compassion fatigue* (Bride, Radey, & Figley, 2007; Figley, 1995). It is described as "the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other—the stress resulting from helping or wanting to help a traumatized or suffering person" (Figley, 1999, p.10). Experts in this area suggest that STS and compassion fatigue are synonymous; and to date, there is an open empirical question as to whether STS is a type of burnout, or whether STS (i.e. PTSD symptoms) plus burnout comprise compassion fatigue (B. Bride, personal communication, 2012).

It appears the intensity of traumas may be more important than duration of exposure in determining outcomes (Bride et al., 2004; Bride & Figley, 2009; Hoge et al., 2004). In comparison to professional caregivers, exposure for spouses may be more intense, prolonged, and cumulative, possibly increasing the risk of indirect trauma stress, as well as perhaps accelerating the development process. Furthermore, there is a paucity of longitudinal research or predictive studies on the possible biopsychosocial outcomes for this unique population. Therefore, the goal of the current study was to focus on the real life biological, psychological and sociological issues that affected US military spouses indirectly exposed to combat, and the biopsychosocial outcome construct of well-being.

1.5 Research Questions

Phase One research questions. 1) How effectively do items from existing instruments describe the lived experiences of US military spouses indirectly exposed to combat trauma stress? 2) How closely do US military spouses respond to selected items that represent constructs of the model for secondary traumatic stress and other phenomena experienced by practitioners

and nonprofessional caregivers? 3) What subsets of revised items represent the most prototypical experiences of US military spouses?

Phase Two research questions. 1) To what extent does the adapted tool demonstrate acceptable levels of internal consistency? 2) To what extent do individual items of the new scale represent discrete factors? 3) To what extent does the new scale demonstrate test-retest reliability?

Phase Three research question. To what extent do the tool and its subscales show acceptable levels of concurrent validity with criterion measures?

1.6 Significance of the Study

Historical trends in the problem of interest. Most burnout, compassion fatigue, and secondary traumatic stress research has been limited to specific professions. Existing scales were developed and validated to screen specific groups of professional caregivers (Bride et al., 2004; Figley, 1995). Scale instructions and items were designed to screen for and identify secondary traumatic stressors in clinical social workers. Compassion fatigue and secondary traumatic stress were operationalized according to the symptoms of social workers that overlapped DSM-IV PTSD-criteria (APA, 1994; Bride et al., 2004; Figley, 1997). Therefore, some items do not apply to the intimate partner experience, and the subscales do not accurately encompass the complete experience of US military partners.

Gaps in existing literature. Qualitative reports have suggested that the symptoms experienced by spouses mimic those reported by practitioners experiencing secondary traumatic stress and compassion fatigue (Calhoun, Beckham, & Bosworth, 2002; Calhoun & Wampler, 2002; Figley, 1997; Goff & Smith, 2005: Guest et al., 2006; Lyons, 2001; Verbosky & Ryan, 1988). Scale developers have asserted that civilian spouses of active and Veteran Service

members experience similar phenomena to those documented in professional care providers, and have agreed that no tool exists for assessing compassion fatigue risks in US military spouses, but suggest that their scales could easily be adapted (B. Bride, personal communication, May 2011; C. R. Figley, personal communication, March 2009).

Emerging technologies and methods. This research is innovative because it provides evidence for these assertions, builds on past findings, and incorporates previous suggestions to develop a new instrument for quantifying the well-being of spouses indirectly exposed to traumatic war experiences. It also helps provide support for a new framework grounded in the lived experiences of the civilian spouses of active and Veteran Service members.

Previous research suggested more than one measure may be needed to assess all aspects of the compassion fatigue concept, i.e., trauma symptoms, burnout, cognitive distortions, general psychological distress, and other phenomena (Bride et al., 2007). Yet, little research has focused on creating an instrument to quantify the specific symptoms and issues experienced by the spouses of military Service members or Veterans (Frančišković et al., 2007; MacDonell, 2010).

Previous studies have focused on the soldier spouse dyad as the relationship involved in the transmission of secondary trauma. The current study broadens those perspectives and provides an integrated mixed-method research approach that contributes to a more nuanced and comprehensive understanding of the relationship between indirect trauma exposure and empathy to constructs such as secondary traumatic stress and compassion fatigue. The development of a valid and reliable instrument to measure military spouse well-being provides an important contribution to traumatology research and has direct applications in mental health clinical practice with civilian spouses and partners indirectly exposed to combat stress.

Chapter 2: Review of the Literature

Justification for Study: Theoretical Overview and Exploration of the Gaps

The purpose of this chapter is to summarize the existing literature on *compassion fatigue* also known as, *secondary traumatic stress* and delineate how it and other related constructs apply to a unique population exposed to deployments and indirect combat stress (Figley, 1997). This phenomenon has been widely studied in healthcare providers indirectly exposed to trauma. However, little compassion fatigue research focuses on the non-healthcare support network of those exposed to combat trauma—military spouses, and how indirect exposure to combat stress affects the overall well-being of this special population. Therefore, this chapter will explore these gaps to form a scientific basis, for why exploratory research was necessary to design a new measurement tool specific to the issues of military spouses.

The chapter begins with a systematic review of the literature. A chronological account of the evolution of the phenomenon and definitions of the related terminology are given. Prevalence rates and diagnostic criteria of posttraumatic stress disorder (PTSD) are reviewed to help explain the relationship between PTSD to secondary traumatic stress (STS). This background analysis provides evidence of an important limitation found in this area—the limited scholarly research on spouses indirectly exposed to combat trauma stress, and a way to quantify these effects.

The second part of the chapter provides an evolutional review of relevant stress models and underlying constructs used to conceptualize secondary traumatic stress. This theoretical overview suggests a need to engage in exploratory research to develop a framework to identify the specific issues affecting military spouses. Lastly, the chapter reviews the instruments available to assess these stressors in healthcare providers and illustrates the need to extrapolate

these findings to develop a measurement to assess these same and other stressors in US military spouses.

2.1 Systematic Review of Concepts

A review of *secondary traumatic stress* included manuscripts from several disciplines to explore thoroughly the philosophical, historical, and biopsychosocial foundations of secondary traumatic stress and compassion fatigue. Computerized searches of Pub Med, CINAHL, and EBSCO included both original research and academic discussions of the concepts. Exclusion and inclusion criteria included English language only, the years 1995-2014, and the bio-, psycho-, and sociological perspectives of the concept.

Using the keywords *empathy, sympathy, compassion*, *caring,* and *secondary trauma,* this review first focused on how this stress and burnout pertains to all caregivers, and then limited the findings to family caregivers and military spouses/intimate partners specifically. In the last 19 years, a proliferation of healthcare research has studied the relationship between empathy and compassion fatigue in professional caregivers. Yet comparatively, little research exists on this phenomenon in nonprofessional caregivers of family members, and even less in military spouses.

2.2 Definitions: Theoretical Concepts and Related Terminology

The literature reveals numerous terms, many military-specific, that are used synonymously to describe these similar concepts: *secondary traumatic stress, compassion fatigue, vicarious traumatization, indirect trauma exposure, provider fatigue, operational stress, secondary PTSD, secondary victimization, contact victimization, soldier support fatigue, war-wounded caregiver, worker distress, psychological distress, psychosocial support fatigue, empathy fatigue, sympathy fatigue, companion stress, emotional contagion, dual-role fatigue, caregiver burden, caregiver exhaustion, somatic empathy, secondary catastrophic stress,* and

countertransference. Defined below are the most common synonyms listed in the healthcare literature referring to outcomes of direct or indirect exposure to trauma.

Secondary victimization. In 1982, traumatology expert Charles Figley, PhD. first referred to this phenomenon as secondary victimization.

Vicarious traumatization. In 1989, McCann & Pearlman introduced the term as "an accumulation of memories of clients' traumatic material" to describe the psychological distress experienced by therapists who treat trauma survivors. Their distress resembles their clients' personal experience of trauma (Pearlman & Saakvitne, 1995).

Compassion fatigue (CF). In 1992 a nurse, Carla Joinson, first coined this phrase in a nursing magazine as "a unique form of burnout affecting only people in caregiving professions-nurses, mental health professionals, emergency rescue personnel, and child protection workers" (Joinson, 1992). In 1995, Charles Figley defined it as "a state of exhaustion and dysfunction--biologically, psychologically, and socially- as a result of prolonged exposure to compassion stress and all that it evokes." In *Burnout in Families*, Figley points out that CF may systemically affect a family as a "special form of burnout"; and occurs when family members 'care too much' (Figley, 1997). In 2002 Charles Figley, and again in 2008, Adams, Figley, and Boscarino suggest CF is made up of at least two components—secondary traumatic stress and job burnout. To date, there is an open empirical question as to whether STS is a type of burnout, or whether STS (i.e. PTSD symptoms) plus burnout comprise CF (B. Bride, personal communication, 2012).

Secondary traumatic stress (STS). Figley (1995) operationalized STS using a more user-friendly phrase *compassion fatigue*. STS is defined as "the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other—the stress resulting from helping or wanting to help a traumatized or suffering person"

(Figley, 1999, p.10). In providers who treat traumatized individuals, STS also known as *compassion stress* is viewed as an occupational hazard (Figley, 1999; Munroe et al., 1995; Pearlman & Saakvitne, 1995). Stamm (2010) suggests there is evidence of convergence of the constructs (compassion fatigue, secondary traumatic stress, vicarious traumatization) despite the differences in names.

Secondary traumatic stress disorder (STSD). In *Compassion Fatigue* (1995), Figley explained that STSD is the result of prolonged STS and that it is identical to CF and is equivalent to PTSD found in trauma survivors. It affects all helping professions, as well as family members and friends of the traumatized (Figley, 1997). The two terms PTSD and STSD are differentiated by whether the individual was exposed to the traumatizing event directly (primary exposure-PTSD), or through the knowledge that a significant other was exposed to a traumatizing event (secondary exposure-STSD) (Figley, 1995; Munroe et al., 1995).

Burnout. Coined in 1974 by Freudenberger; in 1981, Maslach and Jackson developed the Maslach Burnout Inventory to measure the phenomenon in the human services. In 1988, Pine and Aronson broadened the concept, to include physical symptoms. Burnout is "a state of physical, emotional, and mental exhaustion caused by long term involvement in emotionally demanding situations" (Schaufeli & Enzmann, 1998). It is used by experts to describe the exhaustion, cynicism, and inefficacy that occur in the workplace when professional caregivers lack resources and organizational support (Maslach, Schaufeli, & Leiter, 2001).

Justification from a Scientific Basis

2.3 Background: What is Post-Traumatic Stress?

The classification *Post-Traumatic Stress Disorder* first appeared in the DSM III (1980) to describe the behaviors displayed by individuals who had experienced a severe stressor. In 1987,

one of the first traumatic stress studies occurred, using a representative sample of 3000 males and females living in St. Louis. In the study, 20% of wounded Vietnam Veterans reported PTSD. The National Vietnam Veterans Readjustment Survey (1986-1988) estimated that among US Vietnam Veterans' lifetime prevalence of PTSD was about 27% for women and 31% for men (NCPTSD, 2007). Comparing these Veterans to the general adult population, the lifetime prevalence of PTSD in Americans is much lower (8%), with women (10%) being twice as likely as men (5%) to experience the disorder (National Comorbidity Survey Report, 2005).

The historical synonyms of the clinical diagnoses of Service members include *soldier's heart, the effort syndrome, shell shock, combat fatigue,* and *stress response syndrome.* Listed within the *Anxiety Disorders* classification, the specific diagnosis of PTSD depends upon the onset and duration of symptoms. It is separate from *acute stress disorder,* which has similar symptoms but the duration is not prolonged. Since the current study began, changes have occurred to diagnostic criteria for PTSD, including how the American Psychiatric Association defines the symptoms and exposure stressor.

According to the DSM-IV-TR (2000), during the traumatic event "the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others AND the person's response involved intense fear, helplessness, or horror." The most recent DSM-5 released in 2013 includes wording with a more clear description of how indirect exposure may traumatically affect an individual not directly exposed to the traumatic event.

In the new description, the exposure to the traumatic event (death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence) may be through 1) direct exposure, 2) witnessing (in person), 3) indirect exposure, or 4) through repeated indirect

exposure to the details of a trauma. The latter two indirect exposure examples include definitions that help to explain how a military spouse may experience traumatic events—by either 'learning that a close relative or close friend was exposed to trauma; or through repeated or extreme direct exposure to aversive details of the event(s)' (APA, 2013). The APA suggests this repeated or extreme indirect exposure usually occurs as a part of professional duties, such as with first responders, or professionals who repeatedly hear abuse details. However, military spouses also hear stories from their loved ones and friends with traumatic details and outcomes.

2.4 Relationship between Post-Traumatic Stress and Secondary Traumatic Stress

Much of the research gathered on PTSD and other combat stress injuries comes from Vietnam Veterans and their family members (Calhoun, et al, 2002; Calhoun & Wampler, 2002; Figley, 1997; Guest et al., 2006; Lyons, 2001; MacDonell et al., 2010; VVA, 2006; Verbosky, 1988). Empirical studies and clinical investigations support growing evidence that not only is the Service member suffering from combat stress injuries and the effects of PTS symptoms, but the psychological health of their partners and family unit are negatively affected, too (Guest et al., 2006; Mansfield et al., 2010; Renshaw et al., 2011).

Those affected by the wounds of war are increasing due to the ongoing conflicts. Since October 2001, over 2.6 million US troops have deployed in support of Operation Enduring Freedom (OEF; Afghanistan) and Operations Iraqi Freedom and New Dawn (OIF, OND; Iraq). According to the U.S. Department of Defense Casualty Status 6,844 deaths have been reported, and an additional 52,293 U.S. troops have been injured during these conflicts (DoD, 2015).

These ongoing conflicts, casualties, and combat affect our Service men and women. Combat stress reactions are normal and while usually acute in nature, they still present behavioral, physical, and emotional responses (NCPTSD, 2006). These combat and trauma

experiences may carry over into the family and affect those closest to them--their confidants and social support systems (Renshaw et al., 2011). These effects are “a natural by-product of caring” about people who have experienced trauma (Figley, 1995, p.11; 2002, p.2).

When the Service member experiences combat trauma, and an empathic significant other becomes aware of the trauma exposure, they try to help. Knowledge of their loved one’s trauma coupled with an inability to ease the suffering causes physiological and psychological changes in family members referred to as *compassion stress*; this leads to secondary traumatization (Figley, 1986). The family member’s preoccupation with the traumatized person’s needs and experience leads to STS symptoms. When prolonged, an emotional burnout may result referred to as *compassion fatigue*—biological, psychological and social exhaustion and dysfunction (Figley, 1995, 1997, 2002).

In the literature the terms *compassion fatigue* and *secondary traumatic stress* are closely related, often overlap and are used interchangeably (Meadors et al, 2010). Previous research gathered from professional practitioners suggested that compassion fatigue is equivalent to STSD and includes symptoms that mimic PTSD such as re-experiencing the primary traumatized person’s event, avoidance of reminders, and symptoms of increased arousal (Bride et al., 2004; Figley, 1995, 1997; 1999). In fact, STSD and PTSD are reported to differ only in relation to exposure. That is, PTSD results from direct exposure to a traumatizing event, while STSD results from indirect exposure to a traumatizing event via emotional and physical contact with an exposed significant other (Figley, 1995; Munroe et al., 1995).

The most common definition of the term *compassion fatigue* characterizes it as the “formal caregiver’s reduced capacity or interest in being empathic” or “bearing the suffering of clients” (Figley, 2002). “There is a cost to caring…professionals who listen to clients’ stories of

fear, pain and suffering may feel similar fear, pain and suffering because they care" (Figley, 1995). It follows that military family caregivers would suffer, as well. In fact, many studies suggest they do (Figley, 1997; Guest et al., 2006; MacDonell et al., 2010).

Qualitative reports from Croatian, Canadian, Israeli, and Vietnam military spouses' have suggested that the spouses' symptoms mimic the secondary traumatic stress and compassion fatigue experienced by professional caregivers (Dekel & Solomon, 2006; Figley, 1995; Frančišković et al., 2007; Guest et al., 2006). The effects of war remain in the family system years after the conflict has ended (Figley, 1995). These long-term effects include marital discord, problems with hostility, family cohesion, communication, self-disclosure, aggression, interpersonal violence, and burnout (Calhoun et al., 2002; Figley, 1997; Klaric et al., 2010; Lyons, 2001; Manguno-Mire et al., 2007). Spouses living with individuals suffering symptoms of post-traumatic stress often describe their partners as "physically present but psychologically absent" (Dekel, Goldblatt, Keidar, Solomon, & Polliack, 2005).

The result of this emotional ambivalence takes a psychological toll on the intimate partners and family members. Partners experience a variety of feelings including fear, worry, grief, loss, anger guilt, helplessness, as well as compassion and hope (Lyons, 2001; Manguno-Mire et al., 2007). Wives of combat Veterans with PTSD reported they had more fear of their husbands, higher levels of anger, and were less communicative then wives of noncombat Veterans (Figley, 1997). They also report symptoms related to chronic stress, such as somatic complaints, hypervigilance, panic, and agoraphobia (Lyons, 2001; Manguno-Mire et al., 2007; Renshaw et al., 2011).

The causes and effects of the mental health issues affecting our current military spouses are more complex than most researchers and practitioners realize (Mansfield et al., 2010;

Renshaw et al., 2011). In a recent study of the spouses of OEF/OIF Veterans, Renshaw et al. (2011) attempted to differentiate between secondary traumatic stress and general psychological distress in 190 wives of male Service members diagnosed with PTSD. Findings suggested that almost 20% of spouses had elevated PTSD symptoms that were attributed to their husband's military experiences, which endorses the conceptual definition and framework for transmission of secondary traumatic stress. This group of spouses also had higher general psychological distress.

Another largely understudied area is the effect of frequent and extended deployments on the mental health of military spouses. A recent chart review of more than 250,000 medical records of female spouses of active duty Army personnel documented the need for access to mental health services for military family members. This review reported that those with deployed husbands were more likely to be diagnosed with depression, anxiety, trauma, sleep disorders, and stress and were more likely to use mental health services than were women whose husbands had not deployed (IOM, 2010; Mansfield et al., 2010). However, because this study was retrospective, when and how deployment affects the spouse is not completely understood.

Research suggests there may be comorbidity involved in secondary trauma, confounding characteristic symptoms such as intrusion and avoidance, with other distinct symptoms related to other disorders. For example, distressing emotions and functional impairment might correspond to *burnout* (Figley, 1999; Pearlman & Saakvitne, 1995; Stamm, 1999). However, the *burnout* construct is not associated with avoiding triggers or re-experiencing of past traumas (Maslach & Jackson, 1981).

Bride and others (2007) suggest that more than one measurement tool may be needed to assess all aspects that are represented under the umbrella of *compassion fatigue*, i.e., trauma

symptoms, general psychological distress, cognitive distortions, burnout. In addition, further empirical research was needed to document the symptoms experienced by intimate partners and distinguish these from those symptoms reported in professional caregivers (Figley, 1997; Goff & Smith, 2005; IOM, 2010). An instrument able to specifically assess the constructs representative of the symptoms and issues reported by military spouses would be beneficial to help clarify the ambiguity that exists in the literature.

2.5 Review of Variables: From Empathy to Secondary Traumatic Stress

Conceptual framework analysis. The purpose of this portion of the chapter is to clarify the concepts associated with the development of secondary traumatic stress. Due to the similarities in symptoms, the practitioners' *secondary trauma stress model* may be useful for understanding the likely sequence of reactions in spouses of traumatized Veterans (Figley, 1997). In fact, scholars who developed this model to document and measure this phenomenon have asserted that the spouses of active and Veteran Service members experience a phenomena similar to that documented in practitioners, but the model has not been adapted to US military spouses (B. Bride, personal communication, Apr. 2011; C. R. Figley, personal communication, March 2009).

Background analysis. The literature review found that both *secondary traumatic stress* and *compassion fatigue* are broader concepts that encompass the emotional component of *empathy*. The professional practitioner model begins with an indirect trauma exposure coupled with an expression of empathy and the theory asserts that it is this emotion of empathy, which predisposes the caregiver to the suffering of secondary trauma (Figley, 1995).

Defined by CINAHL (2008) empathy is "the personal response of one person to another which conveys recognition of the other as a unique individual and a perception of the other's

feelings." This concept includes the sociological therapeutic relationship between caregiver and patient, biological responses during an expression of empathy, and most importantly, the psychological outcome of these interactions. Therefore, the literature review included studies from the fields of social work, neuroscience, and the health sciences for a multidisciplinary, biopsychosocial perspective to focus on the potential outcome variables of compassion fatigue—the caregiver's well-being.

Historical/philosophical analysis. From this holistic perspective and humanistic approach, the review found that the history of the emotion *empathy* is derived from both the fields of philosophy and psychology. Aristotle believed in the moderation of emotion, using drama as a way to purge the human soul--a catharsis. Emotions were believed to weaken the state, if emitted at the wrong time or in an inappropriate manner (Fergusson, 1961). Modern psychologists suggest empathy is linked to morality, and discrete emotions such as sorrow, compassion, and guilt (Davis, 1994).

Multidisciplinary/biopsychosocial analysis. Multiple variables were identified that may predispose an individual to *secondary traumatic stress* and *compassion fatigue*. These abstract constructs were broken down into a specific set of variables, so these phenomena may be operationalized and measured. Recent research advances suggested a multidisciplinary perspective involving the fields of neuroscience, psychology, and sociology was needed.

Biological studies of the limbic system: neurosciences. Recent research suggests there are biological expressions of emotion (Marsh et al., 2008; Black, 2001). Located within the limbic system in the right hemisphere, amygdala plays an important role in emotional processing. For example, during displays of empathy, brain-imaging (fMRI) studies show right

hemisphere activity of the amygdala (Carr et al., 2003). In addition, researchers widely recognize the amygdala and limbic system dysfunction in biological responses of PTSD and combat stress.

Psychosocial studies of the human psyche: medical professions. Empathic ability is at the foundation of the helping professions (Hardee, 2003). For example, it is through sympathy, empathy, and compassion that the nursing profession relieves suffering (Wright, 2006). Numerous articles exist in the field of nursing discussing the difference between *empathy* and *sympathy.* Nurses are told to be empathetic, but not sympathetic (Wright, 2006). Caregivers who express higher levels of feeling and empathy are at higher risk of developing empathy fatigue (Stebnicki, 2000). Caregivers who successfully balance expressions of empathy and the positive feelings that come from helping others experience c*ompassion satisfaction* (Stamm, 2002).

2.6 Empathy vs. Sympathy/Compassion Fatigue: When Caregivers Cross the Line

Empathy, defined as "an individual's objective and insightful awareness of the feelings and behavior of another person"; is a very complex and often misunderstood emotion (Mathiasen, 2006). Empathic communication enhances the patient-caregiver relationship and is considered a necessary emotion in order to be an effective caregiver (Hardee, 2003). Studies suggest the empathy received, or not received, by caregivers from their own social support systems influences the level of empathy they are able to experience with those for whom they are providing care (Badger, Royse, & Craig, 2008; Paliadelis, 2007). Therefore, Crumpei & Dafinoiu (2010) suggest—a paradox exists in the clinical relationship. Empathy is a central factor associated with clinical competence and patient outcomes; yet, it is what places the medical worker at risk for secondary traumatic stress.

Empathy is typically thought of as vicarious, felt or enjoyed through an imagined involvement at an intellectual distance. The empathizer does not truly share in the experience of

suffering (Hardee, 2003). However, with compassion fatigue, the model asserts that an intense co-suffering occurs, which is emotionally taxing, making the caregiver exhausted (Figley, 1997). Fu & Chen (2011) suggest that over time as the caregiver emotionally invests in others, they ignore their own stress symptoms and personal emotional needs. The imbalance leads to a decrease in the caregiver's coping ability and damages the caregiver/recipient relationship. The compassion fatigue that results from this cumulative stress negatively affects the caregiver's physical, psychological, and spiritual health. Eventually the strain decreases the caregiver's ability to adapt (King et al., 1999; Parminder et al., 2004).

2.7 Variables in the Literature: Protective and Risk Factors

It was important to identify variables that may protect or put individuals at risk for secondary traumatic stress. The World Health Organization (2011) suggests that to build resiliency to mental health and psychosocial issues, it is important to focus on the available resources (protective factors or assets) individuals have rather than just on their deficits. From this wellness perspective, there are a number of constructs described in the compassion fatigue and secondary traumatic stress literature that are seen as mediating and outcome variables.

Compassion satisfaction. The relationship between compassion satisfaction and compassion fatigue still is not clearly understood (Bride, 2007). In 2002, Stamm suggests the two may have inverse relationship—as CF increases, the ability to experience compassion satisfaction diminishes (Bride et al., 2007). In 2005, Stamm defined it as "the pleasure you derive from being able to do your work well." Maslach and Jackson (1981) measure a similar construct of *personal accomplishment* in the *Maslach Burnout Inventory*.

Empathic engagement. Empathy involves listening and empowering those you help, while sympathy leads to enabling, a maladaptive way of reacting to someone else's stress (Karp,

2002). According to the conceptual models, empathy is a necessary variable for how caregivers (in this case, spouse) acquire secondary traumatic stress (Bride & Figley, 2009; Figley, 1995). If the caregiver experiences *co-suffering,* a unification of emotions with the sufferer, this places the helper at a higher risk for developing compassion fatigue (Bride & Figley, 2009).

Caregiver burden. Caregiving may take a psychological and or physical toll on the caregiver. The literature highlights three variables that when measured explain most of the variance in the concept of caregiver burden. *Objective burden* is defined as perceived infringement or disruption of tangible aspects of a caregiver's life. *Subjective burden* is the extent to which the caregiver perceives care responsibilities to be overly demanding. *Subjective stress burden* is the emotional impact of caregiving responsibilities on the caregiver (Montgomery & Borgatta, 1989; Pinquart & Sorensen, 2003).

Social isolation. Past qualitative military spouse research also suggested that *social isolation* is an important concept when assessing individuals that may be in a place or a situation that separates them from others (Guest et al., 2006).

Role strain. The literature on *role theory* provides examples of how roles affect an individual that may be useful when considering the roles of military spouses. *Role strain* refers to the stress an individual acting in a single role may experience when the expectations or obligations of the role push beyond the ability of the individual. *Role Embracement* refers to when an individual fully embraces and adopts a role, thereby completely disappearing into the role. *Role conflict* occurs when an individual is expected to take on multiple social roles with differing expectations (Hindin, 2007).

Social support. The literature also highlights the importance of the availability of four different types of socially supportive resources to enhance one's quality of life and to provide a

buffer against adverse life events. *Emotional support* includes family or friends that express empathetic understanding and encouragement. *Instrumental (or tangible) support* includes physical resources or behavioral assistance. *Informational support* means knowing where/how to get help or advice. *Positive social interaction* is spending time with others, or a sense of belonging (Sherbourne & Stewart, 1991).

Well-being. Four domains (psychological, physical, social, spiritual) are identified in the caregiving research to measure quality of life as an adaptable outcome (Ferrell, 1995; Nauser et al., 2011). *Psychological well-being* is a measure of mental health, including any symptoms or emotional distress that may come from the spouses' lived experiences. *Physical well-being* includes overall physical health, including possible long-term effects that may result from the stress and or lack of self-care by the spouses. In addition to social support, *social well-being* encompasses any family, friendship, or work-related issues that may result from exposure to indirect stress and/or additional roles and responsibilities. *Spiritual well-being* includes one's perspectives on life's purpose, one's mission in life, and beliefs in a higher power.

2.8 Review of Model Framework

The fields of medicine, psychology, sociology, and social work have shifted the paradigm from a negative, deficit-based or illness-focused perspective to a more positive, strengths-based or wellness approach (Benard, 2004). A positive perspective encourages fostering psychosocial coping strategies and innate protective factors possessed by individuals, spouses, and family members that make them more resilient.

Risks and protective factors. Caregivers respond to stressors in different ways and there are opportunities to intervene and change the association between the exposure to the stress and the ability to adapt to and cope with the stress. A strengths-based model weighs the relationship

between the risk factors against the protective factors (Roberts & Yeager, 2006). For example, social support, coping strategies, and self-efficacy all help caregivers to lower their response to stressors (King et al. 1999; Pearlin et al., 1981). When present, protective factors are viewed as resources available to the individuals that make them more resilient. A strengths-based model focuses on the resources available to an individual, not the risks to which they are exposed (Benard, 2004; King et al. 1999; Parminder et al., 2004).

Risks and resilience models to stress. *Risk and resilience models* use an ecological approach to describe the various factors that contribute to how people respond differently to the stressors of life. *Protective factors* decrease maladaptive responses to the specific *risk factors* (Roberts & Yeager, 2006). In PTSD recovery, the environment and social support systems play a vital role (King et al., 2004). For female caregivers, protective factors within the family, such as social-ecological factors (family functioning, social support) and coping strategies are associated with parental emotional well-being and overall health. When mothers have high levels of satisfaction with their ability to provide care, they experience lower levels of depression and symptoms of distress (King et al. 1999; Parminder et al., 2004).

Biopsychosocial models of stress. The biopsychosocial model combines elements of theories found in biology, psychology, and sociology for a holistic focus on well-being and the impact of psychosocial factors on quality of life (Engel, 1977). In 1935, theorist Walter Cannon used Fight or Flight to explain how an environmental stimulus, such as stress, coupled with an adaptive biological response affects the overall outcome of an emergency. In 1966, Richard Lazarus expanded on Cannon's theory to explain why stress affects each individual differently.

Lazarus and Folkman (1984), in the *Transactional Model of Stress and Coping*, explain that each individual makes a different determination about an environmental stressor based on

two appraisals. The primary appraisal is a cognitive evaluation of the harm, threat, or challenge posed by the event. Then the secondary appraisal assesses the individual's ability or resources for coping with the difficult event. Prolonged exposure to an intense or chronic stressor may overwhelm the homeostatic mechanisms within the sympathetic nervous system, and ultimately damage the body and immune system, which affects the individual's overall health and well-being (Oltmanns & Emery, 1998). In fact, these neuro-mechanisms and physiological responses to trauma have been used to explain how PTSD is developed (NCPTSD, 2010).

Stress process model. Leonard Pearlin and colleagues introduced the *stress process model* in 1981 to explain the three major components of stress that affect an individual's health: its sources, mediators, and outcomes (Pearlin et al., 1981). *Stressors* are discrete life events that when coupled with life *strains* affect the overall health outcome. If these stressors diminish the *self-concepts,* then *mastery* (perceived control of life events) and *self-esteem* (self-judgment of worth) are strained. However, using *mediators* (perceptions, behaviors, cognitions) the individual may alter the *outcome of stress* at any time throughout the stress process.

Compassion stress/fatigue models. *Compassion Stress and Fatigue Models* describe the transmission of trauma from the first-hand sufferer to the people who help this person. These trauma transmission models combine elements from literature on traumatic stress, interpersonal relationships, and burnout (Adams et al., 2006, 2008; Bride et al., 2004, 2007; Figley, 1995, 1997, 2002; Goff & Smith, 2005); and an adapted version looks at familial trauma issues (Figley, 1997).

For families, the empathic response to the suffering of their loved one may be intensified due to the long-term exposure, which may increase feelings of burnout. Due to familiarity, the family caregiver may intuitively respond to help alleviate suffering (Figley, 1995). However,

there are adaptive and maladaptive ways to handle the suffering of loved ones. If the family member is confident in their ability and efforts to help, they are able to use adaptive coping strategies such as *dissociation,* known in healthcare models as *disengagement* or *detachment.* This involves being able to separate from the sufferer both personally and emotionally. If the family caregiver were able to use adaptive responses when assisting the sufferer, their level of compassion stress would be expected to decrease (Figley, 1995, 1997).

Environmental stressors lead to physiological and psychological changes in an individual's neuroendocrine, hormonal, and cognitive functioning (Adams et al., 2006). A prolonged exposure to the suffering and increased levels of caregiving responsibility can lead to depression and generalized anxiety within the family member (Figley, 1995, 1997). Other related changes in life style, social status, and professional or personal responsibilities further disrupt the life of the caregiver; and ultimately, the family member experiences compassion fatigue (Figley, 1995, 1997).

The US Army's *Provider Resiliency Training* (PRT) program uses this model to focus on the high levels of traumatic stress and burnout in military healthcare providers and chaplains (AMEDD 2007; Conant, 2007). The program termed this specific form of compassion stress, *operational stress* and *provider fatigue*. The curriculum includes an explanation of possible fatigue biomedical markers, a description of behavior changes due to traumatic exposure, and provides strategies to build resiliency (AMEDD, 2007). However, there is no similar program for military spouses.

Secondary traumatic stress theory. The related s*econdary traumatic stress theory* predicts that the protective factors found through personal, professional, and organizational support may buffer the effects of secondary exposure and lower the risks of developing STS

(Badger, 2008; Figley, 1997, 1983). While exposure to trauma survivors may make one vulnerable to STS, this exposure does not automatically result in prolonged psychological distress (Badger, 2008; Calhoun et al. 2002; Meadors & Lamson, 2008; Guest et al., 2006). Protective factors maintain the caregivers' wellbeing. In a study of hospital social workers, findings suggested the ability to separate emotionally from trauma victims was protective for developing STS (Bagder et al., 2008). The human spirit is resilient; despite the experience of negative events, providers can still derive a certain satisfaction from helping others (Stamm, 2002).

2.9 Summary of Theoretical Frameworks

In summary, each of these models suggests stressful life events affect not only the individuals that experience them, but also the people who care about them. Protective factors, such as coping strategies and social support systems, may lower the negative response to these life events (Adams et al., 2006; Badger et al., 2008; Guest et al., 2006; Pearlin, 1981). Research findings support that the expression of empathy is related to compassion stress and that providers can use strategies to protect against compassion fatigue (Adams et al, 2008; Benoit, Veach, & LeRoy, 2007; Crumpei & Dafinoiu, 2010; Figley, 1995; Meadors & Lamson, 2008).

2.10 Limitations of Existing Frameworks

The existing frameworks and research on protective and risk factors have focused primarily on healthcare providers and caregivers. How military spouses experience these constructs had not been clearly delineated or defined. Furthermore, there is a paucity of longitudinal research or predictive studies on the possible biopsychosocial outcomes for this unique population. Therefore, the goal of the current study was to explore the real life biological, psychological, and sociological issues that affected US military spouses. Using the military

spouse perspective, these key variables and theoretical constructs were operationally defined. This allowed for the exploration of the possible multifactorial causes from a biopsychosocial perspective. These findings then guided the development of a valid and reliable instrument to assess the constructs present in their lived experiences, and to help understand their specific mental health issues and overall well-being.

Justification for Exploratory Research

2.11 Applying Literature Findings to Military Spouses

In order to develop an appropriate tool for military spouses, their specific experiences needed to be identified. The literature review suggests a bias, which focuses primarily on licensed professional caregivers. Very little research looks at the difficulties experienced when a loved one returns from war with post-combat related stressors (Figley, 1997; Guest et al., 2006). Due to the stigma associated with seeking help and the lack of adequate available treatments, many military members do not seek or receive help, which exacerbates the familial issues (Gould et al., 2007; Guest et al., 2006; Lyons, 2001).

Traumatized spouses often speak of the husband's trauma as though they are enmeshed in their suffering. The over-invested caretaker speaks of "fixing" the problem, much like language and rationalization used by co-dependents (Lyons, 2001). Unsure how to respond effectively to the new situation, the spouse takes on excessive responsibility and takes over key functions in the relationship in an effort to relieve the loved one's stress (Figley, 1997; Lyons, 2001). These ineffective coping strategies lead to the partner taking on extra roles of "therapist, peacemaker, rescuer, caregiver, and parenting of their spouse" (Lyons, 2001, p. 73).

During this process, the couple becomes susceptible to marital strain, and possible burnout, if they do not learn new skills to protect their relationship. This burnout differs

qualitatively from the more familiar healthcare provider burnout, and is evident throughout the familial system (Figley, 1997). Trauma studies suggest that a parent exposed to trauma often changes how they respond to their families, especially during a crisis. Family members may be depressed, disengaged, inexpressive of affection, or engaged in high levels of conflict. These feelings of detachment precipitate the familial burnout, which often leads to emotional withdrawal and divorce (Catherall, 1998; Lyons, 2001; Manguno-Mire et al., 2007).

The current research was needed to identify the specific support and coping mechanisms of military spouses and to develop a valid and reliable measurement tool. This new instrument could be used to assess real life outcomes, and improve overall well-being and quality of life.

2.12 Applying the Existing Measurement Tools to Military Spouse Issues

Previous studies in this field have been limited to measuring the compassion fatigue and secondary traumatic stress phenomenon in designated groups of healthcare providers (Adams et al., 2008; Badger, 2008; Meadors & Lamson, 2008). Numerous standardized instruments exist to help healthcare professionals self-monitor their symptoms for secondary traumatic stress, compassion fatigue, social support, caregiver burden, wellbeing, and burnout. These measurement tools used are well documented and freely available (Adams et al., 2008; Badger, 2008; Bride et al., 2007; Meadors & Lamson, 2008; Stamm, 2005). For example, the existing tools that screen for compassion fatigue and secondary traumatic stress have been used widely to study formal healthcare providers in the areas of disaster relief, emergency response personnel, psychologists, therapists, and social work (Stamm, 2005).

In 2004, Bride, Robinson, Yegidis, and Figley developed the Secondary Traumatic Stress Scale. The tool was designed specifically to measure secondary stress in social workers and other healthcare providers. It screens for symptoms in healthcare providers indirectly exposed to

trauma through their professional helping relationship. Secondary traumatic stress was operationalized using the provider's symptoms, which met PTSD- DSM criteria: *intrusion*-images of the traumatic event; *avoidance*-of thoughts, events, experiences, individuals; and *arousal*-difficulties with sleep, anger outbursts, startle response (Bride et al., 2004).

2.13 Recent Evidence Available for Military Spousal Stress

More recently, a handful of dissertation studies have reported on issues military spouses experience associated with deployment, PTSD, and family stressors. Schroeder (2006) looked at the effects of post-traumatic stress effects on military families using the qualitative perspective and lived experiences of the female partners of eight Canadian Veterans diagnosed with PTSD. The stress and issues resulting from the relationship were consistent with previous studies and included communication, psychological functioning (emotions such as—anger, rage, isolation, withdrawal, mood swings), physical changes, environment and space, and roles of the partners (Schroeder, 2006).

Padden (2006) looked at the effect of perceived stress coping behavior, previous deployments, and health promoting behaviors on the general wellbeing of the spouse during deployments. Herzog (2008) explored how PTSD in National Guard combat Veterans has been related to secondary trauma in their spouses and familial relationships. Findings suggest the spouse has a mediating effect for how PTSD issues affect the family's children.

Edem Iniedu (2010) gathered phenomenological data from 10 spouses using semi-structured interviews with blended methods to explore how the husband's PTSD has affected the spouse and the stressors within the family since the PTSD. The themes that emerged are common in studies of spouses and included the spouses' fears and uncertainties about their marriages,

guilt, shame, lifestyle changes, mental/emotional stress, coping strategies, and strength and empowerment.

Similarly, Bjornestad (2009) measured the secondary traumatization in spouses that is a direct result of the soldier's trauma in 227 National Guard soldiers. Findings suggested the husband's post-traumatic stress symptoms mediate the relationship between their combat exposure and their spouses' secondary traumatic stress symptoms. Secondary traumatic stress associated with caring for a soldier with PTSD was not assessed.

MacDonell (2010) developed an instrument to measure the distress experienced by the caregiver partners of Australian combat Veterans. Findings suggested that the partner caring for a Veteran experiences sleep problems, hyper-vigilance, social isolation, financial problems, intimacy problems, exhaustion, and negative affect. However, this study noted that these findings are limited, due to the demographics of the partners studied (mean age 57.79; no spouses of current active-duty soldiers were included; 84% of spouses were receiving governmental funds for their role as caregiver) and their Veteran partners were an older Veteran population with only 6% of the Veterans being OEF/OIF Australian Service members.

These recent studies highlight the current findings in the research focused on military spouses. From a scientific basis, the limitations found in the literature provide justification for the current study to use exploratory research to develop a new framework and design a new measurement tool specific to the issues of military spouses. For example, current evidence links the spouses' symptoms of secondary traumatic stress to the Service members' symptoms. The indirect trauma from acting as a friend and social support system still needs to be explored. In addition, the literature describing military spouses uses various terms like *indirect*

traumatization, secondary PTSD, and *secondary traumatization.* Military spouses need a term that identifies them, and their specific experiences of indirect exposure to combat trauma stress.

Lastly, because there is not a specific tool to address the issues in spouses of US Service members, studies have used modified versions of various scales for other populations or spouses from other countries (e.g. *Post-traumatic Checklist-Military PCL-M (Weathers, 1993), Secondary Trauma Questionnaire (Motta et al., 1999), Secondary Traumatic Stress Scale (Bride et al., 1999), Traumatic Events Questionnaire TEQ (Vrana & Lauterbach, 1994), Purdue Post-traumatic Stress Disorder Scale-Revised (Lauterbach &Vrana,1996), Trauma Symptoms Checklist—40 (Briere & Runtz, 1989),* and the *Indirect Traumatization Questionnaire (Frančišković et al., 2007*) to assess spouses.

Using existing instruments in this unique population may limit the specificity and sensitivity of these types of measurements, potentially missing the specific effects of indirect trauma on this unique population. Additionally, scales that only measure secondary trauma symptoms, burnout, or caregiver burden issues will miss the broader and distinctive stressors affecting their well-being. The field could benefit from a valid and reliable instrument that measures constructs related to the real life outcomes that affect the psychological, physical, social, and spiritual well-being of military spouses.

Conclusion

Despite growing awareness of the needs to address PTSD issues in active duty troops and Veterans post-deployment, relatively little attention has been given to the issues their families' experience. The findings of further studies in this area are applicable to family caregiver-trauma research, education, and practice.

Chapter 3: Method

The purpose of this three-part study was to develop and validate a new instrument to assess the well-being of civilian spouses of active and Veteran US Service members who have been indirectly exposed to combat trauma stress. The mixed-methods research approach used in this study combined qualitative and quantitative techniques to provide a more complete picture of indirect trauma stress in this novel population. The three phases included: 1) instrument construction, 2) reliability testing, and 3) validity testing. The results of this study contribute to our understanding of the specific symptoms experienced by and issues affecting US military spouses indirectly exposed to combat trauma stress, as well as spouses active in caregiver roles.

3.1 Research Questions

Phase one instrument construction research questions. 1) How effectively do items from existing instruments describe the lived experiences of US military spouses indirectly exposed to combat trauma stress? 2) How closely do US military spouses respond to selected items that represent the constructs of the Secondary Traumatic Stress model and other phenomena experienced by practitioners and nonprofessional caregivers? 3) What subsets of revised items represent the most prototypical experiences of US military spouses?

Phase two reliability testing research questions. 1) To what extent does the adapted tool demonstrate acceptable levels of internal consistency? 2) To what extent do individual items of the new scale represent discrete factors? 3) To what extent does the new scale demonstrate test-retest reliability?

Phase three validity testing research question. To what extent do the tool and its subscales show acceptable levels of concurrent validity with criterion measures?

3.2 Population, Sample Size, Recruitment

All three phases of this investigation studied the civilian spouses and domestic partners of active and Veteran US Service members located throughout the United States.

Sample size. A total of 410 participants were included in the three phases of the study. Participants in Phase One (item content and prototypicality analysis) included 22 unique experts from the target spouse population and key informants. In Phase Two (reliability testing), 182 participants met the inclusion criteria and completed the online survey. In Phase Three (validity testing) 206 participants met the inclusion criteria and completed the online survey. In these two phases, every effort was made to recruit two unique samples from many geographical locations; however, the anonymous format of the online surveys makes specific independence uncertain.

Recruitment. The research protocol was approved by the University of Texas at El Paso Institutional Review Board (IRB). Phase One participants were recruited using word of mouth through established, non-Department of Defense (DoD) supported, spousal networks. In Phases Two and Three, participants were recruited to participate in an anonymous online survey through non-DoD-affiliated online public webpages and groups of spouses that self-identified as the target population. Online group leaders and/or spouses posted a brief description of the study with the researcher contact information. If interested in participation, a hyperlink to an online page for study enrollment was provided, including researcher contact information, and outlined inclusion and exclusion criteria. Qualified participants were first asked to read the online consent form, and then proceed to the online demographic questionnaire and survey if they wished to participate in the study. No monetary compensation was received by participants.

Timeline. Phase One data was collected in two parts (item content analysis and prototypicality). Participants for the item content analysis portion were recruited and interviews

were conducted over a period of three months. Participants for the prototypicality portion were recruited and data was collected over a period of two months. Phase Two began with instrument revision and pilot testing of the online instruments—*Survey #1* for estimation of internal consistency and factor analysis and an identical *Survey #2*, the results of which were used to analyze test-retest reliability. Following IRB approval of the revised instrument, Phase Two participants were recruited. Participants were enrolled and data was collected for approximately seven months. After the analysis and instrument revision, pilot testing was conducted on the revised online instrument—*Survey #3* for criterion validity testing. Phase Three participants were recruited. Participant enrollment and data collection continued over a three month period.

Inclusion criteria. All participants were between 18 and 65 years of age. Participants were the spouses or domestic partners in a relationship for at least one year with US Service members who have served at least one tour in support of current Middle Eastern operations (Operations Enduring Freedom/ Iraqi Freedom—OEF/OIF, New Dawn). The subject pool included the partners of Service members with and without PTSD, traumatic brain injuries and other combat stress injuries. Participants self-reported these diagnoses on an anonymous demographic questionnaire.

Exclusion criteria. Spouses or domestic partners less than 18 years old or older than 65 years old, with less than one year in relationship, with a history of mental health, drug, or alcohol abuse issues prior to deployment, or with a military Sponsor that has no tour of duty in OEF/OIF were not included in this study. (Sponsor is a military term used refer to the Service member you are related to; and is therefore, used by military spouses.) To avoid the potential of confounding effects of direct war related trauma experience, spouses and partners who themselves are or have been active-duty Service members were not included in the study.

Phase One Method: Instrument Construction

3.3 Phase One: Research Design

Sample size. Phase One (item content and prototypicality analysis) included 22 participants from the target spouse population and key informants. Each participant was either the civilian spouse or domestic partner of an active or Veteran US Service member.

Selection. Phase One participants were selected using purposive sampling, to insure that participants had been indirectly exposed to deployment and or combat stress, as well as PTSD or other mental health issues affecting military Service members. This allowed the researcher to select participants, in this case, the spouses or partners of active and Veteran US Service members, who could provide first-hand experience to further inform the development and revision of the preliminary questionnaire.

3.4 Phase One: Instrumentation

Prior to Phase One, the researcher conducted a literature review to explore how indirect exposure to combat stress may affect the overall well-being of this special population. Using the literature and theoretical perspectives, key variables were identified within the literature. Using participatory observation and knowledge of the military culture and target population, ideas were gathered about how to measure and operationalize the constructs. These findings informed the current study and helped to guide the development of culturally sensitive and relevant items.

The original tracking form had a potential pool of 148 items covering ten *a priori* content domains that were originally identified as secondary traumatic stress, compassion fatigue, empathy, psychological distress, burnout, caregiver burden, role strain, social support, social isolation, and quality of life. The items found in existing scales were worded to represent constructs that largely reflected the practitioner/client relationship and the caregiving of elderly

or infirmed family members. Also, the wording among relevant items often overlapped. Therefore, similar items were combined, and submitted to experts and key informants from the target population for face validity and content review. Initial analysis of the item wording and context suggested that the language used in many of the items should be revised to better address the spouse-specific indirect exposure to combat stress.

Preliminary instrument. Using the ten *a priori* constructs identified in the literature, the researcher developed wording illustrative of the construct, yet specific to the participants. The preliminary pilot instrument included a composite of 70 potential items that reflected reported research findings measuring these concepts and grouped according to four conceptual domains of well-being (psychological, physical, social, and spiritual). The existing instruments that were reviewed for the study served as models for developing the new measurement tool specific to this novel population. A description of each of these established instruments follows.

Family Caregiver-Specific Quality of Life Scale (FAMQOL) (Nauser, 2010). The *FAMQOL* uses constructs found in the caregiving literature to measure four domains of well-being (psychological, physical, social, and spiritual) in family caregivers of heart patients. It includes 16 items, with four items in each of the four subscales. A sample item reads, "Because of caregiving, I am socially isolated." Using a 5-choice, Likert-type response format ranging from 1 (strongly disagree) to 5 (strongly agree), family members are asked to assess how providing care had affected their lives. Internal consistency was estimated using Cronbach's alpha (α=.89). Two-week test-retest reliability found an ICC of .91. Correlations with SF-36 General Health (r=.45, p<.001) and Mental Health (r=.59, p<.001) Subscales and Bakas Caregiving Outcomes Scale (r=.73, p<.001) provided evidence for criterion validity. The items and constructs served as a guide to create items assessing similar physical (e.g. health of spouse)

and social (e.g. activities with friends) well-being issues identified by the spouses.

Secondary Traumatic Stress Scale (STSS) (Bride, Robinson, Yegidis, & Figley, 2004). The *STSS* uses Figley's definition of secondary traumatic stress as a syndrome nearly identical to PTSD symptoms. Secondary trauma differs from personally experienced direct trauma. The 17-item instrument corresponds to DSM-IV-TR posttraumatic stress disorder criteria, and measure three symptom subscales (intrusion, avoidance, and arousal). However, each question is worded specifically to measure indirect trauma exposure experienced by clinical social workers in the course of their work with clients with PTSD. The scale measures how frequently each item was true in the past 7 days using a 5-choice Likert-type response format ranging from 1 (never) to 5 (very often). A sample item reads, "Reminders of my work with clients upset me." These items were combined with similar items that reflected DSM criteria and reworded using military spouse feedback.

The original scale has demonstrated construct validity through convergent, discriminant, and factor analyses (Ting et al., 2005; Bride et al., 2004). Significant correlations were obtained between the STSS and its subscales and each of the convergent variables. Factor loadings were statistically significant and the factor structure was supported (Bride et al., 2003). The total score has high internal consistency, with estimates of Cronbach's alpha exceeding 0.90, (α= 0.93) and for each of three subscales, Avoidance (α=0.87), and Arousal (α=0.83), Intrusion (α =0.80).

Compassion Fatigue Self-Test (Figley, 1995). *The Compassion Fatigue Self-Test* was the first instrument developed specifically to measure compassion fatigue and job burnout in practitioners (Bride et al., 2007). The original test has 40 items (two subscales): compassion fatigue (23 items) and burnout (17 items) which are scored separately. A sample item reads, "I have felt trapped by my work as a helper." Using a 5-point Likert-type scale ranging from 1

(rarely/never) to 5 (always), practitioners report how frequently the item describes them or their situation. Internal consistency is high for the total score and subscales, with estimates of Cronbach's alpha exceeding 0.85 (Figley, 1995; Figley & Stamm, 1996). All of the items in this scale are specific to professional caregivers, but some of the items were able to serve as a guide to develop other items to assess the key variables found within these operationalized constructs and confirmed as relevant by military spouses.

Burnout is a term used by professional healthcare providers specifically to describe work-related levels of emotional exhaustion, personal accomplishment, and depersonalization, which are often related to a lack of available resources and organizational support. It was determined that scales and items that measure these professional practitioner constructs, such as *Maslach Burnout Inventory,* did not specifically address the unique circumstances of this population. Therefore, items were developed for constructs more related to the lived experiences of the spouses to assess self-efficacy, empathy, exhaustion, emotional separation, and disengagement. This helped spouses classify and characterize their lived experiences as different from those found in professional workplace burnout, and insured inclusion of their issues in the new scale.

Demographic questionnaire. The PTSD literature suggests certain demographic and socioeconomic variables may affect the spouse's stress-related outcomes (Francisković, et al., 2007; NCPTSD, 2009). Therefore, during Phase One, in addition to developing the potential items for the HALO, spouses were asked for feedback on demographic items that were developed specifically to help report their unique circumstances.

3.5 Phase One: Procedures for Data Collection and Analysis

Three research questions guided data collection in Phase One: 1) How effectively do items from existing instruments describe the lived experiences of US military spouses indirectly

exposed to combat trauma stress? 2) How closely do US military spouses respond to selected items that represent the constructs of the Secondary Traumatic Stress model and other phenomena experienced by practitioners and nonprofessional caregivers? 3) What subsets of revised items represent the most prototypical experiences of US military spouses? To accomplish the objectives of Phase One, data collection and analysis were broken into two sub-phases (item content and prototypicality).

Item content procedures. Prior to data collection, a literature review was conducted of previously published studies of spouses of active and Veteran Service members that included both domestic and international populations. The findings of these studies described common symptoms and challenges, deployment-related changes in their lives, and their needs for social and organizational support. However, the existing instruments used to measure these constructs largely reflected the practitioner/client relationship and caregiving of elderly or infirmed family members. Therefore, an integrative approach was needed to create items that contribute to a more nuanced and comprehensive understanding of the relationship between indirect trauma exposure and empathy to secondary traumatic stress, compassion fatigue, and the other related *a priori* constructs.

Prior to phase one data collection, the researcher built a rapport with members of the target population. The acceptance of the researcher within their natural environment, as they engaged in their day-to-day activities, allowed for firsthand observations of the coping skills, defense mechanisms, and resiliency of the spouses. As a trusted participant in their most intimate cultural settings, ecological validity was established and true discourse began. Through these participatory observations, the key variables identified in the literature were confirmed, and informed the current study to help guide the development of a potential pool of items.

Participants in this portion of Phase One included 10 experts from the target spouse population and key informants. During the initial focus group of three participants, the researcher felt spouses were not forthcoming in their feedback. Follow-up with these spouses confirmed that each wanted to provide more input, but due to their husband's occupational specialty, rank, and their familiarity with the other participants, they felt uncomfortable disclosing in the presence of other participants. These preconceived limitations affected their ability to share issues and symptoms openly in a focus group setting.

Using this valuable insight, the researcher changed the data-gathering format, and individual interviews were conducted with the original three focus group members and seven other participants. The researcher met with spouses in locations where the spouse felt most comfortable (e.g. over coffee, in the park). This design led to better feedback and more open discussion of the sensitive items and their cultural relevance to the military spouse's lived experiences.

Each interview session was treated as an independent information gathering session and lasted approximately one hour. A series of semi-structured questions were used. The researcher worked with participants to develop and review a potential pool of items using constructs found in a review of the literature on *secondary traumatic stress*, *compassion fatigue*, *empathy*, and *burnout* in practitioners, and *psychological distress, social support, social isolation, role strain, caregiver burden* and *well-being* in family caregivers. The purpose of process was to elicit specific information about the cultural relevance of these constructs, and to develop wording that ensured instrument fidelity with the lived experiences of the participants.

Participants reviewed each potential item and construct within each area of well-being, to provide feedback on item language, clarity, response scaling, and format. Participants were asked

how they defined and interpreted the conceptual domain. For example spouses were asked: *What does the concept mean to you? Does this item clarify the concept? Does this item describe what you have experienced?* Using this guidance, participants described if and how the item reflected their lived experiences, and if the wording addressed how they have been affected through their indirect exposure to combat trauma stress. Participants also described their experiences of the unique secondary stress that military spouses face when dealing with traumas prior to, or in addition to, their Service member's combat stress (e.g. helping or emotionally supporting other spouses of deployed Service members, attending funerals for fallen Service members, and personal hardships).

This rich data collection allowed the researcher to observe an intersubjective view of the military spouse phenomena. Multiple spouses were interviewed until saturation and redundancy of the themes was achieved. Through these personal exchanges of emic (military spouse participants) and etic (researcher-observer assumptions, extant theoretical *a priori* constructs) perspectives, the several spouse-specific themes emerged: 1) level of caregiver burden; 2) symptoms experienced during pre-deployment, deployment; and post-deployment, 3) availability of social supports; 4) current familial problems associated with deployment or Sponsor's combat stress; and 5) empathetic participation with trauma issues. This informative and interactive qualitative process enhanced the cultural relevance and sensitivity of the pilot instrument.

Item content analysis procedures. The data collected from the in-depth qualitative interviews was analyzed. Using only the relevant items that measured the *a priori* constructs, the researcher developed wording illustrative of the construct yet specific to the participants, to reflect the spouses' secondary exposure to combat stress and describe aspects of their intimate dyads, family life, and close social support relationships. The most appropriate response-scaling

format was identified to assess the frequency with which participants experience these feelings, issues, or challenges. Additional changes to the wording were made based on the comments and suggestions, and a prototypicality questionnaire was created.

Prototypicality. Twelve participants completed the prototypicality questionnaire, which consisted of 67 of the original 70 HALO items and 15 new items that were added in response to feedback during item content analysis. Using the 82 potential items, participants were asked to rate the prototypicality of each item to ensure that the items were specific and relevant to the four conceptual domains of well-being (psychological, physical, social, spiritual; see Figure 3.1). When a participant scored an item as a 1, 2, or 3 on the prototypicality questionnaire, indicating disagreement with the fit of an item with the construct, she was asked in what area that item would better fit and her comments were documented.

Example: *How closely does each of the following items belong to the area of "Psychological Well-being"?* Mark the number that most closely reflects your agreement with how good an example the statement is of Psychological Well-being.

1) *I feel guilty when considering my own needs.*

1	2	3	**4 X**	5	6	7
the statement is a very poor example of this area			the statement fits moderately well with this area			the statement is a very good example of this area

Figure 3.1 An example of an item on the prototypicality questionnaire.

Prototypicality analysis. All 82 items were entered into *Microsoft Excel* spreadsheet to analyze the feedback of the 12 participants. On a 1-7 scale, most of the spouses rated the items as reflective of the construct they were intended to represent. The mean, standard deviation, and range for each item were calculated. Due to a few outliers, the mode was also calculated for each item. During analysis, seven of the items were considered to be double-barreled items and were therefore, split into two distinct items, making the pilot instrument a total of 89 items. Minor

changes were also made to item wording based on the feedback received from participants.

Summary. After careful analysis of the in-depth feedback provided by the participants, the 89 revised items more closely reflected their lived experience of indirect exposure to combat trauma stress than did the original composite of sample items. The resulting pilot instrument was a multidimensional measure, developed using a biopsychosocial perspective to assess the well-being of the spouses and partners of US military Service members.

Phase Two Method: Reliability Testing

3.6 Phase Two: Research Design

Sample size. Participants in Phase Two (reliability testing) included 182 participants who confirmed that they met the inclusion criteria to complete the online survey. Each participant identified as a member of the target spouse population-- the civilian spouse or domestic partner of an active or Veteran OEF/OIF/OND US Service member.

Recruitment. Phase Two participants were recruited to participate in an anonymous online survey through non-DoD-affiliated online public webpages and groups of spouses that self-identified as the target population. To estimate test-retest reliability, participants were invited to complete the online survey in two separate administrations, referred to below as *Survey #1* and *Survey #2.* Participants for *Survey #1* were selected using purposive and convenience sampling. This method of sampling allowed the researcher to select participants who self-identified as having been indirectly exposed to deployment and or combat stress, as well as PTSD or other mental health issues affecting military Service members. Snowball sampling was used as well, where eligible subjects used word of mouth to let other potential subjects know about the study.

Participants for *Survey #2*, the test-retest reliability phase, were recruited using

participants from *Survey #1.* At the end of *Survey #1*, participants were asked for their assistance in conducting the test-retest reliability of the survey. If willing, participants created a code consisting of two letters and four numbers to be used for the sole purpose of matching the two administrations of the test. Due to the potential for changes to occur due to new trauma exposure, the researcher insured minimal time elapsed in between repeat administrations of the tool to examine test-retest reliability. Within 24 hours of online access to *Survey #1*, an anonymous link to *Survey #2* was made available to participants. The amount of time that elapsed between participants taking *Survey #1* and *Survey #2* ranged from 1 day to 26 days (M=4.5; SD=6.57).

Inclusion criteria. All participants were between 18 and 65 years of age. Participants were the civilian spouses or domestic partners in a relationship for at least one year with US Service members who have served at least one tour in support of current Middle Eastern operations (Operations Enduring Freedom/ Iraqi Freedom—OEF/OIF, New Dawn). The sample included the partners of US Service members with and without PTSD, traumatic brain injuries and other combat stress injuries. Participants reported these diagnoses on an anonymous demographic questionnaire.

Exclusion criteria. Spouses or domestic partners less than 18 years old or older than 65 years old, with less than one year in relationship, with a history of mental health, drug, or alcohol abuse issues prior to deployment, or with a military Sponsor that has no tour of duty in OEF/OIF were not included in this study. (Sponsor is a military term used to refer to the Service member you are related to; and is therefore, used by military spouses.) To avoid the potential of confounding effects of direct war related trauma experience, spouses and partners who are or have been active-duty Service members themselves were not included in the study.

3.7 Phase Two: Instrumentation

Preliminary HALO questionnaire. After the revisions, additions, and omissions were completed in Phase One, the pilot instrument (*Survey#1*) included 89 items: (1) 57 items assessing Psychological Well-being, which included items to assess the effects of indirect exposure to trauma, and the challenges of additional roles and new responsibilities that may affect their family and social relationships, or the family's financial issues and spouse's employment status; (2) five items to assess Physical Well-being; (3) 20 items to assess Social Well-being, which included social and organizational support, caregiver burden, social isolation, and military specific social support; and (4) seven items to assess the Spiritual Well-being.

Demographic questionnaire. The instruments used in Phases Two and Three collected self-reported demographic information using items that were aligned with feedback provided by spouses in Phase One. This data helped assess if the characteristics of these samples matched those of the target population for purposes of generalizability. Items included the spouse's age, gender, ethnicity, educational level, occupation, family income, dependent family members, and the duration of the relationship with the Service member spouse or partner. Additional items in the anonymous survey solicited responses about the Service member's age, ethnicity, education level, occupation, rank, and the length and number of deployments.

Feedback elicited in Phase One suggested that spouses of Service members not diagnosed with PTSD may also exhibit symptoms of secondary traumatic stress due to knowledge of a loved one's combat exposure and concern for their safety, coupled with deployment stress. Therefore, a variable was included to determine if the Service member has a diagnosed combat stress injury or post-traumatic stress disorder. This data helped differentiate those spouses and partners of Service members already diagnosed from those who have not received a diagnosis.

Design of the online instrument. The pilot instrument was developed for online administration using the web-based research survey software Qualtrics Lab, Inc. © 2013. The introduction to the online survey instrument included a brief statement about the purpose of the study, eligibility requirements, and the IRB-approved consent form. Within the consent form, participants were informed that they could leave the survey at any time. If participants needed to leave the survey, but wanted to return, their link would take them back to the point where they left the survey, and permitted them to resume taking the survey. Also within the consent form, resources for psychological support were listed for military spouses and Service members.

Resources included phone numbers and hyperlinks to online and national resources with free, 24 hour/ 7-day access to trained counselors familiar with issues affecting military Service members and their families. The hyperlinks were created to connect them directly to services where they could choose telephone, email, face-to-face, or chat live online sessions. These services are offered free of charge to Service members and their families, including Guard and Reserve members. In addition, several hyperlinks to Online Support Groups were provided.

After participants provided informed consent, they moved forward to a brief introduction, the demographic questions, and the 89-item survey. Each item was formatted using the appropriate Likert-type frequency scale (*Never, Rarely, Occasionally, Often, Very Often, Not Applicable, I Decline to Answer*). Participants who did not agree that they met the inclusion and exclusion criteria and those who chose not to provide informed consent were directed to a screen that included a brief explanation of ineligibility, and thanked for their participation.

Pilot testing of the online instrument. The online version of the complete survey was pilot tested using ten spouses and five dissertation committee members. A link was provided to the spouses and committee members to access the online instrument, just as it would appear to

survey participants. Each tester was asked to review the items for formatting, font size, ease of answering items, and to assess the length of time to take the survey. This process insured that each item was answerable, that the web-based research software was functioning properly, and that there was not excessive participant burden to complete the survey.

Analysis and revisions of the online instrument. Results from the online pilot testing were analyzed. Comments from the ten spouses and five dissertation committee members were reviewed. All hyperlinks, survey responses, and answer choices were found to be in working order. Feedback was used to make additional changes. For example, a progress bar was suggested to increase survey completion rates, and inform participants of their progress and time left in survey. Participant burden was found to be less than, or approximately equal to, the 30 minutes suggested in the consent form. After changes, the online version of the previously-approved survey was resubmitted to the Institutional Review Board. Due to an IRB concern about the anonymous format, two items were removed from the final online version: 1) *I feel like something bad is going to happen*; and 2) *I feel in danger from him/her*. The final online version included the remaining 87 survey items.

3.8 Phase Two: Procedures for Data Collection

Three questions guided data collection in Phase Two. 1) To what extent does the adapted tool demonstrate acceptable levels of internal consistency? 2) To what extent do individual items of the new scale represent discrete factors? 3) To what extent does the new scale demonstrate test-retest reliability?

Reliability Survey #1. Phase Two data collection was conducted to gather participant responses to assess the measurement properties and reliability of the scale. Through the recruitment process, potential subjects interested in participation were provided an online link to

Survey #1. The anonymous link did not collect any personal identifiable information. The online hyperlink took participants to the Qualtrics Lab, Inc. © 2013 online survey, which included screens that presented an introduction, inclusion/ exclusion criteria, the IRB-approved online consent form, demographic questionnaire, and 87 survey items.

Reliability Survey #2. Within 24 hours of online access to *Survey #1*, participants were provided access to *Survey # 2* for test-retest reliability. The amount of time that elapsed between participants taking Survey #1 and Survey #2 ranged from 1 day to 26 days (M=4.5; SD=6.57). The second survey contained the same inclusion/exclusion criteria, online consent form, demographic questions, and 87 survey items. To enter *Survey #2*, participants were first asked if they had taken *Survey #1*and to please provide the code they generated in *Survey #1*. Twenty participants completed both surveys and their results were included in test-retest reliability analysis. No online participants reported any technical problems with the links or online surveys.

3.9 Phase Two: Procedures for Analysis

The purpose of this phase was to evaluate and reduce the number of items to maximize internal consistency of the pilot instrument. After the initial administration of *Survey #1*, data was checked for errors and the participants' scores were entered into the *Statistical Package for Social Sciences v. 22* (IBM Corp. © and others 1989, 2013). Items that were positively worded were reverse coded. Items with missing data, and items marked *I Decline to Answer* and *Not Applicable* were coded for omission, so as to not be included in the reliability and factor analysis. The data from thirty participants who completed the demographic portion, but did not complete the survey was removed. These incomplete surveys were not included in the final analysis.

A variety of analyses were conducted to assess the item response frequencies, descriptive statistics, and item summaries of the original 87-item survey responses. Results were reviewed

for the range of responses, variance in relation to the item means, and floor and ceiling effects. Items with high missing data and *Not Applicable* rates were noted, to be considered for deletion.

Test of the matrices. Using the correlation coefficients and correlation matrix, the relationship and degree of association between the remaining items in the scale were examined. The Bartlett's test of sphericity was checked for a p-value < .05 and the Kaiser-Meyer-Olkin (KMO) index was examined for a value of >.60 to support the use of factor analysis. Measures of Sampling Adequacy (MSA) were assessed, with a preferred value > .70; also individual MSA on the diagonal of the Anti-Image Correlation (AIC) Matrix was checked for values <.60.

Items with high inter-item correlations (r > .70) on the matrix were evaluated for item wording and redundancy, and multicollinearity. Items were considered for deletion using criteria for low MSA, high inter-item correlation and low variance. In item pairs with a high correlation, the item with a lower variance was eliminated. A follow-up analysis with the spouses provided feedback and criterion-related evidence for validity of the items, to ensure those retained assess the military spouse phenomena. After these steps, the analysis and tests of matrices were rerun.

Initial extraction and rotation of factors. Underlying dimensionality of the scale was explored to extract the initial factors. Two extraction methods (principal axis factoring- PAF and principal components analysis- PCA) were conducted and compared to explore factor/component loading, to recognize measurement characteristics of the instrument, and refine content domains. The factor matrices were examined and the amount of common (PAF) and total (PCA) variance explained was considered in relation to the previously defined content domains. Using the Kaiser criterion, scree plots were examined and factors with Eigenvalues at 1.0 and above were retained. Both extraction methods yielded a comparable four factor/component structure.

Oblique rotations, Oblimin and Promax, with Kaiser Normalization were performed and

pattern, structure, and interfactor correlation matrices were compared to the Varimax orthogonal rotation. All three rotation methods yielded a four-factor structure with similar total variance explained. A justification for the choice of factor extraction and rotation method was made based upon the evaluation of the matrices, factors extracted, and strength of factor loadings using established criteria (Pett, Lackey, & Sullivan, 2003).

Refining factors and evaluating internal consistency. The four factors that emerged were examined to determine the strength and conceptual themes of the items loading on each of the four components. Individual items were assessed for conceptual relevance and consistency in each item's relationship to other items within the construct. Items with weak loadings (<.30) on all the factors or strong loadings (>.40) on multiple factors were considered for deletion. When items overlapped on two constructs, the item was grouped with the construct of highest loading.

Estimates of internal consistency for the full scale and each subscale were calculated using Cronbach's alpha. In an effort to increase the internal consistency of the total scale and subscales, items were considered for deletion when the alpha statistic was estimated to increase if an item was removed from the scale or subscale. Item-to-total scale correlations were reevaluated and estimates of Cronbach's alpha statistic for the individual domains were reexamined after each deletion. Following this systematic process, the items were presented to the participants for a final review. The remaining 21 items were then grouped by subscales based the results of factor loading for analysis of test-retest reliability and Phase Three data collection.

Test-retest reliability. Using intraclass correlations coefficients (ICC), the stability coefficients were computed to determine the test-retest reliability of the scores on the two repeated administrations of the instrument. ICC was interpreted as follows: 0 to 0.20 indicates poor agreement; 0.21 to 0.40 indicates fair; 0.41 to 0.60 indicates moderate; 0.61 to 0.80

indicates strong; and >0.8 indicates almost perfect agreement (Landis & Koch, 1977).

Summary. The results of this phase of the study provided measures of internal consistency, test-retest reliability, and construct validity of the total instrument and subscales, and empirical evidence to support the use of the new tool.

Phase Three Method: Validity Testing

3.10 Phase Three: Research Design

Population. Participants in Phase Three (validity testing) included 206 participants who met the inclusion criteria to complete the online survey to test the psychometric properties of the instrument. Each participant identified as a member of the target spouse population-- the civilian spouse or domestic partner of an active or Veteran US Service member.

Recruitment. Participants for *Survey #3* were selected using purposive, convenience, and snowball sampling, using word of mouth. Following the same protocol of Phase Two, all recruitment in Phase Two was conducted using non-DoD-affiliated online public webpages and groups of spouses that self-identified as the target population.

Inclusion criteria. All participants were between 18 and 65 years of age. Participants were the civilian spouses or domestic partners in a relationship for at least one year with Service members who have served at least one tour in support of current Middle Eastern operations (Operations Enduring Freedom/ Iraqi Freedom—OEF/OIF, New Dawn). The sample included the partners of active and Veteran Service members with and without PTSD, traumatic brain injuries and other combat stress injuries.

Exclusion criteria. Spouses or domestic partners less than 18 years old or older than 65 years old, with less than one year in relationship, with a history of mental health, drug, or alcohol abuse issues prior to deployment, or with a military Sponsor that has no tour of duty in OEF/OIF

were not included in this study. To avoid the potential of confounding effects of direct war related trauma experience, spouses and partners who are or have been active-duty Service members themselves were not included in the study.

3.11 Phase Three: Instrumentation

After the factor analysis and final revisions were completed in Phase Two, the final draft of the HALO questionnaire included 21 items loading on four factors: (1) seven items loading on Factor One, labeled "Role Overload"; (2) 6 items loading on Factor Two, labeled "Emotional Distress"; (3) five items loading on Factor Three, labeled "Intrusive Arousal"; and (4) three items loading on Factor Four, labeled "Social Avoidance".

Valid measures for criterion-related validity testing. The *RAND 36-Item Health Survey v. 1.0 and Social Support Survey (MOS-SSS)* were administered simultaneously with the new instrument to gather evidence to establish concurrent validity. Both scales are available in the public domain and are accessible from the RAND Corporation (RAND, 2015).

RAND 36-Item Health Survey 1.0. a.k.a MOS 36-Item Short-Form Health Survey version 1 (SF-36v.1) *(RAND, 1992).* The *RAND 36-Item Health Survey 1.0* measures functional health and well-being, as well as physical and mental health. Eight health concepts are divided evenly into two overarching summary measures. The Physical Health Summary includes four subscales: Physical Functioning (10), Role Limitations-Physical (4), Bodily Pain (2), and General Health (5). The Mental Component Summary includes four subscales: Energy/Fatigue (4), Social Functioning (2), Role Limitations-Emotional (3), and Emotional Well-being (5). A sample item asks, "How much of the time during the past 4 weeks did you feel worn out?" The 6-choice Likert-type response format for this section ranges from choices of "All of the Time" to "None of the Time". (Response scale choices differ based upon the subscale being measured.)

Each subscale has consistently shown Cronbach's alpha estimates equal to or greater than 0.80.

MOS Social Support Survey (MOS SSS) (RAND: Sherbourne & Stewart, 1991). The *MOS SSS* measures dimensionality of four functional social supports: Emotional/ Informational Support (8), Tangible Support (4), Affectionate Support (3), and Positive Social Interaction (3), plus one additional item (1). Individuals report how often these various types of support are available if they are needed. A sample emotional support item asks about, "Someone who understands your problems." The 5-choice Likert-type response format for this section ranges from choices of "None of the Time to "All of the Time". Unique variance was found in each subscale, and as well as support for using the complete scale as a measure of social support. Convergent validity suggested high correlations (above .72) between all the items and their hypothesized scales. Reliability coefficients (Cronbach's alpha) were all above .91, and one-year stability coefficients for each subscale were above .72 (Sherbourne & Stewart, 1991).

Design of the online instrument. The revised HALO instrument and the two instruments for concurrent validity testing were displayed online using the web-based research survey software Qualtrics Lab, Inc. © 2013. The introductory material included a brief statement about the purpose of the study, eligibility requirements and the IRB-approved consent form. Within the consent form, participants were informed that they could leave the survey at any time. If participants needed to leave the survey, but wanted to return, their link would take them back to the place where they left the anonymous survey, and permitted them to resume taking the survey. Also within the consent form, resources for psychological support were listed for military spouses and Service members.

Resources included phone numbers and hyperlinks to online and national resources with free, 24 hour/ 7-day access to trained counselors familiar with issues affecting military Service

members and their families. Hyperlinks were created to connect them directly to services where they could choose telephone, email, face-to-face, or chat live online sessions. Services are offered free of charge to Service members and their families, including Guard and Reserve members. In addition, several hyperlinks to Online Support Groups were provided.

After participants provided informed consent, they moved forward to the demographic questions and survey items. Those participants who did not agree that they met the inclusion and exclusion criteria and those who chose not to provide informed consent were directed to a screen that included a brief explanation of ineligibility, and thanked for their participation.

Pilot testing of the online instrument. The online version of the final survey and two validation measures were pilot tested using five spouses and four dissertation committee members. A link was provided to the spouses and committee members to access the online instrument, just as it would appear to survey participants. Each tester was asked to review the items for formatting, font size, ease of answering items, and to assess the length of time to take the survey. This process insured each item was answerable, that the web-based research software was functioning properly.

Analysis and revisions of the online instrument. Results from the online pilot testing were analyzed. Comments from the spouses and dissertation committee members were reviewed. All hyperlinks, survey responses, and answer choices were found to be in working order. No additional changes were suggested. Participant burden was found to be less than, or approximately equal to, the 30 minutes suggested in the consent form.

3.12 Phase Three: Procedures for Data Collection

One question guided the final phase. To what extent do the tool and its subscales show acceptable levels of concurrent validity with criterion measures? To gather concurrent related

evidence for criterion validity, the revised measure with the newly defined subscales was administered simultaneously to the participants with two existing valid and reliable instruments *(RAND 36-Item Health Survey v. 1.0 and Social Support Survey (MOS-SSS)* (RAND, 2015).

3.13 Phase Three: Procedures for Analysis

Data were downloaded from the online web-based research survey software Qualtrics Lab, Inc. © 2013, into statistical data files for SPSS v. 22 © IBM Corp. and other(s) 1989, 2013, and Microsoft Excel v.14 and Word © 2010. The demographic information was cleaned and demographics tables were created for analysis. Using the guidance of the scoring instructions available for the *RAND 36-Item Health Survey 1.0 Questionnaire* and *Social Support Survey (MOS-SSS),* the data from the completed surveys was cleaned, recoded, and reverse scored as applicable. Items within the HALO marked *Not Applicable* or *I Decline to Answer* were coded to not be included in the analysis. Incomplete surveys were not included in the final analysis. No technical problems with the online survey were reported.

Reliability testing. Cronbach's alpha was estimated to measure internal consistency of the final 21-item HALO instrument using the Phase III sample (total n=206) and for each of the subscales (Role Overload, Emotional Distress, Intrusive Arousal, and Social Avoidance). Estimates of internal consistency for each of the Phase Two and Three total and subscale item-total scores were compared.

Criterion-related validity. Due to the nonparametric qualities of the data, in the revised HALO and two criterion instruments, Spearman's bivariate correlations were computed for both the mean and raw scores to analyze the extent to which the HALO subscales and total scores correlated with the wide range of similar and dissimilar quality of life and social support constructs measured by the two criterion instruments.

3.14 Procedures for Addressing Potential Threats to Validity

Due to the mixed-methods design, the challenges faced in qualitative (credibility, utility, transferability) and quantitative (internal and external) research were considered. Several steps were taken during study design to help address these threats and possible attrition. In an effort to increase the content, construct, and criterion validity, mixed methods were used to compare findings in the literature to the qualitative feedback and previously computed instrument psychometric data. These iterative procedures allowed for triangulation at multiple points during the study and insured the relevance of the new instrument to the target population.

Acceptance. As a trusted participant in their most intimate cultural settings, ecological validity was established, thereby decreasing many of the potential biases.

Selection bias. To decrease selection bias, during the purposive sampling process of participants, the researcher was cognizant of the need for diversity in age, ethnicity, income, rank, and educational levels. Inclusion and exclusion criteria were set to include a diverse participant group.

History. During Phase Two, there was a potential for changes to occur due to new trauma exposure. Therefore, the researcher insured minimal time elapsed in between repeat administrations of the tool to examine test-retest reliability (range 1-26 days, M=4.5; SD=6.57).

Attrition. To lower attrition, participants for each phase were recruited separately. Reminders were also posted to online groups to insure that previous participants followed through with the second administration of the survey to assess test-retest reliability. Once accessed, the online survey function allowed spouses who left the survey prior to completion to use their anonymous link to take them back to the point where they left the survey.

Recall bias. Recollection of information and past exposure to trauma may be biased due to the passage of time, or because the memory is painful and thus avoided. During individual interviews, the researcher reassured all participants that they were not required to discuss any information that was too painful or emotional. During online survey taking of secondary trauma items, participants were given an option of "I Decline to Answer" and were able to skip items, if they preferred not to answer.

Trustworthiness. Survey-based studies use the self-report method, which can limit the accuracy of a respondent's answer. Participants may be unwilling to discuss sensitive topics due to embarrassment or stigma associated with traumatic experiences. A participant's response may be affected by concerns that reporting their own symptoms or issues will negatively affect their Service member's active-duty military career, promotion potential, or ability to continue to serve. Therefore, the researcher took many steps to increase trustworthiness.

Anonymity was assured, all data was de-identified, and privacy of personal health information was maintained. In Phase One, interviews were conducted individually to insure confidentiality issues did not limit feedback, and to allow the spouses an opportunity to expound on issues or clarify responses. The researcher addressed participant discomfort with discussing sensitive topics, due to embarrassment or stigma associated with traumatic experiences, by conducting individual interviews and reassuring spouses that they were not required to discuss any information that was too painful or emotional. Multiple spouses were interviewed to insure saturation of the themes.

In Phase Two and Three, the quantitative survey statistical package made the data collection anonymous, and all data was de-identified, so that the privacy of personal health information could be maintained. Additionally, the link was made available to the participants

via their electronic devices in the privacy of their own home. The online survey also offered the options of "*I Decline to Answer*" or a simple non-response if spouses preferred not to answer. The test-retest portion used codes created by the spouses to match data.

In addition, previous research suggests a possibility of malingering in self-reporting psychological symptoms, especially when financial compensation is available (McDermott & Feldman, 2007). However, since there was no financial compensation or other incentives for participants, it does not seem likely they would report false symptoms.

Social desirability. The way an item is worded may affect the willingness of a participant to answer the question, due to issues of social desirability. Therefore, during Phase One the wording of each survey item was reviewed in this context and modified accordingly.

Transferability. To increase transferability of the current study's findings to similar populations with similar issues and challenges, relevant inclusion and exclusion criteria were established to reflect the characteristics of the intended participant group. Then purposive sampling was used to recruit and screen for participants that fit these criteria.

Generalizability. To increase generalizability of the results among civilian spouses and domestic partners of active and Veteran OEF/OIF/OND US Service members, purposive sampling was used to recruit participants from multiple geographical locations and all Service branches. Specific attention was paid to ensure that participants varied in ethnicity, education level, age, occupation, family income, length of relationship, as well as their Service member's rank, and length and number of deployments. Demographics of the current study were compared to two recent reports, and found to be comparable and representative of this unique population of military spouses (DMDC, 2012; IVMA, 2014).

Chapter 4: Results

The purpose of this three-part study was to develop and validate a new instrument to assess the well-being of civilian spouses of active and Veteran US Service members who have been indirectly exposed to combat trauma stress. The mixed-methods approach used in this study combined qualitative and quantitative techniques to provide a more complete understanding of how this exposure affects this novel population. The results of this study contribute to our knowledge of the specific symptoms experienced by and issues affecting civilian spouses indirectly exposed to combat trauma stress, as well as spouses active in the caregiver role. The purpose of this chapter is to present the results of the three phases: 1) instrument construction, 2) reliability testing, and 3) validity testing.

Phase One Results: Instrument Construction

4.1 Phase One: Demographics for Item Content Analysis

Participants in this portion of Phase One included 10 experts from the target spouse population and key informants (Table 4.1).

Table 4.1 Phase One Participant Demographics for Item Content Analysis

Characteristic	Frequency n=10	Percentage
Age		
21-30	3	30%
31-40	4	40%
41-50	3	30%
Over 50	0	0%
Total	10	100%
Gender		
Female	10	100%
Male	0	0%
Total	10	100%
Ethnicity		
Hispanic or Latino	1	10%
Non-Hispanic or Latino	9	90%
Total	10	100%
Race		
American Indian or Alaska Native	1	10%
Asian	0	0%
Black or African American	1	10%
Native Hawaiian or Pacific Islander	0	0%
Caucasian/White	8	80%
Total	10	100%

4.2 Phase One: Item Content Analysis

Two research questions guided the item content analysis in Phase One: 1) How effectively do items from existing instruments describe the lived experiences of US military spouses indirectly exposed to combat trauma stress? 2) How closely do US military spouses respond to selected items that represent the constructs of the Secondary Traumatic Stress model and other phenomena experienced by practitioners and nonprofessional caregivers?

The purpose of the item content analysis was to assess the relevance and salience of the selected items to measure the degree to which these items reflected the lived experiences of spouses of active and Veteran US Service members, and to determine how closely these items addressed how indirect exposure to combat trauma stress has affected them.

The preliminary pilot instrument included a composite of 70 potential items measuring ten concepts gathered from the literature and informal discussions with the target population. The items presented to the key informants had been revised to better address the civilian spouses' indirect exposure to combat trauma stress. Phase One used an integrative approach of participant feedback and suggestions to further modify the items to contribute to a more nuanced and comprehensive understanding of the relationship between indirect trauma exposure and empathy to secondary traumatic stress and compassion fatigue, and the other related constructs. Due to the qualitative format of Phase One, the analysis included detailed descriptions of the responses and observations. The feedback from the participants was grouped into common themes and analyzed. This information was synthesized to present the results of the phase one study findings.

Disengagement and emotional distancing theme. During the content analysis, some of the items did not resonate with participants. One item, in particular, measured compassion fatigue in healthcare providers. In the original CFST (1995) questionnaire it read, "I remind

myself to be less concerned about the well-being of my clients and their families." When this practitioner-specific item and others like it were read to participants to try and find a way to word the items to better fit them, multiple participants stated that adapting many of these items to fit a family member context was almost impossible. As one participant stated, "I feel like my well-being and the kids' well-being depends on his well-being."

From these comments a common theme developed and the researcher observed that this item and the concept it was intended to measure, disengagement or emotional distancing, may be one of the distinguishing differences between spouses and professional caregivers. Military spouses may not be able to separate their well-being from that of their Service member. They also may become very emotionally involved in helping other spouses with similar issues.

Using this feedback, four items were created by the spouses that specifically resonated with the participants who help other spouses deal with trauma or combat stress. As one spouse stated, "We're all too aware that one day that person could be me." These four items were specific to the empathy and disengagement.

- I feel I need to fix the problems for those I help.
- I get emotional when I listen to the issues of others.
- I feel I can separate emotionally from those I am helping.
- I feel I am too involved in the problems of those I am trying to help.

Effects of the deployment cycle. Participants described their symptoms and how the symptoms frequently change due to the rollercoaster ride of the *deployment cycle*. Several of the spouses simply stated that their well-being could easily change the way they answer these items based upon where they are in the cycle. This cycle is seen by the spouses as being made up of five potentially stressful life events, related to the phases of the Service member's deployment.

Spouses explained the five phases of deployment and provided feedback about how each of these phases impacts their lives. The first phase is a one-month temporary duty (TDY) for the Service member away from the family for *pre-deployment training* to prepare for the upcoming deployment. After reuniting with the family for a short time, this phase is soon followed by the second phase, the actual *deployment* to the combat zone, which may range from six to twelve months. During the deployment to the combat zone, a two-week pass is given to return home for a third phase, *rest and relaxation* (R & R), which typically falls around the half-way point of the deployment. This short-lived experience ends in another emotional separation as the Service member returns to the combat zone.

Spouses described how during deployment the family left behind must move forward with their lives and continue to exist in their own roles, as well as any additional roles they have assumed due to the Service member's departure. In addition to these role strains, the family members' are affected by the stress of the Service member's absence from home and his/her presence in a potentially life threatening combat zone. Toward the end of this cycle, the fourth phase, *redeployment* begins with a countdown until the Service member returns to his or her home base or post. This phase is coupled with the array of emotional experiences surrounding deployment. The fifth phase, or *reintegration* of the Service member back into his/her family, begins when the Service member arrives home. The length of this phase varies depending upon multiple biopsychosocial factors including length of deployment, role changes that occur during and after deployment, as well as changes within the family, the spouse, and the Service member.

It should be noted that for the past 11 years, this reintegration phase of this cycle has been followed by varying amounts of *dwell time*, where the Service member is able to be at home with his or her family. This length of dwell time has varied depending on the military occupational

specialty and military mission. Within the year of their return, many Service members and their families are once again preparing mentally, spiritually, and financially to repeat the cycle, for another imminent upcoming deployment.

From these earlier discussions, the researcher determined that most of the spouses recognize these phases and speak of their stress using these five deployment-cycle periods. Furthermore, the spouses' biopsychosocial responses to each part of the cycle could affect how he/she answers the items. Variability in the nature of the spouses' experience in each of these phases could lead to differences in perceptions and thus reflect differences in scores over time. These differences would reflect real phenomena which may impact item responses. Therefore, the Demographic Questionnaire used in Phase Two and Three included a question assessing which phase of the deployment cycle the spouse and active Service member was currently experiencing.

Response format. Qualitative comments regarding item evaluation also helped to determine the most appropriate wording of the Likert-type item response format. The response format was designed to best reflect the changing state of well-being of the spouse co-experiencing the deployment cycle with the Service member. Participants favored a frequency-response-scaling format, to best measure the frequency with which survey respondents experience these feelings, issues, or challenges.

All of the items were then worded to fit a format measuring frequency, "In the last month, how often have you experienced the following items?" Response choices will include: 1 *Never*; 2 *Rarely*; 3 *Occasionally*; 4 *Often*; 5 *Very Often.* A frequency response format helped to reflect temporal issues such as the possibility of symptoms rapidly changing due to the multiple stressors encountered by spouses throughout the deployment cycles.

Revised pilot instrument. The data collected from the in-depth qualitative interviews was used to analyze the relevance and salience of the items selected from existing instruments. Military spouse participants provided feedback to narrow the focus and more precisely define the phenomena. This input provided empirical evidence to support the selection of specific items and informed the composition of the new tool. Following feedback and the subsequent item content analysis, three of the original 70 HALO items were omitted, 15 new items were reviewed and added, for a total of 82 items to be included in the prototypicality questionnaire.

4.3 Phase One: Demographic for Prototypicality Analysis

Participants in this portion of Phase One included 12 experts from the target spouse population and key informant participants (Table 4.2).

Table 4.2 Phase One Participant Demographics for Prototypicality Analysis

Characteristic	Frequency n=12	Percentage
Age		
21-30	4	33.3%
31-40	4	33.3%
41-50	4	33.3%
Over 50	0	0%
Total	12	100%
Gender		
Female	12	100%
Male	0	0%
Total	12	100%
Ethnicity		
Hispanic or Latino	2	17%
Non-Hispanic or Latino	10	83%
Total	12	100%
Race		
American Indian or Alaska Native	1	8.3%
Asian	1	8.3%
Black or African American	0	0%
Native Hawaiian or Pacific Islander	0	0%
Caucasian/White	10	83.3%
Total	12	100%

4.4 Phase One: Prototypicality Analysis

One research question guided the Phase One prototypicality analysis: 1) What subsets of revised items represent the most prototypical experiences of US military spouses? The purpose of this analysis was to have participants rate the prototypicality of each item to ensure that the items were specific and relevant to the conceptual domain.

Results of qualitative prototypicality analysis. During the administration of the prototypicality questionnaire, spouses provided qualitative information which complemented the numerical findings, and provided insight into their perception and definition of the construct. Comments included feedback on how well participants felt each area of well-being on the HALO is defined, based on the features of the constructs, and how well the items fit within those specific areas. Many of the spouses felt that although multiple items fit well in the area in which they were listed, some items could also fit well in another domain of well-being. This was not surprising and to be expected, due to the interwoven conceptual domains within the biopsychosocial framework of well-being.

A spreadsheet was created to analyze the prototypicality feedback of the 12 participants. On a 1 to 7 scale, most of the spouses rated the items as reflective of the construct they were intended to represent. When a participant scored an item as a 1, 2, or 3 on the prototypicality questionnaire, indicating disagreement with the fit of an item with the construct, she was asked in what area that item would better fit and her comments were documented.

The participants' responses for each of the 82 items were entered into a spreadsheet for analysis. *Microsoft Excel (v 7.0)* was used to compute the mean, standard deviation, and range for each item. All items scored a mean of at least 6 (range = 6.00 to 7.00). Due to a few outliers, the mode was also calculated for each item and all 82 items had a mode of 7 (Table 4.3).

Table 4.3 Phase One Prototypicality Results for Well-being Domains

Phase 2 Item #	Items by Domain	Mean	SD	Min	Max
	Psychological Well-being				
1,2	I feel selfish/guilty when considering my own needs.	6.50	1.17	4	7
3	I feel emotionally fatigued or tired.	7.00	0	7	7
4	I feel depressed.	6.83	0.58	5	7
5	I feel that what I am experiencing is hardening me emotionally.	6.83	1.24	5	7
6,7	I experience distress due to my lack of understanding of his/her behavior/personality changes.	7.00	0	7	7
8	I have felt I was losing my mind, because I do not understand traumatic stress in others.	7.00	0	7	7
9	I feel responsible for problems or situations, but I do not know how to fix them.	6.67	1.15	3	7
10	I lack my own personal time to do things I need and want to do.	7.00	0	7	7
11	It seems as if I am reliving his/her trauma(s).	6.92	0.29	6	7
12	Reminders of his/her trauma upset me.	7.00	0	7	7
13	I think about his/her trauma when I do not intend to (includes visualizations).	6.92	0.29	6	7
14	I have disturbing dreams or nightmares about his/her trauma.	6.83	0.58	5	7
15	I feel emotionally numb.	7.00	0	7	7
16,17	I feel discouraged/unsure about my future.	6.83	0.58	5	7
18	I have little interest in being around others.	6.00	1.95	1	7
19	I am not interested in participating in activities I used to enjoy.	6.00	1.95	1	7
20	I avoid taking us around people, places, or things that might trigger his/her symptoms.	6.58	1.00	4	7
21	I avoid people, places, or things that might trigger my symptoms.	6.00	1.95	1	7
22	I want to avoid talking about his/her trauma.	6.92	0.29	6	7
23	I have trouble remembering certain parts of his/her trauma story.	6.83	0.58	5	7
24	I have difficulty falling or staying asleep.	6.33	1.61	2	7
25,26	My heart starts pounding or I have shallow/rapid breath when I think about his/her trauma.	6.33	1.61	2	7
27	I feel jumpy or am easily startled.	6.75	0.87	4	7
28	I have trouble concentrating.	6.58	1.44	2	7
29	I am easily annoyed, and have outbursts of anger or irritability with little provocation.	6.50	1.17	4	7
Delete	I expect something bad to happen.	6.67	1.15	2	7
30	I understand how he/she feels about things.	6.00	1.95	1	7
31	I deal effectively with his/her problems or issues.	6.17	1.85	1	7
32	I feel my helping has a positive influence on him/her.	6.75	0.87	4	7
33	I know what he/she needs to feel calm and relaxed.	6.42	1.38	3	7
34	I feel I accomplished worthwhile things.	6.50	1.73	1	7
35	I feel I need to fix the problems for those I help.	6.50	1.73	1	7
36	I get emotional when I listen to the issues of others.	6.50	1.73	1	7
37	I feel I can separate emotionally from those I am helping.	6.50	1.73	1	7
38	I feel I am too involved in the problems of those I am trying to help.	6.58	1.44	4	7
39	I think I have been "infected" by his/her traumatic stress.	6.58	1.44	2	7
40	I feel trapped in my relationship with him/her.	6.75	0.87	4	7
41	I wish I could avoid helping or caring for him/her.	6.75	0.87	4	7
Delete	I have been in danger from him/her.	6.58	1.44	4	7
42	I feel he/she dislikes me personally.	6.92	0.29	6	7
43	I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	6.92	0.29	6	7
44	I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.	6.92	0.29	6	7
45,46	I feel like there is constant instability, and I have to try to fix things to keep things stable.	6.83	0.58	5	7
47,48	I feel I am being manipulated/taken advantage of due to his/her extra demands.	6.50	1.17	4	7
49,50	He/she and I have issues with emotional/physical intimacy.	6.92	0.29	6	7

Table 4.3 Phase One Prototypicality Results for Well-being Domains

Phase 2 Item #	Items by Domain	Mean	SD	Min	Max
51	I feel stress because our finances are being used to help or care for him/her.	6.00	1.95	1	7
Delete	Since the deployment, our finances have been strained or drained due to providing for our family's needs just to keep our family together.	6.33	1.61	2	7
52	I take sick leave from work to help or care for him/her.	6.50	1.73	1	7
53	I think about changing my employment to a job that was less demanding.	6.58	1.44	2	7
54	I think about quitting my employment to help or care for him/her.	6.50	1.73	1	7
55	I change my schedule or number of hours to help or care for him/her.	6.50	1.73	1	7
	Physical Well-being				
56	I seem to get sick.	6.75	0.87	4	7
57	I have new symptoms of physical health issues.	6.50	1.73	1	7
58	I am able to exercise like I want.	6.75	0.87	4	7
59	I am able to get to my own checkups with doctors, dentists, and other healthcare providers.	6.75	0.87	4	7
60	I feel physically fatigued or tired.	6.75	0.87	4	7
	Social Well-being				
61	I am able to participate in enjoyable activities.	6.92	0.29	6	7
62	I am able to maintain personal relationships with others.	6.92	0.29	6	7
63	I limit the number of activities our family does socially.	7.00	0	7	7
64	I limit the number of social activities I participate in, because I am too tired.	6.50	1.73	1	7
65	I limit the number of social activities I participate in, because I am worried about leaving him/her alone.	6.50	1.73	1	7
66	I feel as though I have been cut off from contact with my family/friends.	6.50	1.73	1	7
67	I feel guilty if I go out anywhere (example: lunch with a friend).	6.92	0.29	6	7
68	I feel there is no one I can talk to about what I am experiencing.	6.92	0.29	6	7
69	My family/friends make me feel nurtured.	7.00	0	7	7
70	I have a sense of belonging.	7.00	0	7	7
71	I have sufficient financial resources available to meet my needs.	6.92	0.29	6	7
72	I am aware of resources that are available to meet my needs.	7.00	0	7	7
73	I want to talk about his/her trauma, but I feel I cannot confide in anyone.	6.50	1.73	1	7
74	I feel I cannot trust anyone but myself.	6.50	1.73	1	7
75	I feel emotionally abandoned, even though he/she is around.	6.67	1.15	3	7
76	The military provides me with the necessary resources to help my family and me.	6.83	0.58	5	7
77	I would feel comfortable asking for help from the military, if I need it.	7.00	0	7	7
78	I feel if my family or I need help the military will provide the proper health care.	6.83	0.58	5	7
79	I feel my servicemember's career or promotion potential will be affected if I seek help.	6.50	1.73	1	7
80	I feel my servicemember's career or promotion potential will be affected if he/she seeks help.	7.00	0	7	7
	Spiritual Well-being				
81	I question my spiritual beliefs.	6.50	1.73	5	7
82	I feel a sense of hopelessness associated with helping or caring for him/her.	6.25	1.86	1	7
83,84	I feel skeptical/critical about things.	6.75	0.87	4	7
85	I feel like my life has meaning or a purpose.	6.75	0.87	4	7
86	I have been angry at God for allowing this to happen.	6.50	1.73	1	7
87	I question God's role in my life.	6.50	1.73	1	7

Phase One Summary

After careful review and analysis of the in-depth qualitative feedback provided by military spouse participants, the modified items more closely reflected their lived experience of indirect exposure to combat trauma stress and their subsequent empathic response. After both the item content and prototypicality analyses were completed, experts reviewed the 82-item survey for clarity of wording and concepts. Seven items appeared to include two separate concepts (Table 4.3). To enhance interpretability of later findings and decrease confusion, these double-barreled items were separated, which created an additional 7 items.

After Phase One revisions, additions, and omissions were completed, the pilot instrument (Survey#1) included 89 items: (1) 57 items assessing Psychological Well-being, which included items to assess the effects of indirect exposure to trauma, and the challenges of additional roles and new responsibilities that may affect their family and social relationships, or the family's financial issues and spouse's employment status; (2) five items to assess Physical Well-being; (3) 20 items to assess Social Well-being, which included social and organizational support, caregiver burden, and social isolation; and (4) seven items to assess Spiritual Well-being.

The 89 preliminary items were formatted and entered into Qualtrics Lab, Inc. © 2013, then sent to the IRB prior to Phase Two Data Collection. At the request of the IRB, two items (noted above in Table 4.3) were deleted from the preliminary online survey due to the online, anonymous format of the instrument, leaving 87 items in the instrument used in Phase Two.

Phase Two Results: Reliability Testing

4.5 Phase Two: Demographics

Phase Two participants included 182 civilian spouses and partners of active and Veteran US Service members. The majority of participants, 98.4%, were female. Ages ranged from 19 to 60 years (M=36.04, SD=8.36). Almost all of the participants, 97.3%, reported a marital status of married at the time the demographic questionnaire was completed, and the remaining 2.7% reported their marital status as single, separated, or declined to answer. For those currently married, the average length of marriage was 13.2 years (SD=7.53, range of 1 to 33 years).

This study focused on the well-being of the civilian spouses and partners of active and Veteran US Service members indirectly exposed to combat stress. Therefore, participants were also asked to report information about their Sponsors. Phase Two participants reported that their Sponsors ranged in age from 20-54 years (M=36.69, SD=7.71). They reported that the pay grade of their Sponsors (Enlisted, Warrant Officers, Officers) ranged from E1 to O7 and above (E1-E9=63.9%; W1-W4=3.8%; O1-O7 & above=28.5%). Approximately 75% of respondents had Sponsors who served in the US Army, 13.2% from the US Marines, 7.1% from the US Navy, and 6% from the US Air Force. The years of service in the Armed Forces reported for their Sponsors ranged from 2 to 33 years (M=13.15, SD=7.56).

The results of Phase One suggested that partners of Service members who have not been diagnosed with PTSD may also exhibit symptoms of distress and secondary traumatic stress due to knowledge of a loved one's combat exposure and concern for their safety, coupled with deployment stress. Therefore, participants were also asked a group of demographic questions about the deployment history of their Sponsors. All Sponsors had served in the recent conflicts (OEF/OIF/OND); therefore, the end date of their last deployment ranged from 2003 to 2014,

with 12% reporting that the Sponsor was currently deployed at the time of the study. The total number of OEF/OIF deployments for their Sponsors ranged from one to seven, with the majority, 51.6%, reporting multiple deployments. In addition to OEF/OIF deployments, 18% reported their Sponsors had also deployed to the earlier (1990-1991) Desert Shield/Desert Storm conflict, and 22.5% reported service in other earlier conflicts.

To further insure an accurate description of the study participants, a demographic variable was included to identify those Service members that had received a service-related injury or post-traumatic stress disorder diagnosis. This variable provided indirect trauma exposure data and helped to differentiate those spouses and partners of Service members already diagnosed from those who have not received a diagnosis. Approximately 30% of participants reported that their Sponsors had been diagnosed with a service-related traumatic brain injury; 46.7% with post-traumatic stress disorder; and 43.4% were diagnosed as wounded, injured, or ill due to a service-related injury. One in five participants reported that their Sponsor exhibited symptoms, but had not been formally diagnosed with a service-related injury (Yes=21%; I Do not Know=8.2%; I Decline to Answer=7.1%). Regardless of the presence or absence of a formal diagnosis, 75.3% of the participants responded they had observed changes in their Sponsor's behavior after deployment (Table 4.4).

Table 4.4 Phase Two Participant Demographics

Characteristic	Frequency n = 182	Percentage
Age Range 19 – 60		
19 – 20	3	1.6
21 – 30	51	28.1
31 – 40	67	36.8
41 – 50	52	28.6
51 – 60	7	3.8
Decline to Answer	2	1.1
Total	182	100.0
Gender		
Male	1	0.5
Female	179	98.4
Decline to Answer	2	1.1
Total	182	100.0
Ethnicity		
Hispanic or Latino	15	8.3
Non-Hispanic or Latino	160	87.9
Don't Know	1	0.5
Decline to Answer	6	3.3
Total	182	100.0
Race (May Choose more than One)		
American Indian or Alaska Native	3	1.6
Asian	4	2.2
Black or African American	3	1.7
Native Hawaiian or Pacific Islander	0	0
Caucasian/White	161	88.5
More Than One Race	5	2.7
Decline to Answer	6	3.3
Total	182	100.0
Education Level		
9th, 10th, or 11th grade	3	1.6
12th grade, no diploma	1	0.5
High school graduate (Diploma/GED)	8	4.4
Some college credit, but less than 1 year	17	9.3
1 or more years of college, no degree	34	18.8
Associate degree (ex. AA, AS)	25	13.8
Bachelor's degree (ex. BA, BS)	57	31.4
Master's degree (ex. MA, MS, MSW)	29	15.9
Doctoral degree	7	3.8
I Decline to Answer	1	0.5
Total	182	100.0
Employment Status (May Choose more than One)		
Employed For Wages	62	34.1
Self-Employed	12	6.6
Unemployed, and Looking for Work	16	8.8
Unemployed, Not Looking for Work	9	4.9
Homemaker	79	43.4
Student	18	9.9
Retired	4	2.2
Unable to Work	10	5.5
Don't Know	1	0.5
I Decline to Answer	1	0.5

Table 4.4b Phase Two Participant & Sponsor's Shared Demographics

Household Income	**Frequency n=182**	**Percentage**
Less than $10,000	1	0.5
$10,000 to 19,999	2	1.1
$20,000 to 29,999	6	3.3
$30,000 to 39,999	21	11.5
$40,000 to 49,999	21	11.5
$50,000 to 59,999	22	12.1
$60,000 to 69,999	17	9.4
$70,000 to 79,999	14	7.7
$80,000 to 89,999	15	8.2
$90,000 to 99,999	17	9.4
$100,000 to 149,000	23	12.6
$150,000 or more	5	2.7
Don't Know	3	1.7
I Decline to Answer	15	8.3
Total	182	100.0
Marital Status		
Single	3	1.7
Married	177	97.3
Divorced	0	0
Separated	1	0.5
I Decline to Answer	1	0.5
Total	182	100.0
Length of Your Relationship (Years)		
1 – 5	29	15.9
6 – 10	54	29.7
11 – 15	34	18.7
16 – 20	29	15.9
21 – 25	21	11.6
26 – 30	11	6.0
Over 30	2	1.1
I Decline to Answer	2	1.1
Total	182	100
Number of Children under the age of 18		
0	51	28.0
1	34	18.7
2	58	31.9
3	25	13.7
4	10	5.5
5	4	2.2
Total	182	100.0
Number of Children age 18 or older		
0	136	74.7
1	24	13.2
2	13	7.2
3	5	2.7
4	3	1.7
5	0	0
6	1	0.5
Total	182	100.0

Table 4.4c Phase Two Participant Reported Sponsor Demographics

Characteristic	Frequency n = 182	Percentage
Sponsor's Age Range 20 – 54		
20	1	0.5
21 – 30	39	21.5
31 – 40	82	45.0
41 – 50	53	29.2
51 – 60	5	2.7
I Decline to Answer	2	1.1
Total	182	100
Sponsor's Gender		
Male	179	98.4
Female	0	0
I Decline to Answer	3	1.6
Total	182	100
Sponsor's Ethnicity		
Hispanic or Latino	16	8.8
Non-Hispanic or Latino	161	88.5
I Decline to Answer	5	2.7
Total	182	100
Sponsor's Race (May Choose more than One)		
American Indian or Alaska Native	6	3.3
Asian	2	1.1
Black or African American	7	3.8
Native Hawaiian or Pacific Islander	1	0.5
Caucasian/White	156	85.8
More Than One Race	4	2.2
I Decline to Answer	6	3.3
Total	182	100
Sponsor's Education Level		
High school graduate (Diploma/GED)	17	9.3
Some college credit, but less than 1 year	28	15.4
1 or more years of college, no degree	36	19.9
Associate degree (ex. AA, AS)	21	11.5
Bachelor's degree (ex. BA, BS)	35	19.2
Master's degree (ex. MA, MS, MSW)	39	21.5
Doctoral degree	5	2.7
I Decline to Answer	1	0.5
Total	182	100.0

Table 4.4c (Con't) Phase Two Participant Reported Sponsor Demographics

Characteristic	Frequency n=182	Percentage
Sponsor's Pay Grade		
E1 - E3	4	2.2
E4 - E6	93	51.2
E7 - E9	19	10.5
W 1 - 3	5	2.7
W 4 - 5	2	1.1
O1 - O3	17	9.3
O4 - O6	34	18.7
O7 & above	1	0.5
I Don't Know	5	2.7
I Decline to Answer	2	1.1
Total	182	100.0
Is Sponsor Currently Deployed		
Yes	21	11.5
No	161	88.5
Total	182	100.0
Sponsor's Current Phase of Deployment Stage		
Pre-Deployment	10	5.5
Deployment	15	8.3
Redeployment (Coming Home Soon)	7	3.8
Reintegration (Recently Returned)	13	7.2
Not Currently Deployed	117	64.3
Soldier Does Not Deploy	12	6.6
I Don't Know	3	1.6
I Decline to Answer	5	2.7
Total	182	100.0
Number of Deployments during Wartime Sponsor has Served Conflict OEF/OIF/OND (Range 1-7)		
1	70	38.5
2	44	24.2
3	32	17.6
4	12	6.6
5	3	1.6
6	2	1.1
7	1	0.5
I Don't Know	3	1.6
I Decline to Answer	15	8.3

Table 4.4c (Con't) Phase Two Participant Reported Sponsor Demographics

Characteristic	Frequency n=182	Percentage
Total	182	100.0
Number of Deployments during Wartime Sponsor has Served Conflict Desert Shield/Desert Storm (Range 1-4)		
1	27	14.8
2	5	2.7
4	1	0.5
Other Conflicts (In addition to Above Conflicts)	41	22.5
Sponsor's Branch of Armed Services		
US Air Force	11	6.0
US Army	136	74.7
US Marine Corps	24	13.2
US Navy/Coast Guard	13	7.1
Other	7	3.8
I Decline to Answer	1	0.5
Years of Service in Armed Forces (Range 2–33)		
2 – 5	33	18.1
6 – 10	42	23.1
11 – 15	44	24.2
16 – 20	25	13.7
21 – 25	19	10.4
26 – 30	12	6.6
Over 30	3	1.7
I Decline to Answer	4	2.2
Total	182	100.0

Table 4.4d Phase Two Sponsor's Diagnosis/Signs and/or Symptoms

Diagnosed with Service Related Traumatic Brain Injury	Frequency	Percentage
Yes	54	29.7
No	124	68.2
I Don't Know	3	1.6
I Decline to Answer	1	0.5
Total	182	100.0
Diagnosed with Post Traumatic Stress Disorder		
Yes	85	46.7
No	88	48.4
I Don't Know	8	4.4
I Decline to Answer	1	0.5
Total	182	100.0
Diagnosed Wounded, Injured, Ill due to Service Related Injury		
Yes	79	43.4
No	93	51.2
I Don't Know	9	4.9
I Decline to Answer	1	0.5
Total	182	100.0
Participant Thinks Sponsor has Symptoms but Undiagnosed		
Yes	39	21.4
No	115	63.3
I Don't Know	15	8.2
I Decline to Answer	13	7.1
Total	182	100.0
Participant Has Seen Changes in Sponsor from Pre-deployment to the Present		
Yes	137	75.3
No	35	19.2
I Don't Know	8	4.4
I Decline to Answer	2	1.1
Total	182	100.0

Since the deployment, has your Sponsor had Changes in any of the following?						
Frequency n=182	Never	Rarely	Occasionally	Often	Very Often	Missing
Anger Outbursts	38	30	36	43	32	3
Nervousness	48	26	30	39	36	3
Sleep Issues	23	18	28	38	72	3
Change in Location where he/she sleeps	85	35	21	16	21	4
Sadness	59	22	43	27	27	4
Changes in Intimacy	49	26	36	27	40	4
Withdrawing Emotionally from Others	38	19	37	37	49	2
Violent Behavior	96	27	31	12	10	6
Avoidance of People or Places	48	16	27	34	54	3
Trouble Concentrating	48	23	23	33	51	4
Other*	38	0	3	12	16	113

Note. * 17% of spouses listed some of these "Other" changes which they felt had not already been addressed. Only .5 – 2.7% of spouses reported any one of these additional changes: Appetite, Hand Tremors, Happy at weird times, Headaches, Hyperactive, Inability to think thru consequences, Less Responsible, Loss of self-confidence, Mood Swings, More Demanding, More Spontaneous, Negative Attitude & Outlook, Unable to Work, Weight gain, Breathing issues, Anxiety, Hyper-vigilance, Reacts to Loud Noises, Impatience, Overall Personality, Just a totally different person, Alcohol Abuse, and Memory Problems.

4.6 Phase Two: Reliability Testing

Three research questions guided the testing of the reliability of the new instrument in Phase Two: 1) To what extent does the adapted tool demonstrate acceptable levels of internal consistency? 2) To what extent do individual items of the new scale represent discrete factors? 3) To what extent does the new scale demonstrate test-retest reliability?

The purpose of this phase was to evaluate and reduce the number of items to maximize internal consistency of the pilot instrument. After the initial administration of the test with the original 87-items, data was checked for errors and the participants' scores were entered into the *Statistical Package for Social Sciences v. 22* (IBM Corp. © and others 1989, 2013).

Item-response frequencies. Item response frequencies for the 87-items were examined to look for coding errors, any items that were missing data, range of responses on the Likert scale (Min= 1 *Never* and Max= 5 *Very Often*), and the number of items marked as *Decline to Answer*, or *Not Applicable* (Table 4.5). Analysis also looked for variance in relation to the item means, and floor and ceiling effects. Items with high missing data and "Not Applicable" rates were noted, to be considered for deletion. It was determined that 26 items should be deleted based on a high *Not Applicable* response rate.

Descriptive statistics. Descriptive statistics were used to summarize the 87-item scale and analyze the variance in relation to the item means, and to look for floor and ceiling effects. Table 4.6 shows the 87 items by domain, with the mean scores, standard deviation, variance, range, and frequency of the total of *N/A*, *Decline to Answer*, and *Missing* data responses as denoted in Table 4.5. A total of 66 items were deleted during the instrument revision process. This table also includes a column to show whether the item was deleted from (✗) or retained on (✓) the final scale and its item number on the final 21-item scale (Table 4.6).

Table 4.5 Phase Two Item Response Frequencies 87- Items by Domain n = 182 Range = 4 (Min = 1, Max = 5)	1 Never	2 Rarely	3 Occa-sionally	4 Often	5 Very Often	6 N/A	7 Decline to Answer	-99 Missing Data
Psychological Well-being								
1. I feel selfish when considering my own needs.	5	25	70	51	31	0	0	0
2. I feel guilty when considering my own needs.	7	31	68	44	32	0	0	0
3. I feel emotionally fatigued or tired.	2	11	39	74	56	0	0	0
4. I feel depressed.	19	39	71	37	15	0	0	1
5. I feel that what I am experiencing is hardening me emotionally.	16	36	58	44	28	0	0	0
6. I experience distress due to my lack of understanding of his/her behavior.	25	48	39	38	19	12	1	0
7. I experience distress due to my lack of understanding of his/her personality changes.	29	37	47	36	19	14	0	0
8. I have felt I was losing my mind, because I do not understand traumatic stress in others.	76	51	32	16	6	0	0	1
9. I feel responsible for problems or situations, but I do not know how to fix them.	25	46	70	25	16	0	0	0
10. I lack my own personal time to do things I need and want to do.	12	36	48	47	39	0	0	0
11. It seems as if I am reliving his/her trauma(s).	55	39	30	20	11	27	0	0
12. Reminders of his/her trauma upset me.	41	38	37	21	15	30	0	0
13. I think about his/her trauma when I do not intend to (includes visualizations).	49	55	33	10	5	30	0	0
14. I have disturbing dreams or nightmares about his/her trauma.	83	36	21	6	2	34	0	0
15. I feel emotionally numb.	38	47	59	30	8	0	0	0
16. I feel discouraged about my future.	34	48	47	29	23	0	0	1
17. I feel unsure about my future.	27	35	55	35	28	0	0	2
18. I have little interest in being around others.	35	38	66	28	15	0	0	0
19. I am not interested in participating in activities I used to enjoy.	36	43	58	26	19	0	0	0
20. I avoid taking us around people, places, or things that might trigger HIS/HER symptoms.	28	13	25	40	41	33	0	2
21. I avoid people, places, or things that might trigger MY symptoms.	51	22	40	26	11	32	0	0
22. I want to avoid talking about his/her trauma.	53	34	29	12	18	36	0	0
23. I have trouble remembering certain parts of his/her trauma story.	64	37	22	6	3	48	2	0
24. I have difficulty falling or staying asleep.	20	37	45	43	36	0	0	1
25. My heart starts pounding when I think about his/her trauma.	47	37	29	18	7	44	0	0
26. I have shallow or rapid breathing when I think about his/her trauma.	67	37	21	10	4	42	0	1
27. I feel jumpy or am easily startled.	54	47	48	22	11	0	0	0
28. I have trouble concentrating.	20	39	78	30	13	0	0	2
29. I am easily annoyed, and have outbursts of anger or irritability with little provocation.	21	60	60	28	13	0	0	0
30. I understand how he/she feels about things.	4	30	55	48	29	15	0	1

Table 4.5 Phase Two Item Response Frequencies 87- Items by Domain n = 182 Range = 4 (Min = 1, Max = 5)	1 Never	2 Rarely	3 Occa-sionally	4 Often	5 Very Often	6 N/A	7 Decline to Answer	-99 Missing Data
31. I deal effectively with his/her problems or issues.	3	14	58	56	30	19	2	0
32. I feel my helping has a positive influence on him/her.	5	20	61	54	41	0	0	1
33. I know what he/she needs to feel calm and relaxed.	7	18	50	72	35	0	0	0
34. I feel I accomplish worthwhile things.	3	31	71	59	17	0	0	1
35. I feel I need to fix the problems for those I help.	4	18	64	63	33	0	0	0
36. I get emotional when I listen to the issues of others.	4	34	83	46	14	0	0	1
37. I feel I can separate emotionally from those I am helping.	3	45	66	53	14	0	0	1
38. I feel I am too involved in the problems of those I am trying to help.	15	65	73	22	6	0	0	1
39. I think I have been "infected" by his/her traumatic stress.	37	24	32	25	22	42	0	0
40. I feel trapped in my relationship with him/her.	79	28	33	10	17	14	1	0
41. I wish I could avoid helping or caring for him/her.	98	24	23	10	2	24	1	0
42. I feel he/she dislikes me personally.	77	32	33	25	14	0	0	1
43. I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	40	18	27	19	62	16	0	0
44. I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.	39	15	24	33	47	23	0	1
45. I feel like there is constant instability.	41	27	26	41	33	14	0	0
46. I feel like I have to try to fix things to keep things stable.	29	27	36	33	43	14	0	0
47. I feel I am being manipulated due to his/her extra demands.	60	30	41	9	15	26	0	1
48. I feel I am being taken advantage of due to his/her extra demands.	50	36	40	9	18	27	0	2
49. He/she and I have issues with emotional intimacy.	33	25	33	27	52	11	0	1
50. He/she and I have issues with physical intimacy.	35	30	35	16	54	11	0	1
51. I feel stressed because our finances are being used to help or care for him/her.	49	26	19	10	13	65	0	0
52. I take sick leave from work to help or care for him/her.	38	13	14	7	4	106	0	0
53. I think about changing my employment to a job that was less demanding.	38	9	11	7	11	105	0	1
54. I think about quitting my employment to help or care for him/her.	42	10	7	5	13	104	0	1
55. I change my schedule or number of hours to help or care for him/her.	28	17	12	9	15	101	0	0
Physical Well-being								
56. I seem to get sick.	17	78	64	17	6	0	0	0
57. I have new symptoms of physical health issues.	36	66	50	22	8	0	0	0
58. I am able to exercise like I want.	31	59	39	36	17	0	0	0
59. I am able to get to my own checkups with doctors, dentists, and other healthcare providers.	4	33	34	49	62	0	0	0
60. I feel physically fatigued or tired.	1	14	43	56	68	0	0	0

Table 4.5 Phase Two Item Response Frequencies 87- Items by Domain n = 182 Range = 4 (Min = 1, Max = 5)	1 Never	2 Rarely	3 Occa-sionally	4 Often	5 Very Often	6 N/A	7 Decline to Answer	-99 Missing Data
Social Well-being								
61. I am able to participate in enjoyable activities.	6	41	81	37	16	0	0	1
62. I am able to maintain personal relationships with others.	2	42	67	41	30	0	0	0
63. I limit the number of activities our family does socially.	20	38	54	38	31	0	0	1
64. I limit the number of social activities I participate in, because I am too tired.	15	42	54	46	25	0	0	0
65. I limit the number of social activities I participate in, because I am worried about leaving him/her alone.	88	14	30	29	19	0	0	2
66. I feel as though I have been cut off from contact with my family/friends.	75	24	33	38	12	0	0	0
67. I feel guilty if I go out anywhere (example: lunch with a friend).	46	34	40	35	27	0	0	0
68. I feel there is no one I can talk to about what I am experiencing.	32	32	46	43	29	0	0	0
69. My family/friends make me feel nurtured.	9	45	51	53	23	0	0	1
70. I have a sense of belonging.	8	44	58	42	29	0	0	1
71. I have sufficient financial resources available to meet my needs.	11	28	35	59	49	0	0	0
72. I am aware of resources that are available to meet my needs.	13	23	46	53	46	0	0	1
73. I want to talk about his/her trauma, but I feel I cannot confide in anyone.	25	23	33	19	27	52	3	0
74. I feel I cannot trust anyone but myself.	27	40	56	31	28	0	0	0
75. I feel emotionally abandoned, even though he/she is around.	31	30	40	36	44	0	0	1
76. The military provides me with the necessary resources to help my family and me.	24	29	46	31	18	31	3	0
77. I would feel comfortable asking for help from the military, if I need it.	41	41	41	18	18	19	3	1
78. I feel if my family or I need help the military will provide the proper health care.	28	35	41	39	25	13	1	0
79. I feel my Sponsor's career or promotion potential will be affected if I seek help.	35	15	23	16	33	57	3	0
80. I feel my Sponsor’s career or promotion potential will be affected if he/she seeks help.	24	13	17	21	42	62	1	2
Spiritual Well-being								
81. I question my spiritual beliefs.	61	51	34	15	10	11	0	0
82. I feel a sense of hopelessness associated with helping or caring for him/her.	38	23	44	17	14	45	0	1
83. I feel skeptical about things.	15	36	60	37	25	9	0	0
84. I feel critical about things.	10	23	60	52	30	6	0	1
85. I feel like my life has meaning or a purpose.	4	25	47	55	47	2	0	2
86. I have been angry at God for allowing this to happen.	50	42	25	11	7	46	0	1
87. I question God's role in my life.	66	36	33	10	7	29	0	1

Table 4.6 Phase Two Descriptive Statistics 87- Items by Domain n = 182 Range = 4 (Min = 1, Max = 5)	$\bar{x}$ Mean	Std Dev	Variance	Total of responses (N/A, Decline to Answer, Missing)	Retained for Final Instrument	
					✓×	**Item #**
Psychological Well-being						
1. I feel selfish when considering my own needs.	3.43	1.015	1.031	0	×	
2. I feel guilty when considering my own needs.	3.35	1.075	1.156	0	✓	1
3. I feel emotionally fatigued or tired.	3.94	0.929	0.864	0	×	
4. I feel depressed.	2.94	1.084	1.175	1	✓	2
5. I feel that what I am experiencing is hardening me emotionally.	3.18	1.176	1.383	0	✓	3
6. I experience distress due to my lack of understanding of his/her behavior.	2.87	1.242	1.542	13	×	
7. I experience distress due to my lack of understanding of his/her personality changes.	2.88	1.253	1.571	14	✓	4
8. I have felt I was losing my mind, because I do not understand traumatic stress in others.	2.03	1.120	1.254	1	×	
9. I feel responsible for problems or situations, but I do not know how to fix them.	2.79	1.119	1.252	0	✓	5
10. I lack my own personal time to do things I need and want to do.	3.36	1.207	1.457	0	✓	6
11. It seems as if I am reliving his/her trauma(s).	2.31	1.272	1.618	27	×	
12. Reminders of his/her trauma upset me.	2.55	1.291	1.667	30	×	
13. I think about his/her trauma when I do not intend to (includes visualizations).	2.13	1.044	1.090	30	×	
14. I have disturbing dreams or nightmares about his/her trauma.	1.70	0.951	0.904	34	×	
15. I feel emotionally numb.	2.58	1.123	1.262	0	×	
16. I feel discouraged about my future.	2.77	1.282	1.643	1	✓	7
17. I feel unsure about my future.	3.01	1.273	1.620	2	×	
18. I have little interest in being around others.	2.73	1.181	1.394	0	✓	8
19. I am not interested in participating in activities I used to enjoy.	2.72	1.232	1.518	0	✓	9
20. I avoid taking us around people, places, or things that might trigger HIS/HER symptoms.	3.36	1.457	2.123	35	×	
21. I avoid people, places, or things that might trigger MY symptoms.	2.49	1.315	1.728	32	×	
22. I want to avoid talking about his/her trauma.	2.37	1.370	1.876	36	×	
23. I have trouble remembering certain parts of his/her trauma story.	1.84	1.010	1.020	50	×	
24. I have difficulty falling or staying asleep.	3.21	1.282	1.645	1	✓	10
25. My heart starts pounding when I think about his/her trauma.	2.28	1.208	1.460	44	×	
26. I have shallow or rapid breathing when I think about his/her trauma.	1.90	1.085	1.178	43	×	
27. I feel jumpy or am easily startled.	2.39	1.202	1.444	0	✓	11
28. I have trouble concentrating.	2.87	1.052	1.106	2	✓	12
29. I am easily annoyed, and have outbursts of anger or irritability with little provocation.	2.74	1.081	1.168	0	✓	13
30. I understand how he/she feels about things.	2.59	1.051	1.104	16	×	
31. I deal effectively with his/her problems or issues.	2.40	0.951	0.905	21	×	
32. I feel my helping has a positive influence on him/her.	2.41	1.043	1.088	1	×	
33. I know what he/she needs to feel calm and relaxed.	2.40	1.029	1.058	0	×	

Table 4.6 Phase Two Descriptive Statistics 87- Items by Domain n = 182 Range = 4 (Min = 1, Max = 5)	$\bar{x}$ Mean	Std Dev	Variance	Total of responses (N/A, Decline to Answer, Missing)	Retained for Final Instrument	
					✓×	**Item #**
Psychological Well-being (Con't)						
34. I feel I accomplish worthwhile things.	2.69	0.921	0.848	1	×	
35. I feel I need to fix the problems for those I help.	3.57	0.971	0.943	0	×	
36. I get emotional when I listen to the issues of others.	3.18	0.902	0.813	1	×	
37. I feel I can separate emotionally from those I am helping.	2.83	0.946	0.895	1	×	
38. I feel I am too involved in the problems of those I am trying to help.	2.66	0.914	0.836	1	×	
39. I think I have been "infected" by his/her traumatic stress.	2.79	1.417	2.007	42	×	
40. I feel trapped in my relationship with him/her.	2.15	1.347	1.815	15	×	
41. I wish I could avoid helping or caring for him/her.	1.69	1.024	1.049	25	×	
42. I feel he/she dislikes me personally.	2.27	1.340	1.796	1	×	
43. I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	3.27	1.620	2.623	16	✓	14
44. I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.	3.22	1.565	2.450	24	✓	15
45. I feel like there is constant instability.	2.99	1.476	2.179	14	×	
46. I feel like I have to try to fix things to keep things stable.	3.20	1.429	2.043	14	✓	16
47. I feel I am being manipulated due to his/her extra demands.	2.28	1.298	1.685	27	×	
48. I feel I am being taken advantage of due to his/her extra demands.	2.41	1.315	1.729	29	×	
49. He/she and I have issues with emotional intimacy.	3.24	1.505	2.264	12	×	
50. He/she and I have issues with physical intimacy.	3.14	1.536	2.359	12	×	
51. I feel stressed because our finances are being used to help or care for him/her.	2.25	1.370	1.878	65	×	
52. I take sick leave from work to help or care for him/her.	2.03	1.243	1.546	106	×	
53. I think about changing my employment to a job that was less demanding.	2.26	1.509	2.276	106	×	
54. I think about quitting my employment to help or care for him/her.	2.18	1.554	2.414	105	×	
55. I change my schedule or number of hours to help or care for him/her.	2.58	1.515	2.297	101	×	
Physical Well-being						
56. I seem to get sick.	2.54	0.908	0.824	0	×	
57. I have new symptoms of physical health issues.	2.45	1.075	1.155	0	×	
58. I am able to exercise like I want.	3.28	1.227	1.507	0	×	
59. I am able to get to my own checkups with doctors, dentists, and other healthcare providers.	2.27	1.176	1.383	0	×	
60. I feel physically fatigued or tired.	3.97	0.986	0.971	0	×	

Table 4.6 Phase Two Descriptive Statistics 87- Items by Domain n = 182 Range = 4 (Min = 1, Max = 5)	$\bar{x}$ Mean	Std Dev	Variance	Total of responses (N/A, Decline to Answer, Missing)	Retained for Final Instrument	
					✓×	**Item #**
Social Well-being						
61. I am able to participate in enjoyable activities.	2.91	0.956	0.914	1	×	
62. I am able to maintain personal relationships with others.	2.70	1.036	1.074	0	×	
63. I limit the number of activities our family does socially.	3.12	1.241	1.541	1	×	
64. I limit the number of social activities I participate in, because I am too tired.	3.13	1.163	1.353	0	✓	17
65. I limit the number of social activities I participate in, because I am worried about leaving him/her alone.	2.32	1.470	2.162	2	✓	18
66. I feel as though I have been cut off from contact with my family/friends.	2.38	1.373	1.884	0	✓	19
67. I feel guilty if I go out anywhere (example: lunch with a friend).	2.80	1.397	1.953	0	✓	20
68. I feel there is no one I can talk to about what I am experiencing.	3.03	1.327	1.762	0	×	
69. My family/friends make me feel nurtured.	2.80	1.103	1.216	1	×	
70. I have a sense of belonging.	2.78	1.118	1.251	1	×	
71. I have sufficient financial resources available to meet my needs.	2.41	1.208	1.459	0	×	
72. I am aware of resources that are available to meet my needs.	2.47	1.204	1.450	1	×	
73. I want to talk about his/her trauma, but I feel I cannot confide in anyone.	3.00	1.409	1.984	55	×	
74. I feel I cannot trust anyone but myself.	2.96	1.267	1.606	0	×	
75. I feel emotionally abandoned, even though he/she is around.	3.18	1.415	2.002	1	✓	21
76. The military provides me with the necessary resources to help my family and me.	3.07	1.244	1.546	34	×	
77. I would feel comfortable asking for help from the military, if I need it.	3.43	1.295	1.678	23	×	
78. I feel if my family or I need help the military will provide the proper health care.	3.01	1.309	1.712	14	×	
79. I feel my Sponsor's career or promotion potential will be affected if I seek help.	2.98	1.582	2.504	60	×	
80. I feel my Sponsor's career or promotion potential will be affected if he/she seeks help.	3.38	1.558	2.426	65	×	
Spiritual Well-being						
81. I question my spiritual beliefs.	2.19	1.185	1.404	11	×	
82. I feel a sense of hopelessness associated with helping or caring for him/her.	2.60	1.295	1.678	46	×	
83. I feel skeptical about things.	3.12	1.158	1.340	9	×	
84. I feel critical about things.	3.39	1.093	1.194	7	×	
85. I feel like my life has meaning or a purpose.	2.35	1.085	1.177	4	×	
86. I have been angry at God for allowing this to happen.	2.13	1.158	1.340	47	×	
87. I question God's role in my life.	2.05	1.155	1.335	30	×	

Test of the matrices. An evaluation of the correlation coefficients and correlation matrix was conducted to determine if there were sufficient numbers of significant correlations to support the use of factor analysis. The determinant $|R|$ was evaluated and Bartlett's test of sphericity was checked for a p-value < .05 (p=0.00), both suggesting that the correlation matrix was not an identity matrix. Using Kaiser Criterion, the Kaiser-Meyer-Olkin (KMO) index was examined for a minimum value greater than .60, with a preferred value being greater than .70. Items with high inter-item correlations (r > .70) on the matrix were reviewed and evaluated for item wording and redundancy. Items were considered for deletion using criteria for low Measures of Sampling Adequacy (MSA), high inter-item correlation and low variance. In item pairs with a high correlation, the item with a lower variance was omitted.

After following these steps to remove additional items, the analysis and tests of matrices were rerun to check for acceptable ranges for factor analysis. The final KMO statistic suggested sufficient sample size relative to the number of items in the HALO and the individual Measures of Sampling Adequacy (MSA) on the diagonal of the Anti-Image Correlation (AIC) Matrix were all greater than .70, suggesting that the matrix was factorable.

Results of extraction and rotation of factors. Three rotated four-factor orthogonal (Varimax) and oblique (Direct Oblimin and Promax) solutions were generated in SPSS using two extraction methods (principal axis factoring- PAF and principal components analysis- PCA). Scree plots were examined to determine which factors explained the majority of the variance. Using the Kaiser criterion, factors with Eigenvalues at 1.0 and above were retained. An in depth comparison of the common versus total variance, and an analysis of the factor pattern, structure, and correlation matrices was conducted to insure the results were not an artifact of the choice of rotation. Of the six rotated four-factor solutions, the principal component analysis using

orthogonal Varimax rotation generated the greatest number of highest and lowest factor loadings. These findings suggest this rotation method would be the simplest of the solutions to use in the interpretation of the 21-item four factor structures.

Interpreting factors. Ten *a priori* content domains were originally identified as secondary traumatic stress, compassion fatigue, empathy, psychological distress, burnout, caregiver burden, role strain, social support, social isolation, and quality of life. Items representing these ten content domains were organized into four distinct components of well-being (psychological, social, spiritual, physical). Results of the Phase One item content and prototypicality analyses suggested the items within this instrument accurately reflected the biopsychosocial issues experienced by civilian spouses and partners of active and Veteran US Service members who have been indirectly exposed to combat trauma stress.

Total variance explained. After Varimax rotation method with Kaiser Normalization and final revisions were completed in Phase Two, a 21-item, four-factor solution explained 65.27% of the variance in the retained set of items (Table 4.7).

Table 4.7 Phase Two Varimax Rotation Loading **n = 182**

Component	**Initial Eigenvalues**			**Rotation Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.407	44.796	44.796	4.504	21.450	21.450
2	2.038	9.706	54.502	3.983	18.967	40.416
3	1.238	5.896	60.398	3.094	14.734	55.150
4	1.022	4.867	65.266	2.124	10.116	65.266

*Rotation Sums of Squared Loadings: Values in this panel represent the distribution of variance after Varimax rotation, which tries to maximize the variance of each factor, so the total amount of variance accounted for is redistributed over the four extracted factors.

Naming factors. This four-factor structure was examined for interpretability, to find a parsimonious description to better explain the true issues affecting military spouses. The four extracted factors were named Role Overload, Emotional Distress, Intrusive Arousal, and Social Avoidance. The final draft of the HALO questionnaire included 21 items loading on four factors: (1) 7 items loading on Factor One "Role Overload"; (2) 6 items loading on Factor Two "Emotional Distress; (3) 5 items loading on Factor Three "Intrusive Arousal"; and (4) 3 items loading on Factor Four "Social Avoidance" (Table 4.8).

Table 4.8 Phase Two Factor Analysis: Varimax Rotation Loading	**n = 182**
Construct Name	**Component**
Role Overload (RO)	1
I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	0.852
I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.	0.829
I limit the number of social activities I participate in, because I am worried about leaving him/her alone.	0.824
I feel like I have to try to fix things to keep things stable.	0.723
I feel guilty if I go out anywhere (example: lunch with a friend).	0.686
I feel as though I have been cut off from contact with my family/friends.	0.579
I lack my own personal time to do things I need and want to do.	0.550
Emotional Distress (ED)	2
I feel responsible for problems or situations, but I do not know how to fix them.	0.713
I feel depressed.	0.692
I feel that what I am experiencing is hardening me emotionally.	0.660
I feel discouraged about my future.	0.658
I experience distress due to my lack of understanding of his/her personality changes.	0.651
I feel emotionally abandoned, even though he/she is around.	0.648
Intrusive Arousal (IA)	3
I have trouble concentrating.	0.717
I feel jumpy or am easily startled.	0.677
I am easily annoyed, and have outbursts of anger or irritability with little provocation.	0.627
I have difficulty falling or staying asleep.	0.606
I feel guilty when considering my own needs.	0.544
Social Avoidance (SA)	4
I limit the number of social activities I participate in, because I am too tired.	0.722
I have little interest in being around others.	0.698
I am not interested in participating in activities I used to enjoy.	0.634

Results of the reliability testing. Psychometric testing was conducted on the 21 items, subscales, and overall instrument to determine internal consistency and estimate Cronbach's alpha. The 21-item HALO reliability Item-Total scale statistics for mean (64.82), variance (283.897), and standard deviation (16.849) were computed. The final HALO Cronbach's Alpha (α= 0.927), the Corrected Item-to-Total Scale Correlations (range= 0.358 to 0.705) and estimates of Cronbach's Alpha (α) if Item Deleted (range= 0.921 to 0.928) reliability scores for the items and overall scale were high (Table 4.9). Internal consistency for each of the subscales, Role Overload (α=.905), Emotional Distress (α=.863), Intrusive Arousal (α=.779) and Social Avoidance (α=.822), were computed and reported with mean, variance, and standard deviation for each of the four subscales (Table 4.10).

Table 4.9 Phase Two HALO Reliability Item-Total Statistics **Cronbach's Alpha = 0.927** **N of Items = 21**	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I feel guilty when considering my own needs.	61.33	264.699	0.522	0.465	0.925
I feel depressed.	61.74	263.857	0.543	0.491	0.924
I feel that what I am experiencing is hardening me emotionally.	61.49	259.301	0.623	0.551	0.923
I experience distress due to my lack of understanding of his/her personality changes.	61.85	261.132	0.537	0.462	0.924
I feel responsible for problems or situations, but I do not know how to fix them.	61.86	262.512	0.561	0.503	0.924
I lack my own personal time to do things I need and want to do.	61.30	257.945	0.665	0.556	0.922
I feel discouraged about my future.	61.87	256.661	0.636	0.526	0.922
I have little interest in being around others.	61.97	256.915	0.660	0.669	0.922
I am not interested in participating in activities I used to enjoy.	61.92	256.720	0.661	0.625	0.922
I have difficulty falling or staying asleep.	61.48	267.734	0.358	0.316	0.928
I feel jumpy or am easily startled.	62.28	260.440	0.563	0.504	0.924
I have trouble concentrating.	61.78	264.855	0.546	0.515	0.924
I am easily annoyed, and have outbursts of anger or irritability with little provocation.	61.97	265.789	0.499	0.467	0.925
I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	61.40	251.192	0.586	0.673	0.924
I feel like I have to run interference between him/her and the outside world to avoid confrontations...	61.45	250.487	0.647	0.701	0.922
I feel like I have to try to fix things to keep things stable.	61.43	251.632	0.705	0.683	0.921
I limit the number of social activities I participate in, because I am too tired.	61.58	263.952	0.493	0.422	0.925
I limit the number of social activities I participate in, because I am worried about leaving him/her...	62.25	253.490	0.599	0.640	0.923
I feel as though I have been cut off from contact with my family/friends.	62.19	254.997	0.618	0.527	0.923
I feel guilty if I go out anywhere (example: lunch with a friend).	61.81	251.342	0.700	0.613	0.921
I feel emotionally abandoned, even though he/she is around.	61.44	251.716	0.695	0.602	0.921

Note. Total Scale Statistics Mean=64.82; Variance=283.897; Std. Deviation=16.849; N of Items = 21

Table 4.10 Phase Two HALO Reliability Item-Subscales Statistics			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Total Scale Cronbach's Alpha = 0.927 N of Items = 21							
Role Overload α= .905	**N of Items= 7**	**n= 153**					
I lack my own personal time to do things I need and want to do.			17.89	52.007	0.629	0.411	0.900
I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).			17.99	45.000	0.750	0.618	0.887
I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.			18.10	45.168	0.775	0.679	0.884
I feel like I have to try to fix things to keep things stable.			18.05	47.537	0.751	0.613	0.887
I limit the number of social activities I participate in, because I am worried about leaving him/her alone.			18.86	46.295	0.768	0.606	0.885
I feel as though I have been cut off from contact with my family/friends.			18.80	49.886	0.628	0.422	0.900
I feel guilty if I go out anywhere (example: lunch with a friend).			18.40	48.083	0.728	0.558	0.889
Emotional Distress α= .863	**N of Items= 6**	**n= 165**					
I feel emotionally abandoned, even though he/she is around.			14.83	20.873	0.703	0.515	0.831
I feel depressed.			15.09	23.827	0.650	0.448	0.841
I feel that what I am experiencing is hardening me emotionally.			14.87	22.714	0.686	0.485	0.834
I experience distress due to my lack of understanding of his/her personality changes.			15.22	23.016	0.606	0.389	0.849
I feel responsible for problems or situations, but I do not know how to fix them.			15.24	23.660	0.639	0.425	0.843
I feel discouraged about my future.			15.23	22.239	0.666	0.450	0.838
Intrusive Arousal α= .779	**N of Items= 5**	**n= 179**					
I have difficulty falling or staying asleep.			11.40	11.646	0.458	0.254	0.776
I feel jumpy or am easily startled.			12.20	10.892	0.624	0.434	0.714
I have trouble concentrating.			11.73	11.220	0.703	0.509	0.692
I am easily annoyed, and have outbursts of anger or irritability with little provocation.			11.85	11.956	0.558	0.342	0.737
I feel guilty when considering my own needs.			11.25	12.647	0.456	0.222	0.769
Social Avoidance α= .822	**N of Items= 3**	**n= 182**					
I have little interest in being around others.			5.85	4.359	0.745	0.582	0.683
I am not interested in participating in activities I used to enjoy.			5.86	4.289	0.710	0.554	0.719
I limit the number of social activities I participate in, because I am too tired.			5.45	5.044	0.580	0.341	0.846

Note. Total sample size may vary for constructs with items marked: Not Applicable, I Decline to Answer
*Role Overload Mean= 21.35Variance= 63.925Std. Deviation= 7.995N of Items= 7
*Emotional Distress Mean= 18.10 Variance= 31.844Std. Deviation= 5.643N of Items= 6
*Intrusive ArousalMean= 14.61 Variance= 17.284Std. Deviation= 4.157N of Items= 5
*Social Avoidance Mean= 8.58 Variance= 9.428Std. Deviation= 3.070N of Items= 3

4.7 Phase Two: Test-retest Reliability

One question guided this part of Phase Two data analysis: To what extent does the new scale demonstrate test-retest reliability? Intraclass correlation coefficients (ICC) were computed to determine the test-retest reliability of the initial and retest scores. The computation of ICC allows sensitive detection of systematic error in the scale over time. ICC was interpreted as follows: 0 to 0.20 indicates poor agreement; 0.21 to 0.40 indicates fair; 0.41 to 0.60 indicates moderate; 0.61 to 0.80 indicates strong; and >0.8 indicates almost perfect agreement (Landis & Koch, 1977). The ICC for the total instrument score was .983; the ICC for each of the four subscales of the HALO ranged from .945 to .982 (Table 4.11).

Table 4.11 Phase Two Test-Retest Reliability **n = 20**

Subscales Reliability Statistics					Confidence Interval 95%		F Test[c] with True Value 0			
Subscale	**Time1[a] Mean ± Std. Dev**	**Time2[a] Mean ± Std. Dev**	**Difference**	**ICC[b]**	**Lower**	**Upper**	**Value**	**df1**	**df2**	**Sig**
Role Overload 7 Items	17.95 ± 9.047	17.20 ± 9.589	.70 ± -.542	.967	.916	.987	30.189	19	19	.000
Emotional Distress 6 Items	17.25 ± 6.835	16.65 ± 7.140	.60 ± -.305	.982	.955	.993	56.293	19	19	.000
Intrusive Arousal 5 Items	13.50 ± 4.395	13.25 ± 4.089	.25 ± .306	.945	.860	.978	18.087	19	19	.000
Social Avoidance 3 Items	8.25 ± 3.370	8.30 ± 3.435	-.05 ± -.065	.971	.926	.988	34.267	19	19	.000
Total 21 Items	56.95 ± 21.835	55.40 ± 22.149	1.55 ± -.314	.983	.957	.993	59.168	19	19	.000

Two-way mixed effects model where people effects are random and measures effects are fixed.
[a] Shown as mean ± standard deviation
[b] ICC, intraclass correlation coefficient
[c] F Test Values: df 1&2, df at Time 1 & Time 2; Sig, Significance p=.05

Phase Two Summary

The results of this phase of the study (n=182) have provided empirical evidence of the measurement properties of the HALO, including measures of internal consistency, test-retest reliability and construct validity of the total instrument and subscales. The overall instrument (α= .927 and ICC=.983) and its subscales, corresponding to four dominant themes (role overload, emotional distress, intrusive arousal, social avoidance) show strong levels of internal consistency (α=.905; .863; .779; .822) and test-retest reliability (ICC=.967, .982, .945, .971) respectively.

Phase Three Results: Validity Testing

4.8 Phase Three: Demographics

Phase Three participants included 206 members of the target spouse population. Ages ranged from 22 to 59 years (M=37.26, SD=7.63). Almost all of the participants, 99.5%, reported a marital status of married at the time the demographic questionnaire was completed, with the remaining .5% reporting a marital status of divorced. For those currently married, the average length of marriage was 14.4 years (SD=7.73, range of 2 to 39 years).

This study focused on the well-being of the civilian spouses and partners of active and Veteran US Service members indirectly exposed to combat stress. Therefore, participants were also asked to report information about their Sponsors. Phase Two participants reported that their Sponsors ranged in age from 23 to 59 years (M=38.23, SD=7.76). They reported that the pay grade of their Sponsors (Enlisted, Warrant Officers, Officers) ranged from E1 to O7 and above (E1-E9=49.6%; W1-W4=3.4%; O1-O7 & above=45.1%). Approximately 85.9% of respondents had Sponsors who served in the US Army, 3.4% from the US Marines, 5.3% from the US Navy, and 8.3% from the US Air Force. The years of service in the Armed Forces reported for their Sponsors ranged from 3 to 37 years (M=15.20, SD=7.94).

The feedback elicited in Phase One suggested that partners of Service members who have not been diagnosed with PTSD may also exhibit symptoms of distress and secondary traumatic stress due to knowledge of a loved one's combat exposure and concern for their safety, coupled with deployment stress. Therefore, participants were also asked a group of demographic questions about the deployment history of their Sponsors. All Sponsors had served in the recent conflicts (OEF/OIF/OND); therefore, the date their last deployment ended ranged from 2003 to 2015, with 11.7% reporting that the Sponsor was currently deployed at the time of the study. The

total number of OEF/OIF deployments for their Sponsors ranged from one to nine, with the majority, 62.1%, reporting multiple deployments. In addition to OEF/OIF deployments, 13.6% reported their Sponsors had also deployed to the earlier (1990-1991) Desert Shield/Desert Storm conflict, and 12.1% reported service in other earlier conflicts.

To further insure an accurate description of the study participants, a demographic variable was included to identify those Service members that had received a service-related injury or post-traumatic stress disorder diagnosis. This variable provided indirect trauma exposure data and helped to differentiate those spouses and partners of Service members already diagnosed from those who have not received a diagnosis. Approximately 18.9% of participants reported that their Sponsors had been diagnosed with a service related traumatic brain injury; 33% with post-traumatic stress disorder; and 37.9% were diagnosed as wounded, injured, or ill due to a service-related injury.

Approximately one in five participants reported that their Sponsor exhibited symptoms, but had not been formally diagnosed (Yes=17.5%; I Do not Know=5.3%; I Decline to Answer=3.9%). However, 69.9% of the participants responded they had observed changes in their Sponsor's behavior after deployment (Table 4.12).

Table 4.12 Phase Three Participant Demographics

Characteristic	Frequency n=206	Percentage
Age Range 22 – 59		
21 – 30	46	22.3
31 – 40	81	39.3
41 – 50	73	35.4
51 – 60	5	2.5
Decline to Answer	1	0.5
Total	206	100.0
Gender		
Male	0	0
Female	206	100.0
Decline to Answer	0	0
Total	206	100.0
Ethnicity		
Hispanic or Latino	13	6.3
Non-Hispanic or Latino	186	90.3
Decline to Answer	7	3.4
Total	206	100.0
Race (May Choose more than One)		
American Indian or Alaska Native	4	1.9
Asian	8	3.9
Black or African American	6	2.9
Native Hawaiian or Pacific Islander	2	1.0
Caucasian/White	173	84.0
More Than One Race	7	3.4
Decline to Answer	6	2.9
Total	206	100.0
Education Level		
9th, 10th, or 11th grade	0	0
12th grade, no diploma	0	0
High school graduate (Diploma/GED)	4	1.9
Some college credit, but less than 1 year	12	5.8
1 or more years of college, no degree	31	15.1
Associate degree (ex. AA, AS)	27	13.1
Bachelor's degree (ex. BA, BS)	81	39.3
Master's degree (ex. MA, MS, MSW)	48	23.3
Doctoral degree	3	1.5
I Decline to Answer	0	0
Total	206	100.0
Employment Status (May Choose more than One)		
Employed For Wages	66	32.0
Self-Employed	19	9.2
Unemployed, and Looking for Work	14	6.8
Unemployed, Not Looking for Work	13	6.3
Homemaker	111	53.9
Student	16	7.8
Retired	3	1.5
Unable to Work	1	0.5

Table 4.12b Phase Three Participant & Sponsor's Shared Demographics		
Household Income	**Frequency n = 206**	**Percentage**
Less than $10,000	1	0.5
$10,000 to 19,999	4	1.9
$20,000 to 29,999	8	3.9
$30,000 to 39,999	13	6.3
$40,000 to 49,999	13	6.3
$50,000 to 59,999	21	10.2
$60,000 to 69,999	16	7.7
$70,000 to 79,999	22	10.7
$80,000 to 89,999	22	10.7
$90,000 to 99,999	21	10.2
$100,000 to 149,000	43	20.8
$150,000 or more	10	4.9
Don't Know	2	1.0
I Decline to Answer	10	4.9
Total	206	100.0
Marital Status		
Single	0	0
Married	205	99.5
Divorced	1	0.5
Total	206	100.0
Length of Your Relationship (Years)		
1 – 5	24	11.7
6 – 10	49	23.8
11 – 15	55	26.7
16 – 20	36	17.4
21 – 25	17	8.3
26 – 30	18	8.7
Over 30	5	2.4
I Decline to Answer	2	1.0
Total	206	100.0
Number of Children under the age of 18		
0	46	22.3
1	36	17.5
2	72	35.0
3	35	17.0
4	11	5.3
5	4	1.9
8	1	0.5
9	1	0.5
Total	206	100.0
Number of Children age 18 or older		
0	160	77.7
1	21	10.2
2	13	6.3
3	8	3.8
4	3	1.5
5	1	0.5
Total	206	100.0

Table 4.12c Phase Three Participant Reported Sponsor Demographics		
Characteristic	**Frequency n = 206**	**Percentage**
Sponsor's Age Range 23 – 59		
21 – 30	35	17.0
31 – 40	85	41.3
41 – 50	76	36.8
51 – 60	10	4.9
Decline to Answer	0	0
Total	206	100
Sponsor's Gender		
Male	205	99.5
Female	1	0.5
Decline to Answer	0	0
Total	206	100
Sponsor's Ethnicity		
Hispanic or Latino	19	9.2
Non-Hispanic or Latino	181	87.9
Decline to Answer	6	2.9
Total	206	100
Sponsor's Race (May Choose more than One)		
American Indian or Alaska Native	4	1.9
Asian	7	3.4
Black or African American	8	3.9
Native Hawaiian or Pacific Islander	2	1.0
Caucasian/White	172	83.5
More Than One Race	5	2.4
Don't Know	3	1.5
Decline to Answer	5	2.4
Total	206	100
Sponsor's Education Level		
High school graduate (Diploma/GED)	9	4.4
Some college credit, but less than 1 year	13	6.3
1 or more years of college, no degree	44	21.4
Associate degree (ex. AA, AS)	24	11.6
Bachelor's degree (ex. BA, BS)	38	18.4
Master's degree (ex. MA, MS, MSW)	69	33.5
Doctoral degree	9	4.4
I Decline to Answer	0	0
Total	206	100.0

Table 4.12c Phase Three Participant Reported Sponsor Demographics		
Characteristic	**Frequency n = 206**	**Percentage**
Sponsor's Pay Grade		
E1 - E3	2	1.0
E4 - E6	68	33.0
E7 - E9	32	15.6
W 1 - 3	4	1.9
W 4 - 5	3	1.5
O1 - O3	17	8.2
O4 - O6	74	35.9
O7 & above	2	1.0
Don't Know	0	0
I Decline to Answer	4	1.9
Total	206	100.0
Is Sponsor Currently Deployed		
Yes	24	11.7
No	182	88.3
Total	206	100.0
Sponsor's Current Phase of Deployment Stage		
Pre-Deployment	14	6.8
Deployment	22	10.6
Redeployment (Coming Home Soon)	1	0.5
Reintegration (Recently Returned)	7	3.4
Not Currently Deployed	137	66.5
Soldier Does Not Deploy	21	10.2
Don't Know	1	0.5
I Decline to Answer	3	1.5
Total	206	100.0
Number of Deployments during Wartime Sponsor has Served Conflict OEF/OIF/OND (Range 1-9)		
1	51	24.8
2	47	22.8
3	40	19.4
4	23	11.1
5	10	4.9
6	6	2.9
8	1	0.5
9	1	0.5
Don't Know	7	3.4
Decline to Answer	20	9.7

Table 4.12c Phase Three Participant Reported Sponsor Demographics		
Characteristic	**Frequency n = 206**	**Percentage**
Total	206	100.0
Number of Deployments during Wartime Sponsor has Served Conflict Desert Shield/Desert Storm (Range 1-4)		
1	21	10.2
2	5	2.4
3	1	0.5
4	1	0.5
Other Conflicts (In addition to Above Conflicts)	25	12.1
Sponsor's Branch of Armed Services (May Choose more than One)		
US Air Force	17	8.3
US Army	177	85.9
US Marine Corps	7	3.4
US Navy/Coast Guard	11	5.3
Other	1	0.5
Years of Service in Armed Forces (Range 3–37)		
3 – 5	27	13.1
6 – 10	38	18.4
11 – 15	43	20.9
16 – 20	44	21.4
21 – 25	26	12.6
26 – 30	22	10.7
Over 30	5	2.4
I Decline to Answer	1	0.5
Total	206	100.0

Table 4.12d Phase Three Participant Reported Sponsor's Diagnosis/Signs and/or Symptoms		
Diagnosed with Service Related Traumatic Brain Injury	**Frequency**	**Percentage**
Yes	39	18.9
No	163	79.1
Don't Know	4	2.0
I Decline to Answer	0	0
Total	206	100.0
Diagnosed with Post Traumatic Stress Disorder		
Yes	68	33.0
No	127	61.6
Don't Know	9	4.4
I Decline to Answer	2	1.0
Total	206	100.0
Diagnosed Wounded, Injured, Ill due to Service Related Injury		
Yes	78	37.9
No	121	58.7
Don't Know	7	3.4
I Decline to Answer	0	0
Total	206	100.0
Participant Thinks Sponsor has Symptoms but Undiagnosed		
Yes	36	17.5
No	151	73.3
Don't Know	11	5.3
I Decline to Answer	8	3.9
Total	206	100.0
Participant Has Seen Changes in Sponsor from Pre-deployment to the Present		
Yes	144	69.9
No	51	24.7
Don't Know	8	3.9
I Decline to Answer	3	1.5
Total	206	100.0

Since the deployment, has your Sponsor had Changes in any of the following? n=206						
Frequency	Never	Rarely	Occasionally	Often	Very Often	Missing
Anger outbursts	61	30	55	34	23	3
Nervousness	79	32	26	31	36	2
Sleep Issues	45	25	37	33	65	1
Change in Location where he/she sleeps	118	33	26	9	18	2
Sadness	80	42	32	26	25	1
Changes in Intimacy	79	27	36	21	41	2
Withdrawing Emotionally from Others	68	27	36	28	46	1
Violent Behavior	138	28	22	10	6	2
Avoidance of People or Places	75	38	23	25	43	2
Trouble Concentrating	84	28	31	19	42	2
Other*	42	3	3	3	15	140

Note. * 12% of spouses chose to list some of these "Other" changes which they felt had not been addressed in the above choices. Only .5 – 1.5% of the spouses reported any one of these additional issues from Less patient, Anger while driving, Changes in distractions, Depression, Disorientation after flashbacks and nightmares, Feels unsafe and needs weapons, Headaches, His PTSD got better this deployment, Hypervigilance, Inability to cope with minor stressors, Incompetence makes him furious, Lack of interest, Lying, Porn, Crying, Maturity, Memory loss, Severe Decrease in Short-term Memory, More emotional, More patient and appreciative, Must have everything clean- No dirt or dust, Nightmare, Paranoia- thinks people are out to get him etc., Survivor Guilt, Traveling

4.9 Phase Three: Validity Testing

One question guided the final phase: To what extent do the tool and its subscales show acceptable levels of concurrent validity with criterion measures? The purpose of this phase was to gather concurrent related evidence for criterion validity. To do this, the revised 21-item measure with the four newly defined subscales was administered simultaneously to the participants with two existing valid and reliable instruments *(RAND 36-Item Health Survey 1.0 Questionnaire and Social Support Survey (MOS-SSS).* This process allowed the subscale, raw, and total scores of the new instrument to be compared to scores on well-established instruments that have been used to measure similar constructs.

Item-response frequencies. The item response frequencies for the 21-item revised measure, the *RAND 36-Item Health Survey 1.0 Questionnaire,* and the *Social Support Survey (MOS-SSS)* were examined to look for coding errors and any items that were missing data. Item response frequencies were examined for the 21-items to evaluate the range of responses on the Likert-type scale (Min= 1 *Never* to Max= 5 *Very Often*), and the number of items marked as *Decline to Answer,* or *Not Applicable*. The *RAND 36 - Item Health Survey 1.0* has multiple dichotomous (Yes/No) and Likert-type scales, which were each examined for range of responses. The *MOS Social Support Survey* range of responses on the Likert-type scale (Min = 1 *None of the Time* to Max= 5 *All of the Time*) were assessed, as well (Table 4.13).

Table 4.13 Phase Three Item Response Frequencies								
HALO 21-Items Listed by Domain and Original Order n = 206 Range = 4 (Min = 1, Max = 5)	1 Never	2 Rarely	3 Occa-sionally	4 Often	5 Very Often	6 N/A	7 Decline to Answer	-99 Missing Data
Role Overload								
I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	84	26	13	13	62	8	0	0
I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.	94	20	28	16	42	6	0	0
I limit the number of social activities I participate in, because I am worried about leaving him/her alone.	124	19	22	14	27	0	0	0
I feel like I have to try to fix things to keep things stable.	67	31	31	25	48	4	0	0
I feel guilty if I go out anywhere (example: lunch with a friend).	92	37	37	20	20	0	0	0
I feel as though I have been cut off from contact with my family/friends.	129	23	24	18	12	0	0	0
I lack my own personal time to do things I need and want to do.	28	38	51	49	40	0	0	0
Emotional Distress								
I feel responsible for problems or situations, but I do not know how to fix them.	61	63	45	24	13	0	0	0
I feel depressed.	34	57	75	26	14	0	0	0
I feel that what I am experiencing is hardening me emotionally.	41	39	52	42	32	0	0	0
I feel discouraged about my future.	51	62	44	36	12	0	0	1
I experience distress due to my lack of understanding of his/her personality changes.	49	36	58	22	18	23	0	0
I feel emotionally abandoned, even though he/she is around.	74	32	42	21	35	0	0	2
Intrusive Arousal								
I have trouble concentrating.	35	60	61	36	14	0	0	0
I feel jumpy or am easily startled.	68	57	46	28	6	0	0	1
I am easily annoyed, and have outbursts of anger or irritability with little provocation.	42	57	76	19	12	0	0	0
I have difficulty falling or staying asleep.	24	50	61	42	29	0	0	0
I feel guilty when considering my own needs.	18	29	85	47	27	0	0	0
Social Avoidance								
I limit the number of social activities I participate in, because I am too tired.	38	46	60	29	33	0	0	0
I have little interest in being around others.	51	62	59	25	9	0	0	0
I am not interested in participating in activities I used to enjoy.	69	47	52	28	10	0	0	0

Table 4.13 (Con't)	RAND 36 - Item Health Survey 1.0					n = 206
36 - Item Response Frequencies	Excellent	Very Good	Good	Fair	Poor	Missing Data
RAND1.In general, would you say your health is:	24	70	72	33	6	1
RAND2.**Compared to one year ago**, how would you rate your health in general **now**?	Much Better	Somewhat Better	About the Same	Some-what Worse	Much Worse	Missing Data
	21	37	100	42	6	0
Physical Functioning						
The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?			Yes, Limited a Lot	Yes, Limited a Little	No, Not limited at All	Missing Data
RAND3.**Vigorous activities**, such as running, lifting heavy objects, participating in strenuous sports			41	70	94	1
RAND4.**Moderate activities**, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf			11	30	165	0
RAND5.Lifting or carrying groceries			6	24	172	4
RAND6.Climbing **several** flights of stairs			23	49	134	0
RAND7.Climbing **one** flight of stairs			10	18	177	1
RAND8.Bending, kneeling, or stooping			9	47	149	1
RAND9.Walking **more than a mile**			14	34	158	0
RAND10.Walking **several blocks**			9	23	174	0
RAND11.Walking **one block**			4	7	195	0
RAND12.Bathing or dressing yourself			3	5	198	0
Role Limitations due to Physical Health & Emotional Problems						
During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health**?				Yes	No	Missing Data
RAND13.Cut down the amount of time you spent on work or other activities				35	171	0
RAND14.**Accomplished less** than you would like				84	122	0
RAND15.Were limited in the **kind** of work or other activities				50	156	0
RAND16.Had **difficulty** performing the work or other activities (for example, it took extra effort)				55	151	0
During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?				Yes	No	Missing Data
RAND17.Cut down the **amount of time** you spent on work or other activities				63	143	0
RAND18.**Accomplished less** than you would like				98	108	0
RAND19.Didn't do work or other activities as **carefully** as usual				71	135	0
Social Functioning						
RAND20.During the **past 4 weeks**, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?	Not at All	Slightly	Moderately	Quite a Bit	Extremely	Missing Data
	91	51	38	19	6	1
Bodily Pain						
RAND21.How much **bodily** pain have you had during the **past 4 weeks**?	None	Very Mild	Mild	Moderate	Severe	Very Severe	Missing Data
	44	58	43	45	15	1	0
RAND22.During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)?	Not at All	A little bit	Moderately	Quite a Bit	Extremely	Missing Data
	89	67	28	15	6	1

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.							
How much of the time during the **past 4 weeks...**	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	None of the Time	Missing Data
RAND23.Did you feel full of pep?	4	34	32	57	51	28	0
RAND24.Have you been a very nervous person?	9	14	26	33	47	77	0
RAND25.Have you felt so down in the dumps that nothing could cheer you up?	5	11	15	28	45	102	0
RAND26.Have you felt calm and peaceful?	9	35	47	52	49	14	0
RAND27.Did you have a lot of energy?	5	32	27	68	53	21	0
RAND28.Have you felt downhearted and blue?	4	22	19	39	67	55	0
RAND29.Did you feel worn out?	23	43	35	48	41	16	0
RAND30.Have you been a happy person?	14	66	38	55	27	6	0
RAND31.Did you feel tired?	33	48	43	43	29	10	0
Social Functioning							
RAND32.During the **past 4 weeks**, how much of the time has your **physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc.)?	All of the time	Most of the time	Some of the time	A little of the time	None of the time	Missing Data	
	4	17	46	53	86	0	
General Health							
How TRUE or FALSE is <u>each</u> of the following statements for you.	Definitely True	Mostly True	Don't Know	Mostly False	Defi-nitely False	Missing Data	
RAND33.I seem to get sick a little easier than other people	15	28	16	58	89	0	
RAND34.I am as healthy as anybody I know	37	81	38	38	12	0	
RAND35.I expect my health to get worse	2	24	59	51	70	0	
RAND36.My health is excellent	30	88	25	40	22	1	

Table 4.13 (Con't) MOS Social Support Survey 19 - Items by Domain Response Frequencies n = 206 Range = 4 (Min = 1, Max = 5)	1 None of the time	2 A little of the time	3 Some of the time	4 Most of the time	5 All of the time	Missing Data
People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?						
Emotional/Informational Support						
SSS1.Someone you can count on to listen to you when you need to talk	13	23	40	59	71	0
SSS2.Someone to give you information to help you understand a situation	14	28	37	70	57	0
SSS3.Someone to give you good advice about a crisis	17	27	32	65	64	1
SSS4.Someone to confide in or talk to about yourself or your problems	21	26	33	60	66	0
SSS5.Someone whose advice you really want	18	30	37	57	64	0
SSS6.Someone to share your most private worries and fears with	32	36	27	53	58	0
SSS7.Someone to turn to for suggestions about how to deal with a personal problem	20	31	35	61	59	0
SSS8.Someone who understands you problems	25	31	38	59	52	1
Tangible Support						
SSS9.Someone to help you if you were confined to bed	42	32	43	41	48	0
SSS10.Someone to take you to the doctor if you needed it	32	35	42	43	54	0
SSS11.Someone to prepare your meals if you were unable to do it yourself	36	42	34	39	55	0
SSS12.Someone to help with daily chores if you were sick	45	44	33	38	46	0
Affectionate Support						
SSS13.Someone who shows you love and affection	8	23	35	55	85	0
SSS14.Someone to love and make you feel wanted	12	21	32	51	90	0
SSS15.Someone who hugs you	9	25	22	55	95	0
Positive Social Interaction						
SSS16.Someone to have a good time with	8	37	46	54	61	0
SSS17.Someone to get together with for relaxation	16	40	43	48	59	0
SSS18.Someone to do something enjoyable with	5	45	41	56	59	0
Additional Item						
SSS19.Someone to do things with to help you get your mind off things	16	44	36	62	48	0

Descriptive statistics. Descriptive statistics were used to summarize the 21-item scale, the *RAND 36-Item Health Survey 1.0 Questionnaire,* and the *Social Support Survey (MOS-SSS).* The descriptive statistics were used to analyze the variance in relation to the item means, and to look for floor and ceiling effects. Table 4.14 shows the 21 items by domain, with the mean scores, standard deviation, variance, range, and frequency of the total of *N/A*, *Decline to Answer*, and *Missing* data responses, as represented above in Table 4.13. This table also includes a column to show the subscale (Intrusive Arousal (IA); Emotional Distress (ED); Role Overload (RO); Social Avoidance (SA) each item loaded on in Phase Two factor analysis (Table 4.14).

The *RAND 36- Item Health Survey 1.0* (36- Items) has a range of 100 (Min = 0, Max = 100). Table 4.14 shows the 36 items in the order they appear on the RAND survey, with the proper subscale noted in the column to the right of the item. The *RAND 36 - Item Health Survey 1.0* has eight subscales. The Physical Health Summary includes four subscales: Physical Functioning (PF), Role-Physical (RP), Bodily Pain (BP), and General Health (GH). The Mental Component Summary includes four subscales: Energy/fatigue (EF), Social Functioning (SF), Role-Emotional (RE), and Emotional Well-being (EW). The table gives the mean scores, standard deviation, variance, range, and frequency of *Missing* data responses. For the RAND 36, a high score defines a more favorable health state.

The MOS Social Support Survey (MOS-SSS) has a range of 4 (Min = 1, Max = 5). Table 4.14 shows the 19 items in the order they appear on the RAND survey, with the proper support subscale (Emotional/Informational, Tangible, Affectionate, and Positive Social Interaction) noted above each section of items. The table gives the mean scores, standard deviation, variance, range, and frequency of Missing data responses. For the MOS SSS, a high score defines a higher level of social support.

Table 4.14 Phase Three Descriptive Statistics **HALO 21- Items n = 206** **Range = 4 (Min = 1, Max = 5)**	HALO Sub-scale[a]	$\bar{x}$ Mean	Std. Dev	Variance	N/A, Decline to Answer, Missing
1. I feel guilty when considering my own needs.	IA	3.17	1.104	1.218	0
2. I feel depressed.	ED	2.66	1.105	1.222	0
3. I feel that what I am experiencing is hardening me emotionally.	ED	2.93	1.347	1.814	0
4. I experience distress due to my lack of understanding of his/her personality changes.	ED	2.58	1.272	1.618	23
5. I feel responsible for problems or situations, but I do not know how to fix them.	ED	2.34	1.199	1.437	0
6. I lack my own personal time to do things I need and want to do.	RO	3.17	1.312	1.722	0
7. I feel discouraged about my future.	ED	2.49	1.207	1.457	1
8. I have little interest in being around others.	SA	2.41	1.117	1.248	0
9. I am not interested in participating in activities I used to enjoy.	SA	2.33	1.209	1.463	0
10. I have difficulty falling or staying asleep.	IA	3.01	1.218	1.483	0
11. I feel jumpy or am easily startled.	IA	2.25	1.144	1.308	1
12. I have trouble concentrating.	IA	2.68	1.149	1.321	0
13. I am easily annoyed, and have outbursts of anger or irritability with little provocation.	IA	2.52	1.094	1.197	0
14. I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	RO	2.71	1.755	3.079	8
15. I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.	RO	2.46	1.619	2.622	6
16. I feel like I have to try to fix things to keep things stable.	RO	2.78	1.587	2.519	4
17. I limit the number of social activities I participate in, because I am too tired.	SA	2.87	1.317	1.734	0
18. I limit the number of social activities I participate in, because I am worried about leaving him/her alone.	RO	2.03	1.473	2.170	0
19. I feel as though I have been cut off from contact with my family/friends.	RO	1.84	1.264	1.599	0
20. I feel guilty if I go out anywhere (example: lunch with a friend).	RO	2.22	1.360	1.850	0
21. I feel emotionally abandoned, even though he/she is around.	ED	2.56	1.489	2.218	2

Table 4.14 (Con't) RAND 36- Item Health Survey 1.0 (36- Items) n = 206 Range = 100 (Min = 0, Max = 100) (High Score Defines More Favorable Health State)	RAND Sub-scale[a]	$\bar{x}$ Mean	Std. Dev	Variance	Missing
RAND1.In general, would you say your health is:	GH	58.90	24.568	603.569	1
RAND2.**Compared to one year ago**, how would you rate your health in general **now**?		53.03	23.683	560.872	0
The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?					
RAND3.**Vigorous activities**, such as running, lifting heavy objects, participating in strenuous sports	PF	62.93	38.555	1486.49	1
RAND4.**Moderate activities**, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	PF	87.38	27.246	742.363	0
RAND5.Lifting or carrying groceries	PF	91.09	22.742	517.216	4
RAND6.Climbing **several** flights of stairs	PF	76.94	34.427	1185.236	0
RAND7.Climbing **one** flight of stairs	PF	90.73	24.989	624.462	1
RAND8.Bending, kneeling, or stooping	PF	84.15	27.651	764.586	1
RAND9.Walking **more than a mile**	PF	84.95	29.496	869.998	0
RAND10.Walking **several blocks**	PF	90.05	24.900	619.998	0
RAND11.Walking **one block**	PF	96.36	16.345	267.168	0
RAND12.Bathing or dressing yourself	PF	97.33	14.148	200.154	0
During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health**?					
RAND13.Cut down the amount of time you spent on work or other activities	RP	83.01	37.646	1417.239	0
RAND14.**Accomplished less** than you would like	RP	59.22	49.262	2426.711	0
RAND15.Were limited in the **kind** of work or other activities	RP	75.73	42.977	1847.028	0
RAND16.Had **difficulty** performing the work or other activities (for example, it took extra effort)	RP	73.30	44.346	1966.611	0
During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?					
RAND17.Cut down the **amount of time** you spent on work or other activities	RE	69.42	46.188	2133.318	0
RAND18.**Accomplished less** than you would like	RE	52.43	50.063	2506.275	0
RAND19.Didn't do work or other activities as **carefully** as usual	RE	65.53	47.642	2269.713	0
RAND20.During the **past 4 weeks**, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?	SF	74.63	28.167	793.370	1
RAND21.How much **bodily** pain have you had during the **past 4 weeks**?	BP	66.60	25.204	635.226	0
RAND22.During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)?	BP	76.59	26.556	705.195	1
These questions are about how you feel and how things have been with you **during the past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks...**					
RAND23.Did you feel full of pep?	EF	40.49	26.756	715.861	0
RAND24.Have you been a very nervous person?	EW	71.65	29.569	874.336	0
RAND25.Have you felt so down in the dumps that nothing could cheer you up?	EW	79.13	26.819	719.233	0
RAND26.Have you felt calm and peaceful?	EW	46.50	26.178	685.285	0
RAND27.Did you have a lot of energy?	EF	41.07	25.621	656.415	0
RAND28.Have you felt downhearted and blue?	EW	69.90	27.212	740.478	0
RAND29.Did you feel worn out?	EF	48.64	29.716	883.022	0
RAND30.Have you been a happy person?	EW	56.80	25.518	651.148	0
RAND31.Did you feel tired?	EF	41.65	28.885	834.336	0
RAND32.During the **past 4 weeks**, how much of the time has your **physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc.)?	SF	74.27	26.814	718.979	0
How TRUE or FALSE is <u>each</u> of the following statements for you.					
RAND33.I seem to get sick a little easier than other people	GH	71.60	32.582	1061.568	0
RAND34.I am as healthy as anybody I know	GH	61.29	28.851	832.361	0
RAND35.I expect my health to get worse	GH	69.78	26.711	713.489	0
RAND36.My health is excellent	GH	57.80	31.116	968.197	1

[a] RAND 36 - Item Health Survey 1.0 Subscales: Physical Functioning (PF); Role-Physical (RP); Role Emotional (RE); Energy/fatigue (EF); Emotional Well-being (EW); Social Functioning (SF); Bodily Pain (BP); General Health (GH)

Table 4.14 (Con't) MOS Social Support Survey (19- Items) n = 206 Range = 4 (Min = 1, Max = 5)	$\bar{x}$ Mean	Std. Deviation	Variance	Missing
People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it? Circle one number on each line. (1= None of the time; 2=A little of the time; 3=Some of the time; 4=Most of the time; 5=All of the time)				
Emotional/Informational Support				
SSS1.Someone you can count on to listen to you when you need to talk	3.74	1.221	1.492	0
SSS2.Someone to give you information to help you understand a situation	3.62	1.215	1.475	0
SSS3.Someone to give you good advice about a crisis	3.64	1.274	1.623	1
SSS4.Someone to confide in or talk to about yourself or your problems	3.60	1.324	1.753	0
SSS5.Someone whose advice you really want	3.58	1.300	1.689	0
SSS6.Someone to share your most private worries and fears with	3.33	1.441	2.078	0
SSS7.Someone to turn to for suggestions about how to deal with a personal problem	3.52	1.309	1.714	0
SSS8.Someone who understands you problems	3.40	1.338	1.790	1
Tangible Support				
SSS9.Someone to help you if you were confined to bed	3.10	1.450	2.102	0
SSS10.Someone to take you to the doctor if you needed it	3.25	1.412	1.995	0
SSS11.Someone to prepare your meals if you were unable to do it yourself	3.17	1.463	2.142	0
SSS12.Someone to help with daily chores if you were sick	2.98	1.475	2.175	0
Affectionate Support				
SSS13.Someone who shows you love and affection	3.90	1.173	1.376	0
SSS14.Someone to love and make you feel wanted	3.90	1.234	1.522	0
SSS15.Someone who hugs you	3.98	1.206	1.453	0
Positive Social Interaction				
SSS16.Someone to have a good time with	3.60	1.197	1.432	0
SSS17.Someone to get together with for relaxation	3.46	1.297	1.683	0
SSS18.Someone to do something enjoyable with	3.58	1.186	1.406	0
Additional Item				
SSS19.Someone to do things with to help you get your mind off things	3.40	1.268	1.607	0

Results of Phase Three reliability testing. Cronbach's alpha was estimated to measure internal consistency of the final 21-item HALO instrument using the Phase III sample (total n=206) and remained very high for both the total scale (α= 0.962) and each subscale (α=.925, α=.891, α=.834 and α=.896), respectively for Role Overload, Emotional Distress, Intrusive Arousal, and Social Avoidance (Table 4.15).

Table 4.15 Phase Three HALO Reliability Statistics **Item-Total Scale Statistics** **Cronbach's Alpha = 0.962 N of Items = 21**	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I feel guilty when considering my own needs.	52.54	404.388	0.678	0.578	0.960
I feel depressed.	53.06	401.427	0.708	0.608	0.960
I feel that what I am experiencing is hardening me emotionally.	52.77	395.215	0.711	0.633	0.960
I experience distress due to my lack of understanding of his/her personality changes.	53.24	399.241	0.658	0.600	0.960
I feel responsible for problems or situations, but I do not know how to fix them.	53.38	398.650	0.710	0.653	0.960
I lack my own personal time to do things I need and want to do.	52.59	397.818	0.655	0.517	0.960
I feel discouraged about my future.	53.23	399.008	0.702	0.600	0.960
I have little interest in being around others.	53.34	399.089	0.748	0.741	0.959
I am not interested in participating in activities I used to enjoy.	53.39	393.792	0.809	0.781	0.959
I have difficulty falling or staying asleep.	52.71	405.909	0.551	0.438	0.962
I feel jumpy or am easily startled.	53.42	402.452	0.663	0.604	0.960
I have trouble concentrating.	53.03	401.982	0.683	0.587	0.960
I am easily annoyed, and have outbursts of anger or irritability with little provocation.	53.15	406.097	0.629	0.525	0.961
I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).	52.95	380.084	0.753	0.726	0.960
I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.	53.27	383.232	0.775	0.822	0.959
I feel like I have to try to fix things to keep things stable.	52.91	381.555	0.826	0.852	0.958
I limit the number of social activities I participate in, because I am too tired.	52.85	390.602	0.808	0.753	0.959
I limit the number of social activities I participate in, because I am worried about leaving him/her alone.	53.67	386.384	0.774	0.829	0.959
I feel as though I have been cut off from contact with my family/friends.	53.90	395.369	0.721	0.622	0.960
I feel guilty if I go out anywhere (example: lunch with a friend).	53.50	387.010	0.836	0.803	0.958
I feel emotionally abandoned, even though he/she is around.	53.10	384.019	0.830	0.752	0.958

*Note. Scale Statistics Mean=55.80; Variance=434.563; Std. Deviation=20.846; N of Items = 21

Table 4.15 Phase Three HALO Reliability			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item-Subscales Statistics **N of Items = 21**							
Role Overload α= .925	**N of Items= 7**	**n= 197**					
I lack my own personal time to do things I need and want to do.			14.92	58.412	0.632	0.458	0.926
I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).			15.39	50.034	0.794	0.674	0.912
I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.			15.66	51.673	0.803	0.771	0.910
I feel like I have to try to fix things to keep things stable.			15.32	50.945	0.854	0.816	0.904
I limit the number of social activities I participate in, because I am worried about leaving him/her alone.			15.21	56.271	0.754	0.617	0.915
I feel as though I have been cut off from contact with my family/friends.			16.26	57.723	0.705	0.558	0.920
I feel guilty if I go out anywhere (example: lunch with a friend).			15.87	54.111	0.842	0.716	0.907
Emotional Distress α= .891	**N of Items= 6**	**n= 180**					
I feel emotionally abandoned, even though he/she is around.			13.35	24.553	0.760	0.589	0.864
I feel depressed.			13.33	28.680	0.678	0.501	0.877
I feel that what I am experiencing is hardening me emotionally.			13.02	26.301	0.735	0.565	0.867
I experience distress due to my lack of understanding of his/her personality changes.			13.5	26.888	0.717	0.574	0.870
I feel responsible for problems or situations, but I do not know how to fix them.			13.64	27.629	0.697	0.549	0.874
I feel discouraged about my future.			13.52	27.793	0.682	0.499	0.876
Intrusive Arousal α= .834	**N of Items= 5**	**n= 205**					
I have difficulty falling or staying asleep.			10.62	13.030	0.585	0.366	0.816
I feel jumpy or am easily startled.			11.38	12.413	0.739	0.551	0.771
I have trouble concentrating.			10.96	12.650	0.695	0.496	0.783
I am easily annoyed, and have outbursts of anger or irritability with little provocation.			11.11	13.806	0.573	0.342	0.817
I feel guilty when considering my own needs.			10.46	13.671	0.585	0.351	0.814
Social Avoidance α= .896	**N of Items= 3**	**n= 206**					
I have little interest in being around others.			5.20	5.636	0.783	0.627	0.866
I am not interested in participating in activities I used to enjoy.			5.28	5.042	0.834	0.698	0.817
I limit the number of social activities I participate in, because I am too tired.			4.75	4.804	0.779	0.615	0.871

*Role Overload Mean= 18.11Variance= 72.820Std. Deviation=8.533N of Items= 7
*Emotional Distress Mean=16.07Variance= 38.012Std. Deviation=6.165N of Items= 6
*Intrusive ArousalMean=13.63Variance= 19.674Std. Deviation= 4.436N of Items= 5
*Social Avoidance Mean= 7.62Variance= 11.038Std. Deviation= 3.322N of Items= 3

Results of the criterion-related validity analysis. Due to the nonparametric qualities of the data, in the revised HALO and two criterion instruments, Spearman's bivariate correlations were computed for the four subscale scores, four subscale raw scores, and total score of the HALO and the subscales scores from these two accepted standard criterion measures. These Spearman's correlations allowed the researcher to analyze whether the HALO subscales correlated with the wide range of similar and dissimilar quality of life and social support variables found in the two criterion measures. To accommodate for missing data, the average of the subscale scores was computed as well as the total raw scores and compared. There was not a significant difference in bivariate correlations for the subscales mean scores compared to raw scores, therefore only raw scores are reported.

For the raw scores of the subscales, correlation coefficients ranged from as low as -.350 (HALO ED and RAND36 PF) and to as high as -.768 (HALO ED and RAND36 EW). The RAND Physical Functioning subscale had weaker correlations with the HALO four subscale raw scores, ranging from -.350 to -.434. Whereas, the RAND Emotional Well-being subscale had relatively stronger correlations with the HALO four subscale raw scores, ranging from -.684 to -.768. Spearman's bivariate correlations for the *Social Support Survey* subscales and HALO subscale raw scores ranged from -.436 to -.718. Correlations for the subscales of the two criterion measures and the HALO Total Raw Scores ranged from -.434 to -.776. All Spearman's (ρ) Correlations were significant at the 0.01 level (2-tailed) (Table 4.16).

Table 4.16 Phase Three Bivariate Correlation Coefficients for Subscales					**n=206**
RAND 36-Item Health Survey 1.0, Social Support Survey, and Raw Scores Health Assessment for Loved Ones					
Spearman Correlation	**HALORO Raw Score**	**HALOED Raw Score**	**HALOIA Raw Score**	**HALOSA Raw Score**	**HALO Total Raw Score**
Physical Health					
RAND36PF	-.434**	-.350**	-.403**	-.381**	-.434**
RAND36RP	-.479**	-.386**	-.484**	-.453**	-.486**
RAND36BP	-.505**	-.470**	-.534**	-.499**	-.543**
RAND36GH	-.583**	-.560**	-.534**	-.579**	-.617**
Mental Health					
RAND36EF	-.713**	-.685**	-.695**	-.725**	-.757**
RAND36SF	-.682**	-.688**	-.669**	-.761**	-.753**
RAND36RE	-.631**	-.670**	-.636**	-.637**	-.695**
RAND36EW	-.684**	-.768**	-.702**	-.722**	-.776**
Social Support Survey					
SSSEMI	-.592**	-.678**	-.536**	-.611**	-.659**
SSSTAN	-.538**	-.579**	-.436**	-.524**	-.572**
SSSAFF	-.637**	-.718**	-.577**	-.633**	-.702**
SSSPOS	-.646**	-.655**	-.583**	-.656**	-.689**

** Spearman's ρ Correlation is significant at the 0.01 level (2-tailed).

RAND 36 - Item Health Survey 1.0
Four subscales make up Physical Health Summary Measures (Total 21 items)
RAND36PF - Physical Functioning (10 items)
RAND36RP – Role Limitations-Physical (4 items)
RAND36BP - Bodily Pain (2 items)
RAND36GH - General Health (5 items)
Four subscales make up Mental Health Summary Measures (Total 14 items)
RAND36EF – Energy/Fatigue (4 items)
RAND36SF - Social Functioning (2 items)
RAND36RE - Role Limitations-Emotional (3 items)
RAND36EW – Emotional Well-being (5 items)
Note: Subscale items (range 0-100): Higher Scores indicate a more favorable (positive) heath state.
MOS Social Support Survey (Total 19 items):
SSSEMI - Emotional Informational Support (8 items)
SSSTAN - Tangible Support (4 items)
SSSAFF - Affectionate Support (3 items)
SSSPOS - Positive Social Interaction (3 items)
SSSADD - Additional Item (1 item)This Subscale only contains the SSS ONE "Additional Item" so is not a subscale.
Note: For MOS SSS subscale items (range 1-5): Higher Scores indicate HIGHER level of SS (positive) health state.
HALO (21 items) using the four subscales from Phase Two:
HALORO - Role Overload (7 items)
HALOED - Emotional Distress (6 items)
HALOIA – Intrusive Arousal (5 items)
HALOSA - Social Avoidance (3 items)
Note: For HALO subscale items (range 1-5): Higher Scores indicate a HIGHER level of NEGATIVE health state.

Phase Three Summary

The results of this phase of the study (n= 206) have provided empirical evidence of the measurement properties of the final 21-item HALO instrument, including measures of internal consistency and criterion validity of the total instrument and subscales (role overload, emotional distress, intrusive arousal and social avoidance). Cronbach's alpha remained very high for both the total scale (α= 0.962) and each subscale (α=.925, α=.891, α=.834 and α=.896), respectively.

Criterion validity. An analysis of the Spearman's (ρ) bivariate correlations suggests the HALO subscales correlate with a wide range of other emotional health and social support variables. For the subscale mean scores, correlation coefficients ranged from as low as -.337 (HALO ED and RAND36 PF) and to as high as -.765 (HALO ED and RAND36 EW). For the raw scores of the subscales, correlation coefficients ranged from as low as -.350 (HALO ED and RAND36 PF) and to as high as -.768 (HALO ED and RAND36 EW), which were very similar to the mean scores.

When comparing the subscales on the existing measure of the RAND36 to the HALO subscales the more theoretically similar subscales (e.g. RAND Emotional Well-being and HALO Emotional Distress) showed stronger correlations, while the less theoretically similar (e.g. RAND Physical Functioning and HALO Emotional Distress) showed weaker correlations. Also, the bivariate correlations between the HALO subscales and the MOS SSS suggest high scores on the HALO are associated with low scores on theoretically relevant and important social support constructs. The results of this assessment of concurrent validity suggest the items within the HALO subscales accurately and adequately reflect the newly constructed domains.

The Health Assessment for Loved Ones (HALO) was developed by adapting relevant items from constructs found in existing instruments and the literature, and by using key

constructs to generate new items using the perspective of military spouses gathered during qualitative interviews. Psychometric properties of the final 21-item scale were assessed to test reliability and validity to insure that the instrument can be used as a clinical and research tool to specially address the needs of this special population. Analyses revealed four specific constructs (role overload, emotional distress, intrusive arousal, social avoidance) associated with their unique experiences that may affect the overall well-being of a military spouse.

Chapter 5: Discussion

5.1 Purpose

The purpose of this three-part dissertation study was to develop and validate a new instrument to assess the well-being of civilian spouses of active-duty and Veteran US Service members who have been indirectly exposed to combat trauma stress. The mixed-methods approach used in this study combined qualitative and quantitative techniques to provide a more complete understanding of how this exposure affects this novel population. The three phases included: 1) instrument construction, 2) reliability testing, and 3) validity testing. The findings contribute to our knowledge of the specific symptoms experienced by and issues affecting US military spouses indirectly exposed to combat trauma stress, as well as spouses active in the caregiver role. The purpose of this chapter is to discuss the findings of the current study in relation to previously published work, consider the limitations of the study, and lay a foundation for future studies.

5.2 Summary of Results

Phase One instrument construction. In Phase One, qualitative interviews explored the gaps in the existing literature on *compassion fatigue* also known as *secondary traumatic stress,* and delineated how it and the other related constructs apply to a unique population exposed to deployments and indirect combat stress. These findings were used to design a new measurement tool and test the reliability and validity of the items specific to the issues of military spouses.

Phase Two internal consistency and test-retest reliability. The results of this phase of the study (n=182) provided empirical evidence of the measurement properties of the HALO. Each of the four subscales showed strong to very strong internal consistency and excellent test-retest reliability.

Phase Three validity testing. The results of this phase of the study (n= 206) provided empirical evidence of the measurement properties of the final 21-item HALO instrument, including estimates of internal consistency, and criterion validity of the total instrument and subscales (role overload, emotional distress, intrusive arousal, social avoidance).

Using both qualitative and quantitative techniques contributed to a more comprehensive and nuanced understanding of the relationship between indirect trauma exposure and empathy to constructs such as secondary traumatic stress and compassion fatigue. In addition, studying the lived experiences of this unique population allowed for the exploration of possible risk factors and associated outcomes of well-being.

This chapter will compare these findings, grounded in the experiences of US military spouses, with those previously reported in two populations: (1) professional healthcare providers indirectly exposed to trauma and (2) individuals caring for family members with chronic illnesses. Recommendations for the practical implications, limitations of the current study, and future research will be discussed.

5.3 Qualitative and Quantitative Analysis of the Phenomenon

Some of the primary differences between the current study and those studies reported in the secondary traumatic stress and compassion fatigue literature included the methods for the recruitment and selection of informants, and the methodology used to generate and adapt the items for instrument design and construction. The majority of literature on secondary traumatic stress and compassion fatigue focuses on professional healthcare providers, while the current research was focused on the non-healthcare support network of those exposed to combat trauma—US military spouses.

This dissertation research focuses specifically on the civilian spouses and partners of US

Service members who have deployed into combat areas in support of the OEF/OIF/OND missions. This group included both participants whose Service member spouses have and have not been diagnosed with posttraumatic stress, and spouses who have experienced indirect combat trauma, injury, and illness through their social network, in helping other military spouses going through a traumatic event. This study used purposive sampling to recruit and screen for participants that fit these and other inclusion and exclusion criteria.

Instrument construction. Prior to Phase One, the researcher conducted a literature review to explore how indirect exposure to combat stress may affect the overall well-being of this special population. Ten *a priori* content domains were identified as compassion fatigue, secondary traumatic stress, empathy, psychological distress, role strain, burnout, caregiver burden, social support, isolation, and quality of life; these constructs were then grouped according to four conceptual domains of well-being (psychological, physical, social, spiritual).

Phase One research question one. How effectively do items from existing instruments describe the lived experiences of US military spouses indirectly exposed to combat trauma stress? From the conception and throughout the creation of this tool, the triangulation of multiple qualitative and quantitative validation processes have been used to ensure that its contents and constructs resonate with this unique population. An integrative mixed analysis of qualitative interviews with the spouses helped to authenticate the findings in the literature, to facilitate the adaptation of items from existing instruments, and to form new items representative of their unique lived experiences. This mixed research approach has helped to bridge the gaps that may occur when using only a qualitative or a quantitative method in instrument development (Onwuegbuzie, Bustamante, & Nelson, (2010).

In comparison to previous studies reported in the literature, this study was unique in that

it included the perspective of the military spouse participants to develop a culturally sensitive instrument to measure the effects of indirect trauma exposure on their well-being. Future spouses, using this assessment as a self-help tool, and practitioners using this valid and reliable tool to complement treatment or evaluate interventions may be confident that these items, reviewed and revised by military spouse participants, will resonate with these non-professional, familial populations indirectly exposed to traumatic stress.

Phase One research question two. How closely do US military spouses respond to selected items that represent the constructs of the Secondary Traumatic Stress model and other phenomena experienced by practitioners and nonprofessional caregivers? The concepts of secondary traumatic stress and compassion fatigue have been studied extensively in professional healthcare providers and have been applied to military spouses in the literature. Although the constructs within the theory of secondary traumatic stress and the model of compassion fatigue do converge with the spouses' issues of emotional distress, social avoidance, and arousal, there is divergence in the inclusion of additional constructs. Therefore, during Phase One, culturally relevant concepts found in the compassion fatigue models and items measuring secondary traumatic stress were reviewed and worded using the feedback of the military spouse participants for inclusion in the instrument.

The theory of secondary traumatic stress and model of compassion fatigue begin with an indirect trauma exposure coupled with a therapeutic expression of *empathy* (Figley 1995, 2002). The degree to which a professional caregiver experiences empathy increases the risks of developing compassion fatigue and secondary traumatic stress (Bride et al., 2004; Figley, 1995; 2002). Figley (1995) suggests that empathy predisposes caring professionals who listen to clients' stories of fear, pain and suffering sometimes to feel similar fear, pain and suffering.

When superimposing this logic onto the military spouse participants in the current study, an inexact fit occurred. The comments of the participants made it clear that while some of their characteristics may match many of the issues found in professional healthcare providers, a distinct difference lies in why and how this phenomenon presents itself differently in the military spouse population.

One of the most distinguishing differences between military spouses and professional caregivers appears to be the latter's ability and training to disengage and emotionally separate from the population for which they are caring. Empathy may be sufficient for an unemotional union made up of unfamiliar people, but what happens when the dyad is a married couple or partners in a committed relationship, or another military spouse who needs your help? The current study explored the lived experiences of the US civilian spouses and domestic partners of active and Veteran Service members in relation to indirect trauma exposure. Their perspectives reflected a different context than that previously documents for professional caregivers.

How do the model and theoretical constructs differ in the military spouses? The compassion fatigue model and secondary traumatic stress theory both include an expression of empathy by the caregiver. Both spouses and professional caregivers begin the process in an effort to help the other person, who in this case has been exposed to combat trauma. Through empathy they put themselves into the other's shoes. However, these two relationships differ markedly. The military dyad, a marriage and personal relationship, dictates closeness, unlike the professional caregiver/client relationship.

The military couple, as members of an intimate partnership, disclose past life experiences to each other. In these reciprocal dialogues, of both positive and negative life events, the couple bonds through emotional experiences. The more often that "sym" + "pathy" (literally "together"

+ “feelings”) are shared, the closer the dyad becomes. Survival of the dyad directly relates to the level of emotional and physical commitment of each partner. It is merely characteristic of the relationship and emotional union that is being formed. A healthy professional caregiver/client dyad does not experience this level of dependency or cohesion. In the professional practice dyad, typically, only one person is expressing emotions—the person being helped.

How does this indirect exposure to trauma differ for military spouses? The contractual and societal role of marriage portrays the two souls becoming one. Partners become immersed in the relationship, often no matter how painful or unsupportive the other partner may be at times. The sharing of roles and responsibilities works to meld the dyad into a partnership. These compromises break down the physical and emotional boundaries of the dyad. As the two take on multiple roles or shared roles (for example parenting, household chores, etc.), their separate identities merge. Depending upon each individual’s innate personality traits or learned behaviors through life experiences, this emotional immersion may lead to new definitions of self. In order to get along with or understand the other, they may consciously use insight and develop coping skills to converge. This dropping or letting down of one’s guard is not typically seen with the boundaries of the healthy professional caregiver/client relationship.

Another unique difference is that the military couple knows each other prior to the direct exposure to combat experienced by the Service member. Therefore, during the deployment the partner is co-experiencing unique stressors, in addition to multiple roles and new responsibilities (e.g. personal hardships, helping or emotionally supporting other spouses of deployed Service members, etc.). This form of simultaneous suffering does not occur with the professional dyad.

Spouses explained how one role that is particularly difficult for them emotionally is attending the funeral of a fallen comrade, while their Service member is still deployed and active

in the military mission. When a deployed unit experiences a fatality, a memorial is held at the installation. Many of the spouses attend these ceremonies to pay their families' respects. This activity reinforces the threat of the mission and reminds the spouse how life altering it may be; and unfortunately, brigades may suffer multiple casualties over a 12-month deployment cycle.

When the Service member returns home, the dyad lives in close physical and emotional contact with each other. Some spouse participants reported feeling distress due to the lack of understanding of changes in a Service member's behaviors and personality. Participants described that spouses noticed these changes before other close social or professional contacts recognized the differences. They reported that the military spouse and the children often tried to adapt to this new environment by changing how they reacted within the home and responded to the Service member.

Unlike the professional dyad, the military spouse and family are continuously exposed to the post-combat changes and behaviors. In addition, through this familial setting, the spouse's experience with indirect trauma exposure usually precedes that of the professional caregiver. In fact, it is usually only after these changes are recognized by others, or acknowledged by the Service member that he or she seeks professional help, which is when the professional dyad meets for the first time.

Some participants reported very detailed information about the trauma the Service member had experienced. They learned these specifics either through secondhand accounts of what the Service member or friend spouse had shared with them or from the information provided to them by the military after a trauma had occurred. A few of these spouse participants resonated with the items used to measure the DSM-IV criteria for "intrusion"; citing both physiological (*heart pounding, shallow breathing)* and psychological (*reminders upset me*)

issues associated with recalling the information during the day through mental visualizations, or in disturbing dreams at night. In addition to details of the trauma story, other participants recalled the feelings that were exhibited or expressed by the traumatized partner or friend as they told the story.

The intrusion issues of re-experiencing the Service member's trauma through the stories of the trauma were reported by some of the participants in this study. However, the emotional distress and arousal felt as a result of this indirect exposure seemed to be more prevalent than having actual feelings of reliving the traumatic incident. Many participants described how they had learned about traumas from multiple factual and rumored sources, even before the Service member returned. Therefore, their visualizations of what they envisioned had happened, as they pieced together this early grapevine knowledge, was often quite different from the actual experience.

In addition, some spouses reported that when their Service member shared their trauma story, the version of the events were different from what other Service members involved had shared. This seemed to be due to a variety of reasons, such as actual gaps in the story the Service member told. These gaps occurred for two reasons: 1) the ability of the Service member to recall the event was distorted due to their own post-traumatic issues or injuries; and 2) a conscious decision was made by the Service member to keep the specific traumatic details about the event from the spouse in an effort to emotionally protect the spouse. For the latter, this type of protection and consideration may not occur in the sessions of the therapeutic dyad.

How does being a social support to other spouses affect military spouses? The participants reported comradery and friendship that occurs within the military culture or "sisterhood" where military spouses support, encourage, and look after each other as they go

through the various stages of deployment. For example, if a friend spouse experiences trauma associated with their Service member or the deployment, the sisterhood comes together to provide physical and emotional support to those suffering. A theme that developed in the interviews as spouses explained, “We’re all too aware that...‘one day that person could be me’ and ‘it could just as easily have been me’ clarifies this helping is a part of the military spouse role. The helper identifies with the spouse needing help, and some have even been the recipient of this help. This familiarity of the circumstances and emotional understanding of these helpers creates a bond and intuitive connection that greatly differs from that of the professional caregiver/client relationship.

How does this social support differ from the professional caregiver model/theory? In both relationships the military spouse is involved in, as a spouse or as a friend, if the spouse begins acting in the caregiver role, or begins taking on additional duties, this role overload and emotional distress leads to physical and emotional exhaustion. As the caregiver spouse begins to give more, or feels like they give more, than the other partner, the balance in their partnership may be threatened. Physical and emotional exhaustion begin to take their toll on the relationship. These may be influenced by feelings of ambiguous loss, or past life events (feelings of abandonment as a child by one parent, feelings of fear, or true loss through death or divorce). If the spouse feels emotionally abandoned, he or she may develop feelings of resentment which can lead to anger, neglect, or even abuse or divorce.

Comparing the military spouse phenomenon to that of professional caregivers, the duration of exposure coupled with the intensity of the emotions shared within the union add additional risk factors to the military spouse phenomenon not seen in the model and theory used for practitioners. In addition, the training received by a professional, and opportunities to develop

skills of disengagement are not provided to the spouses. In addition to their proximal physical distance, empathetic practitioners helping the trauma-exposed individual are armed with the health education knowledge learned through higher education, and a level of awareness and understanding of the symptomology that helps keep them emotionally at a professional distance.

Phase One research question three. The third research question was: What subsets of revised items represent the most prototypical experiences of US military spouses? This research is grounded in the real life experiences of US military spouses. Participants were observed in their culture, engaged in their activities, and performing in their roles as military spouses. These roles shape and affect the remaining constructs within the practitioner model and theory in distinctive ways that help explain how the indirect exposure to trauma for this population is unique. An understanding of these role specific constructs helps clarify why the experiences of the military spouse differ inimitably from professional healthcare providers and caregivers.

Role of the military spouse. In Phase One, findings suggested that many military spouses do not feel they can effectively separate their well-being from that of their Service member. Consequently this relationship between a Service member and the spouse is very different from the professional dyad. Military partnerships often include a legally binding document and marriage vows with phrases like “until death do us part”.

Participants also explained that when you are in a relationship with a Service member, moving becomes a part of life and your location changes every two to four years, depending upon the Branch of Service. The family’s focus is on the Service member’s career and the financial stability the job provides for the family. The military spouse commits to this nomadic existence, knowing it is a part of the military culture, moving their children and all their belongings to follow the Service member. These frequent moves usually take spouses away from

their biological families, and the friends they have made at that location. The bonds the spouses form with their Service member and their friends at each duty location become very important to the spouses and how they identify with their role as a military spouse.

The evidence gathered during the participatory and qualitative interview phase suggested that the Service member's combat stress may not be the only catalyst to the spouse's suffering. Participants reported that when they were acting as a confidant or providing emotional support to both their Service member and their military spouse friends, they become very emotionally involved. The findings of qualitative inquiry suggested a theme of social support within the military spouse phenomenon that when the spouse is helping their Service member or other spouses deal with combat stress or trauma, they sometimes feel as if they shoulder a burden to help alleviate the stress.

Participants reported that when these duties associated with their roles as caregivers were coupled with their feelings of continuous responsibility for the partner this compromised their overall well-being. The findings of this study confirmed that spouses often felt that they had to fix the problem, related to this level of emotional involvement. This type of emotional response the military spouse offers the Service member or friend is very different from the empathic response of a professional provider.

Social and organizational support. During qualitative discussions, the spouses reported that within the military culture when a Service member is deployed, there are varying levels of social and organizational support. When the Service member returns home, the roles of these groups diminish as the family reintegrates and the Service member returns to their pre-deployment mission. It is during this reintegration time when the spouse may begin to see changes in the Service member. Some participants discussed how their relationships with friends

and family have been affected by the Service member's post-combat issues. Some felt they were not able to go places with their friends. Some worried about leaving their Service member alone due to the injury, trauma stress, or depressed mood.

During discussions of social support, participants related issues of the Service member not expressing emotions or affection. Some participants disclosed how since the deployment there have been issues within the relationship with physical and/or emotional intimacy. These issues led to what some described as feeling emotionally abandoned even though the Service member was home from the deployment.

Social triggers. Participants gave examples of two specific forms of social interaction that were particularly physically and emotionally exhausting for the spouse, that were specific to her supportive role, and unlike the professional care provider role. Some participants reported feeling that they must be on guard and looking out for things that might *trigger* issues in their Service member when out in public or social settings.

Similarly spouses feared that conversations with other military spouses talking about deployment trauma or injuries, or spending time with a specific spouse, with whom they had shared an earlier traumatic deployment, might trigger an unwanted or unexpected response for both themselves and their Service members. Therefore, these interactions were in effect, *triggers* for these military spouses, causing distress, hypervigilance, and/or avoidance. This level of day to day involvement with people with post-traumatic and indirect combat stress issues differs from that typically experienced in the professional relationship.

Social support groups. The participants in this study reported that they valued the opportunity to participate in support groups, either face to face or online, where spouses share their experiences. Participants related that the discussion of common issues helped them to not

feel alone in their suffering.

Stigma and organizational support. Some spouses discussed a perceived stigma around seeking help within the military culture. Others reported a lack of organizational support that might compromise the Service member's career or promotion potential if they or their Service member go for help. Others described the social avoidance in many contexts and for a variety of other reasons. Participants reported feeling embarrassed, tired, fearful, or felt the couple's issues would be misunderstood. These feelings are in addition to, and compounded with, the difficulties already being experienced by the role overloaded and emotionally distressed spouse. The spouses who had become full-time caregivers reported that leaving the Service member alone, may not be an option. These spouses reported experiencing additional issues and roles, related to social avoidance and/or special needs, in addition those previously discussed.

Some study participants, whose Service members had been medically discharged, expressed frustration with seeking services, or help from resources available to Veterans. These participants told stories of how they have had to become advocates for their Service member's health, and have learned skills to maneuver through the healthcare system, to receive the necessary assistance. These spouses felt their advocacy was essential to their Service member receiving proper care. This level of participation in the overall care and well-being of the wounded, injured, or ill Service member makes the relationship of this intimate dyad even more unique.

Emotional and physical exhaustion. Typically, the term *burnout* is used to refer to an occupational phenomenon that includes emotional exhaustion, depersonalization, and personal accomplishment. The psychometric tools used to assess these clinical constructs use items that were created for professional practitioners. These items describe work-related symptoms of

exhaustion, cynicism, and inefficacy experienced by professional caregivers and counselors that lack the necessary resources and organizational support to do their job (Maslach et.al, 2001).

The literature review documented examples of *burnout* being used to describe military spouses (Calhoun, et al, 2002; Figley, 1998; Guest et al., 2006). In fact, the Department of Veterans Affairs uses the term *caregiver burnout* to describe the physical, psychological, and medical issues and feelings experienced by family members caring for Service members with PTSD and other conditions (DoVA, 2013). However, experts in the field of traumatology have made the differentiation that this label *burnout* when applied to military family caregivers may be inappropriate (Bride, 2014).

Even though spouses may not report or experience burnout in a professional role, study participants described frequent interactions with individuals that have been exposed directly and indirectly to combat trauma. They identified numerous examples of role overload and extensive responsibilities that paralleled some aspects of the burnout experience. In addition, some study participants reported they lacked the necessary resources to support and meet these physical and emotional demands. Although the majority of the participants reported high levels of physical and emotional exhaustion, other descriptors (such as those that characterized the specific dimensions of role overload and emotional distress) proved to be more responsive in measuring the characteristics of their experience and its consequences on well-being.

Since the term *burnout* has been reserved to refer to a professional provider, and military spouses may not meet the clinical criteria to experience it, this study helped to characterize their unique experiences. The current research points to a type of physical and emotional exhaustion that is role specific and experienced in the context of the volume of responsibilities that the caregiver has taken on. The current tool provides spouses with opportunities to respond to items

that assess their role specific emotional distress, overload, intrusive arousal, and social avoidance. Cumulatively, these common experiences detracted from a sense of overall well-being.

Self-care issues. Perhaps this physical and emotional exhaustion is associated with two issues associated with self-care. For example, one item created that resonated with spouses states, *I lack my own personal time to do the things I need and want to do.* And if they do have time, many spouses described feelings of guilt or selfishness and anxiety if they choose to do something "for me"; as described in the item, *I feel guilty when considering my own needs.* Some of the spouses gave examples of how when planning or engaging in an activity, they start to have feelings of worry or concern about not being available for their loved ones. During these activities instead of enjoying their "me time", they begin having thoughts of not being a good spouse, mother, or friend. This issue is very important, because if the spouse is not caring for herself, she will not be able to continue to care for others. Yet, in order to engage in self-care an individual must often do an activity that may be strictly just for them, to meet their own needs.

Caregiver burden. The issues that a military spouse caring for a wounded, injured, or ill Service member faces might be compared to family members caring for individuals with other chronic physical or mental illnesses. The findings of this study suggest that not only do military spouses express feelings of emotional distress and role overload, but also due to their constant exposure, they may meet their threshold of exhaustion at an even faster pace than do professionals trained to provide care at an emotional distance. The hours, days, and years of continuous help they provide do not have the boundaries of a work schedule or a professional career. Unlike the professional, the overworked military spouse does not have the ability to refer the family member out to another caregiver.

Two sets of study participants seemed particularly affected by these feelings. First, the caregivers who had been providing long-term care for an extended period of time seemed especially distressed. The second group was those who described acting as an emotional confidant of another military spouse who had experienced trauma. Both spoke of feelings of being unable to separate from these intimate relationships. When these bonds become more demanding, they described experiencing more negative effects, due to their inability to emotionally separate or disengage. This role overload may lead to feelings of guilt, and emotional and physical fatigue, which in turn detract from their well-being.

Some study participants described the long-term effects of helping without support or recognition, and reported feelings of resentment (*what about me?, who cares about me?, no one asks about how I am doing*). When this helping is not reciprocated in the direction of the giving spouse, these spouses may experience a feeling of alienation, which may lead to estrangement by the giving spouse or divorce.

Within this caregiver population, for some participants, these roles necessitated a change in their goals, educational pursuits, and affected their outlook on their future. For some, these challenges and the related shift in roles had also affected the family's financial status and the spouse's employment. However, because many of current study participants were not employed and/or were the spouses of active duty Service members, there were poor response rates on pilot instrument items that sought to measure issues related to employment and finances. Thus, these items were deleted from the final instrument.

Recommendations

5.4 Recommendation One: Practical Contributions and Implications

Contributions to the study of Traumatology. The findings of the current study could be

a significant contribution to the traumatology literature. The developers of the *Compassion Fatigue Self Test* and *Secondary Traumatic Stress Scale* have asserted that the phenomenon experienced by spouses of active-duty and Veteran Service members is similar to phenomena documented in professional practitioners. This researcher's literature review found that well-designed studies measuring compassion fatigue in family members are virtually nonexistent. This may be partially due to the lack of a valid, reliable instrument available to measure the risk, symptoms or progression of compassion fatigue in family members (C. R. Figley, personal communication, March 2009).

The mixed research design used in the current study provided a means to develop quantitative measures that represented the participants' qualitative reports (Onwuegbuzie, Bustamante, & Nelson, (2010). During the qualitative portion of the study, when reviewing the items previously included in measures of compassion fatigue and secondary traumatic stress participants resonated with some items and not with others. The relevant items were then worded to match the symptoms and phenomena described by the military spouses. After factor analysis, study participants confirmed that the final 21 scale items were representative of the issues of military spouses, providing further evidence of content validity. In addition, the subscales and total scale scores of the final instrument correlated significantly with scores on well-accepted measures of well-being, social support and quality of life.

Theoretical implications. The findings from the Phase One portion of the study documented the real life biological, psychological, and sociological issues that affect US military spouses. By adapting constructs within existing models, the new measurement tool represented the issues specific to this unique population. These adaptations resulted in the development of a valid and reliable instrument that includes the role specific constructs present in their lived

experiences. The constructs that emerged (*Role Overload, Emotional Distress, Intrusive Arousal,* and *Social Avoidance*) may be used to help understand the development of specific mental health issues and overall well-being of the civilian spouses of active and Veteran US Service members.

Stress process model. As anticipated, many of the symptoms described by participants during the Phase One qualitative interviews matched symptoms found in the DSM-5 for acute stress disorder and generalized anxiety disorder. However, qualitative comments suggested that military spouses respond to stressors in many different ways, which suggests there are opportunities to intervene and change the association between the exposure to the stress and the ability to adapt to and cope with the stress.

The well-being of the entire family may depend on how well the military spouse handles these chronic life strains. Whether or not the spouse has high self-efficacy in the roles of spouse, caregiver, helper, and parent all affect feelings of personal accomplishment (Pearlin et al., 1981). Participants related that their feelings of satisfaction with their management of their roles, and the demands of added responsibilities, affected their feelings of self-worth and perceptions of success or failure as a helper.

The mixed research approach of this study increased the understanding of the etiology and allowed for the exploration of the possible multifactorial causes of stress for the military spouse. The final 21-item survey identifies four biopsychosocial factors (role overload, emotional distress, intrusive arousal, social avoidance) affecting their overall well-being. This valid and reliable measure, designed specifically for spouses, may be used in family trauma prevention and systemic interventions and in research and practice.

In addition, the use of the HALO scale may be applicable to other populations, as well, such as spouses of civilian first responders and law enforcement personnel. Using this instrument

in future cross validation research to assess its validity in measuring stresses experienced by spouses of first responders, may further contribute to our understanding of indirect trauma exposure, and its effect on the well-being of family members.

Clinical implications. The current study designed and tested an instrument to quantify how indirect trauma exposure affects US military spouses. Consistent with the literature, the participants in the current study reported experiencing multiple symptoms that fit a variety of physical and psychological diagnoses (Calhoun, et al, 2002; Calhoun & Wampler, 2002; Dekel & Solomon, 2006; Figley, 1998; Guest et al., 2006; Lyons, 2001; Price & Stevens, 2007; Verbosky, 1988). Additionally, sometimes, participants reported not being able to voice what their symptoms are—sometimes they don't know what is happening to them, they just know something is not right.

Professional care providers may only be focused on helping the Service members and uninformed of the issues that the spouse is experiencing. Spouses may therefore be misdiagnosed or offered treatment that will not address the underlying issues. Further, the military spouse is the caregiver of the family; therefore, the family may be in distress if the military spouse does not receive appropriate care. This scale may be able to help a provider to identify the nature of the issues that the spouse is experiencing.

This scale could also be used to help provide health education for practitioners and spouses. When practitioners understand that compassion fatigue is a natural, predictable, treatable, and preventable consequence of their work, they are prepared for this outcome and still find satisfaction in their work (Figley, 1995). Similarly, if practitioners and spouses understand the possible issues that may result from caring for loved ones exposed to combat, they might also become better prepared to meet the challenges of an indirectly exposed traumatized partner. The

more practitioners know about how to identify specific issues faced by military spouses, the better they may be able to provide appropriate care to the Service member and the family.

In this same way, this scale could be used as a self-help tool for military spouses to self-assess their well-being. An awareness of common experiences after indirect trauma exposure may facilitate promptly taking action to get help when needed to ameliorate the stressors (social support, respite for caregivers, etc.). High scores on the constructs of role overload, emotional distress, intrusive arousal, or social avoidance may be indicators of compromised well-being and encourage help-seeking.

Providing spouses with caregiver training may help normalize their issues and reactions. Spouses who understand their own reactions may have more compassion for their Service-member's posttraumatic stress and provide better support. Further, by understanding trauma symptoms, spouses may recognize symptoms in their Service member and in other spouses within their social support network. Health education could be used to help spouses become more aware of how becoming emotionally involved may affect them. Also, teaching them skills to protect them emotionally would likely be beneficial.

Finally, it is important to recognize that self-care is essential and should be encouraged. Spouses may benefit from learning practices to prioritize self-care even when it seems there is no time for self-care. Additionally, the Sponsor's involvement can underscore the importance of self-care for the caregiver/helper.

Therapeutic implications. As noted in literature review of the *Protective and Risk Model,* the protective and risk factors for military spouses were not clearly delineated or defined in the literature. Not enough is known about building protective factors and effective therapy for spouses (Dekel & Solomon, 2006). The findings from this research grounded in the life

experiences of the military spouse help to identify themes that may be useful to shift the focus to a wellness perspective, build resiliency, and develop effective interventions. The four-factor framework developed from this study, coupled with the valid and reliable measurement tool could be used to guide research and practice that focuses on real life outcomes, and improves overall well-being and quality of life in this population.

Increasing social support. During Phase One of the current study, participants discussed social support, coping strategies, and feelings of self-efficacy in their roles as military spouses. This role is very important to both the spouse and the success of the military Service member. This role builds strong bonds between many military spouses that cross the branches of military service, and bridges the gaps formed from leaving their biological family members and hometowns to follow the Service member's career. Spouses used words like trustworthy, kind, independent, and resilient to describe their military "sisters".

Phase Two helped to identify items that measured specific support and coping mechanisms used by military spouses. Phase Three showed an inverse relationship between specific constructs in the MOS SSS for social support and the constructs of the HALO. This suggests that higher levels of social support may mitigate the negative effects of role overload, emotional distress, intrusive arousal, and social avoidance. The HALO could help identify and measure the effect of these factors in future studies on well-being in this population.

Building resiliency. While contact with trauma survivors may increase vulnerability to secondary traumatic stress, exposure does not automatically result in secondary trauma (Badger, 2008; Calhoun et al. 2002; Guest et al., 2006; Meadors & Lamson, 2008). Current research suggests that approximately 20% of soldiers exposed to combat stress exhibit post-traumatic stress symptoms (Rand, 2009). The inverse of this estimate suggests that approximately 80% of

individuals exposed to traumatic situations do not suffer long-term posttraumatic stress disorder; perhaps spouses have similar resiliency rates.

It should be noted that despite the multiple deployments to which many Service members and their families have been exposed and related post-combat stress injuries, the majority of military spouses have a level of resiliency that is inspiring and encouraging. The qualitative interviews provided insight into the multiple protective factors and skills developed by this unique population in creating a "new normal." The role of a military spouse is both challenging and rewarding. The care model used by both military and civilian practitioners in providing care to military spouses should include these findings to inform clinical interventions. The complex context of military culture provides an interesting backdrop for testing and refining clinical approaches to this unique population.

Deployment cycle. The military spouse participants of this study described their symptoms and how they changed frequently during the rollercoaster ride of the deployment cycle, indicating that both multiple deployments and especially traumatic deployments were potential risk factors that may affect well-being. This suggests that their self-assessment of their well-being could easily change during various phases of the deployment cycle. When assessing well-being in practice, a simple demographic question could be asked to assess the current stage of deployment that the spouse is co-experiencing with the Service member.

Role overload during or after deployment. The findings of this study revealed that the level of support needed and provided also changes with each phase of the deployment cycle. Some participants viewed their roles as obligations, and others related that the feeling of duty or responsibility may differ for each spouse depending on the rank of the Service member. Some seasoned spouse participants described volunteering to help those new to deployments. Some

described their involvement in support groups and readiness groups that work with spouses to try to provide them with the necessary skills.

Social support during and after deployment. Participants offered that some spouses may withdraw from the social support system or may move to be near family during the deployment. Study participants commented that if the Service member is deployed in a small group or with the Reserves or National Guard, the support system may be almost nonexistent. Participants also commented that after the deployment ends the social support system put in place by the deployed unit may no longer exist. Thus, it is important to remember that the subjective well-being may vary with the phase of the deployment cycle.

Evidence based intervention implications. Despite growing awareness of the needs to address PTSD issues in active duty troops and Veterans post-deployment, relatively little attention has been given to the issues that their families experience. This measure could be used to screen for and select highest-risk candidates to prevent the sequelae of role overload and emotional distress in military spouses and family caregivers. It may ultimately help military spouses by providing a framework to guide research efforts, psycho-educational initiatives, interventions, and programs.

Once identified, interventions could make these high-risk spouses aware of feelings that may be associated with exposure to indirect combat trauma, and how this exposure may change their role, or increase their responsibilities. This training would prepare spouses and provide awareness of the constructs found within this study to affect their well-being (Role Overload, Emotional Distress, Intrusive Arousal, and Social Avoidance).

An effective intervention that helps spouses to find a balance, by focusing on the strengths and increasing protective factors within the four domains of well-being, may lead to

mitigating the influence of the risk factors and the negative effects of deployment, reintegration, and stressors of military life. The data gathered from the use of this instrument could be used to document the baseline and outcomes of an evidence-based intervention for military spouses to enhance resiliency and reduce biopsychosocial risks.

5.5 Recommendation Two: Limitations of Current Study

As mentioned in Chapter Three, many steps were taken to try to address the potential threats to validity during the course of this investigation. However, there are still limitations that should be considered when interpreting the findings of the current study.

Cross-sectional design. The use of a cross-sectional design does not determine a causal relationship between the constructs and the overall well-being of the military spouse. These relationships need to be explored using longitudinal studies to collect at multiple points of time.

Selection bias. Purposive, convenience, and snowball sampling processes were utilized. These methods of recruitment may present difficulties in assembling a representative sample of this diverse population to insure external validity. However, the participant demographics reported in the current study were compared to two recent reports, and found to be comparable and representative of this unique population of military spouses (DMDC, 2012; IVMA, 2014).

Attrition. Since monitoring by the researcher was not available during online data collection, the researcher cannot be certain the setting for data collection was a relaxed environment and free of distractions. The online survey function allowed study participants who left the survey prior to completion to use their anonymous link to take them back to the point where they left the survey. However, if the military spouse participant erased the “cookies” from the operating system or the browser platform did not retain cookies, the survey link could not be used to go back to the place where the participant left off. This would have required the spouse

to retake the survey from the beginning. These issues could explain some of the attrition that occurred between the demographic and completion of all survey items. Additionally, many of the participants who created a code in Phase Two during *Survey #1* did not use the second link provided to take the test-retest reliability *Survey #2.* So while some of the participants may have intended to be a part of the second survey, they did not follow through with the completion of the second survey.

Trustworthiness. This study was limited to the accuracy of participants self-reporting. Specifically, participants provided demographic information, and personal perspectives of their psychosocial, social, physical, and spiritual well-being.

Social desirability. Spouses answered questions on their own time, in the privacy of their own homes, using their own personal computer or electronic device. We cannot be certain that this relaxed, nonbiased setting would provide different results than if spouses completed the survey within a different sociological or cultural setting, such as a military installation.

Further, some items were created to assess satisfaction with military organizational support and stigma associated with seeking help, because these issues were discussed as a potential protective or risk factors by the Phase One informants. However, all of these items were ultimately removed from the final instrument due to the high level of responses of *Not Applicable* or *I Decline to Answer*. Post-deletion discussions with spouses, suggested that many of these items may have presented issues with social desirability.

5.6 Recommendation Three: Future Research

The HALO specifically addresses the measurement of well-being in relation to the indirect effects of combat experienced by spouses and intimate partners of US military combat trauma survivors. During the design and development of the instrument, multiple qualitative and

quantitative techniques were used to insure that the items measured the phenomenon the researcher intended to measure. The findings of the research show that this valid and reliable tool may be used with confidence in assessment, prevention, and intervention approaches with family members of those affected by combat stress. Future research efforts to study spouses will be facilitated by using the framework and this valid, reliable instrument.

Research to test hypothesis--What do the scores mean? Do spouses of active-duty Service members exposed to trauma have higher scores than do spouses of those not exposed to trauma? A finding of this nature will help validate past reports on war veterans' spouses (Dekel & Solomon, 2006; Figley, 1995; Frančišković et al., 2007; Guest et al., 2006). In addition, these results may explain the emotional distress and arousal clinicians see in spouses of traumatized Service members (Manguno-Mire et al., 2007; Mansfield et al, 2010; NCPTSD, 2010).

Research to measure risks. Do high scores represent an unhealthy fusion of the spouse and Service member that could have negative consequences (i.e. separation, divorce, losing job, suicide)? The inverse correlations between the HALO and the RAND-36 subscales, suggest that high scores on the HALO will be associated with lower scores on measures of mental health, social and emotional well-being. There may be a relationship of high HALO scores to adverse events over time. This could mean paying particular attention to those spouses indicating *often* and *very often* on items on the HALO.

Research to identify protective and risk factors, and predictive validity. Past research suggests there is a complex interaction between biopsychosocial factors (Bride et al., 2004). For example, studies of clinicians exposed to secondary trauma suggest social and organizational supports have mediating effects on mental health outcomes. It is possible that protective factors, such as social and organizational supports and demographic variables are associated with and

help to buffer the effects of stress (Badger, 2008; Figley, 1998, 1983; Hoge et al. 2004).

Can total score or subscale scores predict or measure future well-being? What factors affect overall scores? How do age, rank of Sponsor, organizational and social support, resources, military cultural stigma, self-care, coping mechanisms and skills, and personality affect the overall well-being of military spouses? There is a need to quantify these variables and examine the influence of these on their response to Service member's trauma. This valid and reliable tool could be used in longitudinal studies to track the long-term outcomes of individuals. By studying changes in instrument scores over time, we can more accurately assess the effects of each of these factors on the personal lives of spouses and their well-being.

Findings that reveal the influence of these variables could suggest ways to build resiliency in spouses, and develop interventions that introduce and maintain these protective factors in military families, service organizations, healthcare providers and educators. This information could also increase awareness and suggest opportunities to link spouses with existing social support programs to improve parenting, relationships, and life skills.

Conclusion

This study developed a valid and reliable new instrument to assess the well-being of civilian spouses and partners of US active-duty and Veteran Service members who may have been indirectly exposed to combat trauma stress. The researcher began with a literature review of past qualitative and quantitative studies conducted in both foreign and domestic countries. The *a priori* content domains identified in the literature were matched to key variables and constructs found in valid and reliable professional healthcare and caregiver instruments.

Relevant items guided the formation of new items using expert objective feedback and key informant subjective feedback to provide face and content validity, respectively. The

researcher built trust and acceptance through in-depth conversations and a shared familiarity with the military culture. When saturation and redundancy of the themes were achieved, the subsets of revised, resonating items were reviewed for how well they represent the most prototypical experiences of civilian spouses and partners of OEF/OIF/OND U.S. military personnel.

By engaging the spouses in the development process, this population-specific instrument will help to document the unique nature of the phenomenon they experience and the possible role of protective factors in mitigating undesirable outcomes. The data that emerged from this study may also increase our understanding of their specific theoretical issues and constructs in the context of pre-existing models. This contribution provides practitioners and researchers with a valid and reliable quantitative measure to use in family trauma assessment and referral. In addition, it provides a tool to measure the effect of prevention and intervention strategies designed specifically for spouses and their diverse needs.

There are limitations to the current study that have been discussed, and there is more to be learned about the needs of this unique population through future research. The outcomes of this study provide an important contribution to traumatology research and have implications for mental health clinical practice with civilian spouses and partners indirectly exposed to trauma and combat stress.

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Appendix

University of Texas at El Paso (UTEP) Institutional Review Board
Informed Consent Form for Research Involving Human Subjects

Protocol Title: Military Spouse Health Assessment: The Development and Validation of a New Instrument to Measure Well-being in Military Spouses

Principal Investigator: Christi Luby, PhD(c), MPH, MCHES, CFE

UTEP: College of Health Sciences, Interdisciplinary Health Sciences, PhD Program

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Introduction

You are being asked to take part voluntarily in the research study described below. Please take your time making a decision and feel free to discuss it with your friends and family. Before agreeing to take part in this study, please read the consent form describing the study and ask the researcher to explain any words or information that you do not clearly understand.

Why is this study being done? You are being asked to take part in a research study to explore the experiences of partners of deployed/returning military members. This study seeks information to develop and test a new measurement tool to help understand the specific issues and needs experienced by military spouses. Developing this measurement tool to assess well-being will aid in the future development of prevention and intervention to help military spouses. Approximately 20 participants will be enrolling in this study for the individual interviews and two focus groups; and 200 participants will be enrolling in this study through online support groups. If you decide to enroll in this study, your involvement will last about either 45 minutes for an online survey or 1½ hours for participation in a focus group.

To be eligible to participate in this study you:

(1) Must be between 18 and 65 years of age.
(2) Must be a spouse or domestic partner in a relationship for at least one year with a military service member.
(3) Must be a spouse or domestic partner of a military service member who has served at least one tour of duty in support of current Middle Eastern operations (Operations Enduring Freedom/Iraqi Freedom—OEF/ OIF, New Dawn).
(4) May be the partner of a military service member with or without PTSD, traumatic brain injuries and other combat stress injuries.
(5) Must not be less than 18 years or older than 65 year of age.
(6) Must not have a history of mental health, drug, or alcohol abuse issues prior to the spouse's military deployment.
(7) Must not be an military service member yourself, either currently or in the past

What is involved in the study? If you agree to take part in this study, you will be involved in one or more of the following activities:

1) Participation in a 1½-hour focus group to gather information about the potential items to include on the questionnaire, including giving feedback on item content, wording, and response format.

2) Participation in an online survey to gather anonymous information about current issues affecting your health and well-being. This includes demographic information about you and your partner.

3) Participation in a repeat administration of the online survey within a 24-hour period after the first administration.

What are the risks and discomforts of the study? Potential risks involved in this project include increased discomfort experienced when answering questions about your perceptions of how the stresses of deployments have affected you, your spouse, and your current relationship. If you wish to seek additional help, a list of available counseling options will be provided.

What will happen if I am injured in this study? The University of Texas at El Paso and its affiliates do not offer to pay for or cover the cost of medical treatment for research-related illness or injury. No funds have been set aside to pay or reimburse you in the event of such injury or illness. You will not give up any of your legal rights by signing this consent form. Report any such injury to Christi Duette Luby, PhD(c), MPH (cdluby@miners.utep.edu) or UTEP Institutional Review Board (IRB) irb.orsp@utep.edu (915-747-8841).

Are there benefits to taking part in this study? The potential benefits from this project include adding to our understanding about how military deployments affect family relationships. The information gathered will inform the community of these needs and inform decision-makers to help provide appropriate services to support military spouses and families.

What other options are there? You have the option not to take part in this study. There will be no penalties involved if you choose not to take part in this study.

Who is paying for this study? No funding is currently being received to conduct this study.

What are my costs? There are no direct costs. You will be responsible for travel to and from the research site and any other incidental expenses.

Will I be paid to participate in this study? You will not be paid for taking part in this study.

What if I want to withdraw, or am asked to withdraw from this study? Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty. If you choose to take part, you have the right to stop at any time.

The researcher encourages you to talk with her, so she will know why you are leaving the study. The researcher may decide to stop your participation without your permission, if she thinks that being in the study may cause you harm.

Whom do I call if I have questions or problems? You may ask any questions you have now. If you have questions later, you may email Christi Duette Luby, PhD(c), MPH, (UTEP IHS Doctoral Candidate) at cdluby@miners.utep.edu. If you have questions or concerns about your participation, please contact UTEP Institutional Review Board (IRB) irb.orsp@utep.edu or (915-747-8841).

What about confidentiality? Your participation in this study is confidential and anonymous. None of the information you give will identify you by name. Some questionnaires will require that you submit a code number for tracking, however, personal identifying information will be excluded in order to maintain anonymity and confidentiality. The questionnaires and consent will be submitted via online survey. Your consent form will be kept separate from your responses. Only the researcher will see your responses and they will not become a part of your health records. The results of this research may be presented at meetings or in publications; however, your responses will only be reported as a part of a group. You and your partner's identity will not be disclosed in those presentations or publications.

Mandatory reporting: If child abuse or neglect information is revealed or potentially dangerous future behavior to others, the law requires this information be reported to the proper authorities.

Authorization Statement: I have read each page of this paper (or it was read to me). I know that my participation in this study is voluntary and I choose to be in this study. I know I can stop my participation in this study without penalty. I will receive a copy of this consent form now and can get information on results of the study later if I wish.

Participant Name: _____Date: _____

Participant Signature: _____Time: _____

Consent form explained/witnessed by: _____

Printed name: _____Date: _____ Time: _____

Appendix B: Phase Two & Three Online Informed Consent Form

Informed Consent to Participate in Human Subject Research

Protocol Title: Military Spouse Health Assessment: The Development and Validation of A New Instrument to Measure Well-being in Military Spouses

Christi Luby, a doctoral candidate at the University of Texas at El Paso, would appreciate your participation in a research study designed to explore the experiences of partners of deployed/ returning military servicemembers. This study seeks to better understand the specific issues and needs experienced by military spouses. You are being asked to complete an anonymous survey that should take approximately 30-40 minutes.

While this information could be obtained by interviewing you in person, we feel that the online survey is the quickest and easiest method for obtaining this information.

We anticipate no unforeseen risk to you as a result of your participation in this study other than the inconvenience of the time to complete the survey. You could, however, experience some discomfort when answering questions about your perceptions of how the stresses of deployments have affected you, your spouse, and your current relationship.

While there may be no immediate benefit to you as a result of your participation in this study, it is hoped that we may gain valuable information about how military deployments affect family relationships. The information gathered will inform the community of these needs and inform decision-makers to help provide appropriate services to support military spouses and families.

The information that you give us on the questionnaire will be recorded in anonymous form. We will not release information that could identify you. All completed surveys will be stored securely in a locked office and will not be available to anyone not directly involved in this study.

If you want to withdraw from the study at any time, you may do so without penalty. The information you have contributed will be destroyed.

Once the study is completed, we would be glad to give you the results. In the meantime, if you have any questions, please ask us or contact:

Christi Duette Luby, PhD(c), MPH, MCHES, CFE
(cdluby@miners.utep.edu)
(915) 307-8156

If you have any complaints about your treatment as a participant in this study, please contact:

Institutional Review Board for the Protection of Human Subjects
University of Texas at El Paso
irb.orsp@utep.edu (915-747-8841)

The IRB will ask your name, but all complaints are kept in confidence.

Your completion and submission of the survey to the researchers represents your consent to serve as a subject in this research.

This research project has been approved by the UTEP Institutional Review Board for the Protection of Human Subjects.

Appendix C: Recruitment Flyer

Military Spouses Needed

To participate in a research study to measure well-being in military spouses

Anonymous Survey may be completed online.

Are you between the ages of 18-65 and married (or partner for more than one year) to a soldier that served in OEF/OIF/OND?

You may be eligible to participate.

Please contact Christi Luby by phone at 915-307-8156, or by email at cdluby@miners.utep.edu for more information.

University of Texas at El Paso

This study has been approved by UTEP IRB. This research is not affiliated with the William Beaumont Army Medical Center, the Department of the Army, or the United States Government.

Appendix D: Phase One Semi-structured Interview Questions

Thank you for your participation in the military spouse well-being study. I am developing a questionnaire to help assess the well-being of military spouses. I need your help to ensure that each item is worded correctly and relevant to the experiences of a military spouse.

1) COMPREHENSION OF THE QUESTION:

a) Question intent: What does the spouse believe the question to be asking?

Example: ***What does the item mean to you? How do you understand the question?***

b) Meaning of terms: What do specific words and phrases in the question mean to the spouse?

Examples: ***What does _____ mean to you?***

c. Key Constructs Clarification: How do spouses understand the construct/concept?

Example***: What does the concept mean to you? Does this item clarify the concept? Does this item describe your lived experience?***

2) RETRIEVAL FROM MEMORY OF RELEVANT INFORMATION:

Question intent: Is the spouse able to recall the information in order to answer the question? (Sensitive items or trauma items may require more sensitivity, thought or may be avoided.)

Example: ***Is the item worded well? If not, how would you suggest this item be worded?***

3) DECISION PROCESSES:

a) Question intent: Motivation: Does the spouse devote sufficient mental effort to answer the question accurately and thoughtfully?

Example: ***Is there a way we could word this to help you respond most effectively?***

b) Sensitivity/Social Desirability: Does the spouse want to tell the truth? Does he/she say something that makes him/her look "better"?

Example: ***Is there a "right answer" to this question or would any response be okay?***

4) RESPONSE PROCESSES: It is important to reduce measurement error that is due to offering an inadequate response set. Examples: Frequency: 1 (never) to 5 (very often); Intensity: 1 (strongly disagree) to 5 (strongly agree)

Example: ***What response would you give to respond to or answer this question?***

Appendix E

Phase 1: Prototypicality for Military Spouse Questionnaire Analysis

Thank you for your participation in the military spouse well-being study. I am developing a questionnaire to measure the well-being of military spouses. I need your help to rate the issues that are most typical of the experiences of a military spouse.

Below are different statements that reflect experiences of military spouses. Statements are grouped under each of the four overarching areas of Well-being:

- Psychological Well-being: Caregiver Burden, Secondary Trauma Stress, Compassion Fatigue, Burnout, Additional Roles and Responsibilities
- Physical Well-being
- Social Well-being: Social & Organizational Support, Isolation, Stigma
- Spiritual Well-being

Please rate how well each statement fits the well-being area on a 7-point scale.

1 = the statement is a very poor example of the area
4 = the statement fits moderately well with the area
7 = the statement is a very good example of the area

Use the other numbers (2, 3, 5, 6) on the scale to indicate if the item falls in between.

If 1-3 is selected, please indicate which area you feel the item does fit in more properly.

PLEASE NOTE: Rating an item does not indicate you experience this issue. It simply means you believe the item fits in that area of well-being.

An example of how to fill out the questionnaire follows:

How closely does each of the following items belong to the area of "Psychological Well-being?"

(Mark the number that most closely reflects your agreement with how good an example the statement is of Psychological Well-being.)

Example: 1) I feel selfish when considering my own needs.

1	2	3	**4 X**	5	6	7
the statement is a very poor example of this area			the statement fits moderately well with this area			the statement is a very good example of this area

How closely does each of the following items belong to the area of "Psychological Well-being"—this includes Secondary Trauma Stress, Compassion Fatigue, Burnout, Caregiver Burden, Challenges of Additional Roles & Responsibilities? (Mark the number that most closely reflects your agreement with how good an example the statement is of Psychological Well-being.)

1) I feel selfish/guilty when considering my own needs.

1	*2*	*3*	*4*	*5*	*6*	*7*

2) I feel emotionally fatigued or tired.

1	*2*	*3*	*4*	*5*	*6*	*7*

3) I feel depressed.

1	*2*	*3*	*4*	*5*	*6*	*7*

4) I worry that what I am experiencing is hardening me emotionally.

1	*2*	*3*	*4*	*5*	*6*	*7*

5) I experience distress (hurt, fear, emotional pain) due to my lack of understanding of the behavior/personality changes.

1	*2*	*3*	*4*	*5*	*6*	*7*

6) I have felt I was losing my mind, because I do not understand post-trauma symptoms in others.

1	*2*	*3*	*4*	*5*	*6*	*7*

7) I feel responsible for the problem, but I do not know how to fix it.

1	*2*	*3*	*4*	*5*	*6*	*7*

8) I lack my own personal time to do things I need and want to do.

1	*2*	*3*	*4*	*5*	*6*	*7*

9) It seems as if I am reliving his/her trauma(s).

1	*2*	*3*	*4*	*5*	*6*	*7*

10) Reminders of his/her trauma upset me.

1	*2*	*3*	*4*	*5*	*6*	*7*

11) I think about his/her trauma when I do not intend to (includes visualizations).

1	*2*	*3*	*4*	*5*	*6*	*7*

12) I have disturbing dreams / nightmares about his/her trauma.

1	*2*	*3*	*4*	*5*	*6*	*7*

13) I feel emotionally numb.

1	*2*	*3*	*4*	*5*	*6*	*7*

14) I feel discouraged/unsure about the future.

1	*2*	*3*	*4*	*5*	*6*	*7*

15) I have little interest in being around others.

1	*2*	*3*	*4*	*5*	*6*	*7*

16) I am not interested in participating in activities I used to enjoy.

1	*2*	*3*	*4*	*5*	*6*	*7*

17) I avoid people, places, or things that might trigger his/her symptoms.

1	*2*	*3*	*4*	*5*	*6*	*7*

18) I avoid people, places, or things that might trigger my symptoms.

1	*2*	*3*	*4*	*5*	*6*	*7*

19) I want to avoid talking about his/her trauma.

1	*2*	*3*	*4*	*5*	*6*	*7*

20) I have trouble recalling certain parts of his/her trauma story.

1	*2*	*3*	*4*	*5*	*6*	*7*

21) I have difficulty falling or staying asleep.

1	*2*	*3*	*4*	*5*	*6*	*7*

22) My heart starts pounding or I have shallow/rapid breath when I think about his/her trauma.

1	*2*	*3*	*4*	*5*	*6*	*7*

23) I feel jumpy or am easily startled.

1	*2*	*3*	*4*	*5*	*6*	*7*

24) I have trouble concentrating.

1	*2*	*3*	*4*	*5*	*6*	*7*

25) I am easily annoyed, and have outbursts of anger or irritability with little provocation.

1	*2*	*3*	*4*	*5*	*6*	*7*

26) I expect something bad to happen.

1	*2*	*3*	*4*	*5*	*6*	*7*

27) I can easily understand how he/she feels about things.

1	*2*	*3*	*4*	*5*	*6*	*7*

28) I deal effectively with his/her problems or issues.

1	*2*	*3*	*4*	*5*	*6*	*7*

29) I feel my helping has a positive influence on him/her.

1	*2*	*3*	*4*	*5*	*6*	*7*

30) I know what he/she needs to feel calm and relaxed.

1	*2*	*3*	*4*	*5*	*6*	*7*

31) I have accomplished many worthwhile things.

1	*2*	*3*	*4*	*5*	*6*	*7*

32) I feel I need to fix the problem for those I am helping.

1	*2*	*3*	*4*	*5*	*6*	*7*

33) I get emotional when I listen to the issues of others.

1	*2*	*3*	*4*	*5*	*6*	*7*

34) I feel I can separate emotionally from those I am helping.

1	*2*	*3*	*4*	*5*	*6*	*7*

35) I feel I am too involved in the problems of those I am trying to help.

1	*2*	*3*	*4*	*5*	*6*	*7*

36) I have thought that I might have been "infected" by his/her traumatic stress.

1	*2*	*3*	*4*	*5*	*6*	*7*

37) I have felt trapped in my relationship with him/her.

1	*2*	*3*	*4*	*5*	*6*	*7*

38) I have wished that I could avoid helping or caring for him/her.

1	*2*	*3*	*4*	*5*	*6*	*7*

39) I have been in danger from him/her.

1	*2*	*3*	*4*	*5*	*6*	*7*

40) I have felt that he/she dislikes me personally.

1	*2*	*3*	*4*	*5*	*6*	*7*

Your Additional Roles & Responsibilities may affect your Family/Relationships

41) I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).

1	*2*	*3*	*4*	*5*	*6*	*7*

42) I feel like I have to run interference between he/she and the outside world to avoid confrontations and anger outbursts.

1	*2*	*3*	*4*	*5*	*6*	*7*

43) I feel like there is constant instability, and I have to try to fix things to keep things stable.

1	*2*	*3*	*4*	*5*	*6*	*7*

44) I feel I am being manipulated/taken advantage of due to his/her extra demands.

1	*2*	*3*	*4*	*5*	*6*	*7*

45) Since the deployment, my marital relationship has physical or emotional issues with intimacy.

1	*2*	*3*	*4*	*5*	*6*	*7*

46) Since the deployment, our finances have been diverted to providing care.

1	*2*	*3*	*4*	*5*	*6*	*7*

47) Since the deployment, our finances have been strained or drained due to providing for our family's needs just to keep our family together.

1	*2*	*3*	*4*	*5*	*6*	*7*

Your Additional Roles & Responsibilities may affect your employment status.
If you don't work outside of the home, check N/A.

48) I take sick leave from work.

1	*2*	*3*	*4*	*5*	*6*	*7*

49) I think about changing my employment to a job that was less demanding.

1	*2*	*3*	*4*	*5*	*6*	*7*

50) I think about quitting my employment.

1	*2*	*3*	*4*	*5*	*6*	*7*

51) I have had to work more hours to make up for time I have spent helping.

1	*2*	*3*	*4*	*5*	*6*	*7*

How closely does each of the following items belong to the area of "Physical Well-being"? (Mark the number that most closely reflects your agreement with how good an example the statement is of Physical Well-being.)

52) I seem to get sick.

1	*2*	*3*	*4*	*5*	*6*	*7*

53) I have new symptoms of physical health issues.

1	*2*	*3*	*4*	*5*	*6*	*7*

54) I am able to exercise like I want.

1	*2*	*3*	*4*	*5*	*6*	*7*

55) I am able to get to my own checkups with doctors, dentists, and other health care providers.

1	*2*	*3*	*4*	*5*	*6*	*7*

56) I feel physically fatigued or tired.

1	*2*	*3*	*4*	*5*	*6*	*7*

How closely does each of the following items belong to the area of "Social Well-being"-- Social & Organizational Support, Caregiver Burden, Isolation, and Military Specific Social Support? (Mark the number that most closely reflects your agreement with how good an example the statement is of Social Well-being.)

57) I am able to participate in enjoyable activities.

1	*2*	*3*	*4*	*5*	*6*	*7*

58) I am able to maintain personal relationships with others.

1	*2*	*3*	*4*	*5*	*6*	*7*

59) The number of social activities our family does has decreased.

1	*2*	*3*	*4*	*5*	*6*	*7*

60) I do not participate in social activities because I am too tired.

1	*2*	*3*	*4*	*5*	*6*	*7*

61) I do not participate in social activities, because I am worried about leaving him/her alone.

1	*2*	*3*	*4*	*5*	*6*	*7*

62) I feel as though I have been cut off from contact with my family/friends.

1	*2*	*3*	*4*	*5*	*6*	*7*

63) I feel guilty if I go out anywhere (example: lunch with a friend.)

1	*2*	*3*	*4*	*5*	*6*	*7*

64) I feel there is no one I can talk to about what I am experiencing.

1	*2*	*3*	*4*	*5*	*6*	*7*

65) My family/friends make me feel nurtured.

1	*2*	*3*	*4*	*5*	*6*	*7*

66) I have a sense of belonging.

1	2	3	4	5	6	7

67) I have sufficient financial resources available to meet my needs.

1	2	3	4	5	6	7

68) I am aware of resources that are available to meet my needs.

1	2	3	4	5	6	7

69) I want to talk about his/her trauma, but I feel I cannot confide in anyone.

1	2	3	4	5	6	7

70) I feel I cannot trust anyone but myself.

1	2	3	4	5	6	7

71) I feel emotionally abandoned, even though he/she is around.

1	2	3	4	5	6	7

72) The military provides me with the necessary resources to help my family and me.

1	2	3	4	5	6	7

73) I feel comfortable asking for help when I need it.

1	2	3	4	5	6	7

74) I feel if my family or I need help the military will provide the proper health care.

1	2	3	4	5	6	7

75) I feel my servicemember's career or promotion potential will be affected if I seek help.

1	2	3	4	5	6	7

76) I feel my servicemember's career or promotion potential will be affected if he/she seeks help.

1	2	3	4	5	6	7

How closely does each of the following items belong to the area of "Spiritual Well-being"? (Mark the number that most closely reflects your agreement with how good an example the statement is of Spiritual Well-being.)

77) I question my spiritual beliefs.

1	2	3	4	5	6	7

78) I have felt a sense of hopelessness associated with helping or caring for him/her.

1	2	3	4	5	6	7

79) I feel skeptical (doubt, critical) about things.

1	2	3	4	5	6	7

80) I feel like my life has meaning or a purpose.

1	2	3	4	5	6	7

81) I have been angry at God for allowing this to happen.

1	2	3	4	5	6	7

82) I question God's role in my life.

1	2	3	4	5	6	7

Appendix F

Phase Two & Three Message to Public Webpage Group Leaders with Recruitment Information

Good Morning XXX! As you know, I am working on my PhD project to assess well-being in military spouses/partners of active duty and Veteran US OEF/OIF/OND Service members. My PhD research focuses on how deployments and reintegration may affect military spouses'/ partners' well-being. I have been developing an instrument to measure well-being (Psychological, Social, Spiritual, and Physical) in military spouses (active duty and Veterans) using their feedback to create items that describe their experiences.

For this portion of my study, I need military spouses (of active or Veteran Service members) to take the anonymous survey to test its reliability and validity. If I can post the research recruitment flyer and contact information on your page, please let me know. I will be happy to answer any questions you may have. Thank you for helping to make this a success.

(See Recruitment Flyer Announcement)

* A link was provided to the interested group webpage leaders to preview the survey items and inclusion, exclusion criteria, online informed consent page).

Anonymous Survey Links:

Survey One Link: Reliability

https://utep.qualtrics.com/SE/?SID=SV_9SHn0FSISwtrlWZ

Survey Two Link: Test-retest

https://utep.qualtrics.com/SE/?SID=SV_1LxZg5XjtkpCk0B

Survey Three Link: Validity

https://utep.qualtrics.com/jfe/form/SV_4Od8Y48cxZWTXrT

Thank you for your participation in the Military Spouse Well-being Study. I am developing a questionnaire to help assess the well-being of military spouses. This information will be used only to assess the similarities of experiences of a military spouse that may exist due to certain demographic information.

Block 1 Screener Questions Inclusion Criteria

Q1.
Military Spouse Well-being Research Study
To be eligible to participate in this study you:
(1) MUST be between 18 and 65 years of age.
(2) MUST be a spouse or domestic partner in a relationship for at least one year with a military Service Member.
(3) MUST be a spouse or domestic partner of a military Service Member who has served at least one tour of duty in support of current Middle Eastern operations (Operations Enduring Freedom/Iraqi Freedom—OEF/ OIF, New Dawn).
(4) MAY be the partner of a military Service Member WITH or WITHOUT Post-Traumatic Stress Disorder (PTSD), traumatic brain injuries and other combat stress injuries. (Please note, this item MAY NOT apply to you.)

Do you meet the criteria listed in Items 1, 2, and 3?

- Yes
- No

Block 2 Screener Questions Exclusion Criteria

Q2.
Do any of these apply to you?

(1) Are you less than 18 years old or older than 65 years old?
(2) Have you been in your relationship less than a year?
(3) Did you have a history of mental health, drug, or alcohol abuse issue PRIOR to your Service Member's military deployment?
(4) Have you ever been a member of the armed forces deployed to a combat zone during wartime? (Includes active-duty, National Guard, or Reserve Service Member)

Did you answer YES to any of these questions?

- Yes
- No

Block 3 Online Informed Consent

Q3.
Informed Consent to Participate in Human Subject Research

Protocol Title: Military Spouse Health Assessment: The Development and Validation of A New Instrument to Measure Well-being in Military Spouses

Christi Luby, a doctoral candidate at the University of Texas at El Paso, would appreciate your participation in a research study designed to explore the experiences of partners of deployed/returning military Service Members. This study seeks to better understand the specific issues and needs experienced by military spouses. You are being asked to complete an anonymous survey that should take approximately 30-40 minutes.

While this information could be obtained by interviewing you in person, we feel that the online survey is the quickest and easiest method for obtaining this information.

We anticipate no unforeseen risk to you as a result of your participation in this study other than the inconvenience of the time to complete the survey. You could, however, experience some discomfort when answering questions about your perceptions of how the stresses of deployments have affected you, your spouse, and your current relationship. Should you feel that you or your spouse need mental health counseling, information or assistance, please contact help. Resources for both military and civilian providers are listed below.

RESOURCES

Military One Source: Support for Military Service Members and their Families (Face-to-face, by telephone, or Online) These services are offered free of charge to Service Members and their families, including Guard and Reserve Members.
http://www.militaryonesource.mil 1-800-342-9647

Defense Centers of Excellence: 24/7 Outreach Center—Call, Email, Chat Live Online
http://www.dcoe.health.mil/Families/Help.aspx 1-866-966-1020

US Department of Veteran Affairs: Caregiver Support, Help for the Caregiver
http://www.caregiver.va.gov/ 1-855-260-3274

US Department of Health & Human Services
http://www.hhs.gov/children/supportmilitaryfamilies.html

Veteran Crisis Line: Veterans in emotional crisis have free, 24/7 access to trained counselors.
1-800-273- TALK (8255), and press "1" to be routed to the veterans' Suicide Prevention Hotline.

Give an Hour: http://www.giveanhour.org/

Domestic Violence: If you or someone you know needs help, Free help is available 24/7 by contacting:
Call 9-1-1 : If you feel that you or a loved one is in immediate danger.
The National Domestic Violence Hotline at 1-800-799-SAFE (7233)

Military OneSource at 1-800-342-9647 to locate a victim advocate in your area
The Defense Centers of Excellence (DCoE) Outreach Center through Real Warriors Live Chat or by calling 1-866-966-1020 to talk to a trained health resource consultant.

If your children ever appear to be in danger, contact the Department of Defense (DoD) Child Abuse Safety and Violation Hotline at 800-336-4592 to report violence.

Facebook, Online Support Groups

Her War Her Voice—Support Group for Spouses, Parents, and Family Members
Online: http://herwarhervoice.com/
Facebook: https://www.facebook.com/HerWarHerVoice?fref=ts

Not Alone—Support for the Veteran and the Family
Online: http://www.notalone.com
Facebook: https://www.facebook.com/groups/39502691739/?fref=ts

Wounded Warrior Project--Support for Wounded Warriors and their families.
http://www.woundedwarriorproject.org/

Wounded Warrior Peer Monitor--This page has multiple resources available to Service Members, veterans, and their family.
https://www.facebook.com/pages/Wounded-Warrior-Peer-Mentor/245121572241500

While there may be no immediate benefit to you as a result of your participation in this study, it is hoped that we may gain valuable information about how military deployments affect family relationships. The information gathered will inform the community of these needs and inform decision-makers to help provide appropriate services to support military spouses and families.

The information that you give us on the questionnaire will be recorded in anonymous form. We will not release information that could identify you. All completed surveys will be stored securely in a locked office or secure online survey tool and will not be available to anyone not directly involved in this study.

If you want to withdraw from the study at any time, you may do so without penalty. The information you have contributed will be destroyed.

Once the study is completed, we would be glad to give you the results. In the meantime, if you have any questions, please ask us or contact:

Christi Duette Luby, PhD(c), MPH, MCHES, CFE
(cdluby@miners.utep.edu) (915) 217-6474

If you have any complaints about your treatment as a participant in this study, please contact:

Institutional Review Board for the Protection of Human Subjects University of Texas at El Paso
irb.orsp@utep.edu (915-747-8841)

The IRB will ask your name, but all complaints are kept in confidence.

Your completion and submission of the survey to the researchers represents your consent to serve as a subject in this research.

This research project has been approved by the UTEP Institutional Review Board for the Protection of Human Subjects.

Block 4 Spouse/Partner Demographic Questions

***Q4.* Please answer the following Questions about You (Spouse or Partner of Military Service Member)**

***Q5.* What is your Age?**

- ○ Years of Age
- ○ Don't Know
- ◉ I Decline to Answer

***Q6.* What is your Gender?**

- ○ Male
- ○ Female
- ◉ I Decline to Answer

***Q7.* List your Total Number of Dependents**

- ☐ Children under the age of 18
- ☐ Children age 18 or older
- ☐ Don't Know
- ☐ I Decline to Answer

***Q8.* What is your Ethnicity?**

- ○ Hispanic or Latino
- ○ Not Hispanic or Latino
- ○ Don't Know
- ◉ I Decline to Answer

***Q9.* Please specify your Race. (May select more than one.)**

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Pacific Islander
- ☐ Caucasian/White
- ☐ I Decline to Answer

Q10.
What is your Education Level? (What is the highest level of school you have completed? If currently enrolled, mark the previous grade or highest degree received.)

- ○ 9th, 10th, or 11th grade
- ○ 12th grade, no diploma
- ○ High school graduate (Diploma/GED)
- ○ Some college credit, but less than 1 year
- ○ 1 or more years of college, no degree
- ○ Associate degree (ex. AA, AS)
- ○ Bachelor's degree (ex. BA, BS)
- ○ Master's degree (ex. MA, MS, MSW)
- ○ Doctoral degree
- ◉ I Decline to Answer

***Q11.* What is your current **Employment Status**? (May select more than one.)**

- ☐ Employed for wages
- ☐ Self-employed
- ☐ Unemployed and looking for work
- ☐ Unemployed, not looking for work
- ☐ A homemaker
- ☐ A student
- ☐ Retired
- ☐ Unable to work
- ☐ Don't Know
- ☐ I Decline to Answer

Q12.
What is your total **Household Income**?

- ○ Less than $10,000
- ○ $10,000 to 19,999
- ○ $20,000 to 29,999
- ○ $30,000 to 39,999
- ○ $40,000 to 49,999
- ○ $50,000 to 59,999
- ○ $60,000 to 69,999
- ○ $70,000 to 79,999
- ○ $80,000 to 89,999
- ○ $90,000 to 99,999

- $100,000 to 149,000
- $150,000 or more
- Don't Know
- I Decline to Answer

Q13.
What is your **Marital Status**?

- Single
- Married
- Divorced
- Separated
- Widowed
- Don't Know
- I Decline to Answer

Q14. What is the **Total Length of Your Relationship**? (Including pre-marriage and marriage)

- Less than 12 months
- Years
- Don't Know
- I Decline to Answer

Block 5 Service Member's Demographic Questions

***Q15.* Please answer the following Questions about the Military Service Member ("Sponsor")**

Q16.
What is your **Sponsor's Age**?

- Years of Age
- Don't Know
- I Decline to Answer

Q17.
What is your **Sponsor's Gender?**

- Male
- Female
- I Decline to Answer

Q18. In which **Branch of the Armed Services** does or did your **Sponsor** serve**?**

- U. S. Air Force
- U. S. Army
- U. S. Marine Corps
- U. S. Navy/Coast Guard
- Other
- Don't Know
- I Decline to Answer

Q19.
Please list the **total number of years** your **Sponsor has served in the Armed Forces?**

- Years

- ○ Don't Know
- ◉ I Decline to Answer

***Q20.* What is your Sponsor's Ethnicity?**

- ○ Hispanic or Latino
- ○ Not Hispanic or Latino
- ○ Don't Know
- ◉ I Decline to Answer

Q21. Please specify your **Sponsor's Race. (May select more than one.)**

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Pacific Islander
- ☐ Caucasian/White
- ☐ Don't Know
- ☐ I Decline to Answer

Q22. What is your **Sponsor's Education Level?** (What is the highest level of school your sponsor completed? If currently enrolled, mark the previous grade or highest degree received.)

- ○ 9th, 10th, or 11th grade
- ○ 12th grade, no diploma
- ○ High school graduate (Diploma/GED)
- ○ Some college credit, but less than 1 year
- ○ 1 or more years of college, no degree
- ○ Associate degree (ex. AA, AS)
- ○ Bachelor's degree (ex. BA, BS)
- ○ Master's degree (ex. MA, MS, MSW)
- ○ Doctoral degree
- ○ Don't Know
- ◉ I Decline to Answer

Q23. What is your **Sponsor's Pay Grade?**

- ○ E1-E3
- ○ E4-E6
- ○ E7-E9
- ○ W 1-3
- ○ W 4-5
- ○ O1-O3
- ○ O4-O6
- ○ O7 & above
- ○ Don't Know
- ◉ I Decline to Answer

***Q24.* During what year did your Sponsor's last deployment BEGIN?**

- ○ Ex. 2004
- ○ Don't Know
- ◉ I Decline to Answer

***Q25.* During what year did your Sponsor's last deployment END?**

- Ex. 2004
- Don't Know
- I Decline to Answer

Q26.
Is your **Sponsor Currently Deployed?**

- Yes
- No
- Don't Know
- I Decline to Answer

***Q27.* If your Sponsor is in a Phase of Deployment, which one best describes his/her current phase?**

- Pre-Deployment
- Deployment
- R&R (Rest and Recuperation, mid-deployment break)
- Redeployment (Coming Home Soon)
- Reintegration (Recently Returned)
- Not Currently Deployed
- Soldier Does Not Deploy
- Don't Know
- I Decline to Answer

Q28.
How **long** was your **Sponsor's Last Deployment?**

- Months
- Don't Know
- I Decline to Answer

Q29.
How many Deployments during Wartime has your Sponsor served? (Please list the number of deployments for each conflict.)

- **OEF** (Afghanistan)/ **OIF** (Iraq)
- Desert Shield/Desert Storm
- Other conflict (Please list the Name(s) of Conflict)
- Don't Know
- I Decline to Answer

Q30.
Has your Sponsor ever been diagnosed by a physician as having a service-related Traumatic Brain Injury (TBI)?

- Yes
- No
- Don't Know
- I Decline to Answer

Q31.
Has your Sponsor ever been diagnosed by a physician as having Post-Traumatic Stress Disorder?

- Yes
- No
- Don't Know
- I Decline to Answer

***Q32.* Has your Sponsor been diagnosed as a wounded, ill, or injured Service Member due to a service-related incident?**

- Yes
- No
- Don't Know
- I Decline to Answer

***Q33.* Do you think your Sponsor may be experiencing post-traumatic symptoms, but has not been diagnosed with PTSD?**

- Yes
- No
- Don't Know
- I Decline to Answer

***Q34.* Have you seen a change in your Sponsor from pre-deployment to the present?**

- Yes
- No
- Don't Know
- I Decline to Answer

Q35.
Since the deployment, has your Sponsor had Changes in any of the following?

	Never	Rarely	Occasionally	Often	Very Often
Anger outbursts					
Nervousness					
Sleep Issues					
Change in Location where he/she sleeps					
Sadness					
Changes in Intimacy					
Withdrawing Emotionally from Others					
Violent Behavior					
Avoidance of People or Places					
Trouble Concentrating					
Other (Please List Type of Change)					

Block 6 Military Spouse Health Assessment

Q36.
Military Spouse Health Assessment
Your Well-being is very important in your relationship as a spouse or as a friend. These items may help you to think about if or how Deployment and Post Combat Stress may have affected you.

Directions: Think about your role as a spouse or as a friend to someone who has been exposed to combat trauma stress. Some of the challenges and changes that have been experienced in these relationships are listed below. As you answer these questions, keep this relationship in mind.

In the last month, how often have you experienced the following items?
You will rate these items using: Never; Rarely; Occasionally; Often; Very Often
Some of these Items May Not Apply (N/A) to you.

Q37.
I feel selfish when considering my own needs.

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q38. **I feel guilty when considering my own needs.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q39. **I feel emotionally fatigued or tired.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q40. **I feel depressed.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q41. **I feel that what I am experiencing is hardening me emotionally.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q42. **I experience distress due to my lack of understanding of his/her behavior.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q43. **I experience distress due to my lack of understanding of his/her personality changes.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q44. **I have felt I was losing my mind, because I do not understand traumatic stress in others.**

- Never
- Rarely
- Occasionally

- Often
- Very Often

Q45. **I feel responsible for problems or situations, but I do not know how to fix them.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q46. **I lack my own personal time to do things I need and want to do.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q47. **It seems as if I am reliving his/her trauma(s).**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q48. **Reminders of his/her trauma upset me.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q49. **I think about his/her trauma when I do not intend to (includes visualizations).**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q50. **I have disturbing dreams or nightmares about his/her trauma.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)

- I Decline to Answer

***Q51.* I feel emotionally numb.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

***Q52.* I feel discouraged about my future.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

***Q53.* I feel unsure about my future.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

***Q54.* I have little interest in being around others.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

***Q55.* I am not interested in participating in activities I used to enjoy.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

***Q56.* I avoid taking us around people, places, or things that might trigger HIS/HER symptoms.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

***Q57.* I avoid people, places, or things that might trigger MY symptoms.**

- Never
- Rarely
- Occasionally

- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q58. **I want to avoid talking about his/her trauma.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q59. **I have trouble remembering certain parts of his/her trauma story.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q60. **I have difficulty falling or staying asleep.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q61. **My heart starts pounding when I think about his/her trauma.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q62. **I have shallow or rapid breathing when I think about his/her trauma.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q63. **I feel jumpy or am easily startled.**

- Never

- Rarely
- Occasionally
- Often
- Very Often

Q64. **I have trouble concentrating.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q65. **I am easily annoyed, and have outbursts of anger or irritability with little provocation.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q66. **I understand how he/she feels about things.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q67. **I deal effectively with his/her problems or issues.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q68. **I feel my helping has a positive influence on him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q69. **I know what he/she needs to feel calm and relaxed.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q70. **I feel I accomplish worthwhile things.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q71. **I feel I need to fix the problems for those I help.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q72. **I get emotional when I listen to the issues of others.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q73. **I feel I can separate emotionally from those I am helping.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q74. **I feel I am too involved in the problems of those I am trying to help.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q75. **I think I have been "infected" by his/her traumatic stress.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q76. **I feel trapped in my relationship with him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

- Not Applicable (N/A)
- I Decline to Answer

Q77. **I wish I could avoid helping or caring for him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q78. **I feel he/she dislikes me personally.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q79.
Since the deployment, you may have taken on additional roles and responsibilities. Your Additional Roles & Responsibilities may affect your Family and Social Relationships. Remember: As you answer these questions, keep the spouse/friend relationship in mind.
Some of these items may not apply (N/A).

Q80. **I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q81. **I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q82. **I feel like there is constant instability.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q83. **I feel like I have to try to fix things to keep things stable.** 181

- Never
- Rarely

- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q84. **I feel I am being manipulated due to his/her extra demands.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q85. **I feel I am being taken advantage of due to his/her extra demands.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q86. **He/she and I have issues with emotional intimacy.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q87. **He/she and I have issues with physical intimacy.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q88.
Your Additional Roles & Responsibilities may affect your finances and/or employment status.
Some of these items may not apply (N/A).

Q89. **I feel stressed because our finances are being used to help or care for him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q90. **I take sick leave from work to help or care for him/her.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable

Q91. **I think about changing my employment to a job that was less demanding.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable

Q92. **I think about quitting my employment to help or care for him/her.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable

Q93. **I change my schedule or number of hours to help or care for him/her.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable

Q94. **Your Physical Well-being may have been affected by Deployment and/or Post Combat Stress.**

Q95. **I seem to get sick.**

Never
Rarely
Occasionally
Often
Very Often

Q96. **I have new symptoms of physical health issues.**

Never
Rarely
Occasionally
Often
Very Often

Q97. **I am able to exercise like I want.**

Never
Rarely

- Occasionally
- Often
- Very Often

Q98. **I am able to get to my own checkups with doctors, dentists, and other health care providers.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q99. **I feel physically fatigued or tired.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q100. **Your Social Well-being may have been affected by Deployment and/or Post Combat Stress.**

Q101. **I am able to participate in enjoyable activities.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q102. **I am able to maintain personal relationships with others.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q103. **I limit the number of activities our family does socially.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q104. **I limit the number of social activities I participate in, because I am too tired.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q105. **I limit the number of social activities I participate in, because I am worried about leaving him/her alone.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q106. **I feel as though I have been cut off from contact with my family/friends.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q107. **I feel guilty if I go out anywhere (example: lunch with a friend).**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q108. **Social Support: Availability of resources enrich quality of life or provide a buffer to adverse life events.**

Q109. **I feel there is no one I can talk to about what I am experiencing.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q110. **My family/friends make me feel nurtured.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q111. **I have a sense of belonging.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q112. **I have sufficient financial resources available to meet my needs.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q113. **I am aware of resources that are available to meet my needs.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q114. **I want to talk about his/her trauma, but I feel I cannot confide in anyone.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q115. **I feel I cannot trust anyone but myself.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q116. **I feel emotionally abandoned, even though he/she is around.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q117. **Military Specific Social and Organizational Support (or Stigma)**
Some of these items may not apply (N/A).

Q118. **The military provides me with the necessary resources to help my family and me.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- N/A Not Applicable
- I Decline to Answer

Q119. **I would feel comfortable asking for help from the military, if I need it.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable
- I Decline to Answer

Q120. **I feel if my family or I need help the military will provide the proper health care.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable
- I Decline to Answer

Q121. **I feel my Sponsor's career or promotion potential will be affected if I seek help.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable
- I Decline to Answer

Q122. **I feel my Sponsor's career or promotion potential will be affected if he/she seeks help.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable
- I Decline to Answer

Q123. **Since the deployment, your Spiritual Well-being (spiritual beliefs or outlook) may have changed. Some of these items may not apply (N/A).**

Q124. **I question my spiritual beliefs.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q125. **I feel a sense of hopelessness associated with helping or caring for him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q126. **I feel skeptical about things.**

- Never
- Rarely
- Occasionally

- Often
- Very Often
- (N/A) Not Applicable

Q127. **I feel critical about things.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q128. **I feel like my life has meaning or a purpose.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q129. **I have been angry at God for allowing this to happen.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q130. **I question God's role in my life.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q131. **If you have feedback or comments for the researcher, please type them here.**

Block 7 Test Retest Reliability

Q132.
This instrument is being created FOR military spouses, BY military spouses. So please understand that you are a VERY IMPORTANT part of this process. Participants may be asked to retake the survey in the near future. This step will help the researcher determine if the instrument is a reliable tool to measure well-being in military spouses.

If you would be willing to retake the survey, please fill in the item below. A new survey link for the Military Spouse Health Assessment Survey TWO referred to as "MSHA #2" will be provided.

Make up a code you can remember that has two (2) letters and four (4) numbers. This anonymous code will be used to match your responses in the first survey (MSHA #1) to your responses in the second survey (MSHA #2). There are no right or wrong answers to the items on the survey. This step is only a research tool to test your responses over time.

- Make up a code. Ex. SL0327

Block 8 Resources

Q133.
Should you feel that you or your spouse need mental health counseling, information or assistance, please contact help. Resources for both military and civilian providers are listed below.

RESOURCES

Military One Source: Support for Military Service Members and their Families (Face-to-face, by telephone, or Online) These services are offered free of charge to Service Members and their families, including Guard and Reserve Members.
http://www.militaryonesource.mil 1-800-342-9647

Defense Centers of Excellence: 24/7 Outreach Center—Call, Email, Chat Live Online
http://www.dcoe.health.mil/Families/Help.aspx 1-866-966-1020

US Department of Veteran Affairs: Caregiver Support, Help for the Caregiver
http://www.caregiver.va.gov/ 1-855-260-3274

US Department of Health & Human Services
http://www.hhs.gov/children/supportmilitaryfamilies.html

Veteran Crisis Line: Veterans in emotional crisis have free, 24/7 access to trained counselors.
1-800-273- TALK (8255), and press "1" to be routed to the veterans' Suicide Prevention Hotline.

Give an Hour: http://www.giveanhour.org/

Domestic Violence: If you or someone you know needs help, Free help is available 24/7 by contacting:
Call 9-1-1 : If you feel that you or a loved one is in immediate danger.
The National Domestic Violence Hotline at 1-800-799-SAFE (7233)
Military OneSource at 1-800-342-9647 to locate a victim advocate in your area
The Defense Centers of Excellence (DCoE) Outreach Center through Real Warriors Live Chat or by calling 1-866-966-1020 to talk to a trained health resource consultant.
If your children ever appear to be in danger, contact the Department of Defense (DoD) Child Abuse Safety and Violation Hotline at 800-336-4592 to report violence.

Facebook, Online Support Groups

Her War Her Voice—Support Group for Spouses, Parents, and Family Members
Online: http://herwarhervoice.com/
Facebook: https://www.facebook.com/HerWarHerVoice?fref=ts

Not Alone—Support for the Veteran and the Family
Online: http://www.notalone.com
Facebook: https://www.facebook.com/groups/39502691739/?fref=ts

Wounded Warrior Project--Support for Wounded Warriors and their families.
http://www.woundedwarriorproject.org/

Wounded Warrior Peer Monitor--This page has multiple resources available to Service Members, veterans, and their family.
https://www.facebook.com/pages/Wounded-Warrior-Peer-Mentor/245121572241500

Thank you for your participation in the Military Spouse Well-being Study. I am developing a questionnaire to help assess the well-being of military spouses. This information will be used only to assess the similarities of experiences of a military spouse that may exist due to certain demographic information.

Block 1 Screener Questions Inclusion Criteria

Q1.
Military Spouse Well-being Research Study Survey TWO (MSHA #2)

Did you complete the Military Spouse Health Assessment Survey ONE (MSHA #1)? If you did not, please take Survey One first.
If you cannot find the MSHA #1 link, you can copy and paste this link into your browser to take the MSHA #1, and then come back to take this survey.
https://utep.qualtrics.com/SE/?SID=SV_9SHn0FSlSwtrlWZ

- ○ Yes
- ○ No

Q2.
In Military Spouse Health Assessment Survey ONE (MSHA #1) you made up a code using two (2) letters and four (4) numbers. This anonymous code will be used to match your responses in the first survey (MSHA #1) to your responses in this second survey (MSHA #2). There is no right or wrong answer to the items on the survey. You just need to retake the survey. This step will help the researcher determine if the instrument is a reliable tool to measure well-being in military spouses.

Please enter your code here:

Block 2 Online Informed Consent

Q3.
Informed Consent to Participate in Human Subject Research

Protocol Title: Military Spouse Health Assessment: The Development and Validation of A New Instrument to Measure Well-being in Military Spouses

Christi Luby, a doctoral candidate at the University of Texas at El Paso, would appreciate your participation in a research study designed to explore the experiences of partners of deployed/returning military Service Members. This study seeks to better understand the specific issues and needs experienced by military spouses. You are being asked to complete an anonymous survey that should take approximately 30-40 minutes.

While this information could be obtained by interviewing you in person, we feel that the online survey is the quickest and easiest method for obtaining this information.

We anticipate no unforeseen risk to you as a result of your participation in this study other than the inconvenience of the time to complete the survey. You could, however, experience some discomfort when answering questions about your perceptions of how the stresses of deployments have affected you, your spouse, and your current relationship. Should you feel that you or your spouse need mental health counseling, information or assistance, please contact help. Resources for both military and civilian providers are listed below.

RESOURCES

Military One Source: Support for Military Service Members and their Families (Face-to-face, by telephone, or Online) These services are offered free of charge to Service Members and their families, including Guard and Reserve Members.
http://www.militaryonesource.mil 1-800-342-9647

Defense Centers of Excellence: 24/7 Outreach Center—Call, Email, Chat Live Online
http://www.dcoe.health.mil/Families/Help.aspx 1-866-966-1020

US Department of Veteran Affairs: Caregiver Support, Help for the Caregiver
http://www.caregiver.va.gov/ 1-855-260-3274

US Department of Health & Human Services
http://www.hhs.gov/children/supportmilitaryfamilies.html

Veteran Crisis Line: Veterans in emotional crisis have free, 24/7 access to trained counselors.
1-800-273- TALK (8255), and press "1" to be routed to the veterans' Suicide Prevention Hotline.

Give an Hour: http://www.giveanhour.org/

Domestic Violence: If you or someone you know needs help, Free help is available 24/7 by contacting:
Call 9-1-1 : If you feel that you or a loved one is in immediate danger.
The National Domestic Violence Hotline at 1-800-799-SAFE (7233)
Military OneSource at 1-800-342-9647 to locate a victim advocate in your area
The Defense Centers of Excellence (DCoE) Outreach Center through Real Warriors Live Chat or by calling 1-866-966-1020 to talk to a trained health resource consultant.
If your children ever appear to be in danger, contact the Department of Defense (DoD) Child Abuse Safety and Violation Hotline at 800-336-4592 to report violence.

Facebook, Online Support Groups

Her War Her Voice—Support Group for Spouses, Parents, and Family Members
Online: http://herwarhervoice.com/
Facebook: https://www.facebook.com/HerWarHerVoice?fref=ts

Not Alone—Support for the Veteran and the Family
Online: http://www.notalone.com
Facebook: https://www.facebook.com/groups/39502691739/?fref=ts

Wounded Warrior Project--Support for Wounded Warriors and their families.
http://www.woundedwarriorproject.org/

Wounded Warrior Peer Monitor--This page has multiple resources available to Service Members, Veterans, and their family.
https://www.facebook.com/pages/Wounded-Warrior-Peer-Mentor/245121572241500

While there may be no immediate benefit to you as a result of your participation in this study, it is hoped that we may gain valuable information about how military deployments affect family relationships. The information gathered will inform the community of these needs and inform decision-makers to help provide appropriate services to support military spouses and families.

The information that you give us on the questionnaire will be recorded in anonymous form. We will not release information that could identify you. All completed surveys will be stored securely in a locked office or secure online survey tool and will not be available to anyone not directly involved in this study.

If you want to withdraw from the study at any time, you may do so without penalty. The information you have contributed will be destroyed.

Once the study is completed, we would be glad to give you the results. In the meantime, if you have any questions, please ask us or contact:

Christi Duette Luby, PhD(c), MPH, MCHES, CFE
(cdluby@miners.utep.edu) (915) 217-6474

If you have any complaints about your treatment as a participant in this study, please contact:

Institutional Review Board for the Protection of Human Subjects University of Texas at El Paso
irb.orsp@utep.edu (915-747-8841)

The IRB will ask your name, but all complaints are kept in confidence.

Your completion and submission of the survey to the researchers represents your consent to serve as a subject in this research.

This research project has been approved by the UTEP Institutional Review Board for the Protection of Human Subjects.

Block 3 Spouse/Partner Demographic Questions

Q4. **Please answer the following Questions about You (Spouse or Partner of Military Service Member)**

Q5. **What is your Age?**

- ○ Years of Age
- ○ Don't Know
- ◉ I Decline to Answer

Q6. **What is your Gender?**

- ○ Male
- ○ Female
- ◉ I Decline to Answer

Q7. List your **Total Number of Dependents**

- ☐ Children under the age of 18
- ☐ Children age 18 or older
- ☐ Don't Know
- ☐ I Decline to Answer

Q8. **What is your Ethnicity?**

- ○ Hispanic or Latino
- ○ Not Hispanic or Latino
- ○ Don't Know
- ◉ I Decline to Answer

Q9. **Please specify your Race. (May select more than one.)**

- [ ] American Indian or Alaska Native
- [ ] Asian
- [ ] Black or African American
- [ ] Native Hawaiian or Pacific Islander
- [ ] Caucasian/White
- [ ] I Decline to Answer

Q10.
What is your Education Level? (What is the highest level of school you have completed? If currently enrolled, mark the previous grade or highest degree received.)

- ( ) 9th, 10th, or 11th grade
- ( ) 12th grade, no diploma
- ( ) High school graduate (Diploma/GED)
- ( ) Some college credit, but less than 1 year
- ( ) 1 or more years of college, no degree
- ( ) Associate degree (ex. AA, AS)
- ( ) Bachelor's degree (ex. BA, BS)
- ( ) Master's degree (ex. MA, MS, MSW)
- ( ) Doctoral degree
- (•) I Decline to Answer

Q11. What is your current **Employment Status**? (May select more than one.)

- [ ] Employed for wages
- [ ] Self-employed
- [ ] Unemployed and looking for work
- [ ] Unemployed, not looking for work
- [ ] A homemaker
- [ ] A student
- [ ] Retired
- [ ] Unable to work
- [ ] Don't Know
- [ ] I Decline to Answer

Q12.
What is your total **Household Income**?

- ( ) Less than $10,000
- ( ) $10,000 to 19,999
- ( ) $20,000 to 29,999
- ( ) $30,000 to 39,999
- ( ) $40,000 to 49,999
- ( ) $50,000 to 59,999
- ( ) $60,000 to 69,999
- ( ) $70,000 to 79,999
- ( ) $80,000 to 89,999
- ( ) $90,000 to 99,999
- ( ) $100,000 to 149,000
- ( ) $150,000 or more
- ( ) Don't Know
- (•) I Decline to Answer

Q13.
What is your **Marital Status**?

- ( ) Single

- Married
- Divorced
- Separated
- Widowed
- Don't Know
- I Decline to Answer

Q14. What is the **Total Length of Your Relationship**? (Including pre-marriage and marriage)

- Less than 12 months
- Years
- Don't Know
- I Decline to Answer

Block 4 Service Member's Demographic Questions

Q15. **Please answer the following Questions about the Military Service Member ("Sponsor")**

Q16.
What is your **Sponsor's Age**?

- Years of Age
- Don't Know
- I Decline to Answer

Q17.
What is your **Sponsor's Gender?**

- Male
- Female
- I Decline to Answer

Q18. In which **Branch of the Armed Services** does or did your **Sponsor** serve**?**

- U. S. Air Force
- U. S. Army
- U. S. Marine Corps
- U. S. Navy/Coast Guard
- Other
- Don't Know
- I Decline to Answer

Q19.
Please list the **total number of years** your **Sponsor has served in the Armed Forces?**

- Years
- Don't Know
- I Decline to Answer

Q20. **What is your Sponsor's Ethnicity?**

- Hispanic or Latino
- Not Hispanic or Latino
- Don't Know

I Decline to Answer

Q21. Please specify your **Sponsor's Race. (May select more than one.)**

- [ ] American Indian or Alaska Native
- [ ] Asian
- [ ] Black or African American
- [ ] Native Hawaiian or Pacific Islander
- [ ] Caucasian/White
- [ ] Don't Know
- [ ] I Decline to Answer

Q22. What is your **Sponsor's Education Level?** (What is the highest level of school your sponsor completed? If currently enrolled, mark the previous grade or highest degree received.)

- ○ 9th, 10th, or 11th grade
- ○ 12th grade, no diploma
- ○ High school graduate (Diploma/GED)
- ○ Some college credit, but less than 1 year
- ○ 1 or more years of college, no degree
- ○ Associate degree (ex. AA, AS)
- ○ Bachelor's degree (ex. BA, BS)
- ○ Master's degree (ex. MA, MS, MSW)
- ○ Doctoral degree
- ○ Don't Know
- ◉ I Decline to Answer

Q23. What is your **Sponsor's Pay Grade?**

- ○ E1-E3
- ○ E4-E6
- ○ E7-E9
- ○ W 1-3
- ○ W 4-5
- ○ O1-O3
- ○ O4-O6
- ○ O7 & above
- ○ Don't Know
- ◉ I Decline to Answer

Q24. **During what year did your Sponsor's last deployment BEGIN?**

- ○ Ex. 2004
- ○ Don't Know
- ◉ I Decline to Answer

Q25. **During what year did your Sponsor's last deployment END?**

- ○ Ex. 2004
- ○ Don't Know
- ◉ I Decline to Answer

Q26.
Is your **Sponsor Currently Deployed?**

- ○ Yes

- No
- Don't Know
- I Decline to Answer

***Q27.* If your Sponsor is in a Phase of Deployment, which one best describes his/her current phase?**

- Pre-Deployment
- Deployment
- R&R (Rest and Recuperation, mid-deployment break)
- Redeployment (Coming Home Soon)
- Reintegration (Recently Returned)
- Not Currently Deployed
- Soldier Does Not Deploy
- Don't Know
- I Decline to Answer

Q28.
How **long** was your **Sponsor's Last Deployment?**

- Months
- Don't Know
- I Decline to Answer

Q29.
How many Deployments during Wartime has your Sponsor served? (Please list the number of deployments for each conflict.)

- **OEF** (Afghanistan)/ **OIF** (Iraq)
- Desert Shield/Desert Storm
- Other conflict (Please list the Name(s) of Conflict)
- Don't Know
- I Decline to Answer

Q30.
Has your Sponsor ever been diagnosed by a physician as having a service-related Traumatic Brain Injury (TBI)?

- Yes
- No
- Don't Know
- I Decline to Answer

Q31.
Has your Sponsor ever been diagnosed by a physician as having Post-Traumatic Stress Disorder?

- Yes
- No
- Don't Know
- I Decline to Answer

***Q32.* Has your Sponsor been diagnosed as a wounded, ill, or injured Service Member due to a service-related incident?**

- Yes
- No
- Don't Know
- I Decline to Answer

***Q33.* Do you think your Sponsor may be experiencing post-traumatic symptoms, but has not been diagnosed with PTSD?**

- Yes
- No
- Don't Know
- I Decline to Answer

***Q34.* Have you seen a change in your Sponsor from pre-deployment to the present?**

- Yes
- No
- Don't Know
- I Decline to Answer

Q35.
Since the deployment, has your Sponsor had Changes in any of the following?

	Never	Rarely	Occasionally	Often	Very Often
Anger outbursts					
Nervousness					
Sleep Issues					
Change in Location where he/she sleeps					
Sadness					
Changes in Intimacy					
Withdrawing Emotionally from Others					
Violent Behavior					
Avoidance of People or Places					
Trouble Concentrating					
Other (Please List Type of Change)					

Block 5 Military Spouse Health Assessment

Q36.
Military Spouse Health Assessment
Your Well-being is very important in your relationship as a spouse or as a friend. These items may help you to think about if or how Deployment and Post Combat Stress may have affected you.

Directions: Think about your role as a spouse or as a friend to someone who has been exposed to combat trauma stress. Some of the challenges and changes that have been experienced in these relationships are listed below. As you answer these questions, keep this relationship in mind.

In the last month, how often have you experienced the following items?
You will rate these items using: Never; Rarely; Occasionally; Often; Very Often
Some of these Items May Not Apply (N/A) to you.

Q37.
I feel selfish when considering my own needs.

- Never
- Rarely
- Occasionally
- Often
- Very Often

***Q38.* I feel guilty when considering my own needs.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q39. **I feel emotionally fatigued or tired.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q40. **I feel depressed.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q41. **I feel that what I am experiencing is hardening me emotionally.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q42. **I experience distress due to my lack of understanding of his/her behavior.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q43. **I experience distress due to my lack of understanding of his/her personality changes.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q44. **I have felt I was losing my mind, because I do not understand traumatic stress in others.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q45. **I feel responsible for problems or situations, but I do not know how to fix them.**

- Never
- Rarely
- Occasionally

- Often
- Very Often

Q46. **I lack my own personal time to do things I need and want to do.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q47. **It seems as if I am reliving his/her trauma(s).**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q48. **Reminders of his/her trauma upset me.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q49. **I think about his/her trauma when I do not intend to (includes visualizations).**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q50. **I have disturbing dreams or nightmares about his/her trauma.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q51. **I feel emotionally numb.**

- Never
- Rarely
- Occasionally
- Often

- Very Often

Q52. **I feel discouraged about my future.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q53. **I feel unsure about my future.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q54. **I have little interest in being around others.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q55. **I am not interested in participating in activities I used to enjoy.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q56. **I avoid taking us around people, places, or things that might trigger HIS/HER symptoms.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q57. **I avoid people, places, or things that might trigger MY symptoms.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q58. **I want to avoid talking about his/her trauma.**

- Never

- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q59. **I have trouble remembering certain parts of his/her trauma story.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q60. **I have difficulty falling or staying asleep.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q61. **My heart starts pounding when I think about his/her trauma.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q62. **I have shallow or rapid breathing when I think about his/her trauma.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q63. **I feel jumpy or am easily startled.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q64. **I have trouble concentrating.**

- Never

- Rarely
- Occasionally
- Often
- Very Often

Q65. **I am easily annoyed, and have outbursts of anger or irritability with little provocation.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q66. **I understand how he/she feels about things.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q67. **I deal effectively with his/her problems or issues.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q68. **I feel my helping has a positive influence on him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q69. **I know what he/she needs to feel calm and relaxed.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q70. **I feel I accomplish worthwhile things.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q71. **I feel I need to fix the problems for those I help.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q72. **I get emotional when I listen to the issues of others.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q73. **I feel I can separate emotionally from those I am helping.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q74. **I feel I am too involved in the problems of those I am trying to help.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q75. **I think I have been "infected" by his/her traumatic stress.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q76. **I feel trapped in my relationship with him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q77. **I wish I could avoid helping or caring for him/her.**

- Never
- Rarely
- Occasionally

- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q78. **I feel he/she dislikes me personally.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q79.
Since the deployment, you may have taken on additional roles and responsibilities. Your Additional Roles & Responsibilities may affect your Family and Social Relationships. Remember: As you answer these questions, keep the spouse/friend relationship in mind.
Some of these items may not apply (N/A).

Q80. **I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q81. **I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q82. **I feel like there is constant instability.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q83. **I feel like I have to try to fix things to keep things stable.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q84. **I feel I am being manipulated due to his/her extra demands.**

- Never

- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q85. **I feel I am being taken advantage of due to his/her extra demands.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q86. **He/she and I have issues with emotional intimacy.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q87. **He/she and I have issues with physical intimacy.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q88.
Your Additional Roles & Responsibilities may affect your finances and/or employment status.
Some of these items may not apply (N/A).

Q89. **I feel stressed because our finances are being used to help or care for him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q90. **I take sick leave from work to help or care for him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q91. **I think about changing my employment to a job that was less demanding.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q92. **I think about quitting my employment to help or care for him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q93. **I change my schedule or number of hours to help or care for him/her.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q94. **Your Physical Well-being may have been affected by Deployment and/or Post Combat Stress.**

Q95. **I seem to get sick.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q96. **I have new symptoms of physical health issues.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q97. **I am able to exercise like I want.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q98. **I am able to get to my own checkups with doctors, dentists, and other health care providers.**

- Never
- Rarely
-

- Occasionally
- Often
- Very Often

Q99. **I feel physically fatigued or tired.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q100. **Your Social Well-being may have been affected by Deployment and/or Post Combat Stress.**

Q101. **I am able to participate in enjoyable activities.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q102. **I am able to maintain personal relationships with others.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q103. **I limit the number of activities our family does socially.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q104. **I limit the number of social activities I participate in, because I am too tired.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q105. **I limit the number of social activities I participate in, because I am worried about leaving him/her alone.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q106. **I feel as though I have been cut off from contact with my family/friends.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q107. **I feel guilty if I go out anywhere (example: lunch with a friend).**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q108. **Social Support: Availability of resources enrich quality of life or provide a buffer to adverse life events.**

Q109. **I feel there is no one I can talk to about what I am experiencing.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q110. **My family/friends make me feel nurtured.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q111. **I have a sense of belonging.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q112. **I have sufficient financial resources available to meet my needs.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q113. **I am aware of resources that are available to meet my needs.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q114. **I want to talk about his/her trauma, but I feel I cannot confide in anyone.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

Q115. **I feel I cannot trust anyone but myself.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q116. **I feel emotionally abandoned, even though he/she is around.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

Q117. **Military Specific Social and Organizational Support (or Stigma)**
Some of these items may not apply (N/A).

Q118. **The military provides me with the necessary resources to help my family and me.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- N/A Not Applicable
- I Decline to Answer

Q119. **I would feel comfortable asking for help from the military, if I need it.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable
- I Decline to Answer

Q120. **I feel if my family or I need help the military will provide the proper health care.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

(N/A) Not Applicable
I Decline to Answer

Q121. **I feel my Sponsor's career or promotion potential will be affected if I seek help.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable
I Decline to Answer

Q122. **I feel my Sponsor's career or promotion potential will be affected if he/she seeks help.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable
I Decline to Answer

Q123. **Since the deployment, your Spiritual Well-being (spiritual beliefs or outlook) may have changed. Some of these items may not apply (N/A).**

Q124. **I question my spiritual beliefs.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable

Q125. **I feel a sense of hopelessness associated with helping or caring for him/her.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable

Q126. **I feel skeptical about things.**

Never
Rarely
Occasionally
Often
Very Often
(N/A) Not Applicable

Q127. **I feel critical about things.**

Never

- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q128. **I feel like my life has meaning or a purpose.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q129. **I have been angry at God for allowing this to happen.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q130. **I question God's role in my life.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

Q131. **If you have feedback or comments for the researcher, please type them here.**

Block 6 Resources

Q132.
Should you feel that you or your spouse need mental health counseling, information or assistance, please contact help. Resources for both military and civilian providers are listed below.

RESOURCES

Military One Source: Support for Military Service Members and their Families (Face-to-face, by telephone, or Online) These services are offered free of charge to service members and their families, including Guard and Reserve Members.
http://www.militaryonesource.mil 1-800-342-9647

Defense Centers of Excellence: 24/7 Outreach Center—Call, Email, Chat Live Online
http://www.dcoe.health.mil/Families/Help.aspx 1-866-966-1020

US Department of Veteran Affairs: Caregiver Support, Help for the Caregiver
http://www.caregiver.va.gov/ 1-855-260-3274

US Department of Health & Human Services
http://www.hhs.gov/children/supportmilitaryfamilies.html

Veteran Crisis Line: Veterans in emotional crisis have free, 24/7 access to trained counselors.
1-800-273- TALK (8255), and press "1" to be routed to the veterans' Suicide Prevention Hotline.

Give an Hour: http://www.giveanhour.org/

Domestic Violence: If you or someone you know needs help, Free help is available 24/7 by contacting:

Call 9-1-1 : If you feel that you or a loved one is in immediate danger.
The National Domestic Violence Hotline at 1-800-799-SAFE (7233)
Military OneSource at 1-800-342-9647 to locate a victim advocate in your area
The Defense Centers of Excellence (DCoE) Outreach Center through Real Warriors Live Chat or by calling 1-866-966-1020 to talk to a trained health resource consultant.
If your children ever appear to be in danger, contact the Department of Defense (DoD) Child Abuse Safety and Violation Hotline at 800-336-4592 to report violence.

Facebook, Online Support Groups

Her War Her Voice—Support Group for Spouses, Parents, and Family Members
Online: http://herwarhervoice.com/
Facebook: https://www.facebook.com/HerWarHerVoice?fref=ts

Not Alone—Support for the Veteran and the Family
Online: http://www.notalone.com
Facebook: https://www.facebook.com/groups/39502691739/?fref=ts

Wounded Warrior Project--Support for Wounded Warriors and their families.
http://www.woundedwarriorproject.org/

Wounded Warrior Peer Monitor--This page has multiple resources available to Service members, veterans, and their family.
https://www.facebook.com/pages/Wounded-Warrior-Peer-Mentor/245121572241500

Thank you for your participation in the Military Spouse Well-being Study. I am developing a questionnaire to help assess the well-being of military spouses. This information will be used only to assess the similarities of experiences of a military spouse that may exist due to certain demographic information.

Block 1 Screener Questions Inclusion Criteria

1.
Military Spouse Well-being Research Study
To be eligible to participate in this study you:
(1) MUST be between 18 and 65 years of age.
(2) MUST be a spouse or domestic partner in a relationship for at least one year with a military Servicemember.
(3) MUST be a spouse or domestic partner of a military Servicemember who has served at least one tour of duty in support of current Middle Eastern operations (Operations Enduring Freedom/Iraqi Freedom—OEF/OIF, New Dawn).
(4) MAY be the partner of a military Servicemember WITH or WITHOUT Post-Traumatic Stress Disorder (PTSD), traumatic brain injuries and other combat stress injuries. (Please note, this item MAY NOT apply to you.)

Do you meet the criteria listed in Items 1, 2, and 3?

- Yes
- No

Block 2 Screener Questions Exclusion Criteria

2.
Do any of these apply to you?

(1) Are you less than 18 years old or older than 65 years old?
(2) Have you been in your relationship less than a year?
(3) Did you have a history of mental health, drug, or alcohol abuse issue PRIOR to your Servicemember's military deployment?
(4) Have you ever been a member of the armed forces deployed to a combat zone during wartime? (Includes active-duty, National Guard, or Reserve Servicemember)

Did you answer YES to any of these questions?

- Yes
- No

Block 3 Online Informed Consent

3.
This item is the Informed Consent to Participate in Human Subject Research

Protocol Title: Military Spouse Health Assessment: The Development and Validation of A New Instrument to Measure Well-being in Military Spouses

Christi Luby, a doctoral candidate at the University of Texas at El Paso, would appreciate your participation in a research study designed to explore the experiences of partners of deployed/returning military Service Members. This study seeks to better understand the specific issues and needs experienced by military spouses. You are being asked to complete an anonymous survey that should take approximately 30-40 minutes.

While this information could be obtained by interviewing you in person, we feel that the online survey is the quickest and easiest method for obtaining this information.

We anticipate no unforeseen risk to you as a result of your participation in this study other than the inconvenience of the time to complete the survey. You could, however, experience some discomfort when answering questions about your perceptions of how the stresses of deployments have affected you, your spouse, and your current relationship. Should you feel that you or your spouse need mental health counseling, information or assistance, please contact help. Resources for both military and civilian providers are listed below.

RESOURCES
Should you feel that you or your spouse need mental health counseling, information or assistance, please contact help. Resources for both military and civilian providers are listed below.

Military One Source: Support for Military Service Members and their Families (Face-to-face, by telephone, or Online) These services are offered free of charge to Service Members and their families, including Guard and Reserve Members.
http://www.militaryonesource.mil 1-800-342-9647

Defense Centers of Excellence: 24/7 Outreach Center—Call, Email, Chat Live Online
http://www.dcoe.health.mil/Families/Help.aspx 1-866-966-1020

US Department of Veteran Affairs: Caregiver Support, Help for the Caregiver
http://www.caregiver.va.gov/ 1-855-260-3274

US Department of Health & Human Services
http://www.hhs.gov/children/supportmilitaryfamilies.html

Veteran Crisis Line: Veterans in emotional crisis have free, 24/7 access to trained counselors.
1-800-273- TALK (8255), & press "1" to be routed to the veterans' Suicide Prevention Hotline.

Give an Hour: Providing Free mental health services to US military personnel and families affected by the current conflicts in Iraq and Afghanistan.
http://www.giveanhour.org/

Domestic Violence: Call 9-1-1: If you feel that you or a loved one is in immediate danger.
If you or someone you know needs help, Free help is available 24/7 by contacting:
The National Domestic Violence Hotline at 1-800-799-SAFE (7233)

Military OneSource at 1-800-342-9647 to locate a victim advocate in your area
The Defense Centers of Excellence (DCoE) Outreach Center through Real Warriors Live Chat or by calling 1-866-966-1020 to talk to a trained health resource consultant.
If your children ever appear to be in danger, contact the Department of Defense (DoD) Child Abuse Safety and Violation Hotline at 800-336-4592 to report violence.

Facebook, Online Support Groups

Her War Her Voice—Support Group for Spouses, Parents, and Family Members
Online: http://herwarhervoice.com/
Facebook: https://www.facebook.com/HerWarHerVoice?fref=ts

Courage Beyond—Provides confidential, no-cost or low-cost programs and services to warriors and their families facing PTSD and other invisible wounds of military service.
Crisis and Counseling Line 1-866-781-8010
Online: http://couragebeyond.org/
Facebook: https://www.facebook.com/LifeAfterWar

Wounded Warrior Project--Support for Wounded Warriors and their families.
http://www.woundedwarriorproject.org/

Wounded Warrior Peer Monitor--This page has multiple resources available to Service Members, veterans, and their family.
https://www.facebook.com/pages/Wounded-Warrior-Peer-Mentor/245121572241500

While there may be no immediate benefit to you as a result of your participation in this study, it is hoped that we may gain valuable information about how military deployments affect family relationships. The information gathered will inform the community of these needs and inform decision-makers to help provide appropriate services to support military spouses and families.

The information that you give us on the questionnaire will be recorded in anonymous form. We will not release information that could identify you. All completed surveys will be stored securely in a locked office or secure online survey tool and will not be available to anyone not directly involved in this study.

If you want to withdraw from the study at any time, you may do so without penalty. The information you have contributed will be destroyed.

Once the study is completed, we would be glad to give you the results. In the meantime, if you have any questions, please ask us or contact:

Christi Duette Luby, PhD(c), MPH, MCHES, CFE
(cdluby@miners.utep.edu) (915) 217-6474

If you have any complaints about your treatment as a participant in this study, please contact:

Institutional Review Board for the Protection of Human Subjects University of Texas at El Paso
irb.orsp@utep.edu (915-747-8841)

The IRB will ask your name, but all complaints are kept in confidence.

Your completion and submission of the survey to the researchers represents your consent to serve as a subject in this research.

This research project has been approved by the UTEP Institutional Review Board for the Protection of Human Subjects.

Block 4 Spouse/Partner Demographic Questions

4. **Please answer the following Questions about You (Spouse or Partner of Military Servicemember)**

5. **What is your Age?**

- ○ Years of Age
- ○ Don't Know
- ◉ I Decline to Answer

6. **What is your Gender?**

- ○ Male
- ○ Female
- ◉ I Decline to Answer

7. List your **Total Number of Dependents**

- ☐ Children under the age of 18
- ☐ Children age 18 or older
- ☐ Don't Know

- [ ] I Decline to Answer

***8.* What is your Ethnicity?**

- ( ) Hispanic or Latino
- ( ) Not Hispanic or Latino
- ( ) Don't Know
- (•) I Decline to Answer

***9.* Please specify your Race. (May select more than one.)**

- [ ] American Indian or Alaska Native
- [ ] Asian
- [ ] Black or African American
- [ ] Native Hawaiian or Pacific Islander
- [ ] Caucasian/White
- [ ] I Decline to Answer

10.
What is your Education Level? (What is the highest level of school you have completed? If currently enrolled, mark the previous grade or highest degree received.)

- ( ) 9th, 10th, or 11th grade
- ( ) 12th grade, no diploma
- ( ) High school graduate (Diploma/GED)
- ( ) Some college credit, but less than 1 year
- ( ) 1 or more years of college, no degree
- ( ) Associate degree (ex. AA, AS)
- ( ) Bachelor's degree (ex. BA, BS)
- ( ) Master's degree (ex. MA, MS, MSW)
- ( ) Doctoral degree
- (•) I Decline to Answer

***11.* What is your current **Employment Status**? (May select more than one.)**

- [ ] Employed for wages
- [ ] Self-employed
- [ ] Unemployed and looking for work
- [ ] Unemployed, not looking for work
- [ ] A homemaker
- [ ] A student
- [ ] Retired
- [ ] Unable to work
- [ ] Don't Know
- [ ] I Decline to Answer

12.
What is your total **Household Income**?

- ( ) Less than $10,000
- ( ) $10,000 to 19,999
- ( ) $20,000 to 29,999
- ( ) $30,000 to 39,999
- ( ) $40,000 to 49,999
- ( ) $50,000 to 59,999
- ( ) $60,000 to 69,999
- ( ) $70,000 to 79,999

- ○ $80,000 to 89,999
- ○ $90,000 to 99,999
- ○ $100,000 to 149,000
- ○ $150,000 or more
- ○ Don't Know
- ◉ I Decline to Answer

13.
What is your **Marital Status**?

- ○ Single
- ○ Married
- ○ Divorced
- ○ Separated
- ○ Widowed
- ○ Don't Know
- ◉ I Decline to Answer

14. What is the **Total Length of Your Relationship**? (Including pre-marriage and marriage)

- ○ Less than 12 months
- ○ Years
- ○ Don't Know
- ◉ I Decline to Answer

Block 5 Servicemember's Demographic Questions

***15.* Please answer the following Questions about the Military Servicemember ("Sponsor")**

16.
What is your **Sponsor's Age**?

- ○ Years of Age
- ○ Don't Know
- ◉ I Decline to Answer

17.
What is your **Sponsor's Gender?**

- ○ Male
- ○ Female
- ◉ I Decline to Answer

18. In which **Branch of the Armed Services** does or did your **Sponsor** serve**?**

- ☐ U. S. Air Force
- ☐ U. S. Army
- ☐ U. S. Marine Corps
- ☐ U. S. Navy/Coast Guard
- ☐ Other
- ☐ Don't Know
- ☐ I Decline to Answer

19.
Please list the **total number of years** your **Sponsor has served in the Armed Forces?**

- ○ Years
- ○ Don't Know
- ◉ I Decline to Answer

20. What is your Sponsor's Ethnicity?

- ○ Hispanic or Latino
- ○ Not Hispanic or Latino
- ○ Don't Know
- ◉ I Decline to Answer

21. Please specify your **Sponsor's Race. (May select more than one.)**

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Pacific Islander
- ☐ Caucasian/White
- ☐ Don't Know
- ☐ I Decline to Answer

22. What is your **Sponsor's Education Level?** (What is the highest level of school your sponsor completed? If currently enrolled, mark the previous grade or highest degree received.)

- ○ 9th, 10th, or 11th grade
- ○ 12th grade, no diploma
- ○ High school graduate (Diploma/GED)
- ○ Some college credit, but less than 1 year
- ○ 1 or more years of college, no degree
- ○ Associate degree (ex. AA, AS)
- ○ Bachelor's degree (ex. BA, BS)
- ○ Master's degree (ex. MA, MS, MSW)
- ○ Doctoral degree
- ○ Don't Know
- ◉ I Decline to Answer

23. What is your **Sponsor's Pay Grade?**

- ○ E1-E3
- ○ E4-E6
- ○ E7-E9
- ○ W 1-3
- ○ W 4-5
- ○ O1-O3
- ○ O4-O6
- ○ O7 & above
- ○ Don't Know
- ◉ I Decline to Answer

24. During what year did your Sponsor's last deployment BEGIN?

- ○ Ex. 2004
- ○ Don't Know
- ◉ I Decline to Answer

***25.* During what year did your Sponsor's last deployment END?**

- Ex. 2004
- Don't Know
- I Decline to Answer

26.
Is your **Sponsor Currently Deployed?**

- Yes
- No
- Don't Know
- I Decline to Answer

***27.* If your Sponsor is in a Phase of Deployment, which one best describes his/her current phase?**

- Pre-Deployment
- Deployment
- R&R (Rest and Recuperation, mid-deployment break)
- Redeployment (Coming Home Soon)
- Reintegration (Recently Returned)
- Not Currently Deployed
- Soldier Does Not Deploy
- Don't Know
- I Decline to Answer

28.
How **long** was your **Sponsor's Last Deployment?**

- Months
- Don't Know
- I Decline to Answer

29.
How many Deployments during Wartime has your Sponsor served? (Please list the number of deployments for each conflict.)

- **OEF** (Afghanistan)/ **OIF** (Iraq)
- Desert Shield/Desert Storm
- Other conflict (Please list the Name(s) of Conflict)
- Don't Know
- I Decline to Answer

30.
Has your Sponsor ever been diagnosed by a physician as having a service-related Traumatic Brain Injury (TBI)?

- Yes
- No
- Don't Know
- I Decline to Answer

31.
Has your Sponsor ever been diagnosed by a physician as having Post-Traumatic Stress Disorder?

- Yes
- No

Don't Know

I Decline to Answer

32. Has your Sponsor been diagnosed as a wounded, ill, or injured Service Member due to a service-related incident?

- Yes
- No
- Don't Know
- I Decline to Answer

33. Do you think your Sponsor may be experiencing post-traumatic symptoms, but has not been diagnosed with PTSD?

- Yes
- No
- Don't Know
- I Decline to Answer

34. Have you seen a change in your Sponsor from pre-deployment to the present?

- Yes
- No
- Don't Know
- I Decline to Answer

35.
Since the deployment, has your Sponsor had Changes in any of the following?

	Never	Rarely	Occasionally	Often	Very Often
Anger outbursts					
Nervousness					
Sleep Issues					
Change in Location where he/she sleeps					
Sadness					
Changes in Intimacy					
Withdrawing Emotionally from Others					
Violent Behavior					
Avoidance of People or Places					
Trouble Concentrating					
Other (Please List Type of Change)					

Block 6 Military Spouse Health Assessment

36.
Military Spouse Health Assessment
Your Well-being is very important in your relationship as a spouse or as a friend. These items may help you to think about if or how Deployment and Post Combat Stress may have affected you.

Directions: Think about your role as a spouse or as a friend to someone who has been exposed to combat trauma stress. Some of the challenges and changes that have been experienced in these relationships are listed below. As you answer these questions, keep this relationship in mind.

In the last month, how often have you experienced the following items?
You will rate these items using: Never; Rarely; Occasionally; Often; Very Often
Some of these Items May Not Apply (N/A) to you.

37. I feel guilty when considering my own needs.

- Never
- Rarely
- Occasionally
- Often
- Very Often

38. **I feel depressed.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

39. **I feel that what I am experiencing is hardening me emotionally.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

40. **I experience distress due to my lack of understanding of his/her personality changes.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- Not Applicable (N/A)
- I Decline to Answer

41. **I feel responsible for problems or situations, but I do not know how to fix them.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

42. **I lack my own personal time to do things I need and want to do.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

43. **I feel discouraged about my future.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

44. **I have little interest in being around others.**

- Never
- Rarely
- Occasionally
- Often

- Very Often

45. I am not interested in participating in activities I used to enjoy.

- Never
- Rarely
- Occasionally
- Often
- Very Often

46. I have difficulty falling or staying asleep.

- Never
- Rarely
- Occasionally
- Often
- Very Often

47. I feel jumpy or am easily startled.

- Never
- Rarely
- Occasionally
- Often
- Very Often

48. I have trouble concentrating.

- Never
- Rarely
- Occasionally
- Often
- Very Often

49. I am easily annoyed, and have outbursts of anger or irritability with little provocation.

- Never
- Rarely
- Occasionally
- Often
- Very Often

50. I feel like I have to make sure he/she is where he/she is supposed to be (appointments, work).

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

51. I feel like I have to run interference between him/her and the outside world to avoid confrontations and anger outbursts.

- Never
- Rarely
- Occasionally
- Often

- Very Often
- (N/A) Not Applicable

52. **I feel like I have to try to fix things to keep things stable.**

- Never
- Rarely
- Occasionally
- Often
- Very Often
- (N/A) Not Applicable

53. **I limit the number of social activities I participate in, because I am too tired.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

54. **I limit the number of social activities I participate in, because I am worried about leaving him/her alone.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

55. **I feel as though I have been cut off from contact with my family/friends.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

56. **I feel guilty if I go out anywhere (example: lunch with a friend).**

- Never
- Rarely
- Occasionally
- Often
- Very Often

57. **I feel emotionally abandoned, even though he/she is around.**

- Never
- Rarely
- Occasionally
- Often
- Very Often

58. **In general, would you say your health is:**

- Excellent
- Very Good
- Good

- Fair
- Poor

59. **Compared to one year ago, how would you rate your health in general now?**

- Much better now than a year ago
- Somewhat better now than one year ago
- About the same
- Somewhat worse now than one year ago
- Much worse now than one year ago

60. **The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?**

	Yes, Limited a Lot	Yes, Limited a Little	No, Not limited at All
Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports			
Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf			
Lifting or carrying groceries			
Climbing **several** flights of stairs			
Climbing **one** flight of stairs			
Bending, kneeling, or stooping			
Walking **more than a mile**			
Walking **several blocks**			
Walking **one block**			
Bathing or dressing yourself			

61. **During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?**

	Yes	No
Cut down the **amount of time** you spent on work or other activities		
Accomplished less than you would like		
Were limited in the **kind** of work or other activities		
Had **difficulty** performing the work or other activities (for example, it took extra effort)		

62. **During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?**

	Yes	No
Cut down the **amount of time** you spent on work or other activities		
Accomplished less than you would like		
Didn't do work or other activities as **carefully** as usual		

63. **During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?**

- Not At All
- Slightly
- Moderately
- Quite a bit
- Extremely

64. **How much bodily pain have you had during the past 4 weeks?**

- None
- Very mild
- Mild
-

- Moderate
- Severe
- Very severe

65. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

- Not at all
- A little bit
- Moderately
- Quite a bit
- Extremely

66. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.

How much of the time during the past 4 weeks . . .

	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	None of the Time
Did you feel full of pep?						
Have you been a very nervous person?						
Have you felt so down in the dumps that nothing could cheer you up?						
Have you felt calm and peaceful?						
Did you have a lot of energy?						
Have you felt downhearted and blue?						
Did you feel worn out?						
Have you been a happy person?						
Did you feel tired?						

67. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

- All of the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

68. How TRUE or FALSE is each of the following statements for you.

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
I seem to get sick a little easier than other people					
I am as healthy as anybody I know					
I expect my health to get worse					
My health is excellent					

69. People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?

Emotional/informational support

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Someone you can count on to listen to you when you need to talk					
Someone to give you information to help you understand a situation					
Someone to give you good advice about a crisis					
Someone to confide in or talk to about yourself or your problems					
Someone whose advice you really want					
Someone to share your most private worries and fears with					
Someone to turn to for suggestions about how to deal with a personal problem					

Someone who understands your problems					

70. Tangible support

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Someone to help you if you were confined to bed					
Someone to take you to the doctor if you needed it					
Someone to prepare your meals if you were unable to do it yourself					
Someone to help with daily chores if you were sick					

71. Affectionate support

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Someone who shows you love and affection					
Someone to love and make you feel wanted					
Someone who hugs you					

72. Positive social interaction

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Someone to have a good time with					
Someone to get together with for relaxation					
Someone to do something enjoyable with					

73. Additional item

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Someone to do things with to help you get your mind off things					

74. Acknowledgment: Some of the items used in this portion of the study to help validate the Military Spouse Health Assessment were taken verbatim from the 36-Item Short Form Health Survey (2009) and Social Support Survey (MOS-SSS) which were developed at RAND as part of the Medical Outcomes Study and is reproduced with permission from RAND. Copyright RAND. Permission to reproduce it is not an endorsement of products or services involving it or other uses of it.

Block 7 Resources

75.

RESOURCES

Should you feel that you or your spouse need mental health counseling, information or assistance, please contact help. Resources for both military and civilian providers are listed below.

Military One Source: Support for Military Service Members and their Families (Face-to-face, by telephone, or Online) These services are offered free of charge to Service Members and their families, including Guard and Reserve Members.
http://www.militaryonesource.mil 1-800-342-9647

Defense Centers of Excellence: 24/7 Outreach Center—Call, Email, Chat Live Online
http://www.dcoe.health.mil/Families/Help.aspx 1-866-966-1020

US Department of Veteran Affairs: Caregiver Support, Help for the Caregiver
http://www.caregiver.va.gov/ 1-855-260-3274

US Department of Health & Human Services
http://www.hhs.gov/children/supportmilitaryfamilies.html

Veteran Crisis Line: Veterans in emotional crisis have free, 24/7 access to trained counselors.
1-800-273-TALK (8255), & press "1" to be routed to the veterans' Suicide Prevention Hotline.

Give an Hour: Providing Free mental health services to US military personnel and families affected by the current conflicts in Iraq and Afghanistan.
http://www.giveanhour.org/

Domestic Violence: Call 9-1-1: If you feel that you or a loved one is in immediate danger.
If you or someone you know needs help, Free help is available 24/7 by contacting:
The National Domestic Violence Hotline at 1-800-799-SAFE (7233)
Military OneSource at 1-800-342-9647 to locate a victim advocate in your area
The Defense Centers of Excellence (DCoE) Outreach Center through Real Warriors Live Chat or by calling 1-866-966-1020 to talk to a trained health resource consultant.
If your children ever appear to be in danger, contact the Department of Defense (DoD) Child Abuse Safety and Violation Hotline at 800-336-4592 to report violence.

Facebook, Online Support Groups

Her War Her Voice—Support Group for Spouses, Parents, and Family Members
Online: http://herwarhervoice.com/
Facebook: https://www.facebook.com/HerWarHerVoice?fref=ts

Courage Beyond—Provides confidential, no-cost or low-cost programs and services to warriors and their families facing PTSD and other invisible wounds of military service.
Crisis and Counseling Line 1-866-781-8010
Online: http://couragebeyond.org/
Facebook: https://www.facebook.com/LifeAfterWar

Wounded Warrior Project--Support for Wounded Warriors and their families.
http://www.woundedwarriorproject.org/

Wounded Warrior Peer Monitor--This page has multiple resources available to Service Members, veterans, and their family.
https://www.facebook.com/pages/Wounded-Warrior-Peer-Mentor/245121572241500

Appendix J

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Retrieved from http://www.rand.org/health/surveys_tools/mos/mos_core_36item_terms.html

MOS Social Support Survey (MOS SSS)

Retrieved from http://www.rand.org/health/surveys_tools/mos/mos_socialsupport.html

Curriculum Vita

Christi Luby was born in Shreveport, Louisiana. The first daughter of Thomas Duette and Judith Smith Duette, she graduated from C. E. Byrd High School. After receiving her associate's degree in psychology from the Oklahoma City Community College, she entered the University of Oklahoma. While pursuing her bachelor's degree in psychology, with minors in zoology and sociology, she completed a practicum at Griffin Memorial Hospital in Behavioral Health.

As a graduate student at the University of Oklahoma's College of Public Health, she received the Department of Health Promotion Sciences Scholarship and later the Public Health Service Traineeship. In 2003, she received a Masters of Public Health and the Oklahoma Public Health Association's top honor—the Joan K. Levitt, Commissioner of Health Award. She was named the Top Graduate Student in both the O. U. College of Public Health and the Department of Health Promotion Sciences, and received their prestigious Outstanding Student Awards. She is a Master Certified Health Education Specialist, and Certified Compassion Fatigue Educator.

In 2015, to complement her unique, biopsychosocial undergraduate and public heath graduate education, she completed a PhD in Interdisciplinary Health Sciences at the University of Texas at El Paso. As the spouse of a decorated B-52 combat Veteran, she experienced many deployments during her husband's ten-year active-duty Air Force career, including Operations Desert Shield/Storm and Southern Watch. Ms. Luby combines her diverse educational training and personal perspective to understand *how vicarious exposure to war and combat trauma stress affect the well-being of the civilian spouses and partners of our Nation's combat Veterans.*

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