EXAMINING THE INFLUENCE OF PERCEIVED SOCIAL SUPPORT AND UNSUPPORTIVE SOCIAL INTERACTIONS ON PTSD AND SOCIAL SUPPORT SEEKING BEHAVIORS IN OFFLINE AND ONLINE CONTEXTS IN VETERANS

By

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ABSTRACT

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As service members return home from active duty, the number of veterans seeking attention for PTSD will likely increase. The manner in which society offers or denies support to veterans with PTSD is of utmost importance as they reintegrate into everyday civilian life.

The collective support of family, friends, medical personnel, community members and organizations, broadly termed social support, is integral to the reintegration of veterans with PTSD. Among various aspects of social support, in this project, I examined the influence of Perceived Social Support and Unsupportive Social Interactions and their relationship to PTSD and to seeking social support seeking behaviors in offline and online contexts.

The findings from this study suggest that positive social support is associated with lower PTSD, whereas unsupportive negative interactions are associated with higher PTSD. Further, higher levels of seeking online and offline social support were associated with higher levels of PTSD. Moreover, online and offline behaviors were negatively correlated with perceived social support, in essence suggesting the possibility that social support seeking behaviors are intended

to make up for gaps in social support among veterans with elevated levels of PTSD.

In summary, I argue that communication scholars and other social scientists should examine the role of social support on PTSD in veterans and, with the increasing penetration of the Internet and new communication technologies, the comparative study of online social support compares to traditional face-to-face or peer-group support can be a rich area of study.

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Dedication

This study is dedicated to the men and women who have served in the past, who are serving in the present, and who will serve in the future.

CHAPTER ONE

"Let us strive on to finish the work we are in, to bind up the Nation's wounds, to care for him who shall have borne the battle and for his widow and his orphan" – Abraham Lincoln

At the end of 2011, Veteran Affairs inpatient and outpatient records indicated approximately 16% of veterans have been diagnosed or provisionally diagnosed with post-traumatic stress disorder (PTSD), following first deployments to Iraq or Afghanistan since October 2003 (Epidemiology Program, 2012). An updated report through December 2013 indicated an increase to 19.2% (Epidemiology Program, 2014). This estimate fails to take into account veterans not seen through a Veteran Affairs Medical Center (VAMC) or Vet Center for primary or secondary PTSD-related concerns. Further, the data do not represent individuals who have returned from overseas and remained on active duty status, or separated prior to 2001, or those who have not used VA health care (Epidemiology Program, 2013, 2014).

As service members return home from active duty, the number of veterans seeking medical attention, including for PTSD and Traumatic Brain Injury (TBI), will likely increase. The manner in which society offers or denies support to veterans with PTSD is of utmost importance as they reintegrate into everyday civilian life. They have served us and allowed us our rights and freedoms. Now we need to help ease their transition from soldier to civilian and to ensure their future success as a productive member of society.

The support of family, friends, medical personnel, community members and organizations, broadly termed social support, is integral to the reintegration of vetera0ns with PTSD. Specifically, I examine the influence of two types of social support – Positive or Perceived Social Support (PSS) and Unsupportive Social Interactions (USI) – and their

relationship to PTSD and to seeking social support in offline and online contexts.

The Internet has changed how we seek health information and social support. Patients can now augment their information seeking through accessing the Internet via websites, chat rooms, emails, and forums. For instance, as noted by Sharp (2000), cancer survivors use the Internet for support. Individuals with health concerns or diseases other than cancer are just as likely to be using the Internet to seek out information and support from others who either have experienced or know someone who has experienced the same health concern.

As of January, 2014, 87% of American adults access the Internet and based on a September 2012 survey, 72% of internet users report having looked for health information online (Fox & Duggan, 2013). Access to the Internet is not limited to the traditional laptop or desktop computer but also includes mobile phones and tablets. The most commonly researched health-related topics are specific medical problems or diseases, particular medical treatments or procedures, and information about doctors or other health professionals (Fox, 2006; Fox & Duggan, 2013; Tian & Robinson, 2008). When asked about sources of information and support for a serious health concern, respondents to a survey reported a combination of sources, including healthcare providers (70%), friends and family (60%), and peers with the same health condition or concern (24%) (Fox & Duggan, 2013; Tian & Robinson, 2008). Further, 8% of Internet users have either posted comments or stories about their health experiences, posted specific questions about a health issue, or had done both (Fox & Duggan, 2013; Tian & Robinson, 2008). With the emergence of social media, the Internet has grown from a conduit for information and communication to a network of social connections.

For the purpose of this dissertation, I define social support based on the Interpersonal Support Evaluation List (Cohen & Hoberman, 1983; Cohen, Mermelstein, Kamarck, &

Hoberman, 1985), whereby an individual has access to four types of support from their social support network (e.g. anyone to whom the individual turns to for help when needed): e*motional* support or *esteem* or *appraisal* support, i*nstrumental* or *tangible* support, i*nformational* support, and c*ompanionship* or *belonging* support (Cohen, et al., 1985; Wills & Shinar, 2000). These four types of support will be discussed in further detail later in the dissertation.

Later, I discuss some of the options for online support for PTSD and other medical concerns. These resources include un-moderated peer support groups, chat rooms, message boards, and forums, Veterans Affairs websites, and non-VA affiliated groups and organizations providing support, information, and resources for PTSD, TBI, and other health concerns. With the variety and pervasiveness of these resources accompanied by the continually growing availability of access to the Internet, numerous possibilities exist for social support. These resources offer a range of useful tools from diagnosis to long-term management along with tips and suggestions about how one should interact with those who have PTSD or other health problems.

Online support resources have an assortment of benefits. When an individual cannot attend a session due to distance or other transportation constraints, online social support can play an important role. Other advantages include anonymity, immediate access to information, access to ongoing conversation from others in the same condition, and being able to connect with others across the country and around the world. However, there are some potential disadvantages to using online resources. There is potential for misinformation, negative interactions with others, or the feeling of disconnectedness if there are few interactions between the individual and other online members when seeking support.

Given the widespread access to the Internet and the variety of sources of social support

online, I argue that communication scholars need to examine how social support plays a role on PTSD in veterans and how this form of social support compares with traditional face-to-face or peer-group support.

In the ensuing chapters, I review the history of PTSD and offer a brief summary of the available literature discussing social support and PTSD in the veteran population before presenting the research questions, which are followed by chapters on methods, results and discussion.

CHAPTER TWO: Literature Review

History of Post-Traumatic Stress Disorder

Thanks to recent media coverage, PTSD is no longer an exotic or unknown medical condition that can be hidden or dismissed. PTSD has a long history, though it has been given different names at different times. However, few scholarly sources for the history of PTSD exist. In the late 1800s, psychoanalytically oriented psychiatrists treating patients suffering from trauma laid the foundation for elements of current evidence-based theories for explaining the development and maintenance of PTSD (Monson, Friedman, & La Bash, 2007). Freud suggested that childhood trauma caused individuals to use dissociation, denial, and repression as defense mechanisms (Breuer & Freud, 1895). PTSD sufferers may display the use of these same defense mechanisms today. Freud believed patients who use a narrative approach would release their repressed emotions and help them heal. This storytelling technique is a precursor to current cognitive-behavior therapy (CBT) (Monson et al., 2007).

The field of traumatic stress studies began to grow during military combat in the late 19th and early 20th century (Monson et al., 2007). Da Costa, a medical doctor, conducted one of the first studies of a war syndrome during the American Civil War. He evaluated 300 soldiers experiencing physical issues such as palpitations, burning or sharp chest pain, and shortness of breath with lesser symptoms of headache, dizziness, diarrhea, disturbed sleep and fatigability (Da Costa, 1871). Most of the patients appeared to be in fair health overall and with no consistent sign of any physiological diseases. Da Costa concluded the cause of this condition was from an infectious disease because nearly half of the soldiers who presented with this condition had experienced a recent upper respiratory infection, diarrhea, or fever. He later termed this condition *irritable heart*. While Da Costa first encountered this condition in soldiers,

he believed the general population also could be afflicted. Irritable heart syndrome was not the only instance of a war-related illness attributed to psychological factors. Soldiers with *nostalgia* experienced a loss of appetite, extreme apathy, occasionally fever along with a severe form of homesickness (Da Costa, 1871).

Effort syndrome was similar to irritable heart and affected soldiers during World War I. Symptoms included heart palpitations, chest pain, and shortness of breath, causing their evacuation from the field (Howell, 1985). Additional symptoms included headache, fatigue, confusion, dizziness, nightmares, concentration problems, and forgetfulness (Hyams, Wignall, & Roswell, 1996). The English War pension staff conducted a study of discharged soldiers diagnosed with effort syndrome. Respondents completed a yearly survey for the five-year study. The resulting data showed participants continued to experience symptoms of effort syndrome as well as an additional acute illness. The staff determined *combat stress*, also known as *shell shock* or *trench neurosis*, was the primary cause of this secondary illness (Hyams et al., 1996). Symptoms of shell shock, or trench neurosis, included a breakdown in battle, severe anxiety, and an exaggerated startle response in acute cases (Hyams et al., 1996). Doctors found that rather than evacuating soldiers who suffered from shell shock from combat, treating them in the field allowed soldiers a quicker recovery (Hyams et al., 1996).

Effort syndrome, though now known as a*cute combat stress reaction*, *combat exhaustion*, *operational fatigue*, or *battle fatigue* was again a concern for the British military After World War II. Doctors and researchers were still unsure if it was a physiologic or psychological illness at this time. Symptoms included fatigue, headache, impaired concentration, disturbed sleep, forgetfulness, and diarrhea (Grinker & Spiegel, 1945). Just as doctors found in WWI, soldiers treated in the field had faster recovery times than if they were evacuated from combat or told

they had *war neurosis* due to negative perceptions. Further, soldiers had quicker recovery times if told their response to extreme stress was normal (Hyams et al., 1996).

During the Korean Conflict, there were no reports of effort syndrome as a major medical condition but the problem of acute combat stress reaction was a clinical concern (Glass, 1954). *Post-Vietnam syndrome*, now known as PTSD (Post Traumatic Stress Disorder), was one of the most prominent problems encountered throughout the Vietnam War (Hyams et al., 1996). PTSD, in this context, referred to long-term costs of extreme psychological stress rather than the short-term issues of the same type of trauma (Hyams et al., 1996). The National Vietnam Veterans Readjustment Study (NVVRSS) conducted in 1998 used a variety of PTSD measurement scales and found that approximately 830,000 (26%) Vietnam veterans met the criteria for having PTSD (Kulka et al., 1990a, 1990b; Price, 2014).

The Persian Gulf War began in 1990 and lasted just shy of seven months. Casualties of this war were far fewer than expected among the coalition forces. However, once troops returned home, veterans from Canada, Great Britain, and the United States began to report a variety of chronic physical and neuropsychological symptoms. Physical symptoms included headache, muscle and joint pain, fatigue, shortness of breath, diarrhea, chest pain, and skin rashes while neuropsychological symptoms included impaired concentration, difficulty sleeping, irritability, anxiety, difficulty finding words, depression, and forgetfulness ("Public Health: Gulf War," 2014; Hyams et al., 1996; Valdez, 2014). These symptoms were collectively referred to as the *Gulf War Syndrome* or *Gulf War Illness* ("Public Health: Gulf War," 2014; Hyams et al., 1996; Lo et al., 2000; Valdez, 2014). In a study by Kang, Natelson, Mahan, Lee, and Murphy (2003), it was estimated that 12.1% of Gulf War veterans met the criteria for PTSD and around 10.1% of the total Gulf War veteran population have PTSD based on a population-based sample

(N = 11,441).

Service members and veterans returning from Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF) have reported similar behavioral health conditions including depression (Hoge et al., 2004; Hoge Auchterlonie, & Milliken, 2006; Thomas et al., 2010), PTSD (Hoge et al., 2004, Hoge et al., 2006; Milliken, Auchterlonie, & Hoge, 2007; Thomas et al., 2010), eating disorders (Jacobson et al., 2009), hypertension (Granado et al., 2009), and substance abuse (Fear & Wessely, 2009; Hoge et al., 2004; Thomas et al., 2010). In a study by Granado et al., (2009), researchers found that soldiers who had deployed and experienced multiple combat exposures reported hypertension 1.33 times more often than soldiers with noncombat deployments. Hoge et al., (2004) examined Marines and Army soldiers and found that those who had reported as having a combat experience (e.g. knowing someone who was killed, killing enemy personnel, being shot at, and handling a corpse) had higher rates of PTSD following their deployment. Further, as this was a cross-sectional study when examining different units but longitudinal with regard to establishing pre- and post-deployment information, Hoge et al., (2004) were able to determine that after a deployment, the respondents had higher instances of PTSD, major depression, or alcohol misuse when compared to their state before deployment.

Similarly, Hoge, Auchterlonie, and Milliken, (2006) found that soldiers who had experienced combat duty in Iraq had higher rates of PTSD, depression, and other mental health problems when compared to soldiers who were deployed to Afghanistan or other deployment locations. At least 12 to 17% of active duty service members had screened positive for PTSD within six months after returning from deployment (Milliken et al., 2007). In the study by Milliken et al. (2007), results indicated that depression would affect between 5 to 10% of the

active duty service members who screened positive for PTSD after returning from deployment.

This next section will briefly address the diagnostic criteria health care providers use to identify PTSD in an individual.

Diagnosis of PTSD

The Diagnostic and Statistical Manual of Mental Disorders (*DSM*)-*III* formally recognized PTSD as a medical disorder in 1980. Since then, PTSD has shifted from being an anxiety disorder to a trauma and stress related disorder. In 1994, the updated *DSM-IV* diagnosed PTSD based on six items the person must have experienced: exposure to a traumatic event involving serious injury or threatened or actual death, or exposure to "…a threat to the physical integrity of self or others" and they must have responded with horror, intense fear, or helplessness (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000).

Secondly, the individual persistently re-experiences the event by having one or more of the following: (1) persistent memories of the event, which are intrusive and distressing and may be through images, perceptions, or thoughts, (2) repeated and disturbing dreams about the event; behaving or believing the event was happening again to "…include illusions, hallucinations, and dissociative flashback episodes" (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000, pg. 468); exposure to cues, internal or external, resembling or symbolizing a part of the event causing severe psychological distress and/or; reacting physiologically when exposed to cues representing or bringing to mind a part of the event (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000).

According to the *DSM-IV-TR* (2000) 4th ed., text rev, a person must engage in "…numbing of general responsiveness" (pg. 468) and persistently avoid any possible trigger connected with the event by engaging in three or more of the following: experiencing feelings of

detachment from others; limited range of emotions; attempts to avoid discussing, thinking of, or feeling anything connected to the event; being unable to remember important parts of the event; feelings of not being able to lead a normal life in the future; attempts to avoid people, places, or activities that trigger memories of the event and/or; a significant reduction of interest or participation in activities enjoyed prior to the event. Next, s/he experiences "persistent symptoms of increased arousal" (pg. 468) that was absent prior to the event as exhibited through at least two of the following responses: angry outbursts or irritability; hyper-vigilance; trouble falling and/or staying asleep; trouble concentrating and/or; an exaggerated startle response (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000).

The individual must have experienced the symptoms indicating re-experiencing, avoidance, and arousal for more than 1 month and these symptoms "…causes clinically significant distress or impairment in social, occupational, or other important areas of functioning" (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000, pg. 468) (see Appendix A for full diagnostic criteria).

In 2013, there was an update to the *DSM–IV–TR*. The changes in PTSD diagnostic criteria are located in Criterion A with a more clear-cut explanation of what comprises a traumatic event. The update removed Criterion A2, which describes the subjective reaction a person has, "involved intense fear, helplessness, or horror" (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000, pg. 467). The clusters of symptoms were: *re-experiencing* [sic], *avoidance*, and *arousal* have now been expanded to *avoidance*, *persistent negative alterations in cognitions and moods*, *reexperiencing* [sic], and *arousal* (Highlights of Changes, 2013). Because of the relative "newness" of the *DSM*-5 assessment tools and lack of military-specific diagnostic survey for the *DSM*-5, I use the *DSM-IV-TR* definition and

assessment (Weathers, Litz, Herman, Huska, & Keane, 2014).

The next section offers a brief introduction to social support and PTSD research to establish the space in which this dissertation fits.

Social Support and PTSD

Researchers have studied social support and PTSD many times over (see Agaibi & Wilson, 2005 and Norris et al., 2002 for a review). Cohen and Wills (1985) suggested that the availability or perception of social support could help reduce the likelihood of developing a stress-related disorder after a traumatic event, to include PTSD. Social support and PTSD have been examined in a variety of contexts to include cancer (Andrykowski & Cordova, 1998; Jacobsen et al., 2002), sexual assault or community violence (Kimerling & Calhoun, 1994; Ozer & Weinstein, 2004), international relief personnel with exposure to traumatic events (Eriksson, Vande Kemp, Gorsuch, Hoke, & Foy, 2001), and environmental disasters like with the Three Mile Island nuclear power plant partial meltdown (Fleming, Baum, Gisriel, & Gatchel, 1982).

These studies all suggested that perceived social support and PTSD had a negative relationship in that respondents who perceived having social support reported less instances of PTSD or reduced symptomology when compared to respondents with low perceptions of social support. Perceived social support not only buffers the effects of traumatic events and reduce the likelihood of developing PTSD in the short-term but may also maintain the individual's mental and emotional health years after the traumatic incident occurred. Numerous studies have found that respondents who perceived social support as being available to them were less likely to display higher levels of PTSD or the accompanying symptoms even many years after the experience of a traumatic event (Ahern et al., 2004; Benotsch et al., 2000; Brewin, Andrews, & Valentine, 2000; Cobb, 1976; Institute of Medicine, 2012; Ozer, Best, Lipsey, & Weiss, 2003;

Shallcross, Frazier, & Anders, 2014; VA and DoD, 2010; Yuan et al., 2011) and social support has been shown to protect soldiers and first responders from developing psychopathological disorders once they have experienced a traumatic event (Dirkzwager, Bramsen, & van der Ploeg, 2003; Eriksson, Vande Kemp, Gorsuch, Hoke, & Foy, 2001; Fontana, Rosenheck, & Horvath, 1997; Institute of Medicine, 2012; VA and DoD, 2010; Yuan et al., 2011). For instance, in a study by Ahern et al. (2004) conducted two years after the end of the conflict in Kosovo at the University of Pristina Medical Center Emergency Department in Pristina, Kosovo, women with poor social support were more likely to have higher levels of PTSD symptomology than women who had good social support. Yuan et al. (2011) found socialization or social adjustment of police officers to be a protective factor against PTSD development prior to police service and 2 years after service.

A longitudinal study by Solomon and Mikulincer (1990) examined the relationships between social support, internal locus of control, negative life events, loneliness, and PTSD severity of Israeli soldiers who had a combat stress reaction episode. They found a significant association between more severe PTSD at Time 1 and less social support, less internal locus of control, and more loneliness at Time 2 (Solomon & Mikulincer, 1990). Further analysis revealed that while PTSD at Time 1 contributed significantly to PTSD at time 2, "the relation between perceived social support and PTSD at T2 cannot be attributed to the action of prior PTSD" (Solomon & Mikulincer, 1990, pg. 251). This suggests that even though an individual experiences PTSD, the perception of social support may be a more important factor in the reduction or increase of PTSD over time than the original PTSD experienced.

Benotsch et al., (2000) conducted a longitudinal study on troops with Gulf War experience and results were consistent with past research linking low perceptions of social

support with more PTSD symptomology. A similar study by Pietrzak, Johnson, Goldstein, Malley and Southwick (2009) found that post deployment social support was negatively associated with PTSD severity even after they had controlled for the severity of combat exposure the veteran had faced.

Other studies have addressed how perceived social support was instrumental in PTSD treatments and patient outcome. Burnell, Coleman, and Hunt (2009) conducted a narrative analysis to explore types of social support British male WWII veterans had available in order to deal with traumatic memories. Narratives are encouraged by therapists to help manage negative recollections. This study found that veterans who usually encountered positive support had coherent and reconciled narratives but veterans who felt society viewed them negatively, did not understand the veteran, or felt the social support needed to manage their memories was unavailable to them had incoherent narratives (Burnell et al., 2009). A study by Thrasher et al. (2010) found that social support was an important factor in PTSD treatment outcome when using cognitive restructuring, exposure therapy, both, or a relaxation control. Participants who reported having more social support had better treatment outcomes compared to those who reported less social support. This study also found that social support was a better predictor of PTSD symptom improvement than other tested variables including age, severity and length of the trauma, along with number of life events both pre- and post-trauma.

To address who veterans actually turn to when they seek to utilize their social support network, Laffaye, Cavella, Drescher, and Rosen (2008) studied the relationship between PTSD symptom severity along with negative and positive social stressors, to include their social support network, of veterans who are treated for chronic PTSD. They found that the respondents who had higher numbers of veteran friends compared to nonveteran friends in their social

network had more regular interaction with others and received approximately the same amount of instrumental support from these peers as they did from their families (Laffaye et al., 2008). Moreover, the veterans stated they relied on family members for emotional support more than they did with nonveteran friends. However, the veterans preferred relying on veteran peers rather than family members and non-veteran peers because the exchanges were less stressful (Laffaye et al., 2008).

Conversely, in a study by King, Taft, King, Hammond, and Stone (2006) examining male Gulf War veterans who had experienced combat and the relationship between perceived social support and PTSD, the results were more indicative of PTSD causing a reduction in perceived social support rather than a decrease in social support causing PTSD. They suggest that is likely because veterans with chronic PTSD may be more "…likely to drive away others within their social support networks" (p. 2987).

These studies have all assisted in the understanding of perceived social support and the development of psychopathology following a traumatic event in both civilian and military populations. However, when looking at the studies focusing on the military population, most take place right before, during, or immediately after a deployment but this limits their generalizability to the larger military population, to include those who no longer serve (Ramchand, Karney, Osilla, Burns, & Caldarone, 2008). Additionally, because of the weakness in generalizability, estimates of PTSD, depression, and other psychopathological disorders are likely lower than actual rates and are limited to only those who were in that particular sample examined. As Ramchand et al. (2008) point out; studies focusing in on these specific populations are more likely to exclude injured or those who have separated from the services, regardless of their deployment history.

Further, other biases, such as focusing on only combat troops may exclude those who are not classified as combat troops but are instead combat support or combat mission or services support soldiers and this could cause the estimate of these disorders to be higher than what they actually are (Ramchand et al, 2008). To reduce these likelihoods, it is recommended that researchers survey as many troops as possible, to include veterans and non-combat soldiers, regardless of their deployment history. This will assist in making the findings of future research to be more broadly applicable rather than having the results be too narrow in their focus. Further, by including a wider range of service members within a single study using the same diagnostic measure, researchers will be able to examine the similarities and differences between the sub-groups more easily instead of trying to force a fit between the different measures used in other studies.

As can be seen, there have been multiple studies examine and address the relationship between social support and PTSD but there are relatively few which include other possible factors like unsupportive social interactions and the relationships between perceived social support and unsupportive social interactions with seeking social support in offline and online contexts and to PTSD. This dissertation seeks to fill the gaps in the literature on these constructs and to assist in further understanding the link between social support and PTSD, the following section briefly addresses the different theories on social support.

Theoretical Perspectives of Social Support Theory

Social support theory has three important theoretical perspectives: (1) a social-cognitive perspective, (2) social constructionist perspective, and (3) a stress and coping perspective, and (Lakey, n.d.). The social-cognitive perspective (SCT) views of social support mainly address the perception of support, i.e. perceived support (Lakey & Cohen, 2000). The social constructionist

perspective explains how better health may be promoted through social integration (Lakey, n.d.). Lastly, the stress and coping perspective posits that perceived or actual social support can reduce the effects of negative stress on health (Lakey & Cohen, 2000).

Social-Cognitive Perspective. The social-cognitive perspective or Social-Cognitive Theory (SCT) draws on the traditional social-cognitive theories of personality and psychopathology (Lakey & Cohen, 2000). The primary focus of SCT is an individual's beliefs or perceptions of social support rather than actual received social support (Lakey & Cohen, 2000). SCT suggests individuals develop beliefs about social support and these beliefs become fixed over time. Once an individual's beliefs of social support are fixed, the person can adjust their perception to fit the established fixed belief (Lakey & Cohen, 2000). According to SCT, a person's global impression or perception of a potentially supportive individual is more important than the actual support they receive from that person (Heller & Lakey, 1985; Heller & Swindle, 1983). Here is an example: an individual believes a sibling is supportive, willing to assist whenever needed, and is always there for help. When asked about this sibling as a support person, the individual will draw upon their perception of the sibling's availability and ability to help instead of recalling actual receipt of assistance.

SCT connects social support and health through these beliefs or global impressions. As noted by Lakey and Cohen (2000), when a person has positive thoughts about social support and relationships, positive thoughts about the self are stimulated and cause positive emotional states. However, when a person has negative thoughts about social support and relationships, the negativity can "stimulate negative thoughts about the self, which, in turn, overlap with and stimulate emotional distress" (Lakey & Cohen, 2000, p. 37). In an analysis of more than 40 correlational studies testing the idea that people are protected by their social support systems

from negative psychological consequences of stress, Cohen and Wills (1985) found that simply having the perception of support rather than its actual receipt allows for health and adjustment in times of stress.

Social Constructionist Perspective. Social cognition research is the foundation of the Social Constructionist Perspective (SCP) (Lakey, n.d.). The basic belief is that there is a close link between people and their social network. Lakey and Cohen (2000) note, "…our social environments directly promote health and well-being by providing people with a way of making sense of the self and the world" (p. 40). An individual benefits from social support because social support contributes to the development and maintenance of the individual's identity and self-esteem (Lakey & Cohen, 2000). *Role concepts* allow individuals to understand their various roles within the context of society and are the beliefs an individual has about how people should or should not act in a particular role (e.g. a sibling should always be there to provide support, no matter the circumstances) (Lakey & Cohen, 2000).

Role concepts overlap with SCT in explaining how the perception of social support transforms the view of received support. Further, the perception of social support and role concepts guide individual and group behaviors based on fulfilling the expectations ascribed to a particular role in the support structure an individual has when experiencing psychological distress (Caplan, 1974; Cassel, 1976; Thoits, 1986).

Stress and Coping Perspective. The stress and coping perspective suggests that social support helps an individual's health by protecting them from the negative effects of stress by acting as a buffer. This buffer has two mechanisms: (1) the belief of available social support, and (2) the receipt of supportive actions from others (Lakey & Cohen, 2000). Through the supportive actions of others, an individual's coping performance may improve (i.e. offering

advice or reassurance) (see Figure B1). Additionally, the perception of support may reduce stress caused by situations that normally trigger high stress (see Figure B2) (Lakey & Cohen, 2000).

The theory of stress and coping examines how people interpret or view a situation in assessing the stressfulness of an event (Lazarus, 1966; Lazarus & Folkman, 1984). *Primary* appraisals deals with judging if an event is a threat to include questions like, "Am I in danger?" when it comes to threat or challenge. A *secondary* appraisal deals with evaluating social and personal resources that are available for coping with an event with questions like, "Is there something I can do about it?" Lazarus and Folkman (1984) posit that if there are more negative appraisals of a situation, then the individual will experience more emotional distress. Cohen and Hoberman (1983) hypothesized that simply believing in the availability of social support will reduce the effects of stress and this leads to a reduction in negative appraisals.

Social integration. Humans, by nature, are social creatures and it is through our social interactions and communication that societies have formed. Mead (1934) posited that the mind, self, and society develop together through symbolic interaction and that communication shapes individual identities, making both individuality and community possible. To determine the level of social integration or network participation, researchers have examined the diversity of relationships that an individual has (Cohen, Gottlieb, & Underwood, 2000). This is done by using measures exploring the relationships between an individual and this person's spouse or partner, close family members, friends, social and religious group members, and neighbor relationships. Individuals who report more relationship types with a greater variety of people are more socially integrated than individuals with fewer relationship types (Cohen et al., 2000).

Social relationships can have main effects (or be beneficial to an individual regardless of

stress) through a variety of mechanisms and can affect the physical and psychological health of an individual (Cohen, Underwood, & Gottlieb, 2000). Through an individual's participation in a social network, societal norms, controls, and peer pressure can influence that person's normative health behaviors (e.g., a smoking cessation support group, Alcoholics Anonymous, and Weight Watchers, to name a few). By joining this type of network, researchers believe group members will experience a positive effect of getting a sense of stability and predictability, purpose, recognition of self-worth for following the normative role expectations, security, and of belonging (Cassel, 1976; Hammer, 1981; Thoits, 1983, Wills, 1985). These positive states are favorable because they allow for the reduction of psychological despair, (Thoits, 1985), offer motivation for an individual to take better care of themselves (Cohen & Lichtenstein, 1990; Cohen & Syme, 1985; Steptoe, Wardle, Pollard, Canaan, & Davies, 1996), or suppress some neuroendocrine responses while improving immune function of the individual (Bovard, 1959; Cassel, 1976; Cohen, 1988; Uchino, Cacioppo, & Kiecolt-Glaser, 1996).

Furthermore, studies have found that individuals who are socially integrated have a longer lifespan (Berkman & Syme, 1979), are less likely to contract a cold when exposed to the cold virus (Cohen, Doyle, Skoner, Rabin, & Gwaltney, 1997) or suffer from heart attacks (Kaplan et al., 1988), are more likely to survive breast cancer (Kroenke, Kubzansky, Schernhammer, Holmes, & Kawachi, 2006) and have better mental health than those who are more socially isolated (Bell, LeRoy, & Stephenson, 1982; Berkman, Glass, Brisette, & Seeman, 2000; Brownell & Schumaker, 1984; Durkheim, 1897/1951; Heller, 1979; Miller & Ingram, 1979; review in Cohen & Wills, 1985). It stands to follow that the more socially integrated an individual is, the higher the likelihood of perceiving social support availability.

Barrera, Sandler, and Ramsay (1981) based their Inventory of Socially Supportive

Behaviors, a widely used measure of the mobilization of network support, on Gottlieb's (1978) set of 26 categories of informal helping behaviors. As has been shown, social support can affect physical health and can affect mental health by influencing thoughts, emotions, and behaviors (Cohen, 1988). Correlational studies have found that the perception of having resources available usually acts as a stress buffer while social integration assists regardless of stress levels (Cohen & Wills, 1985; Schwarzer & Leppin, 1989).

As previous research has found, the perception of social support can be more important than the actual receipt of support when an individual is experiencing times of stress. I now offer a brief discussion of perceived social support measurements and outcomes from past research.

Perceived social support. The Interpersonal Support Evaluation List or ISEL (Cohen & Hoberman, 1983; Cohen, Mermelstein, Kamarck, & Hoberman, 1985) evaluates the perceptions of the availability of four differing support types: *appraisal*, *belonging*, *esteem*, and *tangible support* (Lakey & Cohen, 2000). *Emotional* support or *esteem* or *appraisal* support refers to individual having a positive assessment when comparing themselves against others or that others have faith in the individual. This includes verbal and nonverbal expressions of caring and concern through behaviors such as comforting, listening, reassuring, and being present. *Instrumental* or *tangible* support refers to having practical help when needed (e.g. having someone to watch after pets or one's home, help with childcare, and/or lending tools or money). *Informational* support refers to having someone available to ask for guidance, advice, or resources when needed. *Companionship* or *belonging* support addresses having other people available to do things with (e.g. hiking, seeing a movie, spending time in social settings) (Cohen, et al., 1985; Wills & Shinar, 2000).

While studies exist addressing perceived social support as a factor of PTSD, there have

been few studies examining perceived support influencing the use of offline support over online support or vice versa. There may be additional factors that encourage or inhibit social support seeking behaviors (e.g. sex, age, race, socioeconomic status). For instance, the stereotype of women being more likely than men to engage in or actively seek support. While this stereotype may not be true in all cases, the Pew Research Internet Project found that men (54%) are less likely than women (64%) to report seeking emotional support from family, friends, and peers suffering from the same condition (Fox, 2011). Further, numerous studies have found that participants in offline or face-to-face patient support groups tend to be female, and in cancer social support literature, women typically outnumber men by around 4 to 1 (Cella & Yellen, 1993; Krizek, Roberts, Ragan, Ferrara, & Lord, 1999). Other studies examining face-to-face support groups found males were less likely to admit the need for a psychological problem let alone seek support for their psychological condition than women (Addis & Mahalik, 2003; Chapple, Ziebland, & McPherson, 2004; Malik, & Coulson, 2008; Mo & Coulson, 2008; Moynihan, Bliss, Davidson, Burchell, & Horwich, 1998; Reevy & Maslach, 2001). Contradicting this finding, a study by Salem, Bogat, and Reid (1997) found that a higher proportion of males participated in online support group forums related to depression when compared to females.

The perception of social support differs greatly from person to person and group to group based on a variety of components but there is one constant: people who perceive having social support are healthier mentally, physically, and psychologically than those who do not believe they have social support available. While previous studies have examined perceived social support or a lack of it, researchers also need to address unsupportive social interactions when examining PTSD and support.

Unsupportive social interactions. Just as socially supportive interactions can increase so to can unsupportive social interactions. The term "unsupportive social interactions" refer to the behaviors of others toward an individual rather than the behaviors of the individual experiencing the unsupportive behaviors or interactions (Ingram, Betz, Mindes, Schmitt, & Smith, 2001). Studies have found that unsupportive social interactions are linked with decreases in psychological well-being and increases in psychological distress in cases of cancer (Figueiredo, Fries, & Ingram, 2004; Manne, Taylor, Dougherty, & Kemeny, 1997) and rheumatoid arthritis and spousal support or criticism (Manne & Zautra, 1989). It must be noted that these unsupportive social interactions exist in both offline and online contexts (Sharp, 2000).

An individual may experience one or more of the four types of unsupportive social interactions during a stressful event: *distancing, bumbling, minimizing,* and *blaming* (Ingram et al., 2001). *Distancing* is emotional or behavioral disengagement by others from the individual. *Bumbling* describes inappropriate behaviors an individual may perceive as uncomfortable, awkward, or having the impression of others trying to "fix" him or her. *Minimizing* focuses on attempts to force "happiness" or optimism on the situation or even making light of the individual's concern or problem by others. Finally, *blaming* refers to finding fault or criticizing the individual. Ingram et al., (2001) found that experiencing distancing of others was a significant predictor of overall psychological distress.

Multiple studies have shown that the experience of unsupportive social interactions after a traumatic event to include sexual assault (Campbell, Ahrens, Sefl, Wasco, & Barnes, 2001; Ullman & Filipas, 2001; Zoellner, Foa, & Brigidi, 1999), physical abuse (Astin, Lawrence, & Foy, 1993), injury (Perry, Difede, Musngi, Frances, & Jacobsberg, 1992) and in first responders at the scene of a traumatic event (Weiss, Marmar, Metzler, & Ronfeldt, 1995) is a more powerful

predictor of distress and possible development of a psychopathological disorder, to include PTSD, when compared to a lack or absence of positive perceived social support. In a study about grieving mothers, Lepore, Silver, Wortman, and Wayment (1996) suggested that victims who experienced unsupportive social reactions would suppress their thoughts, reactions, or reduce the likelihood of discussion the event, further limiting their perception of social support. This all culminates in impeding their ability to cognitively process the experience and move forward with recovery (Lepore et al., 1996).

Other studies suggest that veterans who experienced unsupportive social interactions, including interactions in social environments which were judgmental, unsympathetic, and/or potentially hostile, had a higher likelihood of developing psychopathology than veterans who did not experience unsupportive social interactions (Burnell et al., 2009; Dirkzwager et al., 2003; Koenen, Stellman, Stellman, & Sommer, 2003; Stretch, 1986).

While there have been studies about USI and PTSD supporting a positive relationship between the two constructs, the question remains with regard to the relationship between USI and engaging in Online SS and/or Offline SS.

Online and Offline Social Support

Social support has been a focus of research in the field of communication including organizational and health communication. At its most basic definition, social support is "a communication behavior, as fundamental to interaction as the communication behaviors of informing, persuading, or teaching" (Albrecht & Goldsmith, 2003, p. 263). Communication researchers typically study social support as a separate coping strategy from emotion-focused and problem-focused coping strategies for many reasons. As Credé and Niehorster (2012) note, social support meshes these two coping strategies into a single strategy. Lazarus and Folkman

(1984) point out that this allows an individual to ease a stressful situation and feel better at the same time by using one supportive behavior instead of using other coping strategies, which typically fit into either a problem-focused or emotion-focused strategy.

Social support may take place offline, online, or both through a variety of sources. The more traditional and typical location social support is sought and/or found occurs offline. Offline social support typically involves attending support group meetings in person (e.g. Alcoholics Anonymous, Weight Watchers, and the American Cancer Society) where the focus is usually on information exchange and/or emotional support. Unofficial offline support groups typically focus on encouraging individuals to socialize with acquaintances or close support people to build a sense of connection and retain social integration. Functions may involve physical activity (e.g. bowling, picnics, or sporting events) or basic communication (e.g. talking in a casual setting).

When studying offline social support, researchers have found that as social support or the perception of social support increases, depression decreases (Frasure-Smith, et al., 2000; Peirce, Frone, Russell, Cooper, & Mudar, 2000); alcohol consumption decreases but when social support is low, alcohol consumption increases (Steptoe et al., 1996); and in cases with PTSD, the more social support the person has, the fewer PTSD symptoms they experience or exhibit (Brewin et al., 2000; Clapp & Beck, 2009). Further, social support helps alleviate depression in patients following myocardial infarctions (Frasure-Smith et al., 2000), allow cancer patients to cope with a lack of understanding of all the medical terms when they are first diagnosed (Albrecht, Blanchard, Ruckdeschel, Coovert, & Strongbow, Strategic Physician Communication and Oncology Clinical Trials, 1999), and manage stress.

Individuals may choose to supplement or even replace traditional offline avenues of

informational or emotional support addressing medical conditions or concerns by going online. Online social support typically includes either synchronous or asynchronous message and/or discussion forums (e.g. HealthfulChat, +supportgroups, and webtribes inc,) and can be open for anyone to view or closed to all but members. Other online support sources include blogs (e.g. The Pro-Ana lifestyle Forever, Trauma! A PTSD Blog, and Meetup.com), health information sites (e.g. The Wounded Warrior Project, Department of Veterans Affairs, and National Institutes of Health), and general social networking sites (e.g. Facebook, Twitter, and MySpace).

Previous research on online social support and health has examined how weight loss community participation assisted members with their weight loss goals (Ballantine & Stephenson, 2011; Hwang et al., 2009; Turner-McGrievy & Tate, 2013), the empowering effects of using online mental health forums rather than traditional face-to-face support groups (Kummervold, et al., 2002), and various types of social support (instrumental, emotional, etc.) sought and/or offered for depression (Chuang & Yang, 2010; Evans, Donelle, & Hume-Loveland, 2012).

LaCoursiere (2001) developed a theory of online social support and defined it as "…the cognitive, perceptual, and transactional process of initiating, participating in, and developing electronic interactions or means of electronic interactions to seek beneficial outcomes in health care status, perceived health, or psychosocial processing ability (p. 66)." Furthermore, online social support "incorporates all components of traditional social support, with the addition of entities, meanings, and nuances in a virtual setting, and unique to computer-mediated communication (LaCoursiere, 2001, p. 66)." Online social support only adds to an individual's support network rather than diminish what is already established. An *initiating event* is what typically triggers online social support seeking behavior (LaCoursiere, 2001).

An initiating event is either a change in the health of an individual, a change in their perception of health, or both (LaCoursiere, 2001, p. 68). *Mediating factors* influences initiating events and fall into four categories: *Internet use*, *health*, *demographics*, and *perceived individual factors* (LaCoursiere, 2001, p. 68). The Internet use category is comprised of ease or comfort of use, the pattern of Internet use, history, and previous online and offline health-seeking behaviors. The category of health encompasses medical diagnoses, medication use, and health status, to name a few. The demographics category might include the traditional demographic descriptors such as age, race, sex, socioeconomic status, and relationship status. Finally, the category of perceived individual factors may be comprised of stress, copping ability, experience, social isolation, gender socialization, and other types of social, psychological, and cultural circumstances (LaCoursiere, 2001, p. 68). The combination of initiating events and mediating factors triggers support-seeking behaviors and these seeking behaviors influence online social support (LaCoursiere, 2001).

As discussed, the seeking of offline social support (Offline SS) and online social support (Online SS) is triggered by the occurrence of an initiating event, whether from family members, significant others, or friends. Based on previous research, there are a few possible relationships between Offline SS and Online SS. First, the relationship may be negative whereby individuals who are not getting the needed support could seek help online to supplement their lack of offline support base. Another possibility is that those who perceive enough offline support do not feel the need to seek support online. Alternatively, a positive relationship may exist between Online SS and Offline SS. Individuals perceiving and/or receiving Offline SS might be connected to that same offline support network online whereby Offline SS is also maintained online. On the other hand, it may be that those who do not get the needed Offline SS feel as if they would not

receive that support online and therefore do not bother to seek out support. Finally, there may be no relationship between Online SS and Offline SS.

Next, there is a variety of ways in which perceived social support (PSS) might influence offline social support (Offline SS) and/or online social support (Online SS) seeking behaviors. First, PSS may have a negative relationship with Online SS and/or Offline SS. This may be because the individual perceives having good social support available to them so they do not feel the need to seek any additional support. On the other hand, there may be a positive relationship between PSS and both Online SS and Offline SS because the individual is connected to the majority of the same support network online as they are offline. This could cause an increase in seeking out other members of their Offline SS network to maintain those connections online. Lastly, there may be no relationship between PSS and Online SS and/or Offline SS.

Following this, there are a few possible outcomes when examining the relationship between unsupportive social interactions (USI) and Offline SS and between USI and Online SS: a positive relationship between USI and Offline SS and between USI and Online SS or a negative relationship between USI and Online SS and between USI and Offline SS. If a positive relationship exists between USI and Offline SS and/or between USI and Online SS, one explanation may be that the more unsupportive social interactions an individual receives, the more they will seek out support wherever they can find it. Alternatively, if a negative relationship exists between USI and Offline SS and/or between USI and Online SS**,** it could be because an individual assumes that if those closest to them were not supportive, then no one else would be either.

The next construct addressed is that of resilience. A definition and brief overview of the research is given.

Resilience

The definition of resilience varies widely in the academic literature. As Lazarus and Folkman (1984) note, resilience conveys the idea of flexibility, strength, and an ability to resume the functions of everyday life after excessive stress challenge one's ability to cope. Another manner in which to define resilience is that it is "…the ability to maintain a stable equilibrium" (Bonanno, 2004, p. 20). Johnson et al. (2008) based their definition of resilience on spirituality, positive appraisal, self-efficacy, active coping, meaning/learning, and acceptance of limits.

Resilience can be a protective factor that helps nurture healthy traits among people exposed to a traumatic event. This dissertation followed Bonanno's (2004) definition of resiliency as the ability for adults to "…maintain relatively stable and healthy levels of psychological and physical functioning" after being "…exposed to an isolated and potentially highly disruptive event" (p. 20). Bonanno, Galea, Bucciarelli, and Vlahov (2006) conducted a study of over 2,000 residents in the New York area 6 months after the attacks of 9/11 and found that resilience decreased as PTSD increased. However, most of the respondents (65%) were considered resilient based on having either no or only one symptom of PTSD. While any individual who has experienced a traumatic and potentially life-threatening event may experience PTSD, researchers have noted that either the majority does not develop PTSD or if they do, it is a short-lived type of PTSD that tapers off over the following months (Bonanno, 2004; Bonanno et al., 2006, 2007; Galea et al., 2002; Tucker et al., 2002). Pietrzak et al. (2009) studied veterans of OEF and OIF and found that veterans with PTSD had lower resiliency than those without PTSD.

What then contributes to resiliency? Research indicates resilience is comprised of many factors to include: *positive appraisal/social support*, *reappraisal*, *spirituality*, *active coping*,

meaning/learning, *self-efficacy*, *acceptance*, *cognitive flexibility*, *cognitive explanatory style*, *stress inoculation*, and *regular physical exercise* (Haglund, Cooper, Southwick, & Charney, 2007; Johnson et al., 2008; Pietrzak et al., 2009; Pietrzak et al., 2010). Resiliency research has shown that people are born with "innate resiliency" and can develop traits exhibited by those who have been able to cope and recover from various challenges and problems (e.g. natural disasters, financial issues, job loss, death of a loved one, terrorist attacks such as 9/11) through the use of positive emotions or positivity (Benard, 1991, 2014; Cherry, 2014; Fredrickson, 2001; Lifton, 1993; Maston, 1994; Rutter, 1987; Werner & Smith, 1992).

Fredrickson and Joiner (2002) found that individuals who experienced more positive emotions were more resilient to adversity over time than those who experienced negative emotions. Siebert (2005) notes that negative emotions (e.g. fear, anxiety, helplessness, hopelessness, and anger) decrease the ability to problem solve and reduce an individual's resiliency. While most everyone feels negative emotions, resilient individuals do not dwell on or remain in these negative emotional states (Siebert, 2005; Tugade & Fredrickson, 2004). Rather, they allow those emotions to coincide with positive emotions such as hope, happiness, and positive expectations for their future and this allows for being able to remain calm under pressure, improve problem-solving skills, and bounce back from setbacks, to name a few (Fredrickson, 2001; Siebert, 2005; Tugade & Fredrickson, 2004; Tugade, Fredrickson, & Barrett, 2004).

Additionally, individuals who experienced more positive emotions were able to build upon their ability to engage in *broad-minded coping*, which occurs by engaging in activities like problem-solving, brainstorming, or trying to be more objective about a situation being faced, and learning from the experience (Sabine, as cited in Sholl, ¶23, 2011; Tugade & Fredrickson, 2004;

Tugade et al., 2004). By using what Adams (as cited in Scholl, 2011) terms "question thinking," an individual can then approach the situation in a neutral manner and ask nonjudgmental questions like "What options do I have?" or "What can I learn from this" rather than "Judger Questions" including "Who's to blame?" or "What's wrong."

Further, individuals are able to increase their resilience by avoiding the "victim reaction" (Siebert 2005), which includes things like rejecting or refusing any and all suggestions about how to deal with a stressful event or refusing to take the necessary steps to improve their situation after the crisis is over. This also helps improve how the individual relates and connects with others, which is another important factor of resilience. Individuals may build or improve resilience by helping others or through appreciation and acknowledgement of receiving help from others (American Psychological Association (APA) Help Center, 2014; Fredrickson, 2001; Klinedinst, 2014; Riessman, 1997; Sabine, as cited in Sholl, 2011; Smith, as cited in Sholl, 2011; Tugade & Fredrickson, 2004; Tugade et al., 2004).

While resilience has been shown to directly affect the development of PTSD, overall PTSD score or severity, few studies have examined the role of resilience in concert with constructs such as PSS, USI, Online SS, or Offline SS on PTSD. Some correlational possibilities among these constructs include a negative relationship between resilience and PTSD or a positive relationship between resilience and PSS.

While resilience is a main factor for reducing PTSD, research has found that coping and spirituality are also important constructs to consider and therefore, I briefly address these two concepts next.

Coping and Spirituality

Coping has two different types of styles to deal with a stressful situation: *problem-*

focused coping or focusing on a problem and using available resources to solve the stress-creating issue, and *emotion-focused coping* where tension is reduced by changing the attitude of the individual about the stressful situation (Haglund et al., 2007; Solomon, Mikulincer, & Flum, 1989). In addition to these two coping styles, researchers have identified an *orientation focus* (approach vs. avoidance) and a *method focus* (cognitive vs. behavior) (Tiet et al., 2006). As Tiet et al. (2006) note, PTSD symptom outcomes are improved when using the orientaiton focus an indivudal has less reliance on avoidance coping and focuses on using approach coping. The concept of coping is included as a factor of resilience but is kept as a separate variable from resilience to determine if differences exist between them and, if so, to ensure their unique contributions were discussed.

Within the construct of coping lies religious coping, which has been linked with lower levels of depression and the ability to adjust to stress positively (Ano & Vasconcelles, 2005; Koenig, 2009; Koenig, Pargament, & Nielsen, 1998; Smith, McCullough, & Poll, 2003). It is common for individuals to turn to religion when experiencing a major stress-causing event (Schuster et al., 2001). In the week following the 9/11 terrorist attack, a study by Biema (2001) found that 60% of Americans attended a memorial or religious service and a 27% increase in Bible sales (as cited in Koenig, 2009). As Koenig (2009) stated, "Religious beliefs provide a sense of meaning and purpose during difficult life circumstances that assist with psychological integration…" (p. 285).

Pargament, Feuille, and Burdzy (2011) created a scale to test religious coping and found positive religious coping (PRC) and negative religious coping (NRC). PRC occurs when the individual sets out to problem solve with the help of God or higher power, seeks help through the spiritual community and helps others in need. NRC occurs when individuals place the

responsibility for action or thought on God or higher power and refuses accepting accountability. The individual blames God or a higher power for their problems, or feels abandoned by that higher power (Pargament et al., 2011). Witvliet, Phipps, Feldman, and Beckham (2004) found a positive relationship between anxiety, depression, and PTSD symptom severity and negative religious coping.

Just as with coping, spirituality is included as a factor of resilience. This study kept the spirituality variable separate from resilience to determine if there were differences between the two variables and, if so, to ensure their unique contributions were discussed.

Hypotheses

After reviewing the literature, questions remained with regard to the relationships between constructs and these questions guided the formation of my hypotheses. I now present a few of those questions, first addressing the relationship between PSS, Offline SS and Online SS: What happens to the people who do not feel they can ask for, let alone receive, the support they need offline? Does engaging in Offline SS and/or Online SS fill a gap for individuals who experience a lack of PSS? If the individual has PSS, do Offline SS and/or Online SS enhance the support already received? Are the individuals who are getting the support they need offline more likely to supplement that support online while those who are not getting the support they need offline feel there is no point even bothering to go online to seek help since they cannot get it offline? Is the seeking and receipt of online and offline social support, in essence, an issue of those rich in social support get richer and the poor get poorer? Or perhaps those who are lacking social support seek to alleviate that deficiency by seeking support online since they cannot get it in their offline environment?

From these questions, I offer my first set of hypotheses: There will be a negative

relationship between PSS and Offline SS, between PSS and Online SS, and based on previous research, there will be a negative relationship between PSS and PTSD.

The next set of questions guiding my hypotheses address USI, Offline SS, Online SS, and PTSD: Does Offline SS or Online SS help to alleviate the USI experienced by an individual or do those who encounter USI choose to avoid seeking support altogether? Are Offline SS or Online SS positively correlated with USI and is USI positively correlated with PTSD?

From these questions, I offer my second set of hypotheses: There will be a positive relationship between USI and Offline SS, between USI and Online SS, and between USI and PTSD.

This third set of questions guiding my hypotheses address Offline SS, Online SS, and PTSD: Does Offline SS or Online SS have a negative or positive relationship with PTSD? By actively seeking social support, is the individual reducing PTSD or does seeking social support indicate a lack in the available social support for the individual, thereby increasing PTSD?

From these questions, I offer my third set of hypotheses: There will be a negative relationship between Offline SS and PTSD and between Online SS and PTSD.

Lastly, my final set of hypotheses address the construct of Resilience and the relationships it has with PSS, USI, Offline SS, Online SS, and PTSD: **PSS will have a positive relationship with Resilience; USI will have a negative relationship with Resilience; and Resilience will be negatively correlated with PTSD.** The relationship between Online SS and Offline SS and between Online SS, Offline SS, and Resilience are examined as research questions.

CHAPTER THREE: Pilot Study

Given the concern that veterans with PTSD may be a special population, a work group was assembled by Veterans Affairs to address whether veterans should receive special protection as research participants ("Should veterans," 2008). After considering the "Are veterans with a diagnosis of PTSD considered 'vulnerable' for the purpose of applying guidelines for the protection of human subjects in research?" (p.13), the work group concluded that veterans belonging to this subgroup are "…not categorically vulnerable and, therefore, do not require special protections in the form of new regulations, policy or guidance" (p. 13). The work group also noted that, under the current VA policy and Federal regulations, Institutional Review Boards are to "scrutinize" research protocols to determine if "potential participants may have impaired decision-making capacity, an increased susceptibility to undue influence or coercion, or an increased susceptibility to the risks associated with a particular research study" (p.13). However, the work group recommended that protection of research participants would vary based on the purpose of the study and the subpopulation of veterans involved in the study. To mitigate potential adverse effects of participating in a study about PTSD, this study followed the recommendations provided by the work group.

After receiving IRB approval, participants were recruited through purposive and network sampling to test the survey design and to solicit feedback. First, I contacted friends, colleagues and acquaintances who have served as members of the military through Facebook status messages, personal messages via Facebook, texts, and email. Second, I posted a general status update on my Facebook page asking for anyone who saw this status post to forward the survey link to any veterans they knew. Finally, I initiated personal conversations with friends, regardless of veteran status, to solicit assistance for finding more participants.

For inclusion in the study, participants were to be at least 18 years of age, able to read English, a veteran of one of the branches of military who had have served at least 180 days, with access to the Internet to participate in the survey and willing to give informed consent.

Through this process of snowball and convenience sampling, 89 surveys were submitted between December 17, 2013 and January 14, 2014. However, this analysis is limited to only 42 surveys, which were completed. Participants consisted of four females (9.5%) and 38 males (90.5%) which is representative of the military population ("National Survey of Veterans…", 2010). The ages ranged from 25 to 65 years or older, with a majority of participants who were 65 years or older (n = 17) followed by participants in the 35 to 44 years old group (n = 13). Veterans who served in the Navy was the largest group (n = 26) followed by the Army (n = 11), with the remaining five participants in the Air Force, Marine Corps, or another branch. Caucasian were the majority (n = 36) followed by Hispanic/Latino/Latina (n = 2). Of the 42 respondents, 35 had been combat deployed and all but four had experienced some sort of life-threatening situation during that deployment. Nine respondents had been diagnosed as having PTSD by a medical professional. For the full measure used in the pilot study, please see Appendix C.

The landing page of the survey consisted of the following: (1) a statement describing the study in detail, (2) informed consent language, and (3) contact information to reach investigators. Once the respondents read the consent form, they indicated their voluntary participation and consent to take part in this study by selecting an opt-in radio button that appeared after the following statement: "By selecting 'I agree' option to begin the survey, you are consenting to participating in this research. If you would not like to participate, please select 'I do not agree."

To maintain confidentiality, names or other identifying information were not collected as

part of the survey. Respondent had the option to submit an email address if they wished to be entered into a drawing for a gift card but the email address was not matched up to the data provided by participants.

I maintained and modified the surveys as needed and no one else had access to the data. This information will remain on file for the mandatory three years. Qualtrics, an online website that is password protected, hosted the survey. By having the survey online, respondents had easy access to the survey along with being able to complete it when they had time.

Instrumentation/Measures

While most of the surveys were used in their original format, a few were modified slightly to fit the research objectives of this study.

PTSD severity (PCL-M). PCL-M is the military version of the PCL, which is a 17-item self-report measure that is based on the *DSM-IV-TR* symptoms of PTSD. This version asked veterans and active service members about symptoms experienced in response to stressful military experiences. The respondent was asked to rate how much they have been bothered by a particular problem in the past month, which was rated on a 5-point scale (*1 = not at all, 3 = moderately, 5 = extremely)*. Some of the items are as follows: Having upsetting thoughts, images or memories about a stressful military experience come into your head when you did not want them to; Feeling emotionally upset when you are reminded of a stressful military experience; Experiencing physical reactions (e.g. heart pounding, trouble breathing, or sweating) when reminded of a stressful military experience; and Trying to avoid activities, situations, or people because they remind you of a stressful military experience (See Appendix C and F for full survey).

A structured clinical interview is recommended for administering the scale but, as noted,

the PCL-M "can be scored to provide a presumptive diagnosis" without the use of an interview (Using the PTSD Checklist, 2012, pg. 1). There are three ways to score the PCL-M: (1): on a scale of 1 to 5, the respondent must answer with a 3 or higher for the following: at least 1 item from the B category (questions 1-5), at least 3 items from the C category (questions 6-12), and at least 2 D items (questions 13-17); (2) add the item scores to reach a total score, ranging between 17 and 85 where having 50 or above indicates the presence of PTSD or; score the responses using both methods and if the respondent meets the number of symptoms required and above the minimum total score, then PTSD is determined to be present Using the PTSD Checklist, 2012).

The pilot study used the third option for scoring. In the original study (Weathers et al., 1993), the PCL-M had an internal consistency of .93 for B symptoms, .92 for C symptoms, .92 for D symptoms, and .97 for all 17 symptoms. The scale has been validated subsequently with similar results, with good overall scale reliability ($\alpha = 0.93$) and the subscale reliabilities (0.81 to 0.90) (Yarvis, Yoon, Amenuke, Simien-Turner, & Landers, 2012).

Perceived Social Support (ISEL). The Interpersonal Support Evaluation List was created to measure perceived social support in times of stress (Cohen & Hoberman, 1983). The original ISEL was a 40-item survey, which broke down into four subscales: appraisal, tangible, self-esteem, and belonging support. Items were rated on a 4-point scale (*1 = definitely false* to *4 = definitely true)* (Cohen et al., 1985).

This study uses the modified 16-item scale, developed by Brookings and Bolton (1988), which used the highest factor loading items from each subscale (Payne et al., 2012). When Payne et al. (2012) tested the 16-item ISEL measure, they found it had an internal consistency of .83 (Payne, et al., 2012). A few of the items from the 16-item ISEL measure were: Most of my friends are more interesting than I am; When I feel lonely, there are several people I can talk to;

If I were sick and in need of someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone; and When I need suggestions on how to deal with a personal problem, I know someone I turn to.

Unsupportive Social Interactions Inventory (USII). This measure was originally a 24-item, self-reported measure designed to measure the unsupportive social interactions on a scale of 5-point scale (*0 = none or never, 3 = some or sometimes,* to *5 = a lot or always)*. The original USII questionnaire had four subscale scores along with a total unsupportive interactions score: *Distancing*, *Bumbling*, *Minimizing*, and *Blaming*.

Perceived social support and unsupportive interactions are distinct constructs, as the items of the USII were not related to the perceived social support items. While this survey was originally used on an undergraduate college population, the internal consistency reliability in the initial study was 0.86 (Ingram et al., 2001).

I selected four questions based on the highest factor loading of the original 24-item measure from the four subscales from the original study. This shortened version was used to reduce respondent fatigue and because a shorter survey had a higher likelihood of completion. Each participant was asked to indicate how often they experienced each of the following items from their family, friends, and/or primary support person during the most recent time in which they had talked about their experience serving in the military, PTSD, or any other health-related issue(s): He/she did not seem to want to hear about my experience with PTSD or my military service. It felt like he/she was distancing him/herself from me; He/she didn't seem to know what to say, or seemed afraid of saying or doing the "wrong" thing; He/she felt that I should stop worrying about my PTSD or negative military experiences and should just forget about it; and He/she asked me "why" questions about my role in my PTSD or negative military experience,

such as "Why did or didn't you _____?" It felt like he/she was blaming me for my PTSD or that I caused any negative military experiences.

Online and Offline Social Support Seeking Behaviors Measures. Various items were introduced to assess online and offline behaviors: searching for PTSD-related information, seeking general health information, chat room/real-time support group participation, contributing to forums related to veterans and/or PTSD, reading blogs about veterans and/or PTSD, writing a blog or online journal about being a veteran and/or PTSD, spending time on social networking sites unrelated to veterans and/or PTSD, and using the Internet for other purposes (i.e. entertainment, email, news, etc.).

Additionally, the online measure gathered information about the technology used to access the Internet, time spent online, and the reasons for Internet use.

Parallel items were introduced to assess offline social support seeking behaviors and for engaging in offline social support, which were rated on a 5-point scale (*1 = strongly disagree, 5 = strongly agree, 3 = neither agree nor disagree).* Items included: Get health-related information from professionals, get health-related information for others with PTSD; Make friends; Find people who understand what I'm going through; Share my story; Help others; Vent about my condition: ask for help; and Other.

Resilience (RS-11). The Resiliency measure is an 11-item, self-reported measure based on Wagnild and Young's (1993) original 25-item scale that had a Cronbach's alpha of 0.91 in its initial testing. Schumacher, Leppert, Gunzelmann, Strauß, and Brähler (2004, 2005) created the 11-item scale because they were unable to replicate the RS-25 subscales. Schumacher et al. (2004, 2005) found the RS-11 to have a Cronbach's alpha of 0.91, the same as the original measure. The RS-11 asks the respondents to rate each statement as it describes them on a 7-

point Likert scale ranging from 1 = *I strongly disagree* to 7 = *I strongly agree*. The original RS-11 measure was published in German so the translation by Stewart-Knox et al. (2012) was used. One item was slightly altered: rather than "I am friends with myself" or "I like me" (Stewart-Knox, et al., Associations between obesity (BMI and waist circumference) and socio-demographic factors, physical activity, dietary habits, life events, resilience, mood, perceived stress and hopelessness in healthy older Europeans, 2012), the wording was modified to "I like myself."

The instrument included items, such as: When I make plans, I follow through with them; I usually manage one way or another; Keeping interested in things is important to me; and I am determined.

Demographics. Demographic information about the participants was collected, including race, gender, ethnicity, age, participation in offline and/or online support groups as related to having PTSD, socioeconomic status, employment status, relationship status, PTSD, service-related and veteran-specific information.

Pilot Study Analysis

Descriptive statistics and correlations were used to examine PTSD, PSS, USI, Online SS, Offline SS, and resilience. For data reduction, a factor analysis using the Principal Axis Factoring Extraction Method with Promax rotation was conducted for USI, coping, spirituality, and resilience. Factor loadings were examined and composite measures were created for hypotheses testing. See Appendix D for tables and details of analysis.

Results and Discussion

The purpose of the pilot study was to verify the measures were appropriate for this study and identify if any needed altering. Based on the findings, minor changes were made to the

instruments to allow for ease of use and consistency. All measures included a text box for the respondent to provide feedback or general comments. Detailed findings are presented in Appendix D.

PTSD Severity – Social Interaction and Social Support variables. There were no significant correlation between PTSD and Perceived Social Support (PSS) and this is likely to due to the sample size of the test group. However, there was a strong positive correlation between Unsupportive Social Interactions(USI) and PTSD: increases in experiencing USI correlated with increases in PTSD. There was also a strong negative correlation between PSS and USI: increases in PSS correlated with decreases in USI.

Offline and Online Social Support Seeking Behaviors. There were strong positive correlations between Offline SS, Online SS, and PTSD whereby increases in Offline SS and Online SS correlated with higher scores of PTSD. Additionally, Offline SS and Online had strong positive correlations to one another so increases in seeking Offline SS is correlated with increases in Online SS. Resilience had strong negative correlations with PTSD and USI.

While many of the correlations that existed were expected, some were lacking, perhaps because of the small sample in this pilot study and the sampling methods used. Further, while the number of participants from the pilot was small, the results allowed for modification of the recruitment method, minor adjustments to the measures, replacement of one measure, and the order the measures were presented. All of these adjustments are discussed in the next section.

Changes in Instruments/Measures Based on Pilot

Background/Demographics (part 1). In the pilot study, 47 of the 89 collected surveys for the test portion were excluded due to the lack of completion. Determining if commonalities between the participants who refused to complete the surveys was difficult, as they never

reached the demographics section. For this reason, a portion of the demographics was moved to the beginning of the survey. Clarification was added to some of the questions to allow for a better understanding of what was being asked (e.g. Do you currently receive any VA benefits, *including, but not limited to, the GI Bill, VA Home Loans, Pension, etc.*? A question was added to determine how often the respondent had been in a life-threatening situation during a deployment or mobilization. Another question was added to assess difficulty with readjusting or reintegrating once the respondent had returned stateside or their home duty station.

PTSD Severity. This measure was altered from a five-point scale to a seven-point scale to allow for more variance in responses. The previous version asked respondents to rate each item on a scale from 1 = *not at all* to 5 = *extremely* with a midpoint of 3 = *moderately*. The respondent was now asked to rate each question from 1 = *Not at All*, to 7 = *Extremely*, with the midpoint of 4 = *Moderately*. Once the data were collected, the responses were weighted by a factor 5/7 to return the scores to the original 5-point scale scoring. The scoring remained the same as in the pilot study whereby methods 1 and 2 were used to determine if PTSD may be present though more focus was placed on the total score rather than symptomology to indicate PTSD. The order of items was randomized in this version.

Online and Offline Social Support Seeking Behaviors questionnaire. A question was added to both the online and offline measures asking the respondent to indicate information they sought, including brain injury, combat stress, depression/anxiety, PTSD, smoking cessation, substance abuse (alcohol and drugs), weight loss, and an option for "other." Participants could choose any number of the options, all or none, as they see fit.

Perceived Social Support (ISEL). This measure was altered from a four-point scale to a seven-point scale to allow for consistency with other measures and ease of use. The previous

version asked respondents to rate each question from 1 = *definitely false* to 4 = *definitely true*. The respondent was now asked to rate each question from 1 = *Definitely False*, to 7 =*Definitely True*, with the midpoint set as 4 = *Neither True or False*. The order of questions was randomized. **Unsupportive Social Interactions Inventory (USII).** This measure also was altered from a four-point scale to a seven-point scale to allow for consistency and ease of use. The previous version asked respondents to rate each question from 1 = *none or never* to 5 = *a lot or always*. The respondent was now asked to rate each question from 1 = *Never*, to 7 =*Always*, with the midpoint set as 4 = *Sometimes*. The option of *N/A* was incorporated. Additionally, for the purpose of clarity, two of the items in the pilot study were split, which created a total of six questions. The order of questions was randomized.

Resilience (RS-11). This measure remained the same with the order of questions randomized.

Background/Demographics (part 2). The second part of the demographic questions focused on attributes that were not of primary focus in this study, such as rank, religious affiliation, relationship status, living arrangement, education level, and total household income.

The next chapter discusses the final study's measures, general participant information, and the findings based on a variety of statistical tests and analyses.

CHAPTER FOUR: Study

Participants

Just as in the pilot study, participants had to be at least 18 years of age, able to read English, a veteran of one of the branches of military and with at least 180 days of service, and have access to Internet and will to give informed consent in order to complete the survey.

Recruitment

After revising the measures based on the pilot study results, participants were recruited via purposive and network sampling by the researcher. First, I made a general post on my Facebook page asking for those who saw the status post to pass on the link to veterans they knew. According to muckrack.com, a website used to track which social media network shared a particular link and how often, Facebook users shared the post 49 times. Next, I emailed the Washington State University Office of Veterans Affairs and they agreed to post the information to the website and in their monthly email list.

I contacted, via email, an employee of the Washington State Department of Veterans Affairs (WDVA). The response was positive and after a phone conversation along with a few more emails, one of which included the survey for verification purposes, the WDVA posted the information to their Facebook and Twitter accounts. The information was also passed on to healthcare providers who work at the WDVA and to members of the Veterans Conservation Corps and Vet Corps Behavioral health program. Muckrack.com reported 16 Twitter shares of the link.

I also contacted a variety of online forums relating to the military, PTSD, disabilities, veterans, and health concerns about posting the recruitment letter and link if the rules of that particular forum were not specific as to what content was allowed to be posted. If the forum

allowed posting of links, I created an account in order to post the information for others in the same forum. If the forum did not allow links to be posted or the rules were ambiguous, I contacted the forum owner or moderators with the recruitment letter and asked for either permission to post or if they would post on my behalf. If the answer was no, nothing further happened with that forum.

I then emailed the contacts for 100 Veteran Service Organizations throughout the U.S. with the request for assistance (see Appendix E1). Of the sent emails, 30 returned as undeliverable and the alternate email, if one was provided, was used to resend the request. Approximately 15 requests were met with approval and the information was either posted on Facebook, Twitter, LinkedIn, or on that organization's webpage and/or sent out in an email to their subscribers. Finally, I contacted the administrators or creators of LinkedIn groups, that pertained to the military and I was a member of, asking permission to post the recruitment letter (see Appendix E2) in the main discussion forum if the rules of the group were not explicit about posting links. Overall, six recruitment letters and links were posted on LinkedIn. The posts were shared by LinkedIn members 13 times.

Through this process of purposive sampling through social networks, 564 veterans participated in the study between March 19, 2014 and June 12, 2014. Participants consisted of 92 females (17%) and 437 males (83%) which is a little higher than the norms of the military population ("National Survey of Veterans…", 2010), where females typically make up between 9 and 12% of the population. Participant ages ranged from 18 to 65 years or older, with the largest age group was between 45 and 54 years of age (23%, $n = 123$) followed by 55 to 64 years of age (22%, $n = 115$). Only 2% of the participants were between 18 and 24 years of age ($n = 11$), 18% were between 25 to 34 years of age ($n = 95$), 16% were between 35 to 44 years of age

(*n* = 84), and 19% were 65 years or older (*n* = 102). The majority of respondents served in the Army (36 %, *n* = 190), followed by 131 respondents who served in the Air Force (25%), with the third largest group being the Navy (17%, *n* = 88). Caucasians were the majority (82%, *n* = 434) followed by Hispanic/Latino/Latina (6%, *n* = 33).

Of the participants, 78% (*n* = 347) reported having been deployed or mobilized. Out of the veterans who had been deployed or mobilized, 76% and 49% respectively had been in a life-threatening situation[1]. Experiencing a life-threatening situation during a deployment occurred on a daily basis for 32% (*n* = 89) and at least once per week for 24% (*n* = 68) of the respondents who had been deployed. Similarly, 31% (*n* = 22) experienced a life-threatening situation during a mobilization and 24% (*n* = 17) experienced the same at least once per week[2]. Of the 337 respondents who had been mobilized or deployed, 27% (*n* = 92) reported experiencing frequent, very frequent, or constant difficulty readjusting or reintegrating once they returned from their deployment or mobilization, 28% (*n* = 95) occasionally had difficulty, and 45% (*n* = 150) reported they rarely, very rarely, or did not experience the same difficulty with readjustment. Of the 517 respondents who answered the question about being diagnosed with PTSD by the VA or any other health care provider, 122 (24%) reported a diagnosis of PTSD.

Procedures

As with the pilot study, respondents had to give consent to participating in the survey by selecting "I Agree, take the survey." They were then shown the first page of the survey. If the respondent selected "I Disagree, do not take the survey," they were shown a page and asked to confirm they were opting out. All participants were given the option to enter their email address to participate in a drawing for gift certificates.

[1] Deployment and mobilization questions are not mutually exclusive and may result in respondents having experienced both.

Just as in the pilot study, I maintained and modified the surveys as needed. This information will remain on file for the mandatory three years. Qualtrics, an online website that is password protected, hosted the survey. By having the survey online, respondents had easy access to the survey along with being able to complete it when they had time (see Appendix F for study measures).

Study Analysis

For more details on measures, see the Measures section of Pilot Study or Appendix *.

PTSD Severity. PTSD severity was operationalized as the mean of the 17 items in the PTSD scale. Further, responses were weighted by a factor 5/7 to convert scores from a 7-point scale to a 5-point scale. A 7-point scale was used for consistency with other items in the survey, but converted to a 5-point measure to match the original scale and allowed for comparison of the results to previous research ($M = 2.02$, $SD = 1.24$, $\alpha = .98$). All items were strongly correlated (see Table G1 for item correlation, means, and standard deviations).

Perceived Social Support

The Interpersonal Support Evaluation List is a 16-item scale and designed to measure an individual's perception of social support availability. After reverse coding, the 16 items were averaged to create a composite PSS score ($M = 4.72$, $SD = 1.23$, $\alpha = .91$). All items were strongly correlated (see Table G2 for item correlation, means, and standard deviations).

Unsupportive Social Interactions

A factor analysis using the Principal Axis Factoring Extraction Method with Promax rotation was conducted with the six unsupportive social interaction items and all items loaded on a single factor, accounting for 61.83% of the variance (see Table G3 for item correlation, means, and standard deviations). These items were averaged to create an overall USI score ($M = 2.40$,

SD = 1.68, α = .91).

Online Social Support Seeking Behaviors

The online social support measure is a 9-item measure to determine the purpose for visiting online sites, forums, communities, or support groups related to the military and/or veterans. After preliminary analysis, only three of the items correlated with PTSD, USI and PSS: Get health-related information from professionals, Get health-related information from professions, and Share my story (see Table G4 for item correlation, means, and standard deviations; Table G5 for factor loadings). These three items were then averaged to create a new variable for measuring online social support seeking behaviors (*M* = 3.50, *SD* = 1.61, α = .61).

Offline Social Support Seeking Behaviors

After preliminary analysis, the three offline items corresponding to the online items were retained. These three items correlated with PTSD, USI and PSS (see Table G6 for item correlation, means, and standard deviations; Table G7 for factor loadings). The three items were then averaged to create a new variable for measuring offline social support seeking behaviors (*M* = 3.88, *SD* = 1.65, α = .66).

Additionally, to ensure a proper analysis, four new variables were created based on social support seeking behavior: only sought online social support; only sought offline social support; sought both online and offline social support; or sought neither online nor offline social support.

Resilience

A factor analysis using the Principal Axis Factoring Extraction Method with Promax rotation was conducted with the 11 resiliency items and all loaded on a single factor, accounting for 61.29% of the variance (see Table G8 for item correlation, means, and standard deviations; Table G9 for item factor analysis).

The 11 measurement items that made up the Resilience scale were averaged to create a composite resilience score ($M = 5.66$, $SD = 1.14$, $\alpha = .93$).

Due to the strong significant correlations between resilience and coping, I decided to use only the resilience variable for future analysis (see Table G10 for resilience and coping correlation, means, and standard deviations). Additionally, due to a lack of significant correlations between spirituality and most of the other variables, spirituality was removed from further analysis.

Demographic Factors and Key Variables

After descriptive analysis, three grouping variables (years of service, difficulty reintegrating, experienced life-threatening situation) were identified for further examination. These variables were chosen because they had a strong influence on PTSD. The significant differences on the key continuous variables by these grouping variables are presented in Table 1. Independent sample *t*-tests were significant between those who had or had not experienced difficulty with reintegration for all five key variables (see Table 1). For those who had experienced difficulty with reintegration, PTSD severity ($M = 2.69$, $SD = 1.19$), Perceived Social Support ($M = 4.40$, $SD = 1.15$), USI ($M = 2.89$, $SD = 1.75$), Online Social Support Seeking Behaviors ($M = 4.04$, $SD = 1.41$), Offline Social Support Seeking behaviors ($M = 4.29$, $SD = 1.32$), and Resilience ($M = 5.32$, $SD = 1.17$) were significant ($p \leq .001$).

Next, using independent sample t-tests, key variables were examined by the grouping variable those who had experienced a life-threatening situation. Those who had experienced a life-threatening situation during deployment, reported higher PTSD severity ($M = 2.32$, $SD = 1.25$, $p \leq .001$), USI ($M = 2.64$, $SD = 1.75$, $p \leq .001$), and Offline SS behavior ($M = 4.12$, $SD = 1.74$, $p \leq .05$).

When differences were examined for years of service, using one-way between subjects

Table 1

Demographic characteristics with key variables: t-Tests and One-way ANOVAs

		Reintegration Difficulty		Life-Threatening Situation		Service Years			
Variable	Total	Yes	No	Yes	No	≤ 5	6-20	> 20	Missing
PTSD Severity Mean Score	2.02	2.69***	1.26	2.32***	1.65	2.31_{a}***	2.04_{a}	1.70_{b}	2.38
	(1.24)	(1.19)	(.70)	(1.25)	(1.13)	(1.31)	(1.24)	(1.09)	(1.60)
Perceived Social Support	4.72	4.40***	5.05	4.63	4.83	4.73_{a}	4.70_{a}	4.75_{a}	4.48_{a}
	(1.23)	(1.15)	(1.14)	(1.21)	(1.25)	(1.30)	(1.16)	(1.26)	(1.20)
Unsupportive Social Interactions	2.40	2.89***	1.71	2.64***	2.09	2.70_{a}*	2.41_{a}	2.15_{b}	1.99
	(1.68)	(1.75)	(1.41)	(1.75)	(1.55)	(1.66)	(1.69)	(1.65)	(1.88)
Online Social Support Seeking Behavior	3.49	4.04***	2.95	3.65	3.29	3.85_{a}**	3.49_{a}	3.11_{b}	4.00
	(1.59)	(1.41)	(1.55)	(1.54)	(1.64)	(1.70)	(1.56)	(1.47)	(1.45)
Offline Social Support Seeking Behavior	3.90	4.29***	3.36	4.12*	3.59	4.45_{ab}*	3.78_{b}	3.44_{ac}***	4.00
	(1.64)	(1.32)	(1.76)	(1.74)	(1.74)	(1.65)	(1.62)	(1.51)	(1.58)
Resilience	5.66	5.32***	6.16	5.58	5.76	5.54_{a}	5.56_{a}*	5.90_{b}	5.62
	(1.14)	(1.17)	(.88)	(1.17)	(1.09)	(1.10)	(1.24)	(.10)	(1.35)

*$p \leq .05$, **$p \leq .02$, ***$p \leq .001$

ANOVA, significant differences were observed between those who had served 5 years or less compared to those who had served more than 20 years for three key variables. PTSD severity, USI, and Online SS (see Table 1). In addition, a significant difference was observed for Offline SS ($p \leq .05$) between those who had served 5 years or less in comparison to those who served between 6 and 20 years. Lastly, findings suggested differences in Resilience scores for those who had served between 6 and 20 years ($M = 5.56$, $SD = 1.24$) compared to those who had served more than 20 years ($M = 5.90$, $SD = .10$).

Across the board, I found the sample to have above scale midpoint means for PSS, Online SS, Offline SS, and Resilience with below scale midpoint means for PTSD and USI. This indicates an overall sample population that is well-supported. However, when looked at more closely, these findings suggest and support previous research that an individual who has experienced difficulty with reintegration after a deployment had higher PTSD (Kulka et al., 1990a, 1990b; Sayer et al., 2014; Sayer et al., 2010), and USI (Burnell et al., 2009), were more likely to seek Online SS, and Offline SS, and had lower PSS (Laffaye et al., 2008) and Resilience (Burnell et al., 2009) than those who did not experience reintegration difficulty.

Similarly, these findings suggest that an individual who has experienced a life-threatening situation during deployment has higher PTSD or is more likely to experience PTSD symptoms in the future, as was found in previous research (Basham, 2007; Dirkzwager et al., 2003; Hoge, Terhakopian, Castro, Messer, & Engel, 2007; Holbrook, Hoyt, Stein, & Sieber, 2001; Institute of Medicine, 2012; Ozer et al., 2003; Sharkansky et al., 2000; Veterans Healthcare Administration, National Center for PTSD), higher USI, and more likelihood of seeking Offline SS than an individual who had not experienced a life-threatening situation during deployment.

Additionally, those with less 5 years or less of service had higher PTSD, USI, and higher

level of Online SS behaviors than those with more than 20 years of service and higher Offline SS than those with 6 to 20 years and more than 20 years of service. Finally, individuals with 6 to 20 years of service had lower Resilience than individuals with more than 20 years of service.

The summary means of the key constructs deserve some attention as well. In this sample, reintegration difficulty means for PSS (M = 4.72, SD = 1.23), Online SS (M = 3.49, SD = 1.59), Offline SS (M = 3.90, SD = 1.64), and Resilience (M = 5.66, SD = 1.14) were higher than the scale midpoint of 3.5 and PTSD (M = 2.02, SD = 1.24) and USI (M = 2.40, SD = 1.68) were lower than the respective midpoints of 2.5 and 3.5. These sample characteristics suggest that my convenience sample was made up of resilient individuals with good social support, with low average PTSD and USI but when compared to those who did not have reintegration difficulty, those who did have problems had lower than average PSS and Resilience and higher than average PTSD severity, USI, Online SS, and Offline SS.

Similarly, the sample characteristics suggest that my convenience sample, when looking at those who had experienced life-threatening situations during a deployment, was comprised of Resilient (M = 5.58, SD = 1.17) individuals with higher Offline SS (M = 4.12, SD = 1.74) than Online SS (M = 3.65, SD = 1.54). They had lower than average PTSD (M = 2.32, SD = 1.25) and USI (M = 2.64, SD = 1.75). However, when compared to those who had not experienced a life-threatening situation during deployment, these individuals had higher PTSD, USI, and Offline SS.

Following the trend, the sample characteristics suggest that my convenience sample, after taking into account the years of service, was comprised of resilient individuals with higher Offline SS than Online SS with low average PTSD and USI. However, when comparing the actual number of years served, those who had served 5 years or less had higher than average PTSD severity which was also significantly higher compared to those who had served more than 20

Table 2

Demographic characteristics with key variables based on having experienced a life-threatening situation during deployment: t-Tests and One-way ANOVAs

		Reintegration Difficulty		Service Years			
Variable	Total	Yes	No	≤ 5	6-20	> 20	Missing
PTSD Severity Mean Score	2.32 (1.25)	2.81*** (1.16)	1.33 (.76)	2.78_a*** (1.23)	2.38_a (1.26)	1.98_b (1.15)	2.49 (1.61)
Perceived Social Support	4.63 (1.21)	4.40*** (1.14)	5.12 (1.14)	4.57_a (1.37)	4.60_a (1.13)	4.71_a (1.20)	4.35_a (1.49)
Unsupportive Social Interactions	2.64 (1.75)	2.96*** (1.77)	1.76 (1.46)	3.02_a (1.71)	2.65_a (1.79)	2.45_a (1.67)	1.90 (2.28)
Online Social Support Seeking Behavior	3.65 (1.54)	4.15*** (1.39)	2.86 (1.41)	4.18_a* (1.61)	3.65_a (1.50)	3.28_b (1.50)	3.83 (1.18)
Offline Social Support Seeking Behavior	4.12 (1.52)	4.41** (1.28)	3.47 (1.86)	4.76_a* (1.31)	4.00_a (1.60)	3.82_b (1.43)	3.44 (2.12)
Resilience	5.59 (1.17)	5.30*** (1.20)	6.17 (.88)	5.43_a (1.15)	5.42_a* (1.27)	5.86_b (.10)	5.64 (1.56)

*$p \leq .05$, **$p \leq .014$, ***$p \leq .001$

years. This group (< = 5 years of service) had higher than average USI and Online SS, which was also significantly higher compared to those who had served more than 20 years. They had higher than average Offline SS which was also significantly higher than those who had served 6 or more years, along with slightly higher than average PSS, and lower than average Resilience. Further, compared to those who had more than 20 years of service, those who had served between 6 and 20 years had slightly higher than average PTSD and USI, slightly lower than average PSS, lower Offline SS, and lower than average Resilience with average Online SS. Lastly, those with over 20 years of service had lower PTSD, USI, Online SS, Offline SS, higher Resilience, and slightly higher than average PSS.

After having selected only those participants who had experienced a life-threatening experience during a deployment, the same tests were conducted with nearly identical results (see Table 2). Specifically, the mean scores for PTSD ($M = 2.32$, $SD = 1.25$), USI ($M = 2.64$, $SD = 1.75$), and both Online SS ($M = 3.65$, $SD = 1.54$) and Offline SS ($M = 4.712$ $SD = 1.52$) increased slightly with a marginal decrease in PSS ($M = 4.63$, $SD = 1.21$) and Resilience ($M = 5.59$, $SD = 1.17$) when compared to the entire sample population discussed earlier.

When examining reintegration difficulty, those who had experienced difficulty after a deployment had a slight increase in their mean scores for PTSD, USI, Online SS, and Offline SS. This group had a slight decrease in Resilience with no change in PSS. The statistical significance changed only for Offline SS with an increase from $p < .001$ to $p = .014$. Those who had not experienced difficulty with reintegration had a slight increase in all but Online SS, where there was a slight decrease in the mean.

Next, years of service was examined and for those with 5 years of service or less and between 6 and 20 years of service, there was a slight increase in means for PTSD, USI, and

Online and Offline Social Support Seeking Behaviors with a slight decrease in PSS and Resilience. For individuals with more than 20 years of service, there was a slight increase in means for all but Resilience, which had a slight decrease. Statistical significance changed for USI from $p \leq .001$ to $p > .05$ between the 5 years or less and more than 20 years of service groups. There was an increase for Online Social Support Seeking Behaviors from $p \leq .02$ to $p \leq .05$ for the 5 years or less and more than 20 years of service group. Statistical significance for Offline Social Support Seeking Behaviors changed from $p \leq .05$ to $p > .05$ for the 5 years or less and 6 to 20 years of service groups and increased from $p \leq .001$ to $p \leq .05$ for the 5 years or less and more than 20 years of service groups.

In summary, when examining only participants who had experienced a life-threatening situation during a deployment, slight increases in overall mean scores for PTSD, USI, Online SS, and Offline SS with minimal decreases in PSS and Resilience were found when compared to the entire sample population. More specifically, those who had experienced difficulty with reintegration after returning from a deployment had slight increases in PTSD, USI, and both Online SS and Offline SS with a minor decrease in Resilience and no change in PSS mean scores when compared to the entire sample. Statistical significance remained at $p \leq .001$ for all but Offline SS, which was $p = .014$. For the group that did not experience difficulty with reintegration, there was a slight increase in all mean scores except for Online SS, which had a marginal decrease.

When comparing the groups based on years served, participants who had experienced a life-threatening situation during deployment, there was a slight increase in PTSD, USI, Online SS, and Offline SS with a minor decrease in PSS and Resilience for those with 5 years or less and between 6 and 20 years of service when compared to the entire sample population. Those

Table 3

Correlations Among Key Variables

	1	2	3	4	5	6
1. PTSD Severity						
2. Perceived Social Support	-.54***					
3. Unsupportive Social Interactions	.56***	-.53***				
4. Online Social Support Seeking	.43***	-.28***	.34***			
5. Offline Social Support Seeking	.43***	-.25***	.29***	.65***		
6. Resilience	-.60***	.62***	-.44***	-.27***	-.20*	
M	2.02	4.72	2.40	3.49	3.90	5.66
SD	1.24	1.23	1.68	1.59	1.64	1.14
N	491	439	447	285	250	462

* $p = .002$, *** $p \leq .001$

with more than 20 years of service had a slight increase in all except for Resilience, which had a marginal decrease when compared to the entire sample.

Further, statistical significance increased from $p \leq .001$ to $p > .05$ for USI between the 5 years or less group when compared to the more than 20 years of service group as well as for Offline SS for the 5 years or less group and the between 6 and 20 years of service group. Lastly, statistical significance increased but remained significant for the 5 years or less group compared to the more than 20 years of service group.

What these findings suggest is that, for this study, analyzing and comparing the sample population based on having experienced a life-threatening situation to the entire sample would give virtually identical results. The same holds true when comparing the sample population based on years served: using the entire sample population instead of only specific portions based on years served will yield almost identical results.

Key Variable Correlations

Correlations among key variables were examined using Pearson correlations. Bivariate correlations among all key variables were significant at $p \leq .001$, except for the correlation between Resilience and Offline SS, which was significant at $p = .002$ (see Table 3). Offline SS and Online SS were significantly correlated with PSS, USI, Resilience, and PTSD. Negative correlations were observed between PSS and Offline SS ($r = -.25$), between PSS and Online SS ($r = -.28$), and between PSS and PTSD ($r = -.54$) with positive correlations observed between USI and Offline SS ($r = .29$), between USI and Online SS ($r = .34$), and between USI and PTSD ($r = .56$). These findings support the first and second set of hypotheses. Additionally, positive correlations were found between Offline SS and PTSD ($r = .43$) and between Online SS and PTSD ($r = .43$). These results do not support the third set of hypotheses where I posited a

negative relationship between these constructs. The relationship between Online SS and Offline SS was presented as a research question whereby the relationship between the two constructs was unknown. As found in this study, Online SS and Offline SS were significantly correlated with one another (r = .65). Finally, there was a positive correlation between PSS and Resilience (r = .62) and negative correlations between USI and Resilience (r = -.44), PTSD and Resilience (r = -.60), Offline SS and Resilience (r = -.20), and between Online SS and Resilience (r = -.27) and these results support the final set of hypotheses and answers the second set of research questions.

These findings suggest that social support and PTSD severity have a negative relationship, which support prior findings reported in the available literature (Ahern et al., 2004; Benotsch et al., 2000; Brewin et al., 2000; Dirkzwager et al., 2003; Eriksson, et al., 2001; Fontana et al., 1997; Institute of Medicine, 2012; Ozer et al., 2003; Shallcross et al., 2014; VA and DoD, 2010; Yuan et al., 2011). Additionally, these findings suggest that when the individual perceives social support in the surrounding environment, that individual is less likely to seek social support online or offline. On the other hand, when the respondent experiences unsupportive social interactions, the seeking of online and offline support increases, thus filling the void created through these unsupportive interactions. I offer two possibilities to explain the finding the finding of a strong positive relationships between PSS, Online SS, and Offline SS: (1) the same offline social support network is available online so it does not matter which media is used to solicit social support by the respondent, or (2) different social support networks exist offline and online but both offer the same type of support sought by the respondent. These findings also suggest that seeking social support fulfill similar, if not the same, roles regardless of whether the support is sought online or offline.

Finally, the correlations found between Resilience and the other key variables suggest

that Resilience and PSS have a positive relationship, which support prior findings reported in the available literature (Bonanno et al., 2006; Pietrzak et al., 2009), especially in that PSS is usually identified as a component of resilience. Further, correlations between individuals with high levels of USI will have low levels of Resilience. Lastly, respondents with high levels of Resilience will display low levels of PTSD and this, too, supports prior findings reported in the available literature (Bonanno, 2004; Bonanno et al., 2006, 2007; Galea et al., 2002; Tucker et al., 2002; Pietrzak et al., 2009). The negative relationship between Offline SS and Resilience and between Online SS indicates that individuals who engaged in either Offline SS or Online SS report lower levels of Resilience. Just as with the relationship between Offline SS or Online SS and PTSD, it could be due to the reason behind the individual seeking social support: either a lack of PSS or experiencing USI since these two constructs also have a negative and positive (respectively) relationship with Offline SS and Online SS and may influence their relationship with Resilience.

When the correlations between PTSD and other key variables were examined, a number of significant findings emerged. As predicted, PTSD was positively correlated to USI and negatively correlated to PSS and Resilience, which support prior findings reported in the available literature (Burnell et al., 2009; Dirkzwager et al., 2003; Institute of Medicine, 2012; Koenen et al., 2003; Laffaye et al., 2008; Stretch, 1986. Contrary to the prediction that Online SS and Offline SS would mitigate PTSD, which would have resulted in negative correlations, positive correlations were observed between Online SS and PTSD as well as between Offline SS and PTSD. These findings suggest that when an individual engages in offline or online social support seeking behaviors, there is a corresponding increase in PTSD severity. This may be because of the reason behind the need to seek social support: either a lack of PSS or experiencing

Table 4

Correlations Among Key Variables For Those Who Had Experienced A Life-Threatening Situation While Deployed

	1	2	3	4	5	6
1. PTSD Severity						
2. Perceived Social Support	-.53***					
3. Unsupportive Social Interactions	.49***	-.53***				
4. Online Social Support Seeking	.51***	-.26***	.28***			
5. Offline Social Support Seeking	.27***	-.11	.12	.67***		
6. Resilience	-.57***	.56***	-.38***	-.23*	-.03	
M	2.32	4.63	2.64	3.65	4.12	5.58
SD	1.25	1.21	1.75	1.54	1.52	1.17
N	271	247	253	259	158	145

* $p = .005$, *** $p \leq .001$

Table 5

Multiple Regression Analysis Predicting PTSD Severity Mean Score with Key Variables Using Online (N = 165)

	PTSD Severity Mean Score							
	Model 1		Model 2		Model 3		Model 4	
Variable	*B(SE)*	β	*B(SE)*	B	*B(SE)*	β	*B(SE)*	β
Step 1				.30				
Reintegration Difficulty	1.23 (.17)***	.48	.77 (.15)***		.68 (.15)***	.26	.51 (.14)***	.20
				.23				
Life-threatening Experience	.61 (.18)***	.22	.63 (.15)***		.59 (.15)***	.21	.54 (.14)***	.20
Years of Service	-.01 (.01)	-.11	-.02 (.01)*	-2.25	-.01 (.01)	-.08	-.01 (.01)	-.04
Step 2								
Perceived Social Support			-.28 (.07)***	-.26	-.26 (.07)***	-.24	-.08 (.07)	-.08
Unsupportive Social Interactions			.19 (.05)***	.28	.16 (.05)***	.22	.12 (.04)**	.19
Step 3								
Online Social Support Seeking Behavior					.17 (.05)***	.21	.16 (.04)***	.20
Step 4								
Resilience							-.40 (.07)***	-.35
Adj. $R^2, \Delta R^2$	.36***		.56, .19***		.59, .03***		.66, .07***	

* $p = .026$, ** $p = .002$, *** $p \leq .001$

USI.

After having selected only those participants who had experienced a life-threatening situation, correlations among key variables were examined with nearly identical results (see Table 4). There were slight changes in the correlations, though most were minimal. However, the statistical significance of PSS and Offline SS changes from $p \leq .001$ to $p > .05$. This exact change also occurred between USI and Offline SS. The statistical significance between Online SS and Resilience changed from $p \leq .001$ to $p = .005$ and lastly, Offline SS and Resilience had a change in statistical significance from $p = .002$ to $p > .05$.

Key Variable Multiple Regression Models

The multiple regression model with the seven predictors of PTSD severity indicate those with more reintegration difficulty and those who had experienced a life-threatening situation while deployed were expected to have higher PTSD scores (see Table 5). Years of service was not a significant predictor of PTSD. When controlling for reintegration difficulty, life-threatening experience during deployment, and years of service, PSS and USI were found to be statistically significant predictors of PTSD. Those who report lower amounts of PSS available to them were expected to have higher PTSD and those who report having experienced more USI were expected to have higher PTSD and they did.

Even after controlling for PSS, USI, and the previously controlled for variables, Online SS was found to be a significant predictor of PTSD. Online SS can be interpreted in two ways when it comes to predicting PTSD: those who report higher levels of Online SS are expected to have higher PTSD *or* those with higher PTSD are expected to engage in Online SS. Because this study is not longitudinal, I cannot determine which of these processes causes the other.

Lastly, controlling for all previous variables, when Resilience was added, it emerged as a

Table 6

Multiple Regression Analysis Predicting PTSD Severity Mean Score with Key Variables Using Offline (N = 139)

	PTSD Severity Mean Score							
	Model 1		Model 2		Model 3		Model 4	
Variable	*B(SE)*	β	*B(SE)*	β	*B(SE)*	β	*B(SE)*	β
Step 1								
Reintegration Difficulty	1.22 (.19)***	.47	.93 (.18)***	.36	.86 (.19)***	.33	.71 (.17)**	.27
Life-threatening Experience	.61 (.22)**	.21	.50 (.20)*	.17	.45 (.19)*	.16	.40 (.18)*	.14
Years of Service	-.01 (.01)	-.05	-.01 (.01)	-.07	-.004 (.01)	-.03	.002 (.01)	-.02
Step 2								
Perceived Social Support			-.26 (.08)***	-.24	-.25 (.08)**	-.22	-.08 (.08)	-.08
Unsupportive Social Interactions			.15 (.06)***	.21	.15 (.06)**	.20	.11 (.05)*	.16
Step 3								
Offline Social Support Seeking Behavior					.12 (.06)*	.14	.12 (.05)*	.15
Step 4								
Resilience							-.37 (.08)***	-.35
Adj. $R^2, \Delta R^2$	.33***		.45, .13***		.47, .02***		.55, .08***	

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 7

Trimmed Multiple Regression Analysis Predicting PTSD Severity Mean Score with Key Variables (N = 169)

	PTSD Severity Mean Score							
	Model 1		Model 2		Model 3		Model 4	
Variable	*B(SE)*	β	*B(SE)*	β	*B(SE)*	β	*B(SE)*	β
Step 1								
Reintegration Difficulty	1.29 (.17)***	.50	.82 (.15)***	.32	.70 (.15)***	.28	.52 (.14)***	.20
Life-threatening Experience	.56 (.18)**	.20	.56 (.15)***	.20	.53 (.15)***	.19	.49 (.13)***	.18
Step 2								
Perceived Social Support			-.25 (.07)***	-.23	-.23 (.07)***	-.22	-.06 (.07)	-.05
Unsupportive Social Interactions			.21 (.05)***	.31	.17 (.05)***	.25	.14 (.04)***	.20
Step 3								
Online Social Support Seeking Behavior					.19 (.05)***	.23	.17 (.04)***	.21
Step 4								
Resilience							-.41 (.07)***	-.36
Adj. $R^2, \Delta R^2$	.35***		.54, .19***		.58, .04***		.66, .07***	

** $p = .002$, *** $p \leq .001$

significant predictor of PTSD and the two variables were negatively associated. Until the fourth step in this model, PSS was a significant predictor of PTSD. However, when Resilience was added, PSS was no longer a significant predictor. This is likely due to resilience being inclusive of PSS. Years of service is only a significant predictor in one instance in the regression model: when adding in PSS and USI and controlling for reintegration difficulty and life-threatening experience during a deployment.

While Online SS was included in the first regression model, Offline SS was excluded due to collinearity concerns. The second regression model used Offline SS to determine if any significant differences were found compared to the first Regression Model. The second multiple regression model with the seven predictors of PTSD indicate that hose with more reintegration difficulty and those who had experienced a life-threatening situation while deployed had higher PTSD (see Table 6). The only differences between the first and second regression models was that years of service was not a significant predictor in the second model but was in the first.

Finally, a trimmed Regression Model was estimated after removing Years of Service with Online Social Support Seeking Behaviors but not Offline SS (see Table 7). As in the previous models, Perceived Social Support became non-significant for predicting PTSD severity when Resilience was included. However, with the exception of Perceived Social Support, all other variables were significant for predicting PTSD severity throughout the analysis at a significance level of $p \leq .002$.

Additional Findings

As the regression analyses suggested that online and offline social support seeking behaviors were closely related and one could just as easily replace the other, I decided to take a closer look at social support seeking behaviors. I created four new variables based on a

Table 8

Means of Key Variables and Types of Social Support Seeking Behaviors

	Only Online SS		Only Offline SS		Both		Neither	
Variable	Yes	No	Yes	No	Yes	No	Yes	No
PTSD	1.68***	2.11	2.41	2.11	2.43***	1.84	1.66***	2.19
	(1.08)	(1.28)	(1.29)	(1.28)	(1.31)	(1.17)	(1.06)	(1.29)
PSS	4.86	4.67	4.60	4.63	4.47**	4.83	4.93*	4.62
	(1.20)	(1.23)	(1.17)	(1.24)	(1.24)	(1.20)	(1.21)	(1.22)
USI	1.98**	2.52	2.73	2.47	2.81***	2.21	2.10*	2.53
	(1.58)	(1.70)	(1.74)	(1.73)	(1.75)	(1.62)	(1.54)	(1.73)
Resilience	5.88*	5.60	5.46	5.63	5.45**	5.76	5.84*	5.59
	(.99)	(1.17)	(1.23)	(1.12)	(1.17)	(1.11)	(1.11)	(1.15)

* $p \leq .030$, ** $p \leq .006$, *** $p \leq .001$

participant's engagement in social support seeking behaviors (i.e. engagement in: only online, only offline, both online and offline, and neither online nor offline) then tested each to determine the relationship between the groups and the key variables as well as their means (see Table 8).

Out of the sample population, 17% had *only* engaged in offline social support seeking behavior, 21% had *only* engaged in online social support seeking behavior, 31% had engaged in *both* online and offline social support seeking behavior, and 32% had *not* engaged in either online or offline social support seeking behavior.

PTSD severity and social support seeking behaviors. Respondents who engaged in *both* Online SS and Offline SS had higher PTSD severity mean scores than respondents who had engaged in *only* Online SS, *only* Offline SS, or *neither* Online SS nor Offline SS. Respondents who engaged in *only* Offline SS had higher PTSD severity mean scores than the respondents who either engaged in *only* Online SS or engaged in *neither* Online SS nor Offline SS. Further, respondents who engaged in *only* Online SS had higher PTSD severity means than respondents who had engaged in *neither* Online SS nor Offline SS (see Table 8).

The amount of time spent online seeking social support is significantly and positively correlated with PTSD severity mean score. We can predict that as the amount of time spent in Online SS increases, PTSD severity mean score also increases. The regression showed that Online SS seeking accounted for 1% of the change in PTSD severity mean scores (see Table 7). Offline SS frequency of less than monthly was significantly different from the monthly or more than monthly frequencies but monthly and more than monthly did not differ from one another. The regression showed that Offline SS accounted for 18% of the change in PTSD severity mean scores.

PSS and social support seeking behaviors. Results of the analysis comparing mean

scores of respondents who engaged in *both* Online SS and Offline SS had lower PSS means than respondents who had engaged in *only* Online SS, *only* Offline SS, or *neither* Online SS nor Offline SS. Respondents who had ever engaged in Offline SS had lower PSS means than the respondents who either *only* engaged in Online SS or engaged in *neither* Online SS nor Offline SS. Further, respondents who engaged in *only* Online SS had lower PSS means than respondents who had engaged in *neither* Online SS nor Offline SS (see Table 8). Further, respondents who engaged in Offline SS on a more than monthly basis had lower PSS means than those who did not engaged in Offline SS on a more than monthly basis.

USI and social support seeking behaviors. Results of the analysis comparing mean scores of respondents who engaged in *both* Online SS and Offline SS had higher USI means than respondents who had engaged in *only* Online SS, *only* Offline SS, or *neither* Online SS nor Offline SS. Respondents who had ever engaged in Offline SS had higher USI means than the respondents who either *only* engaged in Online SS or engaged in *neither* Online SS nor Offline SS. Interestingly, respondents who engaged in *neither* Online SS nor Offline SS had higher USI means than respondents who had engaged in *only* Online SS. Additionally, respondents who engaged in Online SS on a monthly basis had higher USI means than respondents who did so on a less than monthly basis.

Resilience and social support seeking behaviors. Results of the analysis comparing mean scores of respondents who engaged in *both* Online SS and Offline SS tied for lowest Resilience means with respondents who had ever engaged in Offline SS. The respondents who had engaged in *only* Online SS had the highest Resilience means. Lastly, those who had *neither* engaged in Online SS nor Offline SS had the second highest Resilience mean. Additionally, hours spent seeking social support online was negatively correlated with resilience. This meant

that as hours spent online increases, resilience decreases. Further, resilience means were lower for those who had engaged in Offline SS on a more than monthly basis compared to those who sought Offline SS on a less than monthly basis.

CHAPTER FIVE: Discussion

This dissertation began with the purpose of examining the relationships among online and offline social support seeking behaviors, PTSD, perceived social support, unsupportive social interactions, and resilience in veterans of the armed forces. As a veteran, I wanted to explore this area to see if there were additional ways in which to help other veterans manage and/or reduce PTSD. As has been found in many different academic and medical fields, PTSD has been a battle humans have faced throughout history as one outcome out of many after having faced a stressful or traumatic event. PTSD is typically managed through counseling or pharmaceutical treatments. Having social support helps with recovery from a traumatic event and has been found to lessen the likelihood of developing PTSD as well as reduce the length or severity of PTSD.

While it is known that social support is an important resource, researchers have focused primarily on the availability of social support and the types of support (e.g. tangible, appraisal, belonging, and esteem, or social support). In general, these studies have highlighted the positive effects of social support. There have been few studies about the effects of unsupportive social interactions and the development of PTSD after a traumatic event, whether in the civilian or military population. This dissertation sought to further the research on the flip side of perceived social support: unsupportive social interactions, and the effects of USI on PTSD in veterans.

While not discussed in the literature review, there are similarities between the constructs of unsupportive social interactions and the stigmatization of psychological disorders, including PTSD. Adelman, Parks, and Albrecht (1987) found that online social support networks serve multiple functions to include access to diverse information and the ability to disclose experiences with risky or taboo topics. Further, online social support groups may allow individuals to get

support without feeling stigmatized based on having a particular illness or disorder. Individuals with a mental illness, including PTSD, may experience discriminatory actions, including loss of work opportunities (Cechnicki, Angermeyer, & Bielanska, 2011), unfair treatment in the criminal justice system (Watson, Corrigan, & Ottati, 2004), poorer health care (Druss & Rosenheck, 1998), and loss of housing opportunities (Wahl, 1999) based on the negative perception of that particular illness.

Mittal et al. (2013) conducted a qualitative study of combat veterans with combat-related PTSD about their perceptions and experiences of stigma due to the PTSD diagnosis. The most common issue they faced was being labeled violent, dangerous, unpredictable, or crazy. In this study, the veterans specifically mentioned their reluctance to seek treatment because they wanted to avoid being labeled with PTSD in order to not being perceived as unstable or dangerous.

From a review of the literature, it became apparent that the perception of social support or experience of unsupportive social interactions is integral to a person's emotional, mental, and physical well-being. Because of the importance of social support on an individual's health, it was important for this study to examine the relationship between PSS and Offline SS or Online SS. Further, USI was a key construct to include due to a minimal amount of research in the area of social support seeking behaviors, PSS, Resilience, PTSD, and veterans. Specifically, this study was interested in examining how a lack of PSS or the experience of USI would relate to Offline SS or Online SS. Along this same line, examining the relationships between PTSD and Offline SS or Online SS was needed to determine if individuals who engaged in more Offline SS or Online SS had higher PTSD when compared to individuals who did not engage in these social support seeking behaviors.

Lastly, an important part of this study was finding the relationship, or lack thereof,

between Resilience and PSS and if a relationship existed between Resilience and Offline SS or Online SS. One goal of this dissertation was to examine if veterans with higher resilience were less or more likely to seek Offline SS or Online SS when compared to veterans with lower levels of resilience. We know from past research that resilience acts as a buffer for PTSD and that resilience is comprised of multiple dimensions: positive outlook, spirituality, active coping styles, regular exercise, and social support. It may be assumed that USI would decrease Resilience just as PSS would increase Resilience but determining if this is true could help PTSD research in the future.

A variety of measures were used to examine these constructs, most of which had been tested in previous studies and shown to be reliable and valid measures of these key variables. I created two measures for Offline SS and Online SS and, with the help of veterans, tested them during the pilot study phase. After the pilot study, measures were either modified or discarded and recompiled for use in the main study. To find additional participants who had not been a part of the pilot test to reduce possible testing bias, I reached out to a variety of veteran-based organizations and groups for their help in connecting with veterans and visited different online sites. Through these efforts, 564 veterans participated in this study allowing for a good sample size for further analysis.

In this sample population, 78% had experienced a deployment and of those 347 veterans with deployment experience, almost one-third had experienced life-threatening situations on a daily basis. Over one half of the 347 veterans with deployment experience reported having experienced difficulty reintegrating once they returned home. Further, 24% of the entire sample population had received a diagnosis of PTSD by the VA or other health care provider. Reintegration difficulty, having experienced a life-threatening situation during deployment, and

the number of years of service were examined as covariates.

Further analysis showed all key variables (e.g. PTSD, PSS, USI, Online SS, Offline SS, and Resilience) were strongly correlated with one another. Those who had experienced more USI had lower PSS and, in turn, reported higher PTSD. On the other hand, those with higher PSS reported lower PTSD. This follows with previous research about perceived social support (Benotsch et al., 2000; Cohen & Wills, 1985; Dirkzwager et al., 2003; Fontanaet al., 1997) and the relatively few studies on unsupportive social interactions in cancer (Figueiredo et al., 2004; Manne et al., 1997) and rheumatoid arthritis and spousal support or criticism (Manne & Zautra, 1989). Additionally, respondents who reported higher PSS had lower USI and engaged in less Offline SS or Online SS than respondents who those who reported lower PSS. Further, respondents who experienced more USI engaged in more Offline SS and Online SS than respondents who had experienced less USI and this supports the first two sets and last set of hypotheses

While the third set of hypotheses was that Online SS and Offline SS would be negatively correlated with PTSD, for this particular sample, this was not the case. Instead, Online SS and Offline SS were positively correlated and both were positively correlated with PTSD. I believe this is because veterans who have PTSD are seeking social support through any means available and willing to utilize offline and/or online resources. Veterans with high PTSD also reported lower levels of PSS and/or experienced more USI.

Definitive conclusions about the causation of an increase or decrease PTSD or PTSD causing increases or decreases in the other key variables cannot be offered from this study due to the cross-sectional method used. What this study does contribute is the knowledge of a strong relationship existing between PSS, USI, Offline SS, Online SS, Resilience, and PTSD.

Furthermore, this study offers a starting point for future research into the construct of USI, Offline SS, and Online SS, which has previously been lacking in the field of PTSD research.

When conducting the first regression analysis, experiencing reintegration difficulty, having a life-threatening experience during deployment, and the number of years of service were included to determine if they predicted PTSD. Experiencing reintegration difficulty and having experienced a life-threatening event during deployment were statistically significant for predicting PTSD in this first model. In the second step of the regression model, years of service had statistical significance when PSS and USI were added. The third step in the regression model added Online SS and this was found to be a statistically significant predictor of PTSD. Lastly, Resilience was added and was found to be a statistically significant predictor of PTSD. However, when Resilience was included in the model, PSS was no longer statistically significant in predicting PTSD.

The next regression model replaced Online SS with Offline SS. Because these two constructs are so highly correlated, collinearity was a concern and by regressing each separately on PTSD allowed the effects of each to be seen. Nearly the same results were found though Offline SS contributed a bit less to explaining the variance in PTSD than did Online SS. The number of years of service was not a significant predictor of PTSD severity in any of the steps.

Lastly, a trimmed regression model with experiencing reintegration difficulty, experiencing a life-threatening situation during deployment, PSS, USI, Online SS, and Resilience as predictor variables to PTSD was run. This was the best fitting model and accounted for the highest amount of variance in PTSD (66%). Again, PSS was not statistically significant once Resilience was included. This is likely because Resilience includes PSS as a key component in its construct. Instead of PSS and Resilience remaining separate, Resilience

incorporates PSS, thus removing PSS from the regression model.

Based on these regression models, Offline SS and Online SS appeared to be interchangeable and to test this, 4 new variables were created based on support-seeking behaviors – only Online SS, only Offline SS, both Online SS and Offline SS, or had not engaged in either. Respondents who had engaged in both Online SS and Offline SS had the highest PTSD and USI means, and the lowest PSS mean but tied for the lowest Resilience mean with the next group: those who had ever participated in Offline SS. Those who had ever engaged in Offline SS, had the second highest PTSD and USI means and second lowest PSS mean. For those veterans who only engaged in only Online SS, they had the third highest (or second lowest) PTSD mean, the lowest USI mean, and third lowest PSS mean. The only Online SS group had the highest Resilience mean. The last group, those who had not engaged in either Online SS or Offline SS reported the lowest PTSD mean, the second lowest USI mean, second highest Resilience mean, and highest PSS mean.

So what does this all mean? This dissertation supports previous research findings in that perceived social support has a statistically significant association with PTSD severity in veterans. Furthermore, this study incorporated unsupportive social interactions and demonstrates its importance as a predictor of PTSD. Unsupportive social interactions must be incorporated in future studies when examining the construct of perceived social support. Just because an individual perceives social support, it does not preclude that individual from also experiencing unsupportive social interactions. Further, perceived social support and unsupportive social interactions are not mutually exclusive in that experiencing one does not eliminate the other. Oftentimes people will experience both and resilience may help to mediate the negative impact of one and enhance the positive impact of the other. Lastly, because resilience can be learned

and/or improved upon, we need to train people

This study found that veterans with low perceptions of social support or a lack of social support in their social environment are more likely to seek social support in any way possible to supplement this gap. Similarly, veterans are more likely to seek social support offline and online if they experience unsupportive social interactions. I believe that by training an individual in how to build and improve upon their resilience the likelihood of developing PTSD after a traumatic event will decrease. There are programs to assist an individual do just that, both in the military and civilian sector. These programs train individuals to become resilient or increase what they already have through things such as positive thinking, using their available support systems, and improving physical health. Unfortunately, these programs are not without their drawbacks; leadership not fully incorporating the program due to budget issues or perception of too much time being taken away from the primary mission, failure to maintain the training, and so forth.

To further the findings in this study, future research needs to address how an individual can manage unsupportive social interactions throughout their life. This may include training the veteran in how to react and where to get help when encountering unsupportive social interactions prior to deployment, during their time away from their familial support system, and/or during reintegration after returning from a deployment. Another area of concern is with veterans who believe they are lacking a support system, whether it is because they are single, have no friends or family in the area, or any other reason. Obviously, this needs to be addressed prior to the veteran experiencing a traumatic event. Furthermore, rather than just training the soldier or veteran and believing this will be good enough, family, friends, and others in the social support network need to be taught. Members of a support network need to know different ways in how

they can be supportive, how they should or should not react or interact to their loved one, how to be resilient themselves, and how to foster resilience and the ability to ask for help when it is needed in their vet. There are programs in place but, as previously mentioned, there are gaps which need to be closed to avoid letting any soldier or veteran slip through the cracks.

This study experienced a few sample biases with regard to the age and sex of the participants as well as not knowing which conflict or war the participants were a part of. The issue of age comes in that the variable was created as categorical rather than continuous and this limited the ability to truly gauge the age range within the population. Further, there were more women (17%) represented in this sample than is typically encountered in the military (i.e. between 9 and 12% of the military population is female at any given time). These sample characteristics reduce the ability to generalize the findings to the overall veteran population.

Another limitation is the operationalization of Online SS and Offline SS measurements. To keep the behavioral aspect of seeking social support separate from the perception or experience of social support, I focused on why people may typically join or attend a support group. During the pilot study, the alphas were above .80 for both the Online and Offline SS measures. In the main study, however, the alphas dropped to the low .60s for both. Further, the number of items included in the final analysis was reduced from 7 to 3 based on their interactions with the other variables.

While this study had limitations, such as having a cross-sectional design rather than being a longitudinal study and the use of a convenience sample, it brought about issues that should be addressed in future research. Causation was not established among the variables and this would be inherently beneficial to recognize, as we could then better understand how the variables are truly related to one another. Additionally, though the sample size was adequate, a larger and

more representative sample could aide in applying the findings to a more generalizable public.

However, despite the limitations, sample biases, and low alphas experienced with two of the measures, this study fills a gap in the literature about perceptions and experiences with unsupportive social interactions, engaging in online and offline social support seeking behaviors, and indicates that possible training techniques could increase resilience and possibly decreases PTSD. This is applicable to not only veterans but to anyone with a psychological trauma.

CHAPTER SIX: References

Adelman, M. B., Parks, M. R., & Albrecht, T. L. (1987). Beyond close relationships: Support in weak ties. In T. L. Albrecht, M. B. Adelman, & Associates (Eds.), *Communicating social support* (pp. 126-147). Newbury Park, CA: Sage.

Agaibi, C. E., & Wilson, J. P. (2005). Trauma, PTSD, and Resilience: A review of the literature. *Trauma, Violence, & Abuse, 6*(3), 195-216. doi: 10.1177/1524838005277438

Ahern, J., Galea, S., Fernandez, W. G., Koci, B., Waldman, R., & Vlahov, D. (2004). Gender, Social Support, and Posttraumatic Stress in Postwar Kosovo. *The Journal of Nervous and Mental Disease, 192*(11), 762-770. doi:10.1097/01.nmd.0000144695.02982.41

Albrecht, T. L., & Goldsmith, D. J. (2003). Social Support, Social Networks, and Health. In T. L. Thompson, A. Dorsey, K. I. Miller, & R. Parrott (Eds.), *Handbook of Health Communication* (pp. 263-284). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.

Albrecht, T. L., Blanchard, C., Ruckdeschel, J. C., Coovert, M., & Strongbow, R. (1999). Strategic Physician Communication and Oncology Clinical Trials. *Journal of Clinical Oncology, 17*(10), 3324-3332. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10506636

America Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders DSM-IV-TR* (Fourth ed.). Washington D.C.: American Psychiatric Association.

Andrykowski, M. A., & Cordova, M. J. (1998). Factors associated with PTSD symptoms following treatment for breast cancer: Test of the Andersen model. *Journal of Traumatic Stress, 11*(2), 189-203. doi:10.1023/A:1024490718043

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*(4), 461-480. doi:10.1002/jclp.20049

Astin, M. C., Lawrence, K. J., & Foy, D. W. (1993). Posttraumatic stress disorder among battered women: Risk and resiliency factors. *Violence and Victims, 8*(1), 17-28. Retrieved from http://www.springer.com/?SGWID=0-102-0-0-0

Ballantine, P. W., & Stephenson, R. J. (2011). Help me, I'm Fat! Social support in online weight loss networks. *Journal of Consumer Behaviour, 10*(6), 332-337. doi:10.1002/cb.374

Barrera, M. J., Sandler, I. N., & Ramsay, T. B. (1981). Preliminary development of a scale of social support: Studies on college students. *American Journal of Community Psychology, 9*, 435-447. doi:10.1007/BF00918174

Basham, K. (2007). Homecoming as safe haven or the new front: Attachment and detachment in military couples. *Clinical Social Work Journal, 36*(1), 83-96. doi:10.1007/s10615-007-0138-9

Bell, R. A., LeRoy, J. B., & Stephenson, J. J. (1982). Evaluating the mediating effects of social supports upon life events and depressive symptoms. *Journal of Community Psychology, 10*, 325-340. doi:10.1002/1520-6629(198210)10:4<325::AID-JCOP2290100405>3.0.CO;2-C

Benard, B. (1991). *Fostering Resiliency in Kids: Protective Factors in the Family, School, and Community.* Portland, OR: Western Center for Drug-Free Schools and Communities.

Benard, B. (2014). *The Foundations of the Resiliency Framework*. Retrieved from Resiliency In Action: https://www.resiliency.com/free-articles-resources/the-foundations-of-the-resiliency-framework/

Benotsch, E. G., Brailey, K., Vasterling, J. J., Uddo, M., Constans, J. I., & Sutker, P. B. (2000). War Zone stress, personal and environmental resources, and PTSD symptoms in Gulf War Veterans: A longitudinal perspective. *Journal of Abnormal Psychology, 109*(2), 205-213. doi: 10.1037//0021-843X.109.2.205

Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance and mortality: A nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology, 109*(2), 186-204. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/425958

Berkman, L. F., Glass, T., Brisette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social Science and Medicine, 51*(6), 843-857. doi:10.1016/S0277-9536(00)00065-4

Bonanno, G. A. (2004). Loss, Trauma, and Human Resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*(1), 20-28. doi:10.1037/0003-066X.59.1.20

Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2006). Psychological resilience after disaster: New York City in the aftermath of the September 11th terrorist attack. *Psychological Science, 17*(3), 181-186. doi:10.1111/j.1467-9280.2006.01682.x

Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology, 75*(5), 671-682. doi:10.1037/0022-006X.75.5.671

Bovard, E. (1959). The effects of social stimuli on the response to stress. *Psychological Reviews, 66*, 267-277.

Breuer, J., & Freud, S. (1895/1995). *Studies on Hysteria.* New York: Basic Books, Inc. doi:10.1080/00029157.1996.10403343

Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for postraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology, 68*(5), 748-766. doi:10.1037//0022-006X.68.5.748

Brookings, J. B., & Bolton, B. (1988). Confirmatory factor analysis of the Interpersonal Support Evalution List. *American Journal of Community Psychology, 16*(1), 137-147. doi:10.1007/BF00906076

Brownell, A., & Schumaker, S. A. (1984). Social support: An introduction to a complex phenomenon. *Journal of Social Issues, 40*(4), 1-10. doi:10.1111/j.1540-4560.1984.tb01104.x

Burnell, K. J., Coleman, P. G., & Hunt, N. (2010). Coping with traumatic memories: Second World War veterans' experiences of social support in relation to the narrative coherence of war memories. *Ageing & Society, 30*(1), 57-78. doi:10.1017/S0144686X0999016X

Campbell, R., Ahrens, C. E., Sefl, T., Wasco, S. M., & Barnes, H. E. (2001). Social reactions to rape victims: Healing and hurtful effects on psychological and physical health outcomes. *Violence and Victims, 16*(3), 287-302. Retrieved from http://www.springerpub.com/violence-and-victims.html

Caplan, G. (1974). *Support systems and community mental health.* New York: Behavioral Publications.

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *Journal of Behavioral Medicine, 4*(1), 92-100. doi:10.1207/s15327558ijbm0401_6

Cassel, J. (1976). The contribution of the social environment to host resistance: The fourth Wade Hampton Frost lecture. *American Journal of Epidemiology, 104*, 107-123. Retrieved from

http://aje.oxfordjournals.org/content/104/2/107.full.pdf+html?sid=e76f883c-f504-4fa7-9797-4e8e00e34b64

Cechnicki, A., Angermeyer, M. C., & Bielanska, A. (2011). Anticipated and experienced stigma among people with schizophrenia: Its nature and correlates. *Social Psychiatry and Psychiatric Epidemiology, 46*, 643-650.

Cella, D. F., & Yellen, S. B. (1993). Cancer support groups: The state of the art. *Cancer Practice, 1*(1), 56-61. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/8324531

Chapple, A., Ziebland, S., & McPherson, A. (2004). Qualitative study of men's perceptions of why treatment delays occur in the UK for those with testicular cancer. *British Journal of General Practices, 54*(1), 25-32. Retrieved from http://bjgp.org/content/54/498/25

Cherry, K. (2014). *What is Resilience? Coping with Crisis*. Retrieved from About education crisis counseling: http://psychology.about.com/od/crisiscounseling/a/resilience.htm

Chuang, K., & Yang, C. C. (February 3-6, 2010). Social Support in Online Healthcare Social Networking. *Proceedings of iConference.* Urbana-Champaign, IL. Retrieved from http://hdl.handle.net/2142/14927

Clapp, J. D., & Beck, J. G. (2009). Understanding the relationship between PTSD and social support: The role of negative network orientation. *Behavior Research and Therapy, 47*(3), 237-244. doi:10.1016/j.brat.2008.12.006

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*(5), 300-314. Retrieved from https://campus.fsu.edu/bbcswebdav/institution/academic/social_sciences/sociology/Reading%20Lists/Mental%20Health%20Readings/Cobb-PsychosomaticMed-1976.pdf

Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology, 13*(2), 99-125. doi:10.1111/j.1559-1816.1983.tb02325.x

Cohen, S., & Lichtenstein, E. (1990). Partner behaviors that support quitting smoking. *Journal of Consulting and Clinical Psychology, 58*(3), 304-309. doi:10.1037/0022-006X.58.3.304

Cohen, S., & Lichtenstein, E. (1990). Partner behaviors that support quitting smoking. *Journal of Consulting and Clinical Psychology, 58*, 304-309.

Cohen, S., & McKay, G. (1984). Social support, stress, and the buffering hypothesis: A theoretical analysis. In S. E. A. Baum (Ed.), *Handbook of psychology and health* (Vol. 4, pp. 253-267). Hillsdale, NJ: Erlbaum.

Cohen, S., & Syme, S. L. (Eds.). (1985). *Social support and health.* San Francisco: Academic Press.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357. doi:10.1037/0033-2909.98.2.310

Cohen, S., Doyle, W. J., Skoner, D. P., Rabin, B. S., & Gwaltney, J. M. (1997). Social ties and susceptibility to the common cold. *Journal of the American Medical Association, 277*, 1940-1944.

Cohen, S., Gottlieb, B., & Underwood, L. (2000). Social relationships and health. In S. Cohen, L. Underwood, & B. Gottlieb (Eds.), *Social support measurement and interventions: A guide for health and social scientists* (pp. 3-25). New York: Oxford.

Cohen, S., Kessler, R. C., & Gordon, L. U. (1995). *Measuring stress: A guide for health and social scientists.* New York: Oxfod University Press.

Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. In I. G. Sarason, & B. R. Sarason (Eds.), *Social support: theory, research, and applications.* The Hague, Netherlands: Martinus Niijhoff.

Cohen, S., Underwood, L., & Gottlieb, B. (2000). Social relationships and health. In S. Cohen, L. Underwood, & B. Gottlieb (Eds.), *Social support measurement and interventions: A guide for health and social scientists* (pp. 3-25). New York: Oxford.

Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the students adaptation to college questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Pyschology Review, 24*, 133 - 165.

Da Costa, J. M. (1871). On irritable heart: A clinical study of a form of functional cardiac disorder and its consequences. *The American Journal of Medicine, 61*(1), 17-52. Retrieved from http://www.sciencedirect.com/science/article/pii/0002934351900381

Definition of resilience in English. (2013). Retrieved from Oxford Dictionaries: http://www.oxforddictionaries.com/us/definition/american_english/resilience?q=resilience

Dirkzwager, A. J., Bramsen, I., & van der Ploeg, H. M. (2003). Social support, coping, life events, and posttraumatic stress symptoms among former peacekeepers: a prospective study. *Pesronality and Individual Differences, 34*, 1545-1559. doi:10.1016/S0191-8869(02)00198-8

Druss, B. G., & Rosenheck, R. A. (1998). Mental disorders and access to medical care in the United States. *American Journal of Psychiatry, 155*, 1775-1777.

DSM IV PTSD Diagnostic features. (1993-2014). Retrieved 2014, from European Society for Traumatic Stress Studies: https://www.estss.org/learn-about-trauma/dsm-iv-ptsd-diagnostic-features/

Durkheim, E. (1951). *Suicide.* New York: Free Press.

Epidemiology Program, Post Deployment Health Strategic Healthcare Group, Office of Public Health, Veterans Health Administration, Department of Veterans Affairs. (2011). *Report on VA Facility Specific Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn Veterans Coded with Potential PTSD.* Washington, DC. Retrieved from http://www.publichealth.va.gov/epidemiology/reports/oefoifond/ptsd/index.asp

Epidemiology Program, Post Deployment Health Strategic Healthcare Group, Office of Public Health, Veterans Health Administration, Department of Veterans Affairs. (2012). *Report on VA Facility Specific Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) Veterans Diagnosed with Potential or Provisional PTSD.* Washington, DC.

Epidemiology Program, Post Deployment Health Strategic Healthcare Group, Office of Public Health, Veterans Health Administration, Department of Veterans Affairs. (2013). *Report on VA Facility Specific Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) Veterans Diagnosed with Potential or Provisional PTSD.* Washington, DC.

Epidemiology Program, Post Deployment Health Strategic Healthcare Group, Office of Public Health, Veterans Health Administration, Department of Veterans Affairs. (2014). *Report on VA Facility Specific Operation Enduring Freedom (OEF), Operation Iraqi Freedom*

(OIF), and Operation New Dawn (OND) Veterans Diagnosed with Potential or Provisional PTSD. Washington, DC. Retrieved from http://www.publichealth.va.gov/epidemiology/reports/oefoifond/ptsd/index.asp

Eriksson, C. B., Vande Kemp, H., Gorsuch, R., Hoke, S., & Foy, D. W. (2001). Trauma exposure and PTSD symptoms in international relief and development personn. *Journal of Traumatic Stress, 14*(1), 205-219. doi:10.1023/A:1007804119319

Evans, M., Donelle, L., & Hume-Loveland, L. (2012). Social Support and online postpartume depression discusion groups: A content analysis. *Patient Education and Counseling, 87*(3), 405-410. doi:10.1016/j.pec.2011.09.011

Fear, N. T., & Wessely, S. (2009). Combat exposure increases risk of alcohol misuse in military personnel following deployment. *Evidence Based Mental Health, 12*(2), 60. doi:10.1136/ebmh.12.2.60

Figueiredo, M. I., Fries, E., & Ingram, K. M. (2004). The role of disclosure patterns and unsupportive social interactions in the well-being of breast cancer patients. *Psychooncology, 13*(2), 96-105. doi:10.1002/pon.717

Fleming, R., Baum, A., Gisriel, M. M., & Gatchel, R. J. (1982). Mediating influences of social support on stress at Three Mile Island. *Journal of Human Stress, 8*(3), 14-22. doi:10.1080/0097840X.1982.9936110

Fontana, A., Rosenheck, R., & Horvath, T. (1997). Social support and psychopathology in the war zone. *Journal of Nervous and Mental Disease, 185*(11), 675-681. doi:10.1097/00005053-199711000-00004

Fox, S., & Duggan, M. (2013). *Health Online 2013*. Retrieved from Pew Interenet Internet Project: http://www.pewinternet.org/2013/01/15/health-online-2013/

Fox, S., & Duggan, M. (2013). *Information Triage*. Retrieved from Pew Health Internet Project: http://www.pewinternet.org/2013/01/15/information-triage/

Frasure-Smith, N., Lespérance, F., Gravel, G., Masson, A., Juneau, M., Talajic, M., & Bourassa, M. G. (2000). Social support, depression, and moratility during the first year after myocardial infarction. *Circulation, 101*(16), 1919-1924. doi:10.1161/01.CIR.101.16.1919

Frazier, P. A. (2000). Testing theoretical models of the relation between social support, coping and adjustment to stressful life events. *Journal of Social and Clinical Psychology., 19*(3), 314-335.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Pyschologist, 56*(3), 218-226. doi:10.1037/0003-066X.56.3.218

Fredrickson, B. L., & Joiner, T. (2002). Positive emotion trigger upward spirals toward emotional well-being. *Psychological Science, 13*(2), 172-175. doi:10.1111/1467-9280.00431

Galea, S., Ahern, J., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (2002). Psychological sequelae of the September 11 terrorist attacks in New York City. *New England Journal of Medicine, 346*(13), 982-987. doi:10.1056/NEJMsa013404

Glass, A. (1954). Psychotherapy in the Combat Zone. *American Journal of Psychiatry, 110*(10), 725-731. doi:http://ajp.psychiatryonline.org/article.aspx?articleID=145351

Gottlieb, B. H. (1978). The development and application of a classification scheme of informal helping behaviors. *Canadian Journal of Behavioural Science, 10*(2), 105-115. doi:10.1037/h0081539

Granado, N. S., Smith, T. C., Swanson, G. M., Harris, R. B., Shahar, E., Smith, B., . . . Ryan, M. A. (2009). Newly reported hypertension after military combat deployment in a large population-based study. *Hypertension, 54*(5), 966-973. doi: 10.1161/HYPERTENSIONAHA.109.132555

Grinker, R. R., & Spiegel, J. P. (1945). *Men Under Stress.* Philadelphia: Blakiston.

Haglund, M., Cooper, N., Southwick, S., & Charney, D. (2007). 6 keys to resilience for PTSD and everyday stress. *Current Psychiatry, 6*(4), 23-30. Retrieved from http://www.calgaryfamily.org/downloads/resources/Flood-PTSDResilience.pdf

Hammer, M. (1981). "Core" and "extended" social networks in relation to health and illness. *Social Science and Medicine, 17*(7), 405-411. doi:10.1016/0277-9536(83)90344-1

Harris, J. I., Erbes, C. R., Engdahl, B. E., Olson, R. H., Winskowski, A. M., & McMahill, J. (2008). Christian religious functioning and trauma outcomes. *Journal of Clinical Psychology, 64*(1), 17-29. doi:http://www.ncbi.nlm.nih.gov/pubmed/18161044

Heller, K. (1979). The effects of social support: Prevention and treatment implications. In A. P. Kanfer (Ed.), *Maximizing treatment gains: Transfer enhancement in psychotherapy* (pp. 353-382). New York: Academic Press.

Heller, K., & Lakey, B. (1985). Perceived support and social interaction among friends and confidants. In I. G. Sarason, & B. R. Sarason (Eds.), *Social support: Theory, research and applications* (pp. 287-302). The Hague: Martinus Nijhoff.

Heller, K., & Swindle, R. W. (1983). Social networks, perceived social support, and coping with stress. In L. A. R. D. Felner (Ed.), *Preventive psychology: Theory, research and practice.* (pp. 87-103). New York: Pergamon.

Highlights of Changes from DSM-IV-TR to DSM-5. (2013). Retrieved from American Psychiatric Association. DSM-5 Deveopment: http://www.dsm5.org/Documents/changes%20from%20dsm-iv-tr%20to%20dsm-5.pdf

Hoge, C. W., Auchterlonie, J. L., & Milliken, C. S. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association, 295*(9), 1023-1032. doi:10.1001/jama.295.9.1023

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*(1), 13-22. doi:10.1056/NEJMoa040603

Hoge, C. W., Terhakopian, A., Castro, C. A., Messer, S. C., & Engel, C. C. (2007). Association of posttraumatic stress disorder with somatic symptoms, health care visits, and absenteeism among Iraq War Veterans. *American Journal of Psychiatry, 164*(1), 150-153. doi:10.1176/appi.ajp.164.1.150

Holbrook, T. L., Hoyt, D. B., Stein, M. B., & Sieber, W. J. (2001). Perceived threat to life predicts posttraumatic stress disorder after major trauma: Risk factors and functional outcome. *The Journal of Trauma, 51*(2), 287-293. doi:10.1097/00005373-200108000-00010

Howell, J. D. (1985). "Soldier's heart": the redifinition of heart disease and speciality formation in the early twenteith-century Great Britain. *Medical History Supplement, 29*(S5), 34-52. doi:10.1017/S0025727300070502

Hwang, K. O., Ottenbacher, A. J., Green, A. P., Cannon-Diehl, M. R., Richardson, O., Bernstam, E. V., & Thomas, E. J. (2009). Social support in an Internet weight loss comunity.

International Journal of Midecial Informatics, 79(1), 5-13. doi:10.1016/j.ijmedinf.2009.10.003

Hyams, K. C., Wignall, F. S., & Roswell, R. (1996). War syndromes and their evaluation: From the U.S. Civil War to the Persian Gulf War. *Annals of Internal Medicine, 125*(5), 398-405. Retrieved from http://www.gulflink.osd.mil/medical/med_syndrome.htm

Ingram, K. M., Betz, N. E., Mindes, E. J., Schmitt, M. M., & Smith, N. G. (2001). Unsupportive responses from others concerning a stressful life event: Development of the unsupportive social interactions inventory. *Journal of Social and Clinical Psychology, 20*(2), 173-207. doi:10.1521/jscp.20.2.173.22265

IOM (Institute of Medicine). (2012). *Treatment for Posttraumatic Stress Disorder in Military and Veteran Populations: Initial Assessment.* Washington, DC: The National Academic Press. Retrieved from https://www.aamc.org/download/298324/data/iomptsdstudy.pdf

Jacobsen, P. B., Sadler, I. J., Booth-Jones, M., Soety, E., Weitzner, M. A., & Fields, K. K. (2002). Predictors of posttraumatic stress disorder symptomatology following bone marrow transplantation for cancer. *Journal of Consulting and Clinical Psychology, 70*(1), 235-240. doi:10.1037//0022-006X.70.1.235

Jacobson, I. G., Smith, T. C., Smith, B., Keel, P. K., Amoroso, P. J., & Wells, T. S. (2009). Disordered eating and weight changes after deployment: Longitudinal assessment of a large US military cohort. *American Journal of Epidemiology, 169*(4), 415-427. doi:10.1093/aje/kwn366

Johnson, D., Polusny, M. A., Erbes, C. R., King, D., King, L., Litz, B. T., . . . Southwick, S. M. (2008). Resilience and Response to Stress: Development and initial validation of the

Response to Stressful Experiences (RSES). *2nd Annual Marine Corps Combat and Operational Stress Control.* San Diego, CA.

Kang, H. K., Natelson, B. H., Mahan, C. M., Lee, K. Y., & Murphy, F. M. (2003). Post-Traumatic Stress Disorder and Chronic Fatigue Syndrome-like illness among Gulf War Veterans: A population-based survey of 30,000 Veterans. *American Journal of Epidemiology, 157*(2), 141-148. doi:10.1093/aje/kwf187

Kaniasty, K. (2005). *Social Support and Traumatic Stress.* Retrieved from The National Center for Post-Traumatic Stress Disorder: http://www.ptsd.va.gov/professional/newsletters/research-quarterly/V16N2.pdf

Kaplan, G. A., Salonen, J. T., Cohen, R. D., Brand, R. J., Syme, S. L., & Puska, P. (1988). Social connections and mortality from all causes and from cardiovascular disease: Prospective evidence from eastern Finland. *American Journal of Epidemiology, 128*(2), 370-380. Retrieved from http://deepblue.lib.umich.edu/bitstream/handle/2027.42/55362/Kaplan%20GA,%20Social%20Connections,%201988.pdf;jsessionid=6BFFBFD8D4476FF6859953CC2266C143?sequence=1

Kimerling, R., & Calhoun, K. S. (1994). Somatic symptoms, social support, and treatment sseeking among sexual assulat victims. *Journal of Consulting and Clinical Psychology, 62*(2), 333-340. doi:10.1037/0022-006X.62.2.333

King, D. W., Taft, C. T., King, L. A., Hammond, C., & Stone, F. (2006). Directionality of the association between social support and posttraumatic stress disorder: A longitudinal investigation. *Journal of Applied Social Psychology, 36*(12), 2980-2992. doi:10.1111/j.0021-9029.2006.00138.x

Klinedinst, J. N. (2014). Resilience and volunteering: A critical step to maintaining function among older adults with depressive symptoms and mild cognitive impairment. *Topics in Geriatric Rehabilition, 30*(3), 181-187. doi:10.1097/TGR.0000000000000023

Koenen, K. C., Stellman, J. M., Stellman, S. D., & Sommer, J. F. (2003). Risk factors for course of post-traumatic stress disorder among Vietnam veterans: A 14-year follow-up of American Legionnaires. *Journal of Counseling and Clinical Psychology, 71*(6), 980-986. doi:10.1037/0022-006X.71.6.980

Koenig, H. G. (2009). Research on religion, spirituality, and mental health: A review. *Canadian Journal of Psychiatry, 54*(5), 283-291. Retrieved from http://publications.cpa-apc.org/browse/documents/464

Koenig, H. G., Pargament, K. I., & Nielsen, J. (1998). Religious coping and health status in medically ill hospitalized older adults. *Journal of Nervous and Mental Disorders, 186*(9), 513-521. doi:10.1097/00005053-199809000-00001

Krizek, C., Roberts, C., Ragan, R., Ferrara, J. J., & Lord, B. (1999). Gender and cancer support group participation. *Cancer Practice, 7*(2), 86-92. doi:10.1046/j.1523-5394.1999.07206.x

Kroenke, C. H., Kubzansky, L. D., Schernhammer, E. S., Holmes, M. D., & Kawachi, I. (2006). Social Networks, Social Support, and Survival After Breast Cancer Diagnosis. *Journal of Clinical Oncology, 24*(7), 1105-1111. doi:10.1200/JCO.2005.04.2846

Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., Marmar, C. R., & Weiss, D. S. (1990a). *Trauma and the Vietnam War generation: Report of findings from the National Vietnam Veterans Readjustment Study.* New York: Brunner/Mazel. Retrieved from http://www.ptsd.va.gov/professional/research-bio/research/vietnam-vets-study.asp

Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., Marmar, C. R., & Weiss, D. S. (1990b). *The National Vietnam Veterans Readjustment Study: Tables of findings and technical appendices.* New York: Brunner/Mazel. Retrieved from http://www.ptsd.va.gov/professional/research-bio/research/nvvrs-docs.asp

Kummervold, P. E., Gammon, D., Bergvik, S., Johnsen, J. A., Hasvold, T., & Rosenvinge, J. H. (2002). Social support in a wired world: Use of online metnal health forums in Norway. *Nordic Journal of Psychiatry, 56*(1), 59-65. doi:10.1080/08039480252803945

LaCoursiere, S. P. (2001). A Theory of Online Social Support. *Advances in Nursing Science, 24*(1), 60-77. doi:10.1097/00012272-200109000-00008

Laffaye, C., Cavella, S., Drescher, K., & Rosen, C. (2008). Relationships among PTSD symptoms, social support, and support source in veterans with chronic PTSD. *Journal of Traumatic Stress, 21*(4), 394-401. doi:10.1002/jts.20348

Lakey, B. (n.d.). *Social support.* Retrieved from National Cancer Institute: http://cancercontrol.cancer.gov/brp/constructs/social_support/social_support.pdf

Lakey, B., & Cohen, S. (2000). Support theory and measurement. In L. U. S. Cohen (Ed.), *Social support measurement and interventions: A guide for health and social scientists* (pp. 29-52). New York: Oxford Univesrity Press.

Lazarus, R. S. (1966). *Psychological stress and the coping process.* New York: McGraw-Hill.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping.* New York: Springer.

Lepore, S. J., Silver, R. C., Wortman, C. B., & Wayment, H. A. (1996). Social constraints, intrusive thoughts, and depressive symptoms among bereaved mothers. *Journal of Personality and Social Psychology, 70*(2), 271-282. doi:10.1037/0022-3514.70.2.271

Lifton, R. J. (1993). *The Protean Self: Human Resilience in An Age of Transformation.* New York: Basic Books.

Malik, S. H., & Coulson, N. S. (2008). Computer-mediated infertility support groups: an exploratory study of online experiences. *Patient Education and Counseling, 73*(1), 105-113. doi:10.1016/j.pec.2008.05.024

Manne, S. L., & Zautra, A. J. (1989). Spouse criticism and support: Their association with coping and psychological adjustment among women with rheumatoid arthritis. *Journal of Personality and Social Psychology, 56*(4), 608-617. doi:10.1037/0022-3514.56.4.608

Manne, S. L., Taylor, K. L., Dougherty, J., & Kemeny, N. (1997). Supportive and negative responses in the partner relationship: Their association with psychological adjustment among individuals with cancer. *Journal of Behavioral Medicine, 20*, 101-125. doi:10.1023/A:1025574626454

Maston, A. S. (1994). Resilience in individual development: Successful adaptation despite risk and adversity. In M. Wang, & E. Gordon (Eds.), *Educational Resilience in Inner-City America: Challenges and Prospects.* (pp. 3-25). Hillsdale, NJ: Erlbaum.

Mead, G. H. (1934). *Mind, Self, and Society.* Chicago: University of Chicago Press.

Miller, P. M., & Ingram, J. G. (1979). Reflections on the life events to illness link with some preliminary findings. In I. G. Sarason, & C. D. Spielberger (Eds.), *Stress and Anxiety* (pp. 313-336). New York: Hemisphere.

Milliken, C. S., Auchterlonie, J. L., & Hoge, C. W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medical Association, 298*(18), 2141-2148. doi:10.1001/jama.298.18.2141

Mittal, D., Drummond, K. L., Blevins, D., Curran, G., Corrigan, P., & Sullivan, G. (2013). Stigma associated with PTSD: Perceptions of treatment seeking combat veterans. *Psychiatric Rehabilitation Journal, 36*(2), 86-92.

Mo, P. K., & Coulson, N. S. (2008). Exploring the communication of social support within virtual communities: a content analysis of messages posted to an online HIV/AIDS support group. *CyberPsychology & Behaviour, 11*(3), 371-374. doi:10.1089/cpb.2007.0118

Monson, C. M., Friedman, M. J., & La Bash, H. J. (2007). A Psychological History of PTSD. In T. M. M. J. Freidman (Ed.), *Handbook of PTSD: Science and Practice* (pp. 37-53). New York: Guilford Press.

Moynihan, C., Bliss, J., Davidson, J., Burchell, L., & Horwich, A. (1998). Evaluation of adjuvant psychological therapy in patients with testicular cancer: Randomised controlled trial. *British Medical Journal, 316*, 429-435. doi:10.1136/bmj.316.7129.429

Nad, S., Marčinko, D., Vuksan-Ćusa, B., Jakovljević, M., & Jakovljević, G. (2008). Spiritual well-being, intrinsic religiosity, and suicidal behavior in predominantly Catholic Croation War veterans with chronic posttraumatic stress disorder-A case control study. *Journal of Nervous and Mental Disorders, 196*, 79-83.

National Center for Ethics in Health Care, Veterans Health Administration, Secretary of Veterans Affairs, Department of Veterans Affairs. (2008, October). *Should veterans with a diagnosis of Post-Traumatic Stress Disorder be considered a vulnerable population for the purpose of applying guidelines for the protection of human subjects in research?* Washington, DC. Retrieved from Veterans Health Administration Research & Development: http://www.research.va.gov/resources/policies/guidance/ptsd.pdf

Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 Disaster Victims Speak: Part I. An Empirical Review of the Empirical Literature, 1981–2001. *Psychiatry: Interpersonal and Biological Processes, 65*(3), 207-239. doi:10.1521/psyc.65.3.207.20173

Ozer, E. J., Best, S., Lipsey, T., & Weiss, D. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin, 129*(1), 52-73. doi:10.1037/1942-9681.S.1.3

Ozer, W. J., & Weinstein, R. S. (2004). Urban adolescents' exposure to community violencec: The role of support, school safety, and social constraints in a school-based sample of boys and girls. *Journal of Clinical Child and Adolescent Psychology, 33*(3), 463-476. doi:10.1207/s15374424jccp3303_4

Pargament, K., Feuille, M., & Burdzy, D. (2011). The Brief RCOPE: Current psychometric status of a short measure of religious coping. *Religions, 2*(1), 51-76. doi:10.3390/rel2010051

Payne, T. J., Andrew, M., Butler, K. R., Wyatt, S. B., Dubbert, P. M., & Mosley, T. H. (2012). Psychometric evaluation of the Interpesronal Support Evaluation List-Short Form in the ARIC study cohort. *SAGE Open, 2*, 1-8. doi:10.1177/2158244012461923

Peirce, R. S., Frone, M. R., Russell, M., Cooper, M. L., & Mudar, P. (2000). A longitudinal model of social contact, social support, depression, and alcohol use. *Health Psychology, 19*(1), 28-38. doi:10.1037/0278-6133.19.1.28

Perry, S., Difede, J., Musngi, G., Frances, A. J., & Jacobsberg, L. (1992). Predictors of posttraumatic stress disorder after burn injury. *American Journal of Psychiatry, 149*(7), 931-935. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/1609874

Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., & Southwick, S. M. (2009). Psychological resilience and postdeployment social support protect against traumatic stress and depressive symptoms in soldiers returning from Operations Enduring Freedom and Iraqi Freedom. *Depression and Anxiety, 9*(3), 745-751. doi:10.1002/da.20558

Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., Rivers, A. J., Morgan, C. A., & Southwick, S. M. (2010). Depressive symptoms and psychosocial difficulties in veterans of Operations Enduring Freedomand Iraqi Freedom: The role of resilience, unit support, and postdeployment social support. *Journal of Affective Disorders, 120*(1-3), 188-192. doi:10.1016/j.jad.2009.04.015

Post Traumatic Stress Disorder. (2011, November). *Guidelines.* Retrieved from Deployment Health Clinical Center: http://www.pdhealth.mil/guidelines/downloads/PTSD.pdf

Prevalence of mental health problems and functional impairment among active component and National Guard soldiers 3 and 12 months following combat in Iraq. (2010). *Archives of General Psychiatry, 67*(6), 614-623. doi:10.1001/archgenpsychiatry.2010.54

Price, J. L. (2014, Januray 3). *Findings from the National Vietnam Veterans' Readjustment Study*. Retrieved from U.S. Department of Veterans Affairs: http://www.ptsd.va.gov/professional/research-bio/research/vietnam-vets-study.asp

Public Health: Gulf War veterans' medically unexplained illnesses. (2014, February 13). Retrieved from U.S. Department of Veterans Affairs: http://www.publichealth.va.gov/exposures/gulfwar/medically-unexplained-illness.asp

Ramchand, R., Karney, B. R., Osilla, K. C., Burns, R. M., & Caldarone, L. B. (2008). Prevalence of PTSD, Depression, and TBI among returning service members. In T. Tanielian, & L. H. Jaycox (Eds.), *Invisible wounds of war: Psychological and cognitive injuries, their*

consequences, and services to assist recovery (pp. 35-85). Santa Monica: RAND Corporation. Retrieved from Rand Corporation Center for Military Health Policy Research: http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG720.pdf

Reevy, G. M., & Maslach, C. (2001). Use of social support: Gender and personality differences. *Sex Roles, 44*(7-8), 437-459. doi:10.1023/A:1011930128829

(2012). *Report on VA Facility Specific Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) Veterans Coded with Potential PTSD - Revised.* Washington: Veterans Health Administration. Department of Veterans Affairs. Retrieved from http://www.publichealth.va.gov/docs/epidemiology/ptsd-report-fy2012-qtr3.pdf

Riessman, F. (1997). Ten self-help principles. *Social Policy, 27*(3), 6-12. Retrieved from http://www.mentalhelp.net/poc/view_doc.php?type=doc&id=358

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57*(3), 316-331. doi:10.1111/j.1939-0025.1987.tb03541.x

Salem, D. A., Bogat, G. A., & Reid, C. (1997). Mutual help goes on-line. *Journal of Community Psychology, 25*(2), 189-207. doi:10.1002/(SICI)1520-6629(199703)25:2<189::AID-JCOP7>3.0.CO;2-T

Sarason, B. R., Sarason, I. G., & Pierce, G. R. (1990). Traditional views of social support and their impact on assessment. In I. G. B. R. Sarason (Ed.), *Social support: An interactional view* (pp. 9-25). New York: Wiley.

Sayer, N. A., Noorbaloochi, S., Frazier, P., Carlson, K., Gravely, A., & Murdoch, M. (2010). Reintegration problems and treatment interests among Iraq and Afghanistan combat

veterans receiving VA medical care. *Psychiatry Services, 61*(6), 589-597. doi:10.1176/appi.ps.61.6.589

Sayer, N. A., Orazem, R. J., Noorbaloochi, S., Gravely, A., Frazier, P., Carlson, K. F., . . . Oleson, H. (2014). Iraq and Afghanistan War Veterans with Reintegration Problems: Differences by Veterans Affairs Healthcare User Status. *Administration and Policy in Mental Health*. doi:10.1007/s10488-014-0564-2

Schumacher, J., Leppert, K., Gunzelmann, T., Strauß, B., & Brähler, E. (2004). Die Resilienzskala – Ein Fragebogen zur Erfassung der psychischen Widerstandsfähigkeit als Personmerkmal. *Zeitschrift fur Klinische Psychologie, Psychiatrie und Psychotherapie, 10*(1), 1-26. Retrieved from http://www.mentalhealthpromotion.net/resources/resilienzskala2.pdf

Schumacher, J., Leppert, K., Gunzelmann, T., Strauß, B., & Brähler, E. (2005). Die Resilienzskala – Ein Fragebogen zur Erfassung der psychischen Widerstandsfähigkeit als Personmerkmal. / The Resilience Scale - A questionnaire to assess resilience as a personality characteristic. *Zeitschrift für Klinische Psychologie, Psychiatrie und Psychotherapie, 53*(1), 16-39. doi:10.1055/s-00000117

Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., . . . Berry, S. H. (2001). A National survey of stress reactions after the September 11, 2001, terrorist attacks. *The New England Journal of Medicine, 345*(20), 1507-1512. doi:10.1056/NEJM200111153452024

Schwarzer, R., & Leppin, A. (1989). Social support and health: A meta-analysis. *Psychology & Health: An International Journal, 3*(1), 1-15. doi:10.1080/08870448908400361

Shallcross, S. L., Frazier, P. A., & Anders, S. L. (2014). Social resources mediate the relations between attachment dimensions and distress following potentially traumatic events. *Journal of Counseling Psychology, 61*(3), 352-362. doi:10.1037/a0036583

Sharkansky, E. J., King, D. W., King, L. A., Wolfe, J., Erickson, D. J., & Stokes, L. R. (2000). Coping with Gulf War combat stress: Mediating and moderating effects. *Journal of Abnormal Psychology, 109*(2), 188-197. doi:10.1037/0021-843X.109.2.188

Sharp, J. (2000). The Internet: Changing the way cancer survivors receive support. *Cancer Practice, 8*(3), 145-147. doi:10.1046/j.1523-5394.2000.83009.x

Sholl, J. (2011, September). *The 5 best ways to build resiliency*. Retrieved from Exjperience life: https://experiencelife.com/article/the-5-best-ways-to-build-resiliency/

Siebert, A. (2005). *The Resiliency Advantage: Master Change, Thrive Under Pressure, and Bounce Back from Setbacks.* San Francisco: Berrett-Koehler Publishers, Inc.

Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful lifeevents. *Psychology Bulletin, 129*(4), 614-636. doi:10.1037/0033-2909.129.4.614

Solomon, Z., & Mikulincer, M. (1990). Life events and combat-related posttramatic stress disorder: The intervening role of locus of control and social support. *Military Psychology, 2*(4), 241-256. doi:10.1207/s15327876mp0204_4

Solomon, Z., Mikulincer, M., & Flum, H. (1989). The implication of life events and social integration in the course of combat-related post-traumatic stress disorder. *Social Psychiatry and Psychiatric Epidemiology, 24*(1), 41-48. doi:10.1007/BF01788199

Steptoe, A., Wardle, J., Pollard, T. M., Canaan, L., & Davies, G. J. (1996). Stress, social support and health-related behavior: A study of smoking, alcohol consumption and physical

exercise. *Journal of Psychosomatic Research, 41*(2), 171-180. doi:10.1016/0022-3999(96)00095-5

Stewart-Knox, B., Duffy, M. E., Bunting, B., Parr, H., de Almeida, M. D., & Gibney, M. (2012). Associations between obesity (BMI and waist circumference) and socio-demographic factors, physical activity, dietary habits, life events, resilience, mood, perceived stress and hopelessness in healthy older Europeans. *BMC Public Health, 12*(424). doi:10.1186/1471-2458-12-424

Stretch, R. H. (1986). Incidence and etiology of post-traumatic stress disorder among active duty Army personnel. *Special Issue: Application of social psychology to military issues. Journal of Applied Social Psychology, 16*(6), 464-481. doi:10.1111/j.1559-1816.1986.tb01153.x

TBI & the Military. (2014). Retrieved from Defence and Veterans Brain Injury Center: http://dvbic.dcoe.mil/tbi-military

(2012). *The Global Religious Landscape.* Pew Research Center's Forum on Religion & Public Life.

Thoits, P. A. (1983). Multiple identities and psychological well-being: A reformation and test of the social isolation hypothesis. *American Sociological Review, 48*(2), 174-187. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/6859677

Thoits, P. A. (1985). Social support processes and psychological well-being: Theoretical possibilities. In I. G. Sarason (Ed.), *Social support: Theory, research and applications.* (pp. 51-72). The Hague: Martinus Nijhoff.

Thoits, P. A. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology, 54*(4), 416-423. Retrieved from http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=1986-30534-001

Thomas, J. L., Wilk, J. E., Riviere, L. A., McGurk, D., Castro, C. A., & Hoge, C. W. (2010). Prevalence of mental health problems and functional impairment among active component and National Guard soldiers 3 and 12 months following combat in Iraq. *Archives of General Psychiatry, 67*(6), 614-623. doi:10.1001/archgenpsychiatry.2010.54

Tiet, Q. Q., Rosen, C., Cavella, S., Moos, R. H., Finney, J. W., & Yesavage, J. (2006). Coping, symptoms, and functioning outcomes of patients with posttraumatic stress disorder. *Journal of Traumatic Stress, 19*(6), 799-811. doi:10.1002/jts.20185

Tucker, P., Pfefferbaum, B., Doughty, D. B., Jones, D. E., Jordan, F. B., & Nixon, S. J. (2002). Body handlers after terrorism in Oklahoma City: Predictors of posttraumatic stress and other symptoms. *American Journal of Orthopsychiatry, 72*(4), 469-475. doi:10.1037/0002-9432.72.4.469

Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology, 86*(2), 320-333. doi:10.1037/0022-3514.86.2.320

Tugade, M. M., Fredrickson, B. L., & Barrett, L. F. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of Personality, 72*(6), 1161-1190. doi:10.1111/j.1467-6494.2004.00294.x

Turner-McGrievy, G. M., & Tate, D. F. (2013). Weight loss social support in 140 characters or less: use of an online social network in a remotely deliveered weight loss intervention. *Translational Behavioral Medicine, 3*(3), 287-294. doi:1007/s13142-012-0183-y

U.S. Department of Veterans Affairs. (2013). *DSM-5 Criteria for PTSD. Professional Section: Information on Trauma and PTSD Researchers, Providers & Helpers*. Retrieved from United States Department of Veterans Affairs: http://www.ptsd.va.gov/professional/pages/dsm5_criteria_ptsd.asp

U.S. Department of Veterans Affiars: National Center for PTSD. (2012). *PTSD: National Center for PTSD.* Retrieved October 21, 2014, from U.S. Department of Veterans Affairs: http://sph.umd.edu/sites/default/files/files/PTSDChecklistScoring.pdf

Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes. *Psychological Bulletin, 119*(3), 488-531. Retrieved from http://psych.utah.edu/people/people/uchino/Publications/1996%20Uchino%20PB.pdf

Ullman, S. E., & Filipas, H. H. (2001). Correlates of formal and informal support seeking in sexual assault victims. *Journal of Interpersonal Violence, 16*(10), 1028-1047. doi:10.1177/088626001016010004

VA and DoD. (2010). *VA/DOD clinical practice guideline for management of post-trauamatic stress.* Washington, DC.: Department of Veterans Affairs and Department of Defense. October.

VA Facility Use by Recent Veterans with PTSD. (2013). Retrieved from United States Department of Veterans Affairs.: http://www.publichealth.va.gov/epidemiology/reports/oefoifond/ptsd/index.asp

Valdez, D. V. (2014, April 21). *Gulf War Illness: Thousands still report symptoms*. Retrieved from Military.com News: http://www.military.com/daily-news/2014/04/21/gulf-war-illness-thousands-still-report-symptoms.html

Veterans Healthcare Administration, National Center for PTSD. (2011, January). *A Supplemental Take-Home Module for the NAMI Family-to-Family Educaiton Program: Understanding and coping with PTSD.* Retrieved from National Alliance on Mental illness: http://www.nami.org/Content/ContentGroups/Programs/Family_to_Family/PTSD_Module_Pevised_Feb_2011.pdf

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1*(2), 165-178. Retrieved from http://www.springerpub.com/journal-of-nursing-measurement.html

Wahl, O. F. (1999). Mental health consumers' experience of stigma. *Schizophrenia Bulletin, 25*, 467-478.

Watson, A. C., Corrigan, P. W., & Ottati, V. (2004). Police responses to persons with mental illness: Does the label matter? *Journal of the American Academy of Psychiatry and the Law, 32*, 378-385.

Watson, A. C., Corrigan, P. W., Larson, J. E., & Sells, M. (2007). Self-stigma in people with mental illness. *Schizophrenia Bulletin, 33*, 1312-1318.

Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1993). The PTSD Checklist (PCL): Reliability, validitym and diagnostic utility. *Annual Meeting of International Society for Traumatic Stress Studies.* San Antonio. Retrieved from www.pdhealth.mil/library/downloads/pcl_sychometrics.doc

Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2014). *The PTSD Checklist for DSM-5 (PCL-5).* Retrieved from PTSD: National Center for PTSD: http://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp

Weiss, D. S., Marmar, C. R., Metzler, T. J., & Ronfeldt, H. M. (1995). Predicting symptomatic distress in emergency services personnel. *Journal of Consulting and Clinical Psychology, 63*(3), 361-368. doi:10.1037/0022-006X.63.3.361

Werner, E., & Smith, R. (1992). *Overcoming the Odds: High-Risk Children from Birth to Adulthood.* New York: Cornell University Press.

Westat for the Department of Veterans Affairs. (2010). *National survey of veterans, active duty service members, demobilized National Guard and Reserve members, family members, and surviving spouses.* Retrieved from http://www.va.gov/SURVIVORS/docs/NVSSurveyFinalWeightedReport.pdf

Wills, T. A. (1985). Supportive functions of interpersonal relationships. In S. C. Syme (Ed.), *Social support and health.* (pp. 61-82). New York: Academic.

Wills, T. A., & Shinar, O. (2000). Measuring perceived and received social support. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and intervention* (pp. 86-135). New York: Oxford University Press.

Witvliet, C. V., Phipps, K. A., Feldman, M. E., & Beckham, J. C. (2004). Posttraumatic mental and physical health correlates of forgiveness and religious coping in military veterans. *Journal of Trauma Stress, 17*(3), 269-273. doi:10.1023/B:JOTS.0000029270.47848.e5

WordPress.com. (2013). *Stats*. Retrieved from WordPress.com: http://en.wordpress.com/stats/

Wordpress.com. (2014). *Stats*. Retrieved from Wordpress.com: http://en.wordpress.com/stats/

Yarvis, J. S., Yoon, E., Amenuke, M., Simien-Turner, S., & Landers, G. D. (2012). Assessment of PTSD in older veterans: The Posttraumatic Stress Disorder Checklist: Military Version (PCL-M). *Advances in Social Work, 13*(1), 185-202. Retrieved from http://journals.iupui.edu/index.php/advancesinsocialwork/article/view/1874/1962

Yuan, C., Wang, Z., Inslicht, S., McCaslin, S. E., Metzler, T. J., Henn-Haase, C., . . . Marmar, C. R. (2011). Protective factors for posttraumatic stress disorder symptoms in a prospective study of police officers. *Psychiatry Research, 188*(1), 45-50. doi:10.1016/j.psychres.2010.10.034

Zoellner, L. A., Foa, E. B., & Brigidi, B. D. (1999). Interpersonal friction and PTSD in female victims of sexual and nonsexual assault. *Journal of Traumatic Stress, 12*(4), 689-700. doi:10.1023/A:1024777303848

CHAPTER SEVEN: Appendices

Appendix A

DSM-IV-TR Criteria for PTSD

A. Criterion A: stressor

The person has been exposed to a traumatic event in which both of the following have been present:

1. The person has experienced, witnessed, or been confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity of oneself or others;
2. The person's response involved intense fear, helplessness, or horror

B. Criterion B: intrusive recollection

The traumatic event is persistently RE-EXPERIENCED in at least one of the following ways:

1. Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions;
2. Recurrent distressing dreams of the event;
3. Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated);
4. Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event;
5. Physiologic reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Criterion C: avoidant/numbing

Persistent AVOIDANCE of stimuli associated with the trauma and NUMBING of

general responsiveness (not present before the trauma), as indicated by three of the following:

1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma;
2. Efforts to avoid activities, places, or people that arouse recollections of the trauma;
3. Inability to recall an important aspect of the trauma;
4. Markedly diminished interest or participation in significant activities;
5. Feeling of detachment or estrangement from others;
6. Restricted range of affect (e.g., unable to have loving feelings);
7. Sense of foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Criterion D: hyper-arousal

Persistent symptoms of increased AROUSAL (not present before the trauma), indicated by at least two of the following:

1. Difficulty falling or staying asleep;
2. Irritability or outbursts of anger;
3. Difficulty concentrating;
4. Hyper-vigilance;
5. Exaggerated startle response

E. Duration of the disturbance (symptoms in B, C, and D) is more than one month

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning (4th ed., text rev.; *DSM–IV–TR*;

American Psychiatric Association, 2000)

Appendix B

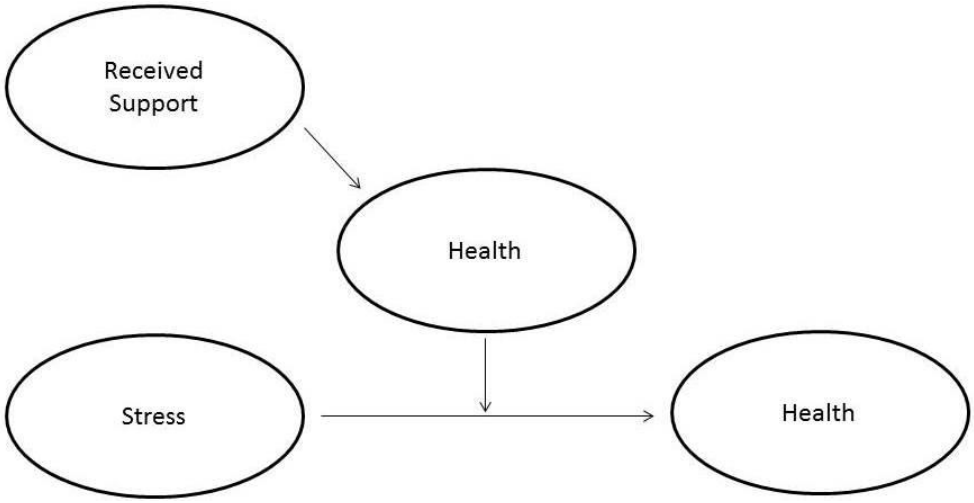

Figure B1. "The supportive actions approach predicts that received support enhances coping, which buffers the relation between stress and health outcomes" (Lakey & Cohen, 2000, p. 31).

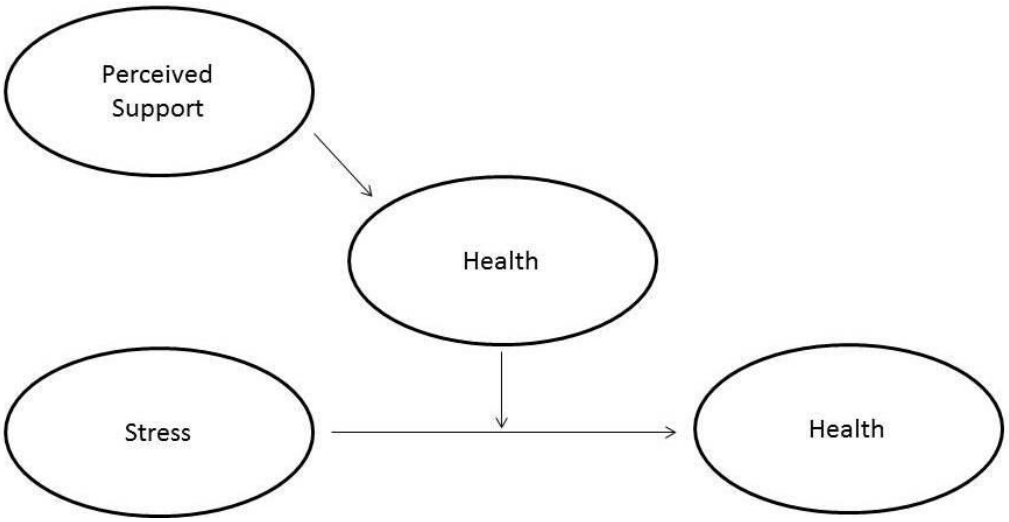

Figure B2. "The appraisal perspective predicts that beliefs in the availability of support (perceived support) influence appraisals of stressful situations, which buffers the effects of stress on health outcomes" (Lakey & Cohen, 2000, p. 32).

Appendix C

Pilot Study Consent Form

You are invited to take part in a research study about veterans. This is the pilot version of the survey and, as such, is subject to change based upon your comments and suggestions that will be asked for at the end. This study is conducted by Hannah C. Pedersen, an Army Veteran and PhD candidate in the Edward R. Murrow College of Communication.

This study will take about 30 minutes of your time. You may be asked some questions about PTSD but you DO NOT need to have been diagnosed with PTSD to take part in this survey. You will be asked about your basic demographics (age, sex, etc.), online use, if you have been deployed, social support questions, and items about coping and your faith. If you wish to go back and change an answer, please only use the back button at the bottom of your page and not the back button in the browser.

Please select "I agree" below only if you agree with the following statement:

I have read and understand the above consent form. I certify that I am 18 years old or older, I have given the information on how to contact the researcher to ask questions and state any concerns I may have, I believe I understand the research study and the potential benefits and risks that are involved, and I am willing to voluntarily take part in the study.

Your decision to participate or decline taking part in this study is completely voluntary and you have the right to terminate your participation at any time without penalty. If there are questions you do not wish to answer, you may skip them. If you do not want to complete this survey then just close the browser.

Neither the researcher(s) nor anyone else will be able to link any survey answer to you. If you want to be entered into a drawing for a gift card, you will be given the opportunity at the end

of the survey to provide your email address. Your email address this will not be linked to your survey in any way.

Although your participation in this research may not benefit you personally, it will help us identify how social support can help veterans.

Potential risks for taking part in this survey could be psychological distress or discomfort when referring to past military experiences or addressing PTSD. To minimize these risks, this study does not ask for detailed or in-depth explanations about any past trauma or for you to relive that experience. If at any time you feel you need to seek counseling or medical assistance, please contact:

The Veterans Crisis Line:	1-800-273-8255 and press 1
The Veteran Combat Call Center's 24 hour hotline:	1-877-WAR-VETS
	1-877-927-8387 to talk to a combat Veteran
The Suicide Prevention Lifeline:	1-800-273-8255

If you have any questions about this study, would like the results once the study has been completed, or if you have any questions about the information in this form, please contact the Co-Investigator at Hannah C. Pedersen at (509) 731-3097, or e-mail hannah.pedersen@email.wsu.edu, or regular mail at: Attn: Hannah C. Pedersen, Edward R. Murrow College of Communication, 101 Communication Addition, PO Box 642520, Washington State University, Pullman, WA 99164-2520.

If you have questions about your rights as a research participant, or would like to report a concern or complaint about this study, please contact the Washington State University Institutional Review Board at (509) 335-3668, or e-mail irb@wsu.edu, or regular mail at: Albrook 205, PO Box 643005, Pullman, WA 99164-3005.

This study has been approved for exemption status by WSU's Institutional Review Board.

Please print a copy of this consent form for your records, if you so desire.

- I Agree
- I Do Not Agree

If I Do Not Agree Is Selected, Then Skip To End of Survey

Online

This section asks questions about how often you use the Internet and what you use it for. Please fill it out as truthfully as you can.

How many days per week do you use the Internet to visit PTSD or Veteran-related sites?

- ❍ 1 (1)
- ❍ 2 (2)
- ❍ 3 (3)
- ❍ 4 (4)
- ❍ 5 (5)
- ❍ 6 (6)
- ❍ 7 (7)
- ❍ I don't use the Internet to visit PTSD or Veteran-related sites (0)

Answer If How many days per week do you use the Internet to visit PTSD or Veteran-related sites? 1 Is Selected Or How many days per week do you use the Internet to visit PTSD or Veteran-related sites? 2 Is Selected Or How many days per week do you use the Internet to visit PTSD or Veteran-related sites? 3 Is Selected Or How many days per week do you use the Internet to visit PTSD or Veteran-related sites? 4 Is Selected Or How many days per week do you use the Internet to visit PTSD or Veteran-related sites? 5 Is Selected Or How many days per week do you use the Internet to visit PTSD or Veteran-related sites? 6 Is Selected Or How many days per week do you use the Internet to visit PTSD or Veteran-related sites? 7 Is Selected

How much time, per day, do you spend on the Internet to visit PTSD or Veteran-related sites? Please indicate the number of hours you spend by dragging the bar or clicking the place you feel fits your online activity. The number displayed to the right of the bar will indicate your selection.

_____ Hours spent (1)

Have you participated in an online PTSD or Veteran support group/community?

- ❍ Yes (1)
- ❍ No (0)

If No Is Selected, Then Skip To Please indicate how strongly you agre...

How often have you posted in an online PTSD or Veteran support group/community?

- ❍ Never (0)
- ❍ Rarely (1)
- ❍ Sometimes (2)
- ❍ Often (3)
- ❍ All of the Time (4)

Please indicate how strongly you agree about what your primary reasons are for using PTSD or Veteran related websites and/or online communities. Your options are Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree.

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Get health-related information from professionals (1)	❍	❍	❍	❍	❍
Get health-related information from others with PTSD (2)	❍	❍	❍	❍	❍
Make friends (3)	❍	❍	❍	❍	❍
Find people who understand what I'm going through (4)	❍	❍	❍	❍	❍
Share my story (5)	❍	❍	❍	❍	❍
Help others (6)	❍	❍	❍	❍	❍
Vent about my condition (7)	❍	❍	❍	❍	❍
Ask for help (8)	❍	❍	❍	❍	❍
Other (please specify) (9)	❍	❍	❍	❍	❍

Answer If How often have you posted in an online PTSD or Veteran support group/community?

Never Is Selected

What are your reasons for not posting? Please select all that apply

- ❑ Just reading or browsing is enough (1)
- ❑ I want to remain anonymous (2)
- ❑ I'm shy about posting (3)
- ❑ I have nothing to offer (4)
- ❑ I'm still learning about the group (5)
- ❑ I'm concerned about aggressive or hostile responses (6)
- ❑ I don't have enough time to post (7)
- ❑ Other (please specify) (8) _____

Answer If How often have you posted in an online PTSD or Veteran support group/community? Rarely Is Selected Or How often have you posted in an online PTSD or Veteran support group/community? Sometimes Is Selected Or How often have you posted in an online PTSD or Veteran support group/community? Often Is Selected Or How often have you posted in an online PTSD or Veteran support group/community? All of the Time Is Selected

When you post/respond, how are you known in the group?

- ○ I use my real identity, such as my real name and/or photo (1)
- ○ I post without revealing my real identity, such as using a handle (2)
- ○ Other (please specify) (3) _____

Have you participated in an offline or in-person support group related to PTSD or Veterans?

- ○ Yes (1)
- ○ No (0)

Please indicate how strongly you agree about what your primary reasons are for using PTSD or Veteran related websites and/or offline or in-person communities. Your options are Strongly

Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree.

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Get health-related information from professionals (1)	❍	❍	❍	❍	❍
Get health-related information from others with PTSD (2)	❍	❍	❍	❍	❍
Make friends (3)	❍	❍	❍	❍	❍
Find people who understand what I'm going through (4)	❍	❍	❍	❍	❍
Share my story (5)	❍	❍	❍	❍	❍
Help others (6)	❍	❍	❍	❍	❍
Vent about my condition (7)	❍	❍	❍	❍	❍
Ask for help (8)	❍	❍	❍	❍	❍
Other (please specify) (9)	❍	❍	❍	❍	❍

PTSD

Below is a list of problems and complaints that veterans sometimes have in response to stressful life experiences. Please read each one carefully and select form Not At All, A Little Bit, Moderately, Quite a Bit, and Extremely to indicate how much you have been bothered by that particular problem in the last month.

	Not at all (1)	A Little Bit (2)	Moderately (3)	Quite a Bit (4)	Extremely (5)
Having upsetting thoughts, images, or memories about a stressful military experience come into your head when you did not want them to (1)	❍	❍	❍	❍	❍
Having bad dreams or nightmares about a stressful military experience from the past (2)	❍	❍	❍	❍	❍
Reliving a stressful military experience (3)	❍	❍	❍	❍	❍
Feeling emotionally upset when you are reminded of a stressful military experience (4)	❍	❍	❍	❍	❍
Experiencing physical reactions (e.g. heart pounding, trouble breathing, or sweating) when reminded of a stressful military experience (5)	❍	❍	❍	❍	❍
Trying not to think, talk, or have feelings about a stressful military experience (6)	❍	❍	❍	❍	❍
Trying to avoid activities, situations, or people because they remind you of a stressful military experience	❍	❍	❍	❍	❍

(7)					
Having trouble remembering important parts of a stressful military experience (8)	❍	❍	❍	❍	❍
Having a loss of interest or participating less often in activities you used to enjoy (9)	❍	❍	❍	❍	❍
Feeling distant or cut off from other people around you (10)	❍	❍	❍	❍	❍
Feeling emotionally numb (unable to cry or have loving feelings for those close to you) (11)	❍	❍	❍	❍	❍
Feeling as if your future hopes or plans will not come true (12)	❍	❍	❍	❍	❍
Having trouble falling or staying asleep (13)	❍	❍	❍	❍	❍
Feeling irritable or having angry outbursts/fits of anger (14)	❍	❍	❍	❍	❍
Having difficulty concentrating (15)	❍	❍	❍	❍	❍
Being overly alert (16)	❍	❍	❍	❍	❍
Feeling jumpy or easily startled (17)	❍	❍	❍	❍	❍

ISEL/PSS

This scale is made up of a list of statements each of which may or may not be true about you. For each statement check "definitely true" if you are sure it is true about you and "probably true" if you think it is true but are not absolutely certain. Similarly, you should check "definitely false" if you are sure the statement is false and "probably false" is you think it is false but are not absolutely certain.

	Definitely False (0)	Probably False (1)	Probably True (2)	Definitely True (3)
Most of my friends are more interesting than I am (18)	❍	❍	❍	❍
When I feel lonely, there are several people I can talk to (12)	❍	❍	❍	❍
I often meet or talk with family or friends (13)	❍	❍	❍	❍
I feel like I am not always included in my circle of friends (14)	❍	❍	❍	❍
There really is no one who can give me an objective view of how I'm handling my problems (2)	❍	❍	❍	❍
If I were sick and in need of someone (friend, family member or acquaintance) to take me to the doctor, I would have trouble finding someone (7)	❍	❍	❍	❍
If I were sick, I could easily find someone to help me with my daily chores (9)	❍	❍	❍	❍
When I need suggestions on how to deal with a personal problem, I know someone I can turn to (3)	❍	❍	❍	❍
I don't often get invited to do things with others (15)	❍	❍	❍	❍
Most of my friends are more successful at making changes in their lives than I am (19)	❍	❍	❍	❍
If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house	❍	❍	❍	❍

or apartment (the plants, pets, gardens, etc.) (8)				
There is really no one I can trust to give me good financial advice (4)	❍	❍	❍	❍
I am more satisfied with my life than most people are with theirs (20)	❍	❍	❍	❍
It would be difficult to find someone who would lend me their car for a few hours (10)	❍	❍	❍	❍
There is at least one person I know whose advice I really trust (5)	❍	❍	❍	❍
I have a hard time keeping pace with my friends (21)	❍	❍	❍	❍

USII (Unsupportive Social Interactions Inventory)

Please look at the following statements and indicate how often you have experienced each particular response from your family, friends, and/or primary support person about your experience with PTSD or with your military service. Please only think of instances that have happened offline.

	None or never (0)	A little or not very often (1)	Some or sometimes (2)	Quite a bit or quite often (3)	A lot or always (4)
He/she did not seem to want to hear about my experience with PTSD or my military service. It felt like he/she was distancing him/herself from me (1)	❍	❍	❍	❍	❍
He/she didn't seem to know what to say, or seemed afraid of saying or doing the "wrong" thing (2)	❍	❍	❍	❍	❍
He/she felt that I should stop worrying about my PTSD or negative military experiences and should just forget about it (3)	❍	❍	❍	❍	❍
He/she asked me "why" questions about my role in my PTSD or negative military experiences, such as "Why did or didn't you _____?" It felt like he/she was blaming me for my PTSD or that I caused any negative military experiences (4)	❍	❍	❍	❍	❍

PRC (Positive Religious Coping)

During a stressful military experience, please indicate how often you did the following by selecting one of the following options: I don't do this at all, I don't do this often, I do this often, and I do this a great deal. Please feel free to replace the term "higher power" with other representations you use such as divine, sacred, God, Jesus, Allah, etc.

	I don't do this at all (1)	I rarely do this (2)	I sometimes do this (3)	I do this a great deal (4)
I look for a stronger connection with a higher power (1)	❍	❍	❍	❍
I sought a higher power's love and care (2)	❍	❍	❍	❍
I sought help from a higher power in letting go of my anger (3)	❍	❍	❍	❍
I tried to put my plans into actions together with a higher power (4)	❍	❍	❍	❍
I tried to see how a higher power might be trying to strengthen me in this situation I experienced (5)	❍	❍	❍	❍
I asked forgiveness for my sins/shortcomings (6)	❍	❍	❍	❍
I focused on my religion/faith/spirituality to stop worrying about my problems (7)	❍	❍	❍	❍

Cope

These items deal with ways you've been coping with the stress in your life since you were either diagnosed with PTSD or during the last instance of a major event that caused more stress than normal. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but we're interested in how you've tried to deal with it. Each item says something about a particular way of coping. We want to know to what extent you've been doing what the item says. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

	I haven't been doing this at all (1)	I've been doing this a little bit (2)	I've been doing this a medium amount (3)	I've been doing this a lot (4)
I've been turning to work or other activities to take my mind off things (1)	❍	❍	❍	❍
I've been concentrating my efforts on doing something about the situation I'm in (2)	❍	❍	❍	❍
I've been saying to myself "this isn't real." (3)	❍	❍	❍	❍
I've been using alcohol or other drugs to make myself feel better (4)	❍	❍	❍	❍
I've been getting emotional support from others (5)	❍	❍	❍	❍
I've been giving up trying to deal with it (6)	❍	❍	❍	❍
I've been taking action to try to make the situation better (7)	❍	❍	❍	❍
I've been refusing to believe that it has happened (8)	❍	❍	❍	❍
I've been saying things to let my	❍	❍	❍	❍

unpleasant feelings escape (9)				
I've been getting help and advice from other people (10)	❍	❍	❍	❍
I've been using alcohol or other drugs to help me get through it (11)	❍	❍	❍	❍
I've been trying to see it in a different light, to make it seem more positive (12)	❍	❍	❍	❍
I've been criticizing myself (13)	❍	❍	❍	❍
I've been trying to come up with a strategy about what to do (14)	❍	❍	❍	❍
I've been getting comfort and understanding from someone (15)	❍	❍	❍	❍
I've been giving up the attempt to cope (16)	❍	❍	❍	❍
I've been looking for something good in what is happening (17)	❍	❍	❍	❍
I've been making jokes about it (18)	❍	❍	❍	❍
I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping (19)	❍	❍	❍	❍
I've been accepting the reality of the fact that it has happened (20)	❍	❍	❍	❍
I've been expressing my negative feelings (21)	❍	❍	❍	❍
I've been trying to get advice or help from other people about what to do (22)	❍	❍	❍	❍
I've been learning to live with it (23)	❍	❍	❍	❍
I've been thinking hard about what steps to take (24)	❍	❍	❍	❍
I've been blaming myself for things that happened (25)	❍	❍	❍	❍
I've been making fun of the situation (26)	❍	❍	❍	❍

Resilience

Please indicate how much you agree with each statement as it describes you.

	I strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither disagree nor agree (4)	Somewhat agree (5)	Agree (6)	I strongly agree (7)
When I make plans, I follow through with them (1)	❍	❍	❍	❍	❍	❍	❍
I usually manage one way or another (2)	❍	❍	❍	❍	❍	❍	❍
Keeping interested in things is important to me (3)	❍	❍	❍	❍	❍	❍	❍
I like myself (4)	❍	❍	❍	❍	❍	❍	❍
I feel I can manage many things at a time (5)	❍	❍	❍	❍	❍	❍	❍
I am determined (6)	❍	❍	❍	❍	❍	❍	❍
I keep interested in things (7)	❍	❍	❍	❍	❍	❍	❍
I can usually find something to laugh about (8)	❍	❍	❍	❍	❍	❍	❍
I can usually look at a situation in a number of ways (9)	❍	❍	❍	❍	❍	❍	❍
Sometimes I make myself do things whether I	❍	❍	❍	❍	❍	❍	❍

want to or not (10)							
I have enough energy to do what I have to do (11)	❍	❍	❍	❍	❍	❍	❍

Demographics

Please provide the following background information about yourself.

What is your age?

- ❍ 18 - 24 years old (1)
- ❍ 25 - 34 years old (2)
- ❍ 35 - 44 years old (3)
- ❍ 45 - 54 years old (4)
- ❍ 55 - 64 years old (5)
- ❍ 65 years or older (6)

What is your sex?

- ❍ Male (1)
- ❍ Female (0)

What is your racial/ethnic background?

- ❍ African American (Black) (1)
- ❍ Caucasian (White) (2)
- ❍ Asian/Pacific Islander (3)
- ❍ Hispanic/Latino/Latina (4)
- ❍ American Indian (5)
- ❍ Other (please specify) (6) _____

What is your religious affiliation (if any)?

- ❍ Christian: Protestant (1)
- ❍ Christian: Baptist (2)
- ❍ Christian: Nondenominational (3)
- ❍ Christian: Lutheran (4)
- ❍ Christian: Presbyterian (5)
- ❍ Christian: Pentecostal (6)
- ❍ Christian: Anglican/Episcopal (7)
- ❍ Christian: Restorationist (8)
- ❍ Christian: Congregationalist (9)
- ❍ Christian: Holiness (10)
- ❍ Christian: Reformed (11)

- ❍ Christian: Adventist (12)
- ❍ Christian: Other (13)
- ❍ Catholic (14)
- ❍ Mormon: Church of Jesus Christ of Latter-day Saints (15)
- ❍ Mormon: Other (16)
- ❍ Jehovah's Witness (17)
- ❍ Orthodox: Greek (18)
- ❍ Orthodox: Russian (19)
- ❍ Orthodox: Other (20)
- ❍ Jewish: Reform (21)
- ❍ Jewish: Conservative (22)
- ❍ Jewish: Orthodox (23)
- ❍ Jewish: Other (24)
- ❍ Buddhist: Theravada (Vipassana) Buddhism (25)
- ❍ Buddhist: Mahayana (Zen) Buddhism (26)
- ❍ Buddhist: Vajrayana (Tibetan) Buddhism (27)
- ❍ Buddhist: Other (28)
- ❍ Muslim: Sunni (29)
- ❍ Muslim: Shia (30)
- ❍ Muslim: Other (31)
- ❍ Hindu: Vaishnava Hinduism (32)
- ❍ Hindu: Shaivite Hinduism (33)
- ❍ Hindu: Other (34)
- ❍ Unitarian (Universalist) (35)
- ❍ Liberal Faith (36)
- ❍ Spiritual but not religious (37)
- ❍ Eclectic, A little bit of everything, Own beliefs (38)
- ❍ Wica (Wiccan) (39)
- ❍ Pagan (40)
- ❍ Native American Religion (41)
- ❍ Atheist (42)
- ❍ Agnostic (43)
- ❍ Nothing in Particular (0)
- ❍ Other (45) _____

What is your current relationship status?

- ❍ Single, never been married (1)
- ❍ Dating (2)
- ❍ Married or partnered (3)

- ❍ Separated (4)
- ❍ Divorced (5)
- ❍ Widowed (6)
- ❍ Other (please specify) (7) _____

What is your current living arrangement? Check all that apply.

- ❑ Live alone (1)
- ❑ Live with spouse/partner (2)
- ❑ Live with spouse/partner and child(ren) (3)
- ❑ Live with my child(ren) (4)
- ❑ Live with other family members (5)
- ❑ Live with non-family members (6)
- ❑ Other (Please specify) (7) _____

What is the highest level of education you have completed?

- ❍ 8th Grade or less (1)
- ❍ Some high school or trade school (2)
- ❍ High school graduate/GED (3)
- ❍ Trade or business school graduate (4)
- ❍ Some college (5)
- ❍ College graduate (6)
- ❍ Post-graduate degree (7)

Are you currently employed?

- ❍ Yes, full time (1)
- ❍ Yes, part-time (2)
- ❍ No (0)
- ❍ Retired (3)
- ❍ Not employed but not retired (4)
- ❍ Other (Please Specify) (5) _____

Answer If Are you currently employed? No Is Selected Or Are you currently employed? Not employed but not retired Is Selected

When were you last employed (month/year)? _____

What branch of the military did you serve in? If you served in more than one branch, please select the branch you served in the longest.

- ❍ Air Force (1)
- ❍ Army (2)
- ❍ Coast Guard (3)
- ❍ Marine Corps (4)
- ❍ National Guard (5)
- ❍ Navy (6)
- ❍ Merchant Marine (7)
- ❍ Other (8) _____

Please indicate if you were active duty, reserve, or reserve called to active duty.

- ❍ Active Duty (1)
- ❍ Reserve (2)
- ❍ National Guard (3)
- ❍ Reserve/National Guard called to Active Duty (4)
- ❍ Mariner (5)
- ❍ Other (please specify) (6) _____

Please select how many years and months you served.

(Dropdown menu for Years: 0-21+. Dropdown menu for Months: from 0 to 11)

What type of discharge did you receive?

- ❍ Honorable (1)
- ❍ General (2)
- ❍ Dishonorable (3)
- ❍ I'd prefer not to say (4)
- ❍ Other (5) _____

How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)?

- ❍ 0 (0)

- ❍ 1 (1)
- ❍ 2 (2)
- ❍ 3 (3)
- ❍ 4 or more times (4)

Answer If How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 1 Is Selected Or How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 2 Is Selected Or How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 3 Is Selected Or How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 4 or more times Is Selected

What was the length of your longest deployment?

(Dropdown menu for Years: 0-8+. Dropdown menu for Months: from less than 1 to 11)

Answer If How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 1 Is Selected Or How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 2 Is Selected Or How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 3 Is Selected Or How many times were you "combat" deployed to a potential combat situation/zone or mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 4 or more times Is Selected

How often did you experience a life-threatening situation while you were combat deployed or

mobilized to assist with an emergency situation?

- ❍ Never (1)
- ❍ Rarely (3)
- ❍ Sometimes (4)
- ❍ Quite Often (5)
- ❍ Daily (6)

Please indicate your rank when you separated from the military.

(Dropdown menu for Enlisted/Officer/Warrant: E (1-9), O (1-10), W (1-5), Master Chief Petty

Officer of the Navy, Sergeant Major of the Army, Chief Master Sergeant of the Air Force, Sergeant Major of the Marine Corps, Master Chief Petty Officer of the Coast Guard, General of the Army, Fleet Admiral)

Do you currently receive VA benefits?

- ❍ Yes (1)
- ❍ No (0)

Do you have a disability rating from the VA?

- ❍ Yes (1)
- ❍ No (0)

Answer If Do you have a disability rating from the VA? Yes Is Selected

Please indicate what percent rating you have. If you would rather not disclose, please skip this question.

Have you been diagnosed as having PTSD by the VA or any other health care provider?

- ❍ Yes (1)
- ❍ No (0)

Answer If Have you been diagnosed as having PTSD by the VA or any other health care provider? Yes Is Selected

When were you diagnosed with having PTSD? Please just enter the year you received the diagnosis or leave blank if you would prefer not to answer. _____

Please indicate your income for the last calendar year.

- ❍ Less than $15,000 (1)
- ❍ $15,001 - 30,000 (2)
- ❍ $30,001 - 45,000 (3)

- ❍ $45,001 - 60,000 (4)
- ❍ $60,001 - 95,000 (5)
- ❍ Over $95,000 (6)
- ❍ Prefer not to say (0)

If you have any comments, suggestions, or issues (good or bad) with any of the questions asked, please let me know in the space provided here. This will allow me to streamline the survey and to fix any issues you have found and/or noted. Any comments or suggestions are greatly appreciated!

Thank you for your participation in this survey! If you would like to go back to change any of your answers, please do so now. Otherwise, please select "Finish" in order to select if you would like to be entered into the drawing for a gift card. Again, thank you for your time and participation!

- ❍ Finish (2)

Answer If Thank you for your participation in this survey! If you would like to go back to change any of your answers, please do so now. Otherwise, please select "finish" in order to select if you would like... Finish Is Selected

Would you like to be entered into a drawing for a gift card? Your survey responses will not be matched with your information provided for the drawing.

- ❍ Yes (1)
- ❍ No (2)

Answer If Would you like to be entered into a drawing for a gift ca... Yes Is Selected

To be entered into the drawing, please provide your contact name an information so you can be

notified in the event you win one of the gift cards.

E-mail address (1)

Additional Pilot Study Instruments/Measures Not Used in Study

Coping (Brief COPE)

This questionnaire is a 28-item, self-reported measure that addresses how the individual copes with stress. There are two items to address each of the following coping mechanisms:

- self-distraction (questions 1 and 19);
- active coping (questions 2 and 7);
- denial (questions3 and 8);
- substance use (questions 4 and 11);
- use of emotional support (questions5 and 15);
- use of instrumental support (questions 10 and 23);
- behavioral disengagement (questions 6 and 16);
- venting (questions 9 and 21);
- positive reframing (questions 12 and 17);
- planning (questions 14 and 25);
- humor (questions 18 and 28);
- acceptance (questions 20 and 24);
- religion (questions 22 and 27); and
- self-blame (questions 13 and 26).

The respondent rates each of the items separately based on a 4-point scale ranging from 1 = *I haven't been doing this at all* to 4 = *I've been doing this a lot*. According to Carver (1997), no overall score exists with this measure and the subscales are to see the relationship with other variables. We removed the two religiously based items because a different measure would address this coping style.

Religious Coping (Brief RCope)

This questionnaire is a 14-item, self-reported measure of religious coping when dealing with major life stressors. The two themes are positive and negative forms of religious coping where positive methods indicate a secure relationship with a higher power, spiritual connectedness with others, and a compassionate worldview while the negative form indicates spiritual tension and struggles with others, the self, and the higher power (Pargament et al., 2011). Questions 1 – 7 make up the positive religious coping scale and questions 8 – 14 represent the negative religious coping scale.

Positive religious coping has been found to be positively linked with post-traumatic growth and greater psychological, physical, and social well-being but is not usually related to PTSD symptoms (Harris et al., 2008; Koenig, Pargament, & Nielsen, 1998). However, in a 2012 study, Mihalljevic, Aukst-Margetic, Vuksan-Cusa, Koic, and Milosevic found that among Croation war veterans, those with PTSD had significantly lower positive and negative religious coping scores than the non-war veteran participants and Nad, Marčinko, Vuksan-Ćusa, Jakovljević, and Jakovljević (2008) found that veterans with PTSD reported engaging in more positive religious activities than non-veteran participants.

Pargament et al. (2011) found positive religious coping methods was linked with fewer psychosomatic symptoms but when it was tied to an indicator of poor functioning, it was usually a significant negative associations. Negative religious coping was linked with indicators of poor functioning to include negative affect, PTSD symptoms, depression, and anxiety. However, Witvliet, Phipps, Feldman, and Beckham (2005) found that in their study sample of 213 veterans with a PTSD diagnosis, positive religious coping and symptom severity were associated with one another. So while it may seem that positive and negative religious coping are tied to specific

indicators of either positive or negative well-being, it would appear that positive religious coping rather than negative would be a good choice to measure this construct in my study. I believe by using only the positive religious coping scale, it will apply to more of my sample population than if I were to use the negative scale.

The Brief RCOPE has a median alpha for the positive religious coping scale of 0.92 and a median alpha for the negative religious coping scale of 0.81 (Pargament et al., 2011). Respondents are asked to think of a critical life even and indicate if they used the specific method of coping on a scale from1 = *I don't do this at all* to 4 = *I do this a great deal*. To score this measure, the positive items are summed and the lower the score for the positive scale indicates a high spiritual struggle.

Appendix D

Pilot Study Analysis

PTSD severity, perceived social support, unsupportive social interactions, online and offline social support, spirituality, and resilience measure items had correlation analyses conducted (see Tables C1, C2, C3, C5, C6, C7, and C9 for correlations, means, and standard deviations, respectively). A factor analysis using the Principal Axis Factoring Extraction Method with Promax rotation was conducted for unsupportive social interactions, coping, spirituality, and resilience (see Tables C4, C6, C8, and C10, respectively for item factor analysis).

Finally, each measure, aside from online and offline social support, had a composite variable created based on the mean of the items for use in future analysis. Online and offline social support had the composite variables based on the three items with significant correlations to PTSD, perceived social support, and unsupportive social interactions.

PTSD Severity

PTSD severity was operationalized as the mean of the 17 items in the PTSD scale (M = 2.15, SD = 1.01, α = .97, n = 42). The subscale items fell within the range of previous studies ($.81 \leq \alpha \leq .97$). All items were strongly correlated (see Table D1 for item correlation, means, and standard deviations).

Perceived Social Support

After reverse coding, perceived social support was operationalized as the mean of the 16 items in the PSS scale (M = 2.80, SD = .44, α = .91, n = 8). Most items were strongly correlated (see Table D2 for item correlation, means, and standard deviations).

Table D1

17-item PTSD Measure Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	*M*	*SD*
1: Have bad thoughts	–																	2.12	1.15
2: Have bad dreams	.914***	–																1.98	1.12
3: Relive stressful experience	.769***	.733***	–															2.10	1.23
4: Feeling upset	.804***	.799***	.804***	–														2.19	1.29
5: Experience physical reaction	.712***	.744***	.650***	.689***	–													1.90	1.14
6: Try not to think, talk, or have feelings	.788***	.836***	.606***	.772***	.752***	–												2.24	1.45
7: Try to avoid activities, situations, or people	.741***	.843***	.726***	.751***	.703***	.778***	–											1.93	1.30
8: Have trouble remembering important parts	.809***	.874***	.775***	.812***	.658***	.701***	.794***	–										2.07	1.40
9: Have a loss of interest in activities	.528***	.618***	.416***	.515***	.638***	.596***	.624***	.588***	–									2.02	1.24
10: Feel distant or cut off	.534***	.624***	.540***	.617***	.573***	.528***	.704***	.664***	.763***	–								2.33	1.20
11: Feel emotionally numb	.516***	.529***	.487***	.569***	.457**	.569***	.671***	.584***	.546***	.814***	–							2.12	1.33
12: Feel no hopes/plans will come true	.456**	.543***	.552***	.459**	.546***	.562***	.516***	.512***	.648***	.517***	.477***	–						1.95	1.13
13: Have trouble falling or staying asleep	.504***	.584***	.452**	.525***	.625***	.568***	.448**	.541***	.540***	.430**	.302	.540***	–					2.50	1.37
14: Feel irritable or have angry outbursts	.400**	.468**	.503***	.490***	.586***	.489***	.529***	.429**	.583***	.654***	.508***	.622***	.495***	–				2.31	1.14
15: Have difficulty concentrating	.352*	.459**	.483***	.460**	.637***	.406**	.528***	.526***	.701***	.760***	.519***	.658***	.602***	.719***	–			2.21	1.20
16: Being overly alert	.660***	.681***	.710***	.683***	.787***	.760***	.690***	.575***	.561***	.632***	.611***	.603***	.539***	.735***	.614***	–		2.33	1.39
17: Feel jumpy or easily startled	.626***	.684***	.575***	.624***	.744***	.755***	.669***	.629***	.766***	.717***	.557***	.594***	.683***	.642***	.718***	.802***	–	2.19	1.25

*$p < .03$, **$p \leq .009$, ***$p \leq .001$

Table D2

16-item PSS Measure Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	*M*	*SD*
1: My friends are more interesting than me	–																3.67	.55
2: When I feel lonely, there are several people I can talk to	.086	–															2.07	.97
3: I often meet or talk with family or friends	.345	.423**	–														1.98	1.07
4: I feel like I'm not always included	.077	.344*	.385*	–													3.55	.51
5: I have no one to give me objective advise	.221	-.188	-.272	-.121	–												2.43	1.64
6: It would be difficult to find someone to take me to the doctor if I was sick	.453	.069	.204	.573*	.256	–											3.27	.88
7: If I were sick, I could easily find someone to help me with my daily chores	.273	.513**	.491**	.411*	-.098	.066	–										2.02	.98
8: When I need suggestions on how to deal with a personal problem, I know someone I can turn to	.279	.611**	.687**	.295	-.267	.180	.615**	–									2.10	.93
9: I'm not often invited do things	.058	.471*	.500**	.366	-.221	.731**	.459*	.355	–								3.38	.70
10: My friends are more successful with making changes	.125	.490**	.548**	.604**	.148	.773**	.550**	.418*	.583**	–							3.67	.54
11: It would be difficult to find someone to house sit if I was out of town	.511*	.009	.296	.128	-.016	.516	.373	.241	.281	.109	–						3.57	.66
12: I have no one I trust to give me good financial advise	-.096	.440*	.384	.444*	.008	.866**	.575**	.439*	.701**	.828**	.086	–					3.60	.65
13: I am more satisfied with my life than most people are with theirs	.052	.138	.309*	.287	.116	.320	.046	.118	.132	.334	-.308	.193	–				1.69	.72
14: It would be difficult to find someone to lend me their car	.179	.483*	.628**	.375	.325	.725*	.687**	.637**	.509*	.741**	.156	.638*	.457	–			3.44	.62
15: There is at least one person I know whose advice I really trust	.490**	.529**	.600**	.251	-.053	.651**	.568**	.596**	.406*	.634**	.291	.432*	.376*	.836**	–		2.31	1.00
16: I have a hard time keeping pace with my friends	.018	.406*	.325	.641**	.146	.277	.319	.104	.444*	.624**	-.167	.488*	.290	.399	.220	–	3.46	.72

*$p < .04$, **$p \leq .001$

Unsupportive Social Interactions

The Unsupportive Social Interaction Inventory (USII) scoring options were adjusted to a scale ranging from *1* to *6* while retaining the same anchors. A factor analysis using the Principal Axis Factoring Extraction Method with Promax rotation was conducted with the four unsupportive social interaction items measure and all items loaded on a single factor, accounting for 63.26% of the variance (see Table D3 for item correlation, means, and standard deviations; Table D4 for factor loadings). The four items were then averaged to create an overall USI score ($M = 1.24$, $SD = .74$, $\alpha = .80$, $n = 41$).

Online Social Support

After testing this measure, only three of the items correlated with PTSD and none correlated with PSS or USI (see Table D5 for item correlation, means, and standard deviations). These three items were averaged to create a new variable for measuring online social support seeking behaviors ($M = 3.24$, $SD = 1.01$, $\alpha = .83$, $n = 40$).

Offline Social Support

After testing this measure, four of the items correlated with PTSD and none correlated with PSS or USI (see Table D6 for item correlation, means, and standard deviations). However, only the three items that were also present in the online social support correlation with PTSD were averaged to create a new variable for measuring offline social support seeking behaviors ($M = 3.23$, $SD = 1.01$, $\alpha = .84$, $n = 39$).

Resiliency

The measurement items were averaged to create a composite resiliency score ($M = 5.76$, $SD = .79$, $\alpha = .87$, $n = 42$). A factor analysis using the Principal Axis Factoring Extraction Method with Promax rotation was conducted with the 11 items. All but three items – many ways

Table D3

4-item USI Measure Correlations

Measures	1	2	3	4	*M*	*SD*
1: He/she did not seem to want to hear about my experience with PTSD or my military service. It felt like he/she was distancing him/herself from me	–				1.76	1.06
2: He/she did not seem to know what to say or seemed afraid of saying or doing the "wrong" thing	.555**	–			1.95	1.19
3: He/she felt that I should stop worrying about my PTSD or negative military experiences and should just forget about it	.610**	.539**	–		1.78	1.31
4: He/she asked me "why" questions about my role in my PTSD or negative military experinces, such as "Why did or didn't you_____?" It felt like he/she was blaming me for my PTSD or that I had caused any negative military experiences	.494**	.351*	.502**	–	1.49	.93

*p = .025, **$p \leq .001$

Table D4

4-item USI Factor Loadings

Measures	Component
	1
1: He/she did not seem to want to hear about…	.844
2: He/she did not seem to know what to say…	.765
3: He/she felt that I should stop worrying…	.843
4: He/she asked me "why" questions…	.724

Table D5

9-item Online Social Support, PTSD, PSS, and USI Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	*M*	*SD*
1: PTSD	–												2.15	1.01
2: PSS	-.190	–											2.72	.43
3: USI	.613***	-.450**	–										1.74	.89
4: Get health-related information from professionals	.368**	-.175	.164	–									3.44	1.00
5: Get health-related information from peers	.444**	-.138	.289	.686***	–								3.07	1.25
6: Make friends	-.096	-.042	-.072	.035	.167	–							3.20	1.16
7: Find people who understand what I'm going through	.398**	-.255	.254	.488***	.703***	.414**	–						3.15	1.27
8: Share my story	.141	-.193	.162	.209	.277	.746***	.510***	–					2.95	1.20
9: Help others	.246	-.136	.187	.424**	.478**	.632***	.664***	.548***	–				3.55	1.18
10: Vent about my condition	.328*	-.221	.263	.276	.402**	.407**	.396*	.507***	.382**	–			2.64	1.04
11: Ask for help	.262	.021	-.106	.468*	.493***	.360*	.433**	.320*	.426**	.603***	–		2.95	1.13
12: Other (please specify)	-.095	-.352	.218	.324	.110	.176	.332	.076	.395	.472	.159	–	3.44	1.21

*$p < .05$, **$p \leq .02$, ***$p \leq .001$

Table D6

9-item Offline Social Support, PTSD, PSS, and USI Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	*M*	*SD*
1: PTSD	–												2.15	1.01
2: PSS	-.190	–											2.72	.43
3: USI	.613***	-.450**	–										1.74	.89
4: Get health-related information from professionals	.530**	-.138	.198	–									3.44	1.00
5: Get health-related information from peers	.525***	-.034	.246	.733***	–								3.07	1.25
6: Make friends	.026	-.040	-.031	.083	.285	–							3.20	1.16
7: Find people who understand what I'm going through	.531***	-.008	.222	.543***	.647***	.481**	–						3.15	1.27
8: Share my story	.164	.129	.022	.324*	.383**	.740***	.678***	–					2.95	1.20
9: Help others	.221	.171	.047	.677***	.649***	.526***	.660***	.616***	–				3.55	1.18
10: Vent about my condition	.173	.000	.068	.342*	.432**	.447**	.609***	.669***	.418**	–			2.64	1.04
11: Ask for help	.456**	.127	.077	.611***	.706***	.292	.729***	.572***	.546***	.707***	–		2.95	1.13
12: Other (please specify)	.414	-.610**	.197	.366	.313	-.109	.349	-.198	.264	.219	.187	–	3.44	1.21

*$p < .05$, **$p \leq .02$, ***$p \leq .001$

to see a situation, I do things even if I don't want to, and I usually manage one way or another – loaded on a single factor, accounting for 45.75% and 14.48% of the variance, respectively (see Table D7 for item correlation, means, and standard deviations; Table D8 for factor loadings). This is likely to because of the low number of respondents during the survey test stage.

Religious Coping

The measurement items were averaged to create a composite spirituality score ($M = 2.42$, $SD = 1.00$, $\alpha = .97$, $n = 42$). A factor analysis using the Principal Axis Factoring Extraction Method with Promax rotation was conducted with the seven religious coping items. All loaded on a single factor, accounting for 83.29% of the variance (see Table D9 for item correlation, means, and standard deviations; Table D10 for item factor analysis). All items were highly correlated ($p < .001$, $n = 42$).

Coping

After attempting to determine the proper manner in which to analyze this particular scale, we quickly realized it would not be useful for the purpose of this particular study and removed it from further analysis.

PTSD Severity – Correlations with Social Interaction and Social Support Variables

First, the associations among PTSD severity, perceived social support, and unsupportive social interactions were examined using Pearson correlations. There were significant positive correlations between perceived social support and unsupportive social interactions (see Table D11). However, there were no correlations between PTSD severity and perceived social support.

Online and Offline Social Support. Next, the correlations between online and offline social support and other key variables was examined. There was a significant positive correlation between PTSD severity and online and offline social support along with a significant

negative correlation between PTSD severity and resiliency. There was no significant correlation between PTSD severity and religious coping. Unsupportive social interactions was significantly negatively correlated with resiliency. Finally, a significant positive correlation existed between online and offline social support.

Table D7

11-item Resiliency Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	*M*	*SD*
1: When I make plans, I follow through with them	–											5.86	1.00
2: I usually manage one way or another	.207	–										6.00	1.06
3: Keeping interested in things is important to me	.510***	.048	–									5.88	.97
4: I like myself	.578***	.100	.532***	–								5.62	1.38
5: I feel I can manage many things at a time	.506***	.168	.225	.439**	–							5.60	1.23
6: I am determined	.636***	.284	.489***	.562***	.632***	–						6.10	1.06
7: I stay interested in things that are important to me or that I care about	.613***	.181	.481***	.654***	.684***	.575***	–					5.55	1.40
8: I can usually find something to laugh about	.389**	.184	.291	.566***	.581***	.636***	.711***	–				6.00	1.13
9: I can usually look at a situation in a number of ways	.287	.274	.178	.191	.529***	.479***	.423**	.619***	–			5.98	1.26
10: Sometimes I make myself do things whether I want to or not	.190	.195	.320*	.096	.317*	.289	.364**	.501***	.668***	–		5.69	1.30
11: I have enough energy to do what I have to do	.247	.127	.410**	.401**	.232	.295	.435**	.164	.068	.020	–	5.12	1.45

*$p < .05$, **$p \leq .02$, ***$p \leq .001$

Table D8

11-item Resiliency Factor Loadings

Measures	Component 1	Component 2
1: When I make plans, I follow through with them	.728	
2: I usually manage one way or another	.310	.246
3: Keeping interested in things is important to me	.608	
4: I like myself	.728	
5: I feel I can manage many things at a time	.758	
6: I am determined	.825	
7: I stay interested in things that are important to me or that I care about	.863	
8: I can usually find something to laugh about	.802	
9: I can usually look at a situation in a number of ways	.639	.627
10: Sometimes I make myself do things whether I want to or not	.519	.605
11: I have enough energy to do what I have to do	.432	

Table D9

7-item Religious Coping, PTSD, PSS, and USI Correlations

Measures	1	2	3	4	5	6	7	*M*	*SD*
1: I looked for a stronger connection with a higher power	–							2.69	1.09
2: I sought a higher power's love and care	.903**	–						2.60	1.11
3: I seek help from a higher power in letting go of my anger	.751**	.830**	–					2.31	1.07
4: I try to put my plans into actions together with a higher power	.794**	.840**	.832**	–				2.19	1.11
5: I try to see how a higher power might be trying to strengthen me in any situation I experience	.835**	.895**	.773**	.864**	–			2.33	1.05
6: I ask forgiveness for my sins/shortcomings	.765**	.819**	.724**	.753**	.746**	–		2.57	1.15
7: I focus on my religion/faith/spirituality to stop worrying about my problems	.839**	.791**	.780**	.856**	.768**	.728**	–	2.26	1.13

*p = .003, **p < .001

Table D10

7-item Religious Coping Factor Loadings

Measure	Component
	1
1: I looked for a stronger connection with a higher power	.923
2: I sought a higher power's love and care	.953
3: I seek help from a higher power in letting go of my anger	.890
4: I try to put my plans into actions together with a higher power	.931
5: I try to see how a higher power might be trying to strengthen me in any situation I experience	.922
6: I ask forgiveness for my sins/shortcomings	.865
7: I focus on my religion/faith/spirituality to stop worrying about my problems	.902

Table D11

PTSD, PSS, USI, Online and Offline Support, Religious Coping, and Resiliency Correlations

Measures	1	2	3	4	5	6	7	*M*	*SD*
PTSD	–							2.15	1.01
PSS	-.190	–						2.72	.43
USI	.613***	-.450**	–					1.74	.89
Online	.457**	-.239	.261	–				3.24	1.02
Offline	.606***	.030	.256	.717***	–			3.23	1.01
Religious	-.071	-.046	-.109	.012	.072	–		2.42	1.00
Resiliency	-.392*	.293	-.627***	-.086	-.075	.121	–	5.76	.79

*p = .010, **p = .003, ***p < .001

Appendix E

E1: Email for Assistance

Hello,

My name is Hannah C. Pedersen and I am an Army veteran and doctoral candidate at Washington State University in the Edward R. Murrow College of Communication. I am contacting you to ask for your assistance in reaching out to the veterans of the armed forces for my dissertation study about social support and veterans. I have been in contact with the various State Departments of Veterans Affairs offices throughout the nation and the Student Veterans of America chapters. Many of those I was able to contact agreed to assist me in distributing my survey link. I am contacting you because I am still in need of help in getting enough participants to complete my survey in order to allow my findings to have any true meaning or significance.

Very briefly, this is an Institutional Review Board-exempted study and is being conducted under the supervision of Dr. Prabu David (prabu.david@wsu.edu). The purpose of my research is to identify how social support may help veterans in both online and offline environments. The survey is conducted entirely online and takes approximately 20 minutes to complete. I have included a brief summary about what the survey entails and the link provided below will take you to the survey.

https://wsucommunication.az1.qualtrics.com/SE/?SID=SV_1Yw8Qq38eTmF7GR

Summary:

The veteran will be asked about their basic demographics (age, sex, etc.), online use, military experience, social support, and items about coping, resilience, and faith. They will also be asked about any experience they may have had with participating in a veteran or health-related group, community, or support group but the veteran does not need to have participated in

any groups to take part in this survey This survey is anonymous and there are no questions that will allow for identification of the respondent.

Incentive:

At the end of the survey, the veteran will have an opportunity to provide their email address, which is not linked to their survey in any manner, to be entered into a drawing for one of 20 $25 visa gift cards.

If you would be willing to disseminate this link to your colleagues, members of your organization through Facebook, Twitter, or email, and any other veterans you may know, I would be extremely grateful. If you would like to review the survey, please let me know and I will email it to you.

Please let me know if you have any questions and thank you so much for your assistance, I greatly appreciate it!

Best,

Hannah

E2: LinkedIn Recruitment Posting

Hello fellow veterans!

My name is Hannah C. Pedersen and I am an Army veteran and doctoral candidate at Washington State University in the Edward R. Murrow College of Communication. I am reaching out to as many veterans of the U.S. Armed Forces as I can find for my dissertation study about social support and veterans.

This is an Institutional Review Board-exempted study and is being conducted under the supervision of Dr. Prabu David (prabu.david@wsu.edu). The purpose of my research is to identify how social support may help veterans in both online and offline environments. The survey is conducted entirely online and takes approximately 20 minutes to complete. I have included a brief summary about what the survey entails and the link provided below will take you to the survey.

https://wsucommunication.az1.qualtrics.com/SE/?SID=SV_1Yw8Qq38eTmF7GR

Summary:

You will be asked about your basic demographics (age, sex, etc.), online use, military experience, social support, and items about coping, resilience, and faith. You will also be asked about any experience you may have had with participating in a veteran or health-related group, community, or support group but you do not need to have participated in any groups to take part in this survey This survey is anonymous and there are no questions that will allow for identification of the respondent.

Incentive:

At the end of the survey, you will have an opportunity to provide your email address,

which is not linked to your survey in any manner, to be entered into a drawing for one of 20 $25 visa gift cards.

If you would be willing to take and/or forward my survey via the link to any veteran you may know, I would be extremely grateful.

Please let me know if you have any questions and thank you so much for your assistance, I greatly appreciate it!

Best,

Hannah

Appendix F

Consent Form

You are invited to take part in a research study about military veterans that will take about 20 minutes of your time. This study is conducted by Hannah C. Pedersen (hannah.pedersen@email.wsu.edu), an Army Veteran and PhD candidate in the Edward R. Murrow College of Communication at Washington State University. You will be asked about your basic demographics (age, sex, etc.), online use, military experience, social support, and items about coping, resilience, and faith. You will also be asked about any experience you may have had with participating in a veteran or health-related group, community, or support group. You do NOT need to have participated in any groups to take part in this survey. If you wish to go back and change an answer, please use the back button at the bottom of each page and not the browsers back button. If at any time you do not want to complete this survey then simply close your browser. If there are questions you do not wish to answer, please skip them. Your answers are anonymous and if, at the end of the survey, you choose to enter into the drawing for a chance to win 1 of 20 $25 Visa gift cards your email address will not be linked to your answers in any way. Although your participation in this research may not benefit you personally, it will help us identify how social support can help veterans.

Please select the "I agree" option below if you agree with the following statement:

I have read and understand the above consent form. I certify that I am 18 years old or older, I have been given the information on how to contact the researcher to ask questions and state any concerns I may have, I believe I understand the research study and the potential benefits and risks that are involved, and I am willing to voluntarily take part in the study.

- ❍ I Agree, take the survey (1)
- ❍ I Disagree, do not take the survey (2)

Potential risks for taking part in this survey could be psychological distress or discomfort when referring to past military experiences and/or addressing health-related issues. To minimize these risks, this study does not ask for detailed or in-depth explanations about any past trauma or for you to relive that experience. If at any time you feel you need to seek counseling or medical assistance, please contact: The Veterans Crisis Line: 1-800-273-8255 and press 1 The Veteran Combat Call Center's 24 hour hotline: 1-877-WAR-VETS 1-877-927-8387 to talk to a combat Veteran The Suicide Prevention Lifeline: 1-800-273-8255 This study has been approved for exemption status by WSU's Institutional Review Board and is conducted under the supervision of Dr. Prabu David (prabu.david@wsu.edu). If you have any questions, please do not hesitate to contact me at hannah.pedersen@email.wsu.edu.

Answer If You are invited to take part in a research study about military veterans that will take about 20 minutes of your time. This study is conducted by Hannah C. Pedersen (hannah.pedersen@email.wsu.edu),... I Disagree Is Selected

Are you sure you do not wish to take the survey? If you choose "Yes, I am sure" you will be taken to the end of the survey where you cannot go back and take it if you change your mind. If you select "No, I want to participate" you will be taken back to the consent page.

- ❍ Yes, I'm sure (1)
- ❍ No, I want to participate (2)

Answer If You are invited to take part in a research study about military veterans that will take about 20 minutes of your time. This study is conducted by Hannah C. Pedersen (hannah.pedersen@email.wsu.edu. If I Disagree Is Selected And Are you sure you do not wish to take the survey? If you choose "Yes, I'm sure" you will be taken to the end of the survey where you cannot go back and take it if you change your mind. If No, I want to participate Is Selected

You are invited to take part in a research study about military veterans that will take about 20 minutes of your time. This study is conducted by Hannah C. Pedersen

(hannah.pedersen@email.wsu.edu), an Army Veteran and PhD candidate in the Edward R. Murrow College of Communication at Washington State University. You will be asked about your basic demographics (age, sex, etc.), online use, military experience, social support, and items about coping, resilience, and faith. You will also be asked about any experience you may have had with participating in a veteran and/or health-related group, community, or support group. You do NOT need to have participated in any groups to take part in this survey. If you wish to go back and change an answer, please use the back button at the bottom of each page and not the browser's back button. If at any time you do not want to complete this survey then simply close your browser. If there are questions you do not wish to answer, please skip them. Your answers are anonymous and if, at the end of the survey, you choose to enter into the drawing for a chance to win 1 of 20 $25 Visa gift cards your email address will not be linked to your answers in any way. Although your participation in this research may not benefit you personally, it will help us identify how social support can help veterans. Please select the "I agree" option below if you agree with the following statement: I have read and understand the above consent form. I certify that I am 18 years old or older, I have been given the information on how to contact the researcher to ask questions and state any concerns I may have, I believe I understand the research study and the potential benefits and risks that are involved, and I am willing to voluntarily take part in the study.

- ❍ I Agree, take the survey (1)
- ❍ I Disagree, do not take the survey (2)

Would you like to be entered into a drawing for a chance to win one of twenty $25 Visa gift cards? Your survey responses will not be matched with your information provided for the drawing.

❍ Yes (1)
❍ No (2)

Potential risks for taking part in this survey may have been psychological distress or discomfort when referring to past military experiences and/or addressing health-related issues. To minimize these risks, this study did not ask for detailed or in-depth explanations about any past trauma or for you to relive that experience. If you feel you need to seek counseling or medical assistance, please contact: The Veterans Crisis Line: 1-800-273-8255 and press 1 The Veteran Combat Call Center's 24 hour hotline: 1-877-WAR-VETS 1-877-927-8387 to talk to a combat Veteran The Suicide Prevention Lifeline: 1-800-273-8255

If you have any questions about or would like the results of the study once it has been completed, or if you have any questions about the information in this form, please contact the Co-Investigator at Hannah C. Pedersen at (509) 731-3097, or e-mail hannah.pedersen@email.wsu.edu, or regular mail at: Attn: Hannah C. Pedersen, Edward R. Murrow College of Communication, 101 Communication Addition, PO Box 642520, Washington State University, Pullman, WA 99164-2520. If you have questions about your rights as a research participant or would like to report a concern or complaint about this study, please contact the Washington State University Institutional Review Board at (509) 335-3668, or e-mail irb@wsu.edu, or regular mail at: Albrook 205, PO Box 643005, Pullman, WA 99164-3005.

Answer If Would you like to be entered into a drawing for a gift ca... Yes Is Selected

To be entered into the drawing, please provide your email address so you can be notified in the event you win one of the gift cards.

Email address (1)

Demographics (part 1)

Please provide the following background information about yourself.

What is your age?

- ❍ 18 - 24 years old (1)
- ❍ 25 - 34 years old (2)
- ❍ 35 - 44 years old (3)
- ❍ 45 - 54 years old (4)
- ❍ 55 - 64 years old (5)
- ❍ 65 years or older (6)

What is your sex?

- ❍ Male (0)
- ❍ Female (1)

What is your racial/ethnic background?

- ❍ African American (Black) (1)
- ❍ American Indian or Alaskan Native (2)
- ❍ Asian (3)
- ❍ Caucasian (White) (4)
- ❍ Hispanic or Latino (5)
- ❍ Native Hawaiian or Pacific Islander (6)
- ❍ Other (please specify) (7) _____

What branch of the military did you serve in? If you served in more than one branch, please select the branch you served in the longest.

- ❍ Air Force (1)
- ❍ Air Force Reserve (2)
- ❍ Air National Guard (3)
- ❍ Army (4)
- ❍ Army Reserve (5)
- ❍ Army National Guard (6)
- ❍ Coast Guard (7)
- ❍ Coast Guard Reserve (8)

- ❍ Marine Corps (9)
- ❍ Marine Corps Reserve (10)
- ❍ Navy (11)
- ❍ Navy Reserve (12)

What was your discharge date? Please skip this question if you are still serving.

Year (1)_____

Month (2) _____

Please type in the number of years and months you served in total. If you are still serving, please type in the number of years and months you have served up to this date.

Years (1) _____

Months (2) _____

What type of discharge did you receive?

- ❍ Honorable (1)
- ❍ General (2)
- ❍ Dishonorable (3)
- ❍ I'd prefer not to say (4)
- ❍ Still Serving (6)
- ❍ Other (5) _____

Do you currently receive any VA benefits (including, but not limited to, the GI Bill, VA Home Loans, Pension, etc.)?

- ❍ Yes (1)
- ❍ No (0)

Do you have a disability rating from the VA?

- ❍ Yes (1)
- ❍ No (0)

Answer If Do you have a disability rating from the VA? Yes Is Selected

Using only numbers (no % sign needed), please indicate what percent rating you have. If you would rather not disclose, please skip this question. _____

Have you ever been deployed and/or mobilized?

- ❍ Yes (1)
- ❍ No (2)

Answer If Have you ever been deployed and/or mobilized? Yes Is Selected

How many times were you deployed to a potential hostile and/or combat situation/zone?

- ❍ 0 (0)
- ❍ 1 (1)
- ❍ 2 (2)
- ❍ 3 (3)
- ❍ 4 (4)
- ❍ 5 (5)
- ❍ 6 (6)
- ❍ 7 (7)
- ❍ 8 (8)
- ❍ 9 (9)
- ❍ 10 (10)
- ❍ 10+ (11)

Answer If Have you ever been deployed and/or mobilized? Yes Is Selected

How many times were you mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)?

- ❍ 0 (0)
- ❍ 1 (1)

- ❍ 2 (2)
- ❍ 3 (3)
- ❍ 4 (4)
- ❍ 5 (5)
- ❍ 6 (6)
- ❍ 7 (7)
- ❍ 8 (8)
- ❍ 9 (9)
- ❍ 10 (10)
- ❍ 10+ (11)

Answer If How many times were you deployed to a potential hostile and/or combat situation/zone? 0 Is Not Selected And How many times were you mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 0 Is Not Selected And Have you ever been deployed and/or mobilized? No Is Not Selected

Please type in the number of years and months of your longest deployment.

Years _____

Months_____

Answer If How many times were you deployed to a potential hostile and/or combat situation/zone? 0 Is Not Selected And Have you ever been deployed and/or mobilized? No Is Not Selected

During any of your deployments, were you ever in a life-threatening situation?

- ❍ Yes (1)
- ❍ No (2)

Answer If During any of your deployments, were you ever in a life-threatening situation? Yes Is Selected

Please think of a deployment where you experienced the greatest number of life-threatening

situations and indicate how often the situation occurred.

- ❍ Rarely (2)
- ❍ Less than Once a Month (28)
- ❍ Once a Month (3)
- ❍ 2-3 Times a Month (4)

- ❍ Once a Week (5)
- ❍ 2-3 Times a Week (6)
- ❍ Daily (21)

Answer If How many times were you mobilized to assist with an emergency situation (Hurricane Katrina, 9/11, etc.)? 0 Is Not Selected And Have you ever been deployed and/or mobilized? No Is Not Selected

During any of your mobilizations, were you ever in a life-threatening situation?

- ❍ Yes (1)
- ❍ No (2)

Answer If During any of your mobilizations, were you ever in a life-threatening situation? Yes Is Selected

Please think of a mobilization where you experienced the greatest number of life-threatening

situations and indicate how often the situation occurred.

- ❍ Rarely (2)
- ❍ Less than Once a Month (28)
- ❍ Once a Month (3)
- ❍ 2-3 Times a Month (4)
- ❍ Once a Week (5)
- ❍ 2-3 Times a Week (6)
- ❍ Daily (21)

Answer If Have you ever been deployed and/or mobilized? Yes Is Selected

Did you experience difficulty readjusting or reintegrating once you returned stateside and/or

back to your home duty station?

- ❍ Not at All (1)
- ❍ Very Rarely (2)
- ❍ Rarely (3)
- ❍ Occasionally (4)
- ❍ Frequently (5)
- ❍ Very Frequently (6)
- ❍ All the Time (7)

Have you been diagnosed as having PTSD by the VA or any other health care provider?

- ❍ Yes (1)
- ❍ No (0)

Answer If Have you been diagnosed as having PTSD by the VA or any other health care provider? Yes Is Selected

When were you diagnosed with having PTSD? Please just enter the year you received the diagnosis or leave blank if you would prefer not to answer.

Please feel free to provide feedback about these questions.

PCL-M

Below is a list of issues, problems, and complaints that veterans sometimes have in response to stressful life experiences. Please read each one carefully and select from available options to indicate how much you have been bothered by that particular issue, problem, or complaint in the last month.

	Not at All (1)	(2)	(3)	Moderately (4)	(5)	(6)	Extremely (7)
Having upsetting thoughts, images, or memories about a stressful military experience come into your head when you did not want them to (1)	❍	❍	❍	❍	❍	❍	❍
Having bad dreams or nightmares about a stressful military experience from the past (2)	❍	❍	❍	❍	❍	❍	❍
Reliving a stressful military experience (3)	❍	❍	❍	❍	❍	❍	❍
Feeling emotionally upset when you are reminded of a	❍	❍	❍	❍	❍	❍	❍

stressful military experience (4)							
Experiencing physical reactions (e.g. heart pounding, trouble breathing, or sweating) when reminded of a stressful military experience (5)	❍	❍	❍	❍	❍	❍	❍
Trying not to think, talk, or have feelings about a stressful military experience (6)	❍	❍	❍	❍	❍	❍	❍
Trying to avoid activities, situations, or people because they remind you of a stressful military experience (7)	❍	❍	❍	❍	❍	❍	❍
Having trouble remembering important parts of a stressful military experience (8)	❍	❍	❍	❍	❍	❍	❍
Having a loss of interest or participating less often in	❍	❍	❍	❍	❍	❍	❍

activities you used to enjoy (9)							
Feeling distant or cut off from other people around you (10)	❍	❍	❍	❍	❍	❍	❍
Feeling emotionally numb (unable to cry or have loving feelings for those close to you) (11)	❍	❍	❍	❍	❍	❍	❍
Feeling as if your future hopes or plans will not come true (12)	❍	❍	❍	❍	❍	❍	❍
Having trouble falling or staying asleep (13)	❍	❍	❍	❍	❍	❍	❍
Feeling irritable or having angry outbursts/fits of anger (14)	❍	❍	❍	❍	❍	❍	❍
Having difficulty concentrating (15)	❍	❍	❍	❍	❍	❍	❍
Being overly alert (16)	❍	❍	❍	❍	❍	❍	❍
Feeling jumpy or easily startled (17)	❍	❍	❍	❍	❍	❍	❍

Please feel free to provide feedback about these questions.

Online SS

This section asks questions about how often you use the Internet to visit veteran, military, or health-related sites, your reasons for visiting, and your level of satisfaction with visiting these sites.

Have you ever visited and/or participated in an Online (Internet, forum, etc.) veteran, military, or health-related website, forum, community, or support group?

- ❍ Yes (1)
- ❍ No (0)

How often do you use the Internet to visit veteran, military, or health-related websites, forums, communities, or support groups?

- ❍ Less than Once per Year (1)
- ❍ Yearly (2)
- ❍ Semi-Annually (3)
- ❍ Quarterly (4)
- ❍ Monthly (5)
- ❍ Semi-Weekly (6)
- ❍ Weekly (7)
- ❍ Daily (8)

How much time, on average, do you usually spend Online (Internet) during each visit and/or login to a veteran, military, or health-related website, forum, community, or support group? Please indicate the average number of hours per visit or login you spend on these sites by dragging the bar or clicking the location that you feel is an accurate representative of your time. The number displayed to the right of the bar will indicate your selection.

_____ Hours spent (1)

Please indicate your level of agreement for what your primary reasons are for visiting veteran, military, or health-related websites, forums, communities, or support groups Online (Internet, forum, etc.).

	Strongly Disagree (1)	(2)	(3)	Neither Agree or Disagree (4)	(5)	(6)	Strongly Agree (7)
Get health-related information from professionals (1)	❍	❍	❍	❍	❍	❍	❍
Get health-related information from others facing the same issue as you (PTSD, TBI, etc.) (2)	❍	❍	❍	❍	❍	❍	❍
Make friends (3)	❍	❍	❍	❍	❍	❍	❍
Find people who understand what I'm going through (4)	❍	❍	❍	❍	❍	❍	❍
Share my story (5)	❍	❍	❍	❍	❍	❍	❍
Help others (6)	❍	❍	❍	❍	❍	❍	❍
Vent about my condition (7)	❍	❍	❍	❍	❍	❍	❍
Ask for help (8)	❍	❍	❍	❍	❍	❍	❍
Other (please specify) (9)	❍	❍	❍	❍	❍	❍	❍

Have you ever posted, commented, or responded in an Online (Internet, forum, etc.) veteran, military, or health-related website, forum, community, or support group?

- ❍ Yes (1)
- ❍ No (0)

Answer If Have you ever posted, commented, or responded in an Online (Internet, forum, etc.) Veteran or PTSD-related website, forum, community, or support group? Yes Is Selected

How often do you typically post, comment, or respond?

- ❍ Rarely (1)
- ❍ Less than Once a Month (36)
- ❍ Once a Month (2)
- ❍ 2-3 Times a Month (3)
- ❍ Once a Week (4)
- ❍ 2-3 Times a Week (5)
- ❍ Daily (6)

Answer If Have you ever posted, commented, or responded in an Online (Internet, forum, etc.) Veteran or PTSD-related community or support group? Yes Is Selected

When you post, comment, or respond, how are you known in the group?

- ❍ I use my real identity, such as my real name and/or photo (1)
- ❍ I post without revealing my real identity, such as using a handle (2)
- ❍ Other (please specify) (3) _____

Answer If Have you ever posted, commented, or responded in an Online (Internet, forum, etc.) Veteran or PTSD-related community or support group? No Is Selected

How often do you typically visit but not post?

- ❍ Rarely (1)
- ❍ Less than Once a Month (7)
- ❍ Once a Month (2)
- ❍ 2-3 Times a Month (3)
- ❍ Once a Week (4)
- ❍ 2-3 Times a Week (5)
- ❍ Daily (6)

Answer If Have you ever posted, commented, or responded in an Online (Internet, forum, etc.) Veteran or PTSD-related website, forum, community, or support group? No Is Selected

What are your reasons for not posting, commenting, or responding? Please select all that apply.

- ❑ Just reading or browsing is enough (1)
- ❑ I want to remain anonymous (2)
- ❑ I'm shy about posting (3)
- ❑ I have nothing to offer (4)
- ❑ I'm still learning about the group (5)
- ❑ I'm concerned about aggressive or hostile responses (6)
- ❑ I don't have enough time to post (7)
- ❑ Other (please specify) (8) _____

Please choose from the following issues or topics for why you have visited and/or participated in a veteran, military, or health-related website, forum, community, or support group. Please select all that apply.

- ❑ Brain Injury (7)
- ❑ Combat Stress (6)
- ❑ Depression/Anxiety (2)
- ❑ PTSD (1)
- ❑ Smoking Cessation (9)
- ❑ Substance Use/Abuse (Alcohol) (4)
- ❑ Substance Use/Abuse (Drugs) (5)
- ❑ Weight Loss (3)
- ❑ Other (please specify) (8) _____

Please rate how satisfied you are with the level of support you receive from the Online (Internet, forum, etc.) forum, community, or support group.

- ❍ Very Dissatisfied (1)
- ❍ (2)
- ❍ (3)
- ❍ Neither Satisfied or Dissatisfied (4)
- ❍ (5)
- ❍ (6)
- ❍ Very Satisfied (7)

Please feel free to provide feedback about these questions.

Online SS

This section asks questions about how often you visit veteran, military, or health-related communities, your reasons for visiting, and your level of satisfaction with visiting these communities in person.

Have you ever visited and/or participated in an Offline (in person, face-to-face, etc.) veteran, military, or health-related community, group, or support group?

- ❍ Yes (1)
- ❍ No (0)

How often do you visit veteran, military, or health-related communities, groups, or support groups in person?

- ❍ Less than Once per Year (1)
- ❍ Yearly (2)
- ❍ Semi-Annually (3)
- ❍ Quarterly (4)
- ❍ Monthly (5)
- ❍ Semi-Weekly (6)
- ❍ Weekly (7)
- ❍ Daily (8)

How much time per visit, on average, do you usually spend with a veteran, military, or health-related community or group in person (Offline)? Please indicate the average number of hours you spend per visit with these communities or groups by dragging the bar or clicking the location that you feel is an accurate representation. The number displayed to the right of the bar will indicate your selection.

_____ Hours spent (1)

Please indicate your level of agreement for what your primary reasons are for visiting veteran, military, or health-related communities, groups, or support groups Offline (in person, support group, etc.).

	Strongly Disagree (1)	(2)	(3)	Neither Agree or Disagree (4)	(5)	(6)	Strongly Agree (7)
Get health-related information from professionals (1)	❍	❍	❍	❍	❍	❍	❍
Get health-related information from others facing the same issue as you (PTSD, TBI, etc.) (2)	❍	❍	❍	❍	❍	❍	❍
Make friends (3)	❍	❍	❍	❍	❍	❍	❍
Find people who understand what I'm going through (4)	❍	❍	❍	❍	❍	❍	❍
Share my story (5)	❍	❍	❍	❍	❍	❍	❍
Help others (6)	❍	❍	❍	❍	❍	❍	❍
Vent about my condition (7)	❍	❍	❍	❍	❍	❍	❍
Ask for help (8)	❍	❍	❍	❍	❍	❍	❍
Other (please specify) (9)	❍	❍	❍	❍	❍	❍	❍

Have you ever verbally contributed (talk about your own experiences, ask or answer a question, etc.) while attending an Offline (in person, support group, etc.) veteran, military, or health-related community, group, or support group?

- ❍ Yes (1)
- ❍ No (0)

Answer If Have you ever verbally contributed while attending an Offline (in person, support group, etc.) Veteran or PTSD-related community, group, or support group? Yes Is Selected
How often do you typically contribute verbally while in a community, group, or support group?

- ❍ Rarely (1)
- ❍ Less than Once Every Few Meetings (36)
- ❍ Once Every Few Meetings (2)
- ❍ Less than Once Every Few Meetings (3)
- ❍ 2-3 Times Every Other Meeting (4)
- ❍ Once per Meeting (5)
- ❍ 2-3 Times per Meeting (6)

Answer If Have you ever verbally contributed while attending an Offline (in person, support group,& etc.) Veteran or PTSD-related community, group, or support group? No Is Selected
What are your reasons for not verbally contributing, commenting, or responding? Please select all that apply.

- ❑ Just attending and being with people is enough (1)
- ❑ I feel like I'll be judged (2)
- ❑ I'm shy about contributing (3)
- ❑ I have nothing to offer (4)
- ❑ I'm still learning about the group (5)
- ❑ I'm concerned about aggressive or hostile responses (6)
- ❑ I don't like or trust the people in my group (7)
- ❑ Other (please specify) (8) _____

Please choose from the following issues or topics for why you have visited and/or participated in a veteran, military, or health-related community, group, or support group. Please select all that apply.

- ❑ Brain Injury (7)
- ❑ Combat Stress (6)
- ❑ Depression/Anxiety (2)
- ❑ PTSD (1)
- ❑ Smoking Cessation (9)
- ❑ Substance Use/Abuse (Alcohol) (4)
- ❑ Substance Use/Abuse (Drugs) (5)
- ❑ Weight Loss (3)
- ❑ Other (please specify) (8) _____

Please rate how satisfied you are with the level of support you receive from the Offline (in person, face-to-face, etc.) community, group, or support group.

- ❍ Very Dissatisfied (1)
- ❍ (2)
- ❍ (3)
- ❍ Neither Satisfied or Dissatisfied (4)
- ❍ (5)
- ❍ (6)
- ❍ Very Satisfied (7)

Please feel free to provide feedback about these questions.

For All to Answer

Has a health care provider ever recommended attending and/or participating in an Online (Internet, forum, etc.) or Offline (in person, face-to-face, etc.) community, group, or support group for veteran, military, or health-related issues?

- ❍ Yes: Online (1)
- ❍ Yes: Offline (2)
- ❍ Yes: Both Online and Offline (3)
- ❍ No: Neither Online or Offline (4)

CSE

Generally speaking, when things are not going well for you or when you are having problems, how confident or certain are you that you can do each the following:

	I cannot do this at all (1)	(2)	(3)	I am moderately certain I can do this (4)	(5)	(6)	I am certain I can do this (7)
Sort out what can be changed and what cannot be changed (1)	❍	❍	❍	❍	❍	❍	❍
Get emotional support from friends and family (2)	❍	❍	❍	❍	❍	❍	❍
Find solutions to your most difficult problems (3)	❍	❍	❍	❍	❍	❍	❍
Break an upsetting problem down into smaller parts (4)	❍	❍	❍	❍	❍	❍	❍
Leave options open when things get stressful (5)	❍	❍	❍	❍	❍	❍	❍
Make a plan of action and follow it when confronted	❍	❍	❍	❍	❍	❍	❍

with a problem (6)							
Take your mind off unpleasant thoughts (7)	❍	❍	❍	❍	❍	❍	❍
Keep from feeling sad (8)	❍	❍	❍	❍	❍	❍	❍
Stop yourself from being upset by unpleasant thoughts (9)	❍	❍	❍	❍	❍	❍	❍
Make new friends (10)	❍	❍	❍	❍	❍	❍	❍
Get friends to help you with the things you need (11)	❍	❍	❍	❍	❍	❍	❍
Make unpleasant thoughts go away (12)	❍	❍	❍	❍	❍	❍	❍
Think about one part of the problem at a time (13)	❍	❍	❍	❍	❍	❍	❍

Please feel free to provide feedback about these questions.

RS

Please indicate how much you agree with each statement as it describes you.

	Strongly Disagree (1)	(2)	(3)	Neither Agree or Disagree (4)	(5)	(6)	Strongly Agree (7)
When I make plans, I follow through with them (1)	❍	❍	❍	❍	❍	❍	❍
I usually manage one way or another (2)	❍	❍	❍	❍	❍	❍	❍
Keeping interested in things is important to me (3)	❍	❍	❍	❍	❍	❍	❍
I like myself (4)	❍	❍	❍	❍	❍	❍	❍
I feel I can manage many things at a time (5)	❍	❍	❍	❍	❍	❍	❍
I am determined (6)	❍	❍	❍	❍	❍	❍	❍
I stay interested in things that are important to me or that I care about (7)	❍	❍	❍	❍	❍	❍	❍
I can usually	❍	❍	❍	❍	❍	❍	❍

find something to laugh about (8)							
I can usually look at a situation in a number of ways (9)	❍	❍	❍	❍	❍	❍	❍
Sometimes I make myself do things whether I want to or not (10)	❍	❍	❍	❍	❍	❍	❍
I have enough energy to do what I have to do (11)	❍	❍	❍	❍	❍	❍	❍

Please feel free to provide feedback about these questions.

RCope

Please feel free to replace the term "higher power" with other representations you use such as divine, sacred, God, Goddess, Jesus, Allah, etc. If you do not wish to answer, please skip this section by selecting "Next" otherwise please indicate how often you do each of the following:

	I don't do this at all (1)	(2)	(3)	I do this occasionally (4)	(5)	(6)	I do this a great deal (7)
I look for a stronger connection with a higher power (1)	❍	❍	❍	❍	❍	❍	❍
I seek a higher power's love and care (2)	❍	❍	❍	❍	❍	❍	❍
I seek help from a higher power in letting go of my anger (3)	❍	❍	❍	❍	❍	❍	❍
I try to put my plans into actions together with a higher power (4)	❍	❍	❍	❍	❍	❍	❍
I try to see how a higher power might be trying to strengthen me in any situation I experience (5)	❍	❍	❍	❍	❍	❍	❍
I ask forgiveness for my sins/shortcomings (6)	❍	❍	❍	❍	❍	❍	❍
I focus on my religion/faith/spirituality to stop worrying about my problems (7)	❍	❍	❍	❍	❍	❍	❍

Please feel free to provide feedback about these questions.

USI

Please indicate how often you have experienced each of the following from your family, friends and/or your primary support person during the most recent time when you talked about your experience with serving in the military, PTSD, or any other health-related issue(s) (depression, anxiety, etc.).

	Never (1)	(2)	(3)	Sometimes (4)	(5)	(6)	Always (7)	N/A (0)
He/she did not seem to want to hear about my military service, PTSD, or other health-related issue(s) (1)	❍	❍	❍	❍	❍	❍	❍	❍
It felt like he/she was distancing him/herself from me (5)	❍	❍	❍	❍	❍	❍	❍	❍
He/she did not seem to know what to say or seemed afraid of saying or doing the "wrong" thing (2)	❍	❍	❍	❍	❍	❍	❍	❍
He/she felt that I should stop worrying about my military service, PTSD, or other health-related issue(s) and that I should just forget about it (3)	❍	❍	❍	❍	❍	❍	❍	❍
He/she asked me "why" questions about my role in my military service, PTSD, or other health-related issue(s), such as "Why did or didn't you _____? (4)	❍	❍	❍	❍	❍	❍	❍	❍
He/She made "should or shouldn't" have comments about my military service, PTSD, or other health-related issue(s), such as "You should/shouldn't have"(6)	❍	❍	❍	❍	❍	❍	❍	❍

Please feel free to provide feedback about these questions.

ISEL/PSS

Please select how true you feel each statement is as it applies to you.

	Definitely False (1)	(2)	(3)	Neither True or False (4)	(5)	(6)	Definitely True (7)
Most of my friends are more interesting than I am (18)	❍	❍	❍	❍	❍	❍	❍
When I feel lonely, there are several people I can talk to (12)	❍	❍	❍	❍	❍	❍	❍
I often meet or talk with family or friends (13)	❍	❍	❍	❍	❍	❍	❍
I feel like I am not always included in my circle of friends (14)	❍	❍	❍	❍	❍	❍	❍
There really is no one who can give me an objective view of how I'm handling my problems (2)	❍	❍	❍	❍	❍	❍	❍
If I were sick and in need of someone (friend, family member or acquaintance) to take me to the doctor, I would have trouble finding someone (7)	❍	❍	❍	❍	❍	❍	❍
If I were sick, I could easily find someone to help me with my daily chores (9)	❍	❍	❍	❍	❍	❍	❍
When I need suggestions on how to deal with a personal problem, I know someone I can turn to (3)	❍	❍	❍	❍	❍	❍	❍
I don't often get invited to do things with others (15)	❍	❍	❍	❍	❍	❍	❍

Most of my friends are more successful at making changes in their lives than I am (19)	❍	❍	❍	❍	❍	❍	❍
If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, gardens, etc.) (8)	❍	❍	❍	❍	❍	❍	❍
There is really no one I can trust to give me good financial advice (4)	❍	❍	❍	❍	❍	❍	❍
I am more satisfied with my life than most people are with theirs (20)	❍	❍	❍	❍	❍	❍	❍
It would be difficult to find someone who would lend me their car for a few hours (10)	❍	❍	❍	❍	❍	❍	❍
There is at least one person I know whose advice I really trust (5)	❍	❍	❍	❍	❍	❍	❍
I have a hard time keeping pace with my friends (21)	❍	❍	❍	❍	❍	❍	❍

Please feel free to provide feedback about these questions.

Demographics (part 2)

Please provide the following background information about yourself.

Please indicate your rank when you separated from the military or, if you are still serving, your current rank as of this date.

- ❍ E-1 (1)
- ❍ E-2 (2)
- ❍ E-3 (3)
- ❍ E-4 (4)
- ❍ E-5 (5)
- ❍ E-6 (6)
- ❍ E-7 (7)
- ❍ E-8 (8)
- ❍ E-9 (9)
- ❍ O-1 (10)
- ❍ O-2 (11)
- ❍ O-3 (12)
- ❍ O-4 (13)
- ❍ O-5 (14)
- ❍ O-6 (15)
- ❍ O-7 (16)
- ❍ O-8 (17)
- ❍ O-9 (18)
- ❍ O-10 (19)
- ❍ W-1 (20)
- ❍ W-2 (21)
- ❍ W-3 (22)
- ❍ W-4 (23)
- ❍ W-5 (24)

What is your religious affiliation (if any)?

- ❍ Anglican/Episcopal (1)
- ❍ Baptist (2)
- ❍ Catholic (3)
- ❍ Church of Jesus Christ of Latter-day Saints (4)
- ❍ Jehovah's Witness (5)
- ❍ Lutheran (6)
- ❍ Nondenominational (7)

- ❍ Orthodox: Greek (8)
- ❍ Orthodox: Russian (9)
- ❍ Pentecostal (10)
- ❍ Presbyterian (11)
- ❍ Protestant (12)
- ❍ Christian: Other (13)
- ❍ Agnostic (14)
- ❍ Atheist (15)
- ❍ Eclectic, A little bit of everything, Own beliefs (16)
- ❍ Liberal Faith (17)
- ❍ Nothing in Particular (18)
- ❍ Pagan (19)
- ❍ Spiritual but not religious (20)
- ❍ Unitarian (Universalist) (21)
- ❍ Wica (Wiccan) (22)
- ❍ Other (23) _____
- ❍ Mahayana (Zen) Buddhism (24)
- ❍ Theravada (Vipassana) Buddhism (25)
- ❍ Vajrayana (Tibetan) Buddhism (26)
- ❍ Buddhism: Other (27)
- ❍ Shaivite Hinduism (28)
- ❍ Vaishnava Hinduism (29)
- ❍ Hindu: Other (30)
- ❍ Shia (31)
- ❍ Sunni (32)
- ❍ Islam: Other (33)
- ❍ Conservative (34)
- ❍ Orthodox (35)
- ❍ Reform (36)
- ❍ Jewish: Other (37)
- ❍ Indian Shaker (38)
- ❍ Longhouse (39)
- ❍ Waashat (40)
- ❍ Native American: Other (41)

What is your current relationship status? Please select all that apply (if I'm divorced and now in a dating relationship, I would select "Dating/Engaged" and "Divorced").

- ☐ Single, never been married (1)

- ❑ Dating/Engaged (2)
- ❑ Married or partnered (3)
- ❑ Separated (4)
- ❑ Divorced (5)
- ❑ Widowed (6)
- ❑ Other (7) _____

What is your current living arrangement? Check all that apply.

- ❑ Live alone (1)
- ❑ Live with spouse/partner (2)
- ❑ Live with spouse/partner and child(ren) (3)
- ❑ Live with my child(ren) (4)
- ❑ Live with other family members, not including your child(ren) (5)
- ❑ Live with non-family members (6)
- ❑ Other (Please specify) (7) _____

What is the highest level of education you have completed?

- ❍ 8th Grade or less (1)
- ❍ Some high school or trade school (2)
- ❍ High school graduate/GED (3)
- ❍ Trade or business school graduate (4)
- ❍ Some college (5)
- ❍ College graduate (B.A., B.S., A.A., etc.) (6)
- ❍ Post-graduate degree (M.A., M.S., PhD, J.D., D.V.M., etc.) (7)

Please indicate your total household income for the last calendar year.

- ❍ Less than $15,000 (1)
- ❍ $15,001 - 30,000 (2)
- ❍ $30,001 - 45,000 (3)
- ❍ $45,001 - 60,000 (4)
- ❍ $60,001 - 95,000 (5)
- ❍ Over $95,000 (6)
- ❍ Prefer not to say (7)

Please feel free to provide feedback about these questions.

If you would like to go back and change any of your answers, please do so now. If you are satisfied with your answers, please click "Next."

Appendix G

Table G1

17-item PTSD Measure Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	*M*	*SD*
1: Have bad thoughts	–																	2.59	1.88
2: Have bad dreams	.853*	–																2.50	1.93
3: Relive stressful experience	.868*	.838*	–															2.58	1.89
4: Feeling upset	.844*	.793*	.827*	–														2.82	2.03
5: Experience physical reaction	.840*	.802*	.845*	.856*	–													2.56	2.01
6: Try not to think, talk, or have feelings	.820*	.768*	.775*	.826*	.815*	–												2.69	2.05
7: Try to avoid activities, situations, or people	.797*	.732*	.773*	.802*	.818*	.837*	–											2.57	2.02
8: Have trouble remembering important parts	.672*	.651*	.654*	.682*	.701*	.713*	.670*	–										2.27	1.81
9: Have a loss of interest in activities	.709*	.657*	.692*	.707*	.672*	.678*	.717*	.604*	–									2.88	2.10
10: Feel distant or cut off	.703*	.621*	.695*	.735*	.696*	.714*	.729*	.642*	.843*	–								3.10	2.16
11: Feel emotionally numb	.663*	.616*	.656*	.683*	.669*	.680*	.714*	.640*	.751*	.809*	–							2.81	2.11
12: Feel no hopes/plans will come true	.613*	.539*	.592*	.625*	.595*	.598*	.613*	.499*	.737*	.742*	.707*	–						2.82	2.06
13: Have trouble falling or staying asleep	.595*	.620*	.619*	.616*	.597*	.581*	.602*	.507*	.661*	.669*	.643*	.608*	–					3.47	2.24
14: Feel irritable or have angry outbursts	.673*	.653*	.681*	.679*	.656*	.662*	.657*	.550*	.717*	.706*	.666*	.639*	.677*	–				3.09	2.14
15: Have difficulty concentrating	.681*	.633*	.667*	.684*	.661*	.668*	.672*	.609*	.761*	.761*	.733*	.729*	.696*	.794*	–			3.10	2.05
16: Being overly alert	.711*	.713*	.713*	.708*	.729*	.701*	.707*	.603*	.697*	.722*	.671*	.615*	.700*	.732*	.722*	–		3.20	2.20
17: Feel jumpy or easily startled	.707*	.713*	.702*	.713*	.720*	.705*	.714*	.616*	.730*	.719*	.669*	.661*	.680*	.760*	.741*	.874*	–	2.98	2.14

*$p < .001$

Table G2

16-item PSS Measure Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	*M*	*SD*
1: My friends are more interesting than me	–																4.20	1.57
2: When I feel lonely, there are several people I can talk to	.199**	–															4.49	2.06
3: I often meet or talk with family or friends	.204**	.713**	–														4.58	1.99
4: I feel like I'm not always included	.147*	.264**	.276**	–													4.21	1.89
5: I have no one to give me objective advise	.244**	.388**	.345**	.436**	–												4.61	1.89
6: It would be difficult to find someone to take me to the doctor if I was sick	.330**	.306**	.370**	.205**	.325**	–											5.55	1.85
7: If I were sick, I could easily find someone to help me with my daily chores	.155**	.492**	.467**	.287**	.285**	.377**	–										4.68	2.09
8: When I need suggestions on how to deal with a personal problem, I know someone I can turn to	.184**	.660**	.628**	.267**	.426**	.291**	.562**	–									4.92	2.00
9: I'm not often invited do things	.305**	.474**	.484**	.467**	.442**	.323**	.325**	.382**	–								4.37	2.01
10: My friends are more successful with making changes	.475**	.342**	.319**	.298**	.383**	.386**	.250**	.252**	.519**	–							4.33	1.78
11: It would be difficult to find someone to house sit if I was out of town	.304**	.375**	.425**	.288**	.384**	.472**	.411**	.350**	.493**	.450**	–						4.94	2.02
12: I have no one I trust to give me good financial advise	.294**	.445**	.461**	.289**	.414**	.427**	.411**	.446**	.404**	.439**	.535**	–					4.93	2.03
13: I am more satisfied with my life than most people are with theirs	.297**	.386**	.457**	.229**	.269**	.268**	.268**	.323**	.329**	.395**	.291**	.262**	–				4.48	1.76
14: It would be difficult to find someone to lend me money	.247**	.378**	.435**	.323**	.381**	.458**	.390**	.347**	.452**	.377**	.558**	.540**	.324**	–			4.89	2.07
15: There is at least one person I know whose advice I really trust	.103*	.500**	.483**	.170**	.310**	.248**	.406**	.557**	.349**	.214**	.266**	.346**	.336**	.282**	–		5.65	1.78
16: I have a hard time keeping pace with my friends	.364**	.357**	.358**	.407**	.385**	.321**	.288**	.350**	.501**	.519**	.413**	.409**	.360**	.410**	.219**	–	4.61	1.83

*$p < .04$, **$p \leq .001$

Table G3

6-item USI Measure Correlations

Measures	1	2	3	4	5	6	*M*	*SD*
1: He/she did not seem to want to hear about my military service, PTSD, or other health-related issue(s)	–						2.61	2.13
2: It felt like he/she was distancing him/herself from me	.579**	–					2.72	2.09
3: He/she did not seem to know what to say or seemed afraid of saying or doing the wrong thing	.534**	.667**	–				2.31	2.11
4: He/she felt that I should stop worrying about my military service, PTSD, or other health-related issue(s) and forget	.451**	.587**	.679**	–			2.26	2.00
5: He/she asked me why questions about my role in my military service, PTSD, or other health-related issue(s)	.669**	.680**	.700**	.523**	–		2.38	1.99
6: He/she made should or shouldn't have comments about my military service, PTSD, or other health-related issue(s)	.539**	.579**	.700**	.755**	.594**	–	2.12	1.94

**$p < .001$

Table G4

9-item Online Measure, PTSD, PSS, and USI Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	*M*	*SD*
1: PTSD	–												2.02	1.24
2: PSS	-.536***	–											4.71	1.23
3: USI	.560***	-.531***	–										2.40	1.68
4: Get health-related information from professionals	.168**	-.123*	.218***	–									3.98	2.07
5: Get health-related information from peers	.505***	-.329***	.323***	.413***	–								3.14	3.15
6: Make friends	.066	-.023	.010	-.049	.235***	–							3.44	2.09
7: Find people who understand what I'm going through	.299***	-.173**	.221***	.102	.507***	.593***	–						3.34	2.14
8: Share my story	.176**	-.101	.123*	.098	.403***	.598***	.749***	–					2.87	1.93
9: Help others	.096	.032	.056	.071	.353***	.571***	.560***	.521***	–				4.16	2.10
10: Vent about my condition	.263***	-.174**	.206***	.129*	.494***	.467***	.622***	.685***	.415***	–			2.47	1.80
11: Ask for help	.259***	-.181**	.214***	.267***	.442***	.346***	.580***	.565***	.337***	.673***	–		2.75	1.20
12: Other (please specify)	.059	-.014	.053	-.237*	-.099	-.009	-.003	.009	.054	.001	.041	–	4.37	2.40

*$p < .05$, **$p \leq .02$, ***$p \leq .001$

Table G5

Factor Matrix: Online Social Support

Measures	Component 1	Component 2
Make friends	.823	
Share my story	.855	
Find people who understand what I'm going through	.874	
Help others	.781	
Get health-related information from others facing the same issue as me		.782
Get health-related information from professionals		.872

Table G6

9-item Offline Measure, PTSD, PSS, and USI Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	***M***	***SD***
1: PTSD	–												2.02	1.24
2: PSS	-.536***	–											4.72	1.23
3: USI	.560***	-.531***	–										2.40	1.58
4: Get health-related information from professionals	.320***	-.160**	.287***	–									4.35	2.08
5: Get health-related information from peers	.427***	-.237***	.195**	.521***	–								3.46	2.11
6: Make friends	-.065	.071	-.041	-.108	.150**	–							3.78	2.08
7: Find people who understand what I'm going through	.235***	-.200**	.195**	.220***	.445***	.576***	–						3.89	2.14
8: Share my story	.078	-.033	.115	.149**	.359***	.520***	.708***	–					3.45	2.01
9: Help others	-.020	.116	-.023	.042	.211***	.531***	.470***	.489***	–				4.52	2.03
10: Vent about my condition	.292***	-.218***	.301***	.354***	.410***	.245***	.463***	.565***	.157**	–			2.98	1.98
11: Ask for help	.325***	-.164**	.309***	.484***	.399***	.057	.377***	.359***	.039	.573***	–		3.42	2.14
12: Other (please specify)	-.019	-.032	.006	-.040	-.060	.196	.129	.125	.241*	-.110	-.148	–	4.30	2.17

*$p < .05$, **$p \leq .02$, ***$p \leq .001$

Table G7

Factor Matrix: Offline Social Support

Measures	Component 1	Component 2
Make friends	.820	
Share my story	.823	
Find people who understand what I'm going through	.837	
Help others	.768	
Get health-related information from others facing the same issue as me		.844
Get health-related information from professionals		.871

Table G8

11-item Resiliency Measure Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	*M*	*SD*
1: When I make plans, I follow through with them	–											5.61	1.35
2: I usually manage one way or another	.646**	–										5.95	1.18
3: Keeping interested in things is important to me	.571**	.570**	–									5.77	1.39
4: I like myself	.504**	.522**	.641**	–								548	1.64
5: I feel I can manage many things at a time	.583**	.550**	.569**	.612**	–							5.39	1.66
6: I am determined	.596**	.592**	.652**	.606**	.641**	–						5.98	1.34
7: I stay interested in things that are important to me or that I care about	.633**	.618**	.747**	.691**	.654**	.756**	–					5.85	1.39
8: I can usually find something to laugh about	.473**	.492**	.564**	.654**	.582**	.527**	.624**	–				5.70	1.56
9: I can usually look at a situation in a number of ways	.491**	.521**	.554**	.573**	.627**	.574**	.614**	.710**	–			5.77	1.39
10: Sometimes I make myself do things whether I want to or not	.471**	.462**	.511**	.452**	.513**	.575**	.539**	.521**	.594**	–		5.78	1.31
11: I have enough energy to do what I have to do	.482**	.399**	.561**	.598**	.535**	.492**	.587**	.575**	.517**	.424**	–	4.97	1.85

**$p < .001$.

Table G9

11-item Resiliency Factor Loadings

	Component
Measures	1
1: When I make plans, I follow through with them	.755
2: I usually manage one way or another	.738
3: Keeping interested in things is important to me	.811
4: I like myself	.797
5: I feel I can manage many things at a time	.800
6: I am determined	.822
7: I stay interested in things that are important to me or that I care about	.874
8: I can usually find something to laugh about	.781
9: I can usually look at a situation in a number of ways	.798
10: Sometimes I make myself do things whether I want to or not	.704
11: I have enough energy to do what I have to do	.717

Table G10

PTSD, PSS, USI, Online SS, Offline SS, Resiliency, Cope, and RCope Correlations

Measures	1	2	3	4	5	6	7	8	*M*	*SD*
PTSD	–								2.02	1.24
PSS	-.536**	–							4.72	1.23
USI	.560**	-.531**	–						2.40	1.68
Online	.432**	-.280**	.338**	–					3.50	1.61
Offline	.425**	-.251**	.285**	.646**	–				3.88	1.65
Resiliency	-.597**	.615**	-.436**	-.269**	-.195*	–			5.66	1.14
Coping	-.648**	.665**	-.506**	-.331**	-.223**	.810**	–		5.06	1.50
Spirituality	-.048	.078	-.069	.070	.042	.159**	.186**	–	4.35	2.27

*p = .003, **$p \leq .001$