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Female Veterans' Combat Experience and PTSD on Male Partners' Psychological Distress and Relationship Quality

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Walden University
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Abstract

Female veterans' combat exposure to trauma places them at risk for developing posttraumatic stress disorder (PTSD), which has consequences for healthful reintegration to family and civilian life. Previous research found that wives who provide continuous care to male veterans with PTSD experience symptoms of psychological distress; however, little research has been conducted on the influence of female veterans' PTSD on their intimate male partners' (IMPs) psychological well-being. A multivariate correlational design was used to examine the influence of female veteran PTSD on psychological distress and relationship quality in IMPs. The couples' adaption to traumatic stress model was used as the theoretical framework. The research questions examined (a) the difference between female veterans with and without PTSD on length of time in relationship, combat experience, total number of deployments, and IMP psychological distress and (b) the influence of female veterans' combat experience, PTSD, and IMP psychological distress on relationship quality. A sample of 71 IMPs between the ages of 18 and 65 provided survey research data on the variables of interest. Psychological distress, number of partner deployments, and length of time in relationship discriminated significantly between IMPS whose partners were diagnosed with PTSD, not diagnosed, or did not know about the PTSD diagnosis. The regression results revealed that the psychological distress of IMPs and number of partner deployments positively predicted relationship quality. Attention to female veterans and their families can contribute to increased retention of female service members in the Army and successful integration into family and civilian life.

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Dedication

This dissertation is dedicated to the memory of my father, Mr. Thomas Martin, my mother, Mrs. Ruthell Jordan, and my grandmother Mrs. Annie P. Ward. To my son, Gregory Bea, Jr., and my brothers and sisters who are currently serving or have served in the U.S. Armed Forces. Also, to my beloved Bichon, Happy 14 Abraham, who is always there to provide emotional support.

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Chapter 1: Introduction to the Study

Introduction

The demand for posttraumatic stress disorder (PTSD) services has grown, particularly since the Gulf Wars (Hermes, Rosenheck, Desai, & Fontana, 2012). The demand for services geared towards women veterans has also grown as more women now enter the military and serve in combat and near-combat roles (Friedman et al., 2014). Researchers and providers have come to recognize that PTSD affects not only the veteran but also the significant others who care for the veterans upon return (Herzog & Everson, 2010). Significant other caregivers who provide continuous care for veterans with combat-related PTSD suffer from psychological distress and face adjustment challenges within their marriages (Dekel, Goldblatt, Zahava, & Pollak, 2005; Fredman, Monson, & Adair, 2011; Lambert, Engh, Hasbun, & Holzer, 2012; Renshaw, McKnight, Blais, & Caska, 2011; Renshaw, Rodrigues, & Jones 2008; Solomon, Dekel, & Zerach, 2008). Because most of the prior literature has addressed the male veteran/female spouse partnership, my primary focus in this research was to examine the extent to which combat experience and PTSD in Army female veterans influence psychological distress and relationship stress as perceived by their intimate male partners (IMPs).

The results of this study may contribute to social change within the armed forces regarding the importance of couples' psychotherapy and psychoeducation for veterans, with a specific focus on female veterans and their partners. It is hoped that the results of the study will be instrumental in encouraging the military to consider the mental health

issues of male partners of female veterans. Promoting this understanding may help foster more efficient resources to facilitate the mental health concerns of intimate male partners.

In Chapter 1, I present the background, problem statement, purpose and research questions for the study. I also describe the significance of the study. In addition, there is a brief description of the methods, including the nature of the study, procedures, scope, delimitations, and limitations.

Background

Individuals diagnosed with PTSD are often unable to build or maintain trust in others; they may become reclusive and isolate themselves from the rest of the world (Freidman, Vorstenbosch, Wager, Macdonald, & Monson, 2014; Taft et al., 2007; Woodward, Taft, Gordon, & Meis 2010). This avoidance mostly occurs following an emotional event that causes the veteran to reexperience a traumatic episode (Taft et al., 2007). An individual with PTSD may also display drastic changes in demeanor, including sudden outburst of anger or uncontrolled crying (Taft et al., 2007). All of these reactions can have an impact on the functioning of the family (Taft et al., 2007).

A meta-analysis of 32 studies by Xue et al. (2015) revealed that women are among the largest group of military personnel diagnosed with PTSD. Because the female veteran is the most likely of service members to be diagnosed with PTSD, the IMP can be considered to be at-risk for the residual effects of PTSD. In a meta-analysis of 12 studies using 1623 participants in which 17 findings were reported, Baum, Rahav, and Sharon (2014) also found that women were at higher risk for developing PTSD and are likely to be predisposed to PTSD.

Baum, Rahav, and Sharon (2014), also found that relationship challenges exist at a higher rate in military couples when the military veteran is a female and the intimate partner is a male than when the veteran is a male and the partner is a female. At the same time, researchers have discovered that male veterans with PTSD report relationship challenges at a higher rate than male veterans who have not been diagnosed with PTSD (Calhoun, Beckham, & Bosworth, 2002).

Although there are obvious concerns regarding the impact of PTSD on all veterans, there appears to be a lack of research on the consequences on relationships for female veterans with PTSD. For example, Renshaw, McKnight, Blais, and Caska (2011) found that of the few studies that included female veterans, data on their IMPs were often eliminated from the final interpretations. They also discovered that many early studies only included the data collected and analyzed from the male veterans and their female partners (Renshaw et al., 2011). Data were typically excluded due to lack of an adequate sample size for female veterans for statistically relevant comparisons (Renshaw et al., 2011).

Researchers have discovered that female caregivers who provide care to their traumatized spouse place themselves at-risk for secondary traumatic stress (Lambert et al., 2012. Demonstrating constant emotional empathy, listening to vivid descriptions of horrifying events, and observing acute hypervigilance in a partner can have a paralyzing effect on one's emotional psyche, cognitive schema, and the ability to view the world as safe place (Bride, Radey, & Figley, 2007; Taft et al., 2007). However, more research is

needed on the consequences of what male partners experience when their female partner is suffering.

In sum, prior researchers have extensively studied PTSD in returning veterans, and there is a growing body of evidence regarding the secondary trauma experienced by families of veterans with PTSD, particularly female partners. However, what is missing from the literature are studies of the how female veterans' combat experience and PTSD influences the psychological distress and relationship quality as perceived by their male partners.

Problem Statement

More research on the influence of female veterans' PTSD on the psychological distress and relationship stress in their intimate male partners is needed. Recent meta-analyses (Renshaw, Rodrigues, & Jones 2008; Taft et al., 2011) have clearly and consistently indicated that (a) more women are returning from the military with PTSD diagnoses, and (b) regardless of gender, marital relationships suffer as a consequence of caring for the diagnosed person. There are conflicting results as to how significant the impact is (Lambert et al., 2012) and that there are essential moderators that influence this relationship as well (e.g., gender, time in combat, number of deployments). This study may enhance future military combat readiness by increasing the number of female service members who renew their military contract. This study may also be instrumental in improving the relationship quality between the female veteran and the IMP.

Purpose of the Study

The two-fold purpose of the quantitative study was (a) to examine how length of time in relationship, combat experience, total number of deployments, and IMP distress discriminate between female veterans with and without PTSD and (b) to examine the influence of female veteran PTSD, length of time in relationship, combat experience, total number of deployments, and IMP distress on relationship quality. I used a correlational design to measure the variables in this research study.

The variables for the study included

- PTSD in female veterans (as reported by the IMPs),
- Length of time in the relationship,
- Experienced combat (Yes/No),
- Total number of deployments,
- IMP psychological distress (as measured by the Beck Depression Inventory [BDI] Beck Anxiety Inventory (BAI-II) and the Posttraumatic Stress Checklist 5 PCL-5)
- Relationship quality, as measured by the Relationship Assessment Scale.

There were two research questions. For the first research question, the predictor variables included the length of time in the relationship, experienced combat, the total number of deployments, and IMP psychological distress. The criterion was a nominal variable indicating female veterans' PTSD, as reported by the IMP. For the second question, the predictor variables included female veterans' PTSD, length of time in the

relationship, experienced combat, the total number of deployments, and IMP psychological distress. The criterion was relationship quality.

Research Questions and Hypotheses

Research Question (RQ)1: Is there a difference between female veterans with and without PTSD (as reported by their IMP's) on the following variables (length of time in the relationship, combat experience, the total number of deployments, and IMP psychological distress)?

$H_0$1: There is no difference between female veterans with and without PTSD (as reported by their IMPs) on the length of time in the relationship, combat experience (yes/no), the total number of deployments, and IMP distress (as measured by the BDI and BAI-II and PCL-5).

H_{0a}: There is a significant difference between the female veterans with PTSD and the female veterans without PTSD (as reported by the IMPs) on the length of time in the relationship, combat experience (yes/no), the total number of deployments, and IMP distress (as measured by the BDI and BAI-II and PCL-5).

Research Question (RQ)2: What is the influence of female veteran PTSD (as reported by their IMPs), length of time in the relationship, combat experience, the total number of deployments, and psychological distress on relationship quality?

$H_0$1: There is no influence of female veteran PTSD (as reported by their IMPs), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II, and PCL-5) on relationship quality as measured by the relationship assessment scale (RAS).

H_{0a}: There is a significant influence on female veteran PTSD (as reported by their IMPs), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II, and PCL-5) on relationship quality (as measured by the RAS).

Theoretical Framework

The couples' adaptation to traumatic stress (CATS) model was used as the theoretical framework to test the hypotheses of the study. This model was introduced conceptually by Golf and Smith (2005). It was grounded in the prior landmark approaches to trauma, like secondary trauma (e.g., Figley, 1995). The CATS were developed for both clinical and research applications and identified the following constructs: current individual level of function (current emotional, behavioral, cognitive and biological symptoms), predisposing factors (e.g., prior trauma, demographics, resources), and couple functioning (e.g., relationship satisfaction or distress). This is presented in Figure 1.

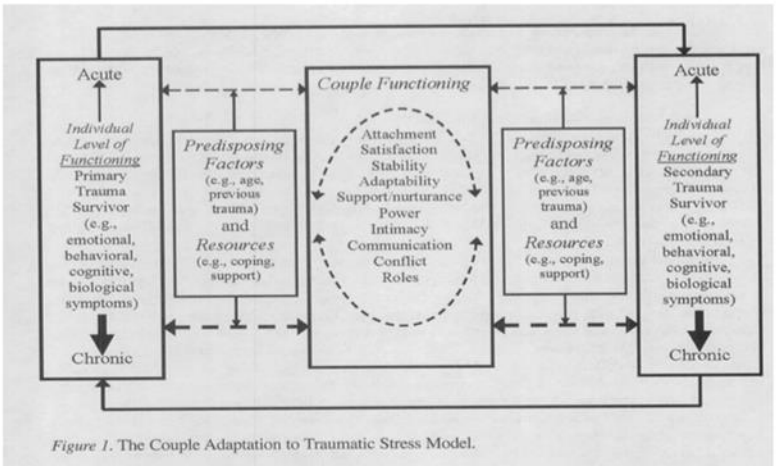

Figure 1. The couple adaptation to traumatic stress (CATS) model (Goff & Smith, 2005).

This model has been used for clinical interventions (Oseland, Schwerdtfeger, Gallus & Goff (2016)) as well as scholarly research. For example, Goff et al. (2014) conducted a qualitative study and found that communication (one of the functioning components) was a key theme in coping with deployment by both soldiers and spouses. This theory drives the study. RQ1 addressed the left side of the model (the female veteran partner's PTSD and its effect on predisposing factors) and RQ2 addressed the right side of the model (the female veteran partner's PTSD, IMP distress, predisposing factors, and their effect on the relationship).

Nature of the Study

I used a correlational survey research design using cross-sectional data (see Frankfort-Nachmias & Nachmias 2008). The correlational design was used for exploratory hypotheses (as opposed to causal modeling approaches) and was selected to examine the predictor variables and criterion variable to determine the relationship between them rather than infer the cause, as unknown or confounding variables as yet unexamined may influence the relationship of interest. The primary advantage of survey research is that the researcher can collect a significant amount of data in a short time (Frankfort-Nachmias & Nachmias 2008). In this particular case, I received data via the Internet. This method of data collection allowed for an expeditious manner to which data were collected, interpreted, and analyzed. Using survey research methods provides

validity, reliability, and statistical significance to be expedited when collecting data (Frankfort-Nachmias & Nachmias 2008).

A convenience sample was used to invite participants through nonprofit female and male veteran organizations not directly affiliated with the military. The announcement of the study consisted of flyers posted in waiting rooms, bulletin board hallways, and in newsletters (print and electronic), after receiving permission from the organizations and Institution Review Board (IRB) approval. The criteria for selection included IMPs who responded to the flyer and used the link to go online to complete the questionnaires. In Phase I, participants were directed to surveymonkey.com to complete the informed consent process, the PCL-5, the relationship assessment scale, and demographics. In Phase 2, participants were directed to the Pearson's Q-Global website to complete the BDI and the BAI. The data collection tools consisted of a demographic form and four questionnaires (BAI, BDI- II, PCL-5, and the RAS). Survey Monkey and Pearson's Q- Global were used to export data to SPSS database file (version 24.0) for analysis. The details of the procedures are provided in Chapter 3.

A sample size of 134 was determined to be sufficient for both research questions using G* Power 3.1 (see Faul, Erdfelder, Lang, & Buchner, 2007), using an effect size of .15, alpha = .05, and seven predictor variables. A discriminant function analysis (DFA) was used to examine RQ1, as the criterion variable was nominal, and the predictor variables were scales and nominal (see Hair, Black, Babbin, Anderson, & Tatham, 2006). A multiple regression analysis was used to examine RQ2, as the criterion variable was a scale, and the predictor variables were scales and nominal (see Field 2012).

Definitions

Operational definitions of terms used throughout this research are listed below.

Anxiety: Excessive worry and apprehension that occurs for an extended time about some events, such as work, school, or performance. Individuals may exhibit a variety of symptoms, some of which may include the feeling of restlessness, problems concentrating, irritability, muscle tension, insomnia, and uncontrollable or irrational worry that interferes with an individual's ability to function (American Psychiatric Association, 2013).

Depression: A medical illness that affects the way a person feels about him/her self or the current situation in a contrary manner. It causes feelings of sadness and often causes a loss of interest in completing activities that were at one time enjoyable, (American Psychiatric Association, 2013).

Female veteran: The identity of a female veteran has been defined using the self-concept of one's own identity derived from an individual's military experience. Females, although not always allowed to be members of the armed forces, have served in supporting roles during military combat operations dominated by males since the Civil and Spanish-American wars (Carlson, Stromwall, & Lietz, 2013). Typical duties included preparing meals and providing medical care to the servicemen. Even though the Nursing Corp was established as a result of these services, females were still not granted official military status. It was not until 1948 that the Women's Armed Services Integration Act was established, allowing females an official status in the military. This status entitled them to receive compensation for their services. By 1967, female participation in the

armed forces had grown significantly as more women enlisted and continued to serve in supporting roles to their male counterparts. Although females were not allowed to serve in direct combat roles, they were often placed in the middle of combat action while providing support (Carlson et al., 2013). In fact, the Department of Veteran Affairs reported in 2007 that women have been directly involved in combat since the Gulf war, stating positions of action included placement of missiles on warships, conducting supply replenishment convoy operations, as well as providing medical support in the midst of combat action.

Intimate male partner (IMP): The male spouse, or current or formal, boyfriend, or male lover of a female who is presently serving or has served in the military. IMP most commonly is used in the IMP violence literature (Pico-Alfonzo et al., 2006).

Posttraumatic stress disorder (PTSD): Defined as a persistent mental and emotional condition that occurs following a severe psychological shock, injury, or death. Symptoms of PTSD include insomnia, intrusive thoughts, recalling the experience, hypervigilance, avoidance, and numbness. Individuals living with PTSD often complain of nightmares of the traumatic event and sometimes complain of emotional numbness (American Psychiatric Association, 2013). Some survivors of trauma may display symptoms of sadness, depression, and anxiety, while others may not be afflicted by distress at all. Exposure to a traumatic event may occur in a variety of ways and is not always limited to witnessing or being nearby when the traumatic incident occurs. Being told that a loved one has suffered a severe injury, death, or near fatality is traumatizing. Seeing this event may have created extreme fear in the person who watched it occur. The

observer may involuntarily reexperience the event through intrusive thoughts, memories, or flashbacks.

Psychological distress: The undesirable emotions or feelings that may impact an individual's ability to function. This psychological and unforeseen discomfort affects daily living activities. These emotions may stem from negative views of a particular situation, self, or others. During the onset of mental distress, symptoms of anxiety, sadness, or other mental illnesses may manifest. Psychological distress is subjective and may not have the same effect on one individual as it has on others, but rather the perception of the severity that produced the pain. Psychological distress may be caused by experiencing an unexpected traumatic experience, for example, the death of a loved one, or being made aware that a loved one has been in involved in a dangerous or near-death experience. Any life-changing transitions may initiate stress and cause psychological distress. Some symptoms of psychological distress include sleep disturbance, sadness, fatigue, aggressive behavior, obsessive/intrusive thoughts, weight gain, and compulsive behavior (American Psychiatric Association, 2013).

Secondary trauma, secondary traumatic stress, and compassion fatigue: Interchangeable terms used by many researchers to explain the psychological impact of caring for traumatized veterans (Taft et al., 2007) These terms were established to denote the identifiable changes seen in those who provided continuous care to trauma victims. Researchers have also concluded that not only are personal caregivers affected by close affiliation with those traumatized, many psychotherapists have also experienced secondary trauma (Figley, 1995; Pearlman, Laurie & Mac Ian,. (1995), Taft et al., 2007).

Changes recognized in the therapist regarding lowered inhibitions and feelings of self-worth, self-esteem, and competence as well as negative cognitions in relationships have been identified. Researchers have linked the transformations in schemas to the empathic connection made between the therapist and client.

Assumptions

The assumptions considered in conducting this research were as follows:

1. The participants were IMPs of female veterans with or without PTSD.
2. The participants provided care to their female veteran spouse with PTSD.
3. Participants were competent and could read and understand the questions on the questionnaire.
4. All participants provided honest answers.
5. All participants in this study knew that they are volunteers and were free to withdraw from the study at any time without ramifications.

These assumptions were necessary for the study because not everyone would answer the questions honestly. Some participants might answer the questions as they believe the researchers expect them to respond (see Frankfort-Nachmias & Nachmias 2008).

Scope and Delimitations

This study was specifically designed to include those IMPs of female veterans who have either been or have not been diagnosed with PTSD. This included participants who could understand instructions asked to complete the study. Participants were

recruited from nonprofit military organizations located throughout the United States, which are not affiliated with the Army or any branch of the military. Generalization to the IMPs of the armed forces women veterans was limited as sampling was nonprobability (i.e., convenience sampling).

Further delimitations are as follows:

1. It was not possible for me to verify the diagnosis of PTSD in female veterans without violating the Health Insurance Portability and Accountability Act of 1996.
2. I was unable to officially confirm the military branch of service, marital age, and marital status of participants.
3. The time required to administer instructions and complete all four measures may have exceeded 25 minutes. This may have been a concern for some participants.

Limitations

Regarding measurement and construct validity, the methods of the study posed potential limitations. The data collected in this study had the potential to be influenced by social desirability bias in that respondents might answer all questions using the same pattern or direction. It is possible that some participants may have over- or under-reported on the questionnaires to appear desirable, and there is no way to be sure that the responses provided by the participants are genuine (see Frankfort-Nachmias & Nachmias 2008).

Construct validity of the selected measures relies on the psychometric properties reported in each of the steps, detailed in Chapter 3. All instruments reported strong internal consistency, discriminant, and convergent validity.

There was a risk that the time constraints and cost benefits involved in conducting this research design could limit the inclusion of all possible constructs, so internal validity could be threatened by model underspecificity (see Frankfort-Nachmias & Nachmias 2008). Survey research design, because of its lack of assignment to conditions, nonmanipulation of the independent variables, and single-event data collection, is subject to the most threats to internal validity. The primary concern with external validity in this study was that recruitment of participants was based on convenience sampling in one location, and, therefore, the relevance of the results to other armed services organizations and populations is unknown.

Significance

Although much attention to the impact of PTSD on wives of male combat veterans has been given, the effect on IMPs of female veterans has not been adequately documented. There are many implications of this study for professional practice and policy development. Findings from this study may prompt changes within the Army, such as increased education and awareness of how female veteran PTSD affects the well-being of IMPs and their relationship. As the military continues to engage in conflicts, the probability of more females being diagnosed with PTSD increases; therefore, advancing knowledge and understanding from the perspective of IMPs may contribute significantly to more effective solutions to meet the needs of female veterans.

Summary

In this chapter, I explored the research on PTSD on female veterans and the challenges this poses for their spouses. However, there has been insufficient empirical data on this topic. My intent was to address and attempt to fill a portion of this gap in the literature. I identified and elucidated the main problem, establishing a rationale for the study. The research questions support the theoretical framework, setting the foundation for quantitative research. In conclusion, the nature of the study, assumptions, scope, and limitations outlined. In Chapter 2, I explore spousal trauma and the impact on the relationship. A more detailed review of the literature and the strategies used to identify the selected resources are also outlined. The theories used to support the study are also described in detail. The literature review helps to discover the need for future research to understand the impact of PTSD in female veterans on their IMPs.

Chapter 2: Literature Review

Introduction

The problem is that there is a lack of research on the influence of female veterans' PTSD on the psychological distress and relationship stress in their IMPs (Renshaw et al., 2010) The two-fold purpose of the quantitative study was (a) to examine how length of time in relationship, combat experience, total number of deployments, and IMP distress discriminate between female veterans with and without PTSD and (b) to examine the influence of female veteran PTSD, length of time in relationship, combat experience, total number of deployments, and IMP distress on relationship quality. A correlational design was used to measure the variables in this research study. In Chapter 2, a collection of summaries, annotations, and peer-reviewed articles of published literature on the impact of PTSD on the spouse are examined. The similarities and differences between the material is synthesized and combined to create an understanding of the impact of residual effects of PTSD and the challenges it presents in the relationship between the veteran and the intimate partner. In this chapter, I detail psychological distress, depression, anxiety, and relationship quality in the IMP.

Literature Search Strategy

A search of the literature was conducted using multiple resources and various databases, experts on PTSD, and a detailed list of search terms. Databases such as Thoreau, Psych-INFO, and ProQuest Dissertation and Theses Database were used to locate peer-reviewed articles; psychology journals, magazines, and books from the Walden University library were also used to complete this review. Finally, the websites

for the National Center for PTSD, Department of Veterans Affairs, and the Department of Defense were consulted to complete this literature review.

The following search terms and phrases were used: *trauma, combat-related posttraumatic stress disorder, OEF/OIF PTSD, veteran PTSD, spousal PTSD, PTSD and DSM-5, veteran spousal related injury, relationship, quality, psychological distress,* and *female veteran with PTSD.*

Theoretical Foundation: CATS

The CATS model originated after Goff and Smith (2005) examined the results of trauma on couples while conducting a qualitative study on the nature of secondary trauma. The primary theoretical proposition of the authors was that even though secondary survivors of trauma are not exposed to trauma directly, they are vicariously exposed to trauma through mental internalization through the eyes of their significant survivors (Goff & Smith 2005). Goff and Smith also hypothesized that "when a traumatic event occurs, the stability of the relationship between two individuals is disrupted". In addition, the authors speculated that the "dysfunction of the relationship might lead to relationship issues that include failure to communicate appropriately and a lack of intimacy between the couple" (Goff & Smith 2005).

One primary assumption of this model is that when individuals fail to address trauma-related symptoms, there may be a residual impact on the survivor's ability to cope with the traumatic event. Goff and Smith (2005) also posited that by not addressing the issue, it places the survivor as even more susceptible to other forms of trauma-related stress.

Many researchers have focused mainly on symptomatic behaviors of those who have experienced a traumatic event, while at the same time, neglecting to study the impact of a traumatic event on the families of veterans (Lambert et al., 2012). Only within the last few years have researchers begun to examine the impact of experiencing a traumatic event has impacted spouse, children, or others who provide direct care to the victims of trauma. However, only a limited amount of theoretically based literature has been documented in support of the secondary effects of trauma following a traumatic event. The CATS model suggests that when a therapist is treating partners of victims of trauma, they consider all predisposing elements and level of support that is available to the survivor and partner.

Boss (2002) and Madden-Derdich and Herzog (2005) classified stressor events into four categories: source, type, density, and duration. Boss determined that the cause might be labeled as internal or external. He described internal stressor events as those events that are usually initiated by the family (See Boss, 2002). The family member decides to join—to become a member of the armed forces—and the family can control this type of stress; this is an example of an internal stressor (See Boss, 2002; Lavee, McCubbin & Patterson, 1985). Boss suggested that events may be normative (i.e., predictable events based on expectations) or nonnormative, unpredictable events (i.e., loss of employment, vehicle accident). Boss concluded that external stressors may be ambiguous and difficult to determine when it comes to identifying the facts or details surrounding the situation. There is not a clear picture regarding who is affected by the event, nor is there a timeline for its development. When the family has clear facts

surrounding a stressor event, adaption to the stressor is more comfortable (Boss, 2002). Volitional events include decisions that are in the family's control. They are made willingly by the family—for example, a decision to relocate to attain a better job. However, nonvolitional events such as natural disasters cannot be controlled by the family and may affect the family's ability to adapt (Boss, 2002). The CATS model provided an avenue of approach for individuals and couples who are predisposed to conditions that may affect their cognitive, behavioral, and emotional level of functioning (Oseland, Schwerdtfeger, & Goff, 2016).

The duration and density of the stressor event also plays a vital role in the likeability of the stressor leading to a crisis. Determining when the events occurred and whether they happened in isolation or amidst other stress-related activities helps to determine whether the event is chronic or acute (Oseland, Schwerdtfeger, & Goff, 2016). Some families might easily navigate through acute stressors. However, constant stressor events may lead to further crisis. Stressor density can increase the stress and decrease the family's ability to cope (Boss, 2002; McKenry & Price 2005). According to these researchers, nonnormative, ambiguous, and nonvolitional types of events elevate the family's stress level and therefore place the family in a state of vulnerability and crisis (Boss, 2002; McKenry & Price 2005). The CATS model has been applied to understand the strains of war demonstrating that service members' stress can impact the overall wellness of the family system. Using this theory can help to g contextualize studies on the impact of PTSD on veterans; further, it may help to determine how male intimate partners of female veterans with PTSD are affected. Oseland, Schwerdtfeger, Gallus, and

Goff (2016) found that using the resources and perception variables of the CATS model bridges the cognitive and behavioral components for couples when in crisis. This connectivity incorporates resources, perceptions, and behaviors, allowing a family to cope with a combat stressor.

Literature Review Related to Key Variables

The U.S. Census Bureau (2012) documented that nearly 210,500 of the 1,431,000 individuals serving in the U.S. armed forces were women. Portions of those women are recruited to help in a combat-related military occupational specialty. Therefore, they are at risk for developing PTSD, psychological distress, and experiencing relationship dysfunction with an IMP (Department of Defense, 2014. Female service members contribute substantially to the armed forces and its fight against terrorism. In fact, the Department of Defense (2015) Manpower Data Center reported that female service members accounted for 11% of the total combined forces participating in the Global War on Terrorism in Iraq and Afghanistan. Furthermore, although female service members are placed in occupations other than frontline operations, they are trained to have many combat-related skills. There are many instances when female service members must engage with enemy forces. The Department of Defense (2014) also found that approximately 73% of women service members were exposed to some degree of combat, thus placing them in the midst of conflict and its aftermath. Exposure to trauma may include personally experiencing trauma; witnessing a traumatic event; or seeing the death of another service member, civilian, or enemy combatant (Department of Defense 2014) . In the past, combat zones were defined as places that excluded female service members

(Dohrenwend, 2007). Perhaps this explains why female veterans have often been excluded from much of the veteran-specific PTSD research. Even though there is documented literature that demonstrates that those women have a greater risk than men for developing PTSD that will remain for the duration of their lives, research on female veterans is still in its infancy (Dohrenwend, 2007)

History of Women Roles in the Military

The way that the military engages in warfare has changed. In the past when Americans soldiers were involved in combat, women were not recognized as members of any military branch of the armed forces, and they were not allowed to participate in any combat activity. In fact, women were not allowed to operate in any official capacity within the military (Goebal, 2017). Women were, however, granted the opportunity to act the role of service providers. The women prepared meals for the soldiers, rendered first aid, and performed many random chores and task for the male soldiers. The duties consisted of washing and folding clothing, mail delivery, and running errands (Goebal, 2017). Women continued to provide service for the men at war until the establishment of the Women's Army Auxiliary Corps (WAAC; Goebal, 2017).

The development of the WAAC was a significant turning point in military history for women and the U.S. military. The WAAC was officially integrated as a branch of the United States Army in 1942 and is credited for changing the roles of the women who serve in the armed forces today (Goebal, 2017). The integration of female service members has paved the way for more women to serve in both official and unofficial capacities within the armed forces. In 1943, the WAAC was redefined as the Women's

Army Corp (WAC). However, since these women did not actively engage in combat, they were assigned the nickname *skirted soldiers*. This title was placed on them to ensure that there was no indication of combat stress from the female's perspective. The WAC was credited for many extraordinary accomplishments from 1943 to 1978, at which time the WAC branch disbanded. The army decided to abolish the organization and allowed the integration of females into the Army (Goebal, 2017). In 1978, all-female units of the WAC branch were integrated with male military units (Goebal, 2017)

Since the integration of women into the army, female service members have deployed with males and have served in roles that both directly and indirectly support combat operations. Between 1990 and 1991, nearly 41,000 female service members accounted for 7.2% of the 500,000-deployed population of American (Hagen, Smid, Knipscheer, & Kleber, 2015). Females service members were deployed to the Persian Gulf in support of the U.S.-led Coalition of Nations Against Iraq (Hagen, Smid, Knipscheer, & Kleber, 2015). The deployment of women to the war zone was marked in history as the first and largest deployment to include the use of women since the initiation of the volunteer forces in 1973. Even though women were allowed to serve, the question remained do women have the ability to serve in the capacity of men and also perform their duties to standard?

The distinction between combat and non-combat operations were forever established and changed during the Persian Gulf war. The contemporary ways of fighting as technology and strategic war planning dictated was eliminated. Women soldiers were now on the battlefields. Although they were not allowed to serve directly on the front

lines of combat, they were the supporting cast and indirectly supported the battlefield operations (Hagen, Smid, Knipscheer, & Kleber, 2015). While providing support to combat elements on the battlefield, women were exposed to many traumatic situations. Experiencing trauma firsthand placed the women at risk for developing PTSD. Being in the midst of combat has been linked to traumatic combat exposure and increases the rate of individuals developing PTSD (Watkins, Sudom, & Zamorski 2016). The consequences of exposure to trauma during combat contribute to physical and emotional injury to service members as well as increases the rate of veterans returning from active duty service with PTSD.

History of Trauma Exposure

Since the evolution of humankind, exposure to trauma has taken place in one or two ways, as a victim, or as the caregiver to a traumatized person. In 1980, the American Psychiatric Association (APA) added the criteria for posttraumatic stress disorder (PTSD) to the Diagnostic and Statistical Manual of Mental Disorders (DSM-III). This diagnosis was attached to the branch of science that deals with medical diseases, known as the Nosological Classification Scheme (Trimble, 1985). Although the initial primus for PTSD was controversial, the diagnosis of PTSD is credited for filling many essential gaps in the theory of psychiatry practice and theory. The understanding and development of PTSD shed much-needed light on the concept of pathological reaction to a traumatic event and dispelled ideas of individual inherent weakness, thus providing an avenue of approach to the complete understanding of the notion of trauma and its impact (Wiley, 1994).

Decade of the Brain

During the 1990s scientist created instruments capable of producing pictures that depict a view of the brain, providing insight as to how the brain processes information. The same instrument offered vital information related to the impact that trauma has on an individuals' ability to reason (National Institute of Health, 2007). This new technology evolved during the era when George H. W. Bush was the president of the United States. Former President Bush generated awareness of the many different neurological disorders afflicting individuals as a result of trauma by declaring the years between 1990 and 1999 as the decade of the brain (NIMH, 2007). The Former President utilized information provided in documents prepared by the National Advisory Council of the National Institute of Neurological Disorders and Strokes (NINDS 1998). The NINDS noted a multiplicity of neurological issues related to trauma as a basis for the declaration. Former President Bush laid the foundation for exploring neurological disorders. The goal was to develop ways to prevent, cure, and perhaps someday alleviate these disorders altogether. This research gained worldwide attention and eventually started a chain reaction around the world. Trauma and its effect on the brain became a prominent fixture in English literature (NIMH, 2007).

Psychological Impact of Trauma on the Brain

Van Amerigen, Mancini, Patterson, and Boyle (2008) found that even though an average of 76 percent of individuals may at some point in their life be exposed to trauma, the percentage of individuals that will meet the criteria for a diagnosis of PTSD is merely 2.4 percent. However, researchers, Haagen, Smid, Knipscheer, and Kleber (2015) found

evidence that the likelihood of military veterans developing PTSD after being exposed to higher levels of trauma as a result of combat is significantly higher than that of the general population. The emotional strain of war compiled with the high probability rate of being exposed to trauma or harmed while deployed contributes to psychological stress on the individual brain (Haagen et al., 2015).

Before the label Posttraumatic Stress Disorder was attached to the psychological impact of trauma on the brain, many other terms were used in an attempt to help describe the devastating impact that trauma has on the individual brain. Other names used to describe this impact of trauma on the brain were “Soldiers Heart” “exhaustion”, and “shell shock”. Military personnel affected by combat exposure were even sometimes referred to as “Hysterical Women” (Chamberlin 2012 p.360). These interchangeable terms would remain in effect until the development of the Diagnostic Statistical Manual of Mental Disorders III (DSM-III) replaced them in the 1980s with the term posttraumatic stress disorder (PTSD).

As the DSM III formulated, the concept of catastrophic events beyond ordinary human experience was framed. Ideas of significant emotional events such as rape, torture, war, terror attacks, natural disasters, automobile accident, airplane crashes, and other traumatic events were being considered. These elements of trauma were viewed as more stressful than usual stressful alterations of life such as marital dissolution, financial reversals, or severe health issues. Logical diagnosis under these circumstances would meet the criteria characterized as an adjustment disorder as opposed to PTSD (American Psychiatric Association, 1980). The contrast between what was viewed as a stressor and

what was viewed as the traumatic exposure was based on assumptions. The belief was that most people could cope with what is considered normal or ordinary stressors, yet, adaptive capacities seem to be limited and become overwhelmed when faced with unexpected beyond normal trauma. Before getting a diagnosis of PTSD, an individual must first meet the "stressor criterion" after a traumatic encounter. Exposure to a traumatic event does not necessarily mean that one will develop PTSD. Some people that are exposed to trauma never develop PTSD, while others do develop PTSD, the threshold levels to which they develop PTSD may vary (American Psychiatric Association, 1980).

DSM-IV and DSM-IV-TR were published in 2000, and the criteria for PTSD were again revised. This revision revealed that thru National Survey replication, PTSD rates indicate a 3.6% and 9.7% prevalence for lifetime PTSD among Americans exposed to trauma. The revision to DSM –IV included exposure to a traumatic event and symptoms from three clusters: hyperarousal symptoms, recollections, avoidant/ numbing and intrusive thoughts. The duration of the symptoms was also added and offered that the PTSD symptoms must lead to functional impairment and significant distress (American Psychiatric Association, 1987).

Conceptual and clinical implications have made it clear that PTSD is not simply a fear-based anxiety disorder, as was indicated in DSM-III and DSM-IV. Evidence-based revisions occurred with the most recent version of the DSM-5 (American Psychiatric Association, 2013). DSM-5 expounded upon previously founded criteria and also included anhedonia and dysphoric presentations, marked by negative cognitions, and mood states, angry, impulsive and reckless behavioral symptoms as criteria for meeting

the PTSD threshold. DSM -5 ultimately made changes in the diagnosis of PTSD, and omitted PTSD from the category of an Anxiety Disorder. PTSD is currently classified in the category of Trauma-Stressor –Related Disorders. In this category, every disorder is preceded by exposure to the traumatic event (American Psychiatric Association, 2013).

Diagnosis Criteria for PTSD

Although DSM-III provided a more in-depth insight into the psychological impact of PTSD on the individual and the family, it was DSM-5 that laid out the foundation for the development of PTSD. The DSM-5 laid out the symptomology of events that would categorize an individual with having PTSD (Brier & Scott, 2014; Kramer et al., 2016). When individuals are exposed to a life-threatening event, and posttraumatic symptoms occur, a diagnosis of PTSD usually follows. PTSD, as diagnosed by the Diagnostic Statistical Manual of Mental Disorders Fifth Editions (DSM -5), is described as a variety of symptoms. These symptoms include intrusion of thoughts, avoidance of others, negative ideas, cognitive and mood alterations, along with arousal and reactivity alterations (American Psychiatric Association, 2013). PTSD has the ability to impede an individuals' level of functioning within their personal and family life (Harrison & Albanese, 2016, and often renders the victims helpless as they will often relive the terror though day and nightmares long after the traumatic situation has ended.

To be diagnosed with PTSD, the following criterion must be met: (A) Stressor Criterion – an individual exposed to a traumatic event that the individual may have felt threatened by death or injury. The individual may have learned of violent death or violence to a loved one. Electronic media exposure does not constitute a traumatic event.

Repeated exposure to trauma-related events by first responders such as police officer, body handlers, medical professionals, etc. is considered traumatic. (B) Intrusive Recollection Criterion – an individual recollection of a traumatic event may remain for decades or a lifetime and may evoke a psychological experience that dominates the individual's life causing panic attacks, terror, dread, grief, or despair. (C) Or avoidance criterion – an individual may create specific behavioral and preventive strategies for avoidance of any situation that would elicit memories of the terrifying ordeal. This behavior attempts to minimize the psychological response to particular stimuli. Sometimes individuals who have been traumatized are afraid to leave the house for fear of reminding themselves of the traumatic event. (D) Individuals with PTSD may blame themselves or others for the event as a result of erroneous cognition and individual or negative cognitions and mood. They may have a low esteem of self-worth and may view themselves as inadequate, or weak. They may also appraise themselves as being permanently changed for the worse after the exposure to the traumatic event. They may suffer from dissociative psychogenic amnesia or may cut off trauma- based memories and feelings. The traumatized individual may suffer from constant negative emotions without the ability to feel pleasure or enjoyment. (E) The traumatized individual may show signs of alterations in arousal or reactivity. These signs may be mistaken for a panic or a generalized anxiety disorder. Individuals may suffer from insomnia, and impairment of cognition, hypervigilance, and easily startled as seen in individuals with PTSD. However, the hypervigilance may become so intense that it appears to be paranoia. (F) The duration criterion states that one month of symptoms must be the present before PTSD is

diagnosed. (G) Functional significance criterion state that there has to be a significant social, occupational, or other distresses as a result of these symptoms present before a diagnosis can be made. (H) The exclusion criterion eliminates the PTSD diagnosis from being mistaken from symptoms resulting from medication, substance use, or other illness (American Psychiatric Association, 2013).

Assessing PTSD

Since 1980, the development of evaluation instruments has been a significant focus on helping with the diagnosis and treatment of posttraumatic stress disorder. Keane, Wolfe, & Taylor, (1987), worked with Vietnam war-zone veterans, to develop the first set of psychometric and psychophysiological assessment techniques have been deemed valid and reliable. Since that time, others have modified and used the original products with other traumatized individuals. These instruments helped victims of rape, incest, and natural disasters (Keane, Wolfe, & Taylor, 1987). Some of the PTSD instruments used today to assess for PTSD are DAPS, PCL -5 BAI, and BDI.

Treatment for PTSD

There are many therapeutic approaches to treating PTSD (Foa, Keane, Friedman, & Cohen, 2009). Cognitive Behavioral therapy (CBT) and medication are credited for the most successful intervention for PTSD. Other treatment approaches include prolonged exposure therapy (PE), and Cognitive Processing Therapy (CPT). These processes have been proven effective when used with females who have been identified as victims of childhood or adult sexual trauma, military veterans who may have war-related trauma, and survivor of automobile accidents (Friedman, Resick, Bryant, & Brewin, 2011). Eye

Movement Desensitization and Reprocessing (EMDR) and Stress Inoculation Therapy (SIT) are also useful treatment options for individuals with PTSD (Hagen, Smid, Knipscheer, & Kleber, 2015). Medications usually prescribed to individuals with PTSD include paroxetine (Paxil) Sertraline (Zoloft), selective serotonin reuptake inhibitors (SSRIs) is medications that received FDA approval as treatments for PTSD. Other antidepressants that promise results are prazosin (Raskin et al.,2013). Group therapy has been used as an effective way to get individuals to discuss traumatic memories, PTSD symptoms, and other functional/ non-functional deficits with others who have had similar experiences (Hagen, Smid, Knipscheer, & Kleber, 2015). This method is ideal for veterans of war, rape, incest, and natural disaster victims. Because PTSD is a chronic and extremely complex disorder that debilitates, it may not respond to any of the current treatments (Resick, Nishith, & Griffin, 2003).

Prevalence of Female Veterans' PTSD

Females service members that deployed to war were exposed to trauma, directly and indirectly. As a result of experiencing traumatic events while deployed to combat, female service members, developed a higher probability rate of suffering psychological trauma from war than male veterans as a result of psychological trauma (Hagen, Smid, Knipscheer & Kleber, 2015). Psychological trauma, formerly termed shell shock, laid the foundation for psychiatric diagnosis of symptoms related to trauma exposure while deployed to war (Boone, 2011; Sullivan 2016), resulting in the initial attempts of psychiatrists to medically understand, define, and label in official psychiatric terminology, the psychological effect of trauma from war (Crocq & Crocq, 2000).

Individual studies have found that female veterans have a greater prevalence of PTSD than male veterans (Vogt et al., 2011). Also, the same survey found that younger women – especially African American and Hispanic women – posed the highest risk for mental health disorders. The authors studied gender differences among veterans who had deployed to Iraq and Afghanistan; the findings indicated that females who deployed were on average three years younger than the men that deployed and not married. The male veterans in the study were older and married with significantly higher incomes than the females. Even though the study showed that male veterans reported more combat-related stress than the female veterans, the authors found only a slight difference in rates of PTSD, 31.3 percent to 30.16 percent (Vogt et al., 2011). The results concurred that female and male veteran are differentially affected by trauma and suggested that coping mechanism are different between the genders.

Several meta-analyses of PTSD in veterans have been conducted, beginning almost 20 years ago (Brewin et al., 2000; Ozer et al., 2003) to more current studies (Fulton et al., 2015; Xue et al., 2015). Across all of these studies, what was consistent were findings about the prevalence of this condition in approximately 25% of returning veterans; that this condition appears more in non-Caucasian soldiers, in soldiers who have experienced prolonged and/or repeated combat; and there has been an increase in the proportion of women undergoing this condition.

Secondary Trauma in PTSD Victim Caregivers

Exposure to trauma extends to families of a traumatized individual as well as significant relationships (Sullivan, Barr, Kintz, Gilreath, & Castro, 2016), The

uncertainty of the veteran's welfare and safety while deployed to war produces intense levels of stress on the family members. This level of stress magnifies upon return of the mentally, and sometimes physically, wounded warrior. The emotional and physical injuries of war, although invisible to the naked eye, "Invisible Wounds" (Kilbourne & Kilbourne, 2012, p. 250), creates impairments to cognitive abilities as well as other mental health conditions. It is not uncommon that cognitive disabilities that developed after trauma exposure may spill over into the family members of the veterans affecting the psychosocial functioning of the veteran's family (Rodriquez, Holowka, & Marx, 2012; Synder et al., 2016).

The effect of secondary traumatic stress in caregivers of traumatized veterans has been investigated in hundreds of studies, going back to the early 1990s. For example, McCann and Pearlman (1990) examined veterans' mental health conditions post-deployment. Using constructivist theory, they argued that engaging with traumatic patients results in changes to one's cognitive schema. McCann and Pearlman also found that modifications to one's schemas appear in the form of psychological needs, which tend to manifest in five particular areas: trust, esteem, intimacy, control, and safety. The study revealed that both women and men veterans are prone to PTSD and other forms of psychological distress. Results indicate that female veterans' ability to adjust after deployment is like that of male veterans (McCann & Pearlman, 1990). The study also found that female veterans often expect to receive less support from peers when dealing with war-related stress. The results provided evidence that PTSD does not discriminate, and that there is no absolute gender-specific risk for PTSD. It also provided evidence to

support the theory that males and females are very similar, and despite the limited amount of research dedicated to the IMPs of female veterans, the gender of the partner does not automatically presuppose mental functionality (McCann & Pearlman, 1990).

Solomon et al., (1991) investigated the influence of combat and PTSD on wives and children of male veterans. Results indicated high levels of somatization, depression, loneliness, anxiety, hostility, impaired marital and family relationships, and decreased socialization in wives of veterans diagnosed with PTSD. They also documented higher levels of psychiatric problems in wives of male veterans with PTSD than in wives of male veterans who did not have PTSD.

Ludick (2013) also analyzed administrative workers who processed claims for traumatized individual workers. He concluded that negative emotion and negative energy could be contagious, producing emotional distress. Ludrick agreed with researcher Solomon that secondary stress triggers depression, irritability, anxiety, and somatic complaints, compromising emotional, behavioral, and cognitive functioning.

Figley (1983) introduced the concept of secondary traumatic stress (STS), which had also been referred to as secondary trauma or secondary victimization. Using systems theory, Figley (1983), conducted a broader analysis of different facets of injury. STS was used to describe the negative impact of being indirectly exposed to someone who has been traumatized. Figley examined the effect of trauma on different groups of professionals. He conceptualized STS as unavoidable, occurring when experiencing a traumatic event or having recurrent memories of the event. The memories may be brought on by empathic responses to loved ones who have been traumatized or by

extending exposure to upsetting material that reminds them of the trauma. Figley also theorized that being in close contact with someone who has experienced trauma might result in hurtful emotional energy. The repeated observation of sad stories also results in secondary traumatization (Figley, 1995). Figley (1995) found that an individual might suffer from an STS and present with psychological symptoms that replicate those of the actual traumatized victim, just by mere association. Stamm (1999) concurred with the findings of Figley concerning the transference of PTSD. Stamm also noted that STS occurs when an individual is aware of a loved one's exposure to trauma. STS emerges when a person provides long-term care for someone who has been traumatized. In conclusion, Figley suggested that reductions in stress, detachment from trauma, and education are instrumental in diffusing contributing factors to STS.

Beckham, Lytle, and Feldman (1996); Calhoun et al., (2002), Figley (1995); Solomon et al., (1991) all concluded through research that women are more likely to experience PTSD than men following a traumatic event. At the same time, Beckham et al., (1996) found anecdotal and clinical evidence indicating that PTSD is not a gender-biased disorder. Calhoun et al., (2002) found that all service members regardless of gender are impacted by exposure to a traumatic event. Ben et al., (2000) and Goff and Smith (2005) found that studies examining traumatization in service members have been mostly gender-biased. In summary, researchers suggested that many studies have focused on women who provided care for a traumatized male service member; there are limited studies that focus on care for traumatized female service members.

More recently, Baum, Rahav, and Sharon (2014) examined the male versus female susceptibility to secondary PTSD. The study used a meta-analysis of previous findings on individuals who cared for a trauma victim or was in a close relationship with someone exposed to a traumatic experience. The analysis included only peer-reviewed studies from 12 different researchers. The findings from all of the reviews indicated that women were more susceptible to secondary PTSD than men. Baum, Rahav, and Sharon (2014) recommended increasing education and awareness.

Fredman et al., (2014) conducted an epidemiological study that was designed to measure partner PTSD accommodation. The design was intended to determine how partners sometimes alter their behaviors to accommodate those of their partner who has PTSD. PTSD as a psychological disorder is often closely associated with mental distress within the relationship. Friedman et al. utilized the Response to Trauma Scale when testing the participating couples. The results yielded consistent findings relating to relationship distress. The results also indicated that partners were dissatisfied in their relationships and view their veteran spouses as unsupportive. Lastly, the findings concluded that spouses of veterans might make accommodations to their lifestyle to adapt to residing with a patient with PTSD (Fredman et al., 2014).

Mittal et al., (2013) found that combat veterans experienced fear and disgrace when seeking psychological treatment to cope with their symptoms of PTSD and were often met with misunderstanding and stigma. This information may also be carried on to the family members of the veteran. According to Link and Phelan (2014), there are both internal and external aspects of stigma that might prevent individuals from seeking

treatment for their psychological distress. Perceived external stigmas may include prevention of successful career in the military and discrimination when it comes to being selected for assignments and promotion. Perceived internal stigmas that prevent the veteran or the spouse from seeking care for symptoms of PTSD, including self- shame or self-blame or belief that others will view them as weak.

Summary and Conclusion

In sum, the literature review has identified critical issues that clarify what is known about how PTSD, and its effects on caregivers. Veterans are fearful to seek help for PTSD because of the stigma, and thus the veterans' family also resist accessing treatment. PTSD within a relationship is usually accompanied with mental distress within the relationship. Feldman (2014) measured partner PTSD and found that partners of veterans with PTSD disorder alter their behavior to accommodate their partner who has PTSD. These results also indicated that partners were dissatisfied in their relationship and viewed their veteran partner as unsupportive of their needs. The elements mentioned above contribute to the occurrence of PTSD in the non-veteran partner. They may cause psychological distress and relationship dissatisfaction in military couples.

It is hoped that this study will bring to light the gap in research regarding female veterans and the influence of psychological distress and relationship quality with the IMP. In Chapter 3, the research design and methodology will be discussed. Also, the psychometrics and data collection method will be provided. This design will help to further understand the impact of female veteran posttraumatic stress disorder on psychological distress to her IMP.

Chapter 3: Research Method

Introduction

The two-fold purpose of the quantitative study was (a) to examine how length of time in relationship, combat experience, total number of deployments, and IMP distress discriminate between female veterans with and without PTSD and (b) to examine the influence of female veteran PTSD, length of time in relationship, combat experience, total number of deployments, and IMP distress on relationship quality. A correlational design was used to measure the variables in this research study. Significant sections covered in this chapter are the research design, rationale for selecting this design, the independent (predictors) and dependent (response) variables, the targeted population and size, sampling procedures, and the power analysis tools used to calculate the sample size. In this chapter, I also discuss the recruiting processes, the consent form description, data collection method, follow up procedures, and threats to internal and external validity.

Research Design and Rationale

I posed two research questions in this study:

Research Question (RQ)1: Is there a difference between female veterans with and without PTSD (as reported by their IMPs) on the following variables: length of time in the relationship, combat experience, the total number of deployments, and IMP psychological distress?

$H_0$1: There is no difference between female veterans with and without PTSD (as reported by their IMPs) on the length of time in the relationship, combat experience

(yes/no), the total number of deployments, and IMP distress (as measured by the BDI and BAI-II and PCL-5).

H_0a: There is a difference between the female veterans with PTSD and the female veteran without PTSD (as reported by the IMPs) on the length of time in the relationship, combat experience (yes/no), the total number of deployments, and IMP distress (as measured by the BDI and BAI-II and PCL-5).

Research Question (RQ)2: What is the influence of female veteran PTSD (as reported by their IMPs), length of time in the relationship, combat experience, the total number of deployments, and psychological distress on relationship quality?

$H_0$2: There is no influence of female veteran PTSD (as reported by their IMPs), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II, and PCL-5) on relationship quality (as measured by the RAS).

H_{0a}: There is significant influence on female veteran PTSD (as reported by their IMPs), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II and PCL-5) on relationship quality (as measured by the RAS).

For the first question, the independent (predictor) variables were the length of time in the relationship, combat experience (yes/no), the total number of deployments, and IMP distress (as measured by the BDI, BAI-II, and PCL-5). The dependent (criterion) variable in this study was female veterans' PTSD (yes/no). For the second question, the predictor variables were female veteran PTSD (as reported by their IMPs),

length of time in the relationship, combat experience, the total number of deployments, and psychological distress. The dependent variable was relationship quality (as measured by the RAS).

This research was conducted using a survey research design, and the data were analyzed using a DFA for RQ1 and a multiple regression analysis for RQ2. DFA is used to distinguish between two or more naturally occurring groups based on some variables (predictors) using a linear model (Electronic Statistics Textbook. (2012,). Regression analysis was used to create a linear equation to describe the relationship between multiple predictors and a single criterion (see Frankfort-Nachmias & Nachmias, 2008).

Possible time and resource constraints were thoroughly examined. I determined that the amount of time estimated for participants to complete the questionnaires from start to finish was 25 minutes. This included delivery of purpose and instructions of the research. Although it was likely that some participants completed the questionnaires at a more rapid pace than others, I determined that there were no time constraint matters of concern regarding this research.

The survey design aligned consistently with research designs needed to advance knowledge in the discipline (see Frankfort-Nachmias &Nachmias 2008). The design allowed the capability of assessing more participants. The cost was feasible as I paid only for the production of the survey questionnaires, while other forms of data collection methods would have been more expensive. Using an online platform to deliver access to the survey (via Pearson Q- Global and surveymonkey.com) improved the convenience for

the participants and higher accuracy of data collection. Adequate statistical power was improved when using this survey design (see Frankfort-Nachmias & Nachmias 2008).

Methodology

Population

The population of interest was the IMPs. The military only tracks member census, so it is known that there are 1,882,848 women veterans (DOD 2004). It is not known what percent are married, so no estimate of the size of the population could be made.

Sampling and Sampling Procedures

I used a convenience sampling strategy. This was chosen because (a) it was not feasible or economical to attempt to create a probability sample, and (b) it maximized the opportunity to obtain a sufficient sample size (see Frankfort-Nachmias & Nachmias 2008).

The sample was drawn from volunteers who responded to an invitation (Appendix A) posted on bulletins board at the VA, local libraries, and coffeehouses in a southern metropolitan city. Persons contacting me by phone or e-mail were told about the nature of the study, the informed consent process, and their participation that would begin by clicking on a link to access Survey Monkey and the Pearson Q Global website. I explain the details of the procedures below. The study included IMPs who resided in a southern metropolitan city with a population of approximately 223,123 people, aged 20 and older, who are married or partners of a female Army veteran.

The required sample size was determined by conducting a statistical power analysis in G* Power 3.1 using the RQ2 hypothesis because this question contained the

most predictors (five vs. four for RQ1). Following Faul et al.'s (2007) recommendations, the sample size of 134 was estimated, based on an effect size of .15, .80 power, and p = .05.

Procedures for Recruitment, Participation, and Data Collection

Briefing procedures. As described above, participants were voluntarily recruited through posted fliers. The flyer addressed/contained the link to survey. Those who contacted me were briefed on the procedures and informed consent. The participants were advised in writing of the potential psychological risks associated with completing the questionnaires. I included the procedures to ensure confidentiality, and that the participants would not receive an incentive for participating in the study. All participants were asked to read and follow all instruction before completing the questionnaires. The participants were reminded that they could request the results of the study upon completion. A summary of the results was available at the conclusion of the research for those wishing to contact me. There were no plans to conduct follow up interviews.

Data collection. If they agreed to participate, they used the link provided on the flyer to log into surveymonkey.com where they reviewed the announcement explaining their rights to participate and withdraw from the study. Upon agreeing (by clicking a link), participants then completed the demographic portion of the survey, the PCL-5 and the RAS as part of Phase 1 of data collection. A numerical code was assigned for each participant. Demographics collected included the IMP's identification of partner PTSD, number of deployments, and number of years in the relationship. Other necessary demographic information (participant age, number of children, IMP's military status) was

collected and reported to describe the sample and establish relevance to the prior literature.

In Phase 2, the link to the BAI and the BDI II was delivered using the Q-Global, Pearson online scoring, and reporting system using the code assigned in Phase 1. Participants completed two questionnaires, and upon completion, I was sent the code, total score, and interpreted score (mild, moderate, severe) for each participant. The separation of the data collection into two phases was required to comply with the licensing requirements of the Q-Global/Pearson platform.

Instrumentation and Operationalization of Constructs

Posttraumatic Stress Checklist (PCL-5). The PCL-5 showed excellent discriminant validity and excellent test-retest reliability over a 2 to 3-day period with different measures of trauma exposure. The PCL-5 takes 5 to 10 minutes to complete. Internal consistency is very high and correlates strongly with other assessments used to measure PTSD. Cronbach's alpha values range from .75 baseline, Avoidance Rumination (AR) subscale to .95 at follow up. Internal consistency fell well into the recommended range of .15 to .50 for intermit correlations when analyzed (see Weathers et al., 2015). Predicted and observed relationships between the PCL-5 were observed to determine convergent and discriminant validity; results yielded a strong match for predicted and observed correlations. Permission was not required from the publisher to use the instrument in this study. The form is available online through the PTSD website.

Beck Depression Inventory II. Developed by Beck (1996), the Beck Depression Inventory II (BDI-II) is the most widely used measure of depression. The 21-item

questionnaire may be administered to individuals 13 to 86 years of age. It can be used to measure symptoms of depression, hopelessness, and irritability. The BDI-II consists of Likert scale items ratings from 0 to 3, where 0 indicates *no depression* and the highest score possible of 63, being the highest score possible, indicating *severe depression*.

It is used to measure the cognitive state of mind regarding guilt, fatigue, and loss of sexual desire. Scores of 0 to 13 indicates minimal depression, a score of 14 to 19 indicates mild depression, a score of 20 to 28 indicates moderate depression, and a score over 29 indicates severe depression (Osman et al., 2008). The BDI-II has been used in universities, and psychiatric samples of adults and adolescent clients (including deaf persons) to establish internal consistency, the reliability coefficient range was documented between .84 to .93 (Osman et al., 2008).

The BDI-II possesses excellent internal consistency ($\alpha = .91$), and 1-week test-retest reliability is .93. The BDI-II is correlated with other measures of depression, such as the Hamilton Depression Scale. The limitation of this measure is that it is self-report, and thus susceptible to social desirability bias (i.e., underreporting of symptoms). Validity-researchers have concluded that the BDI II is an assessment that leaps into higher levels of generalized distress (Osman et al., 2008). Permission was obtained from the publisher to use the instrument in this study (see Appendix A).

The Beck Anxiety Inventory (BAI). The BAI was developed by Beck, Steer, and Brown in 1997. The 21-question measure possesses good internal consistency ($\alpha =$ 94). Questions on the measure are anchored to a 4-point Likert scale (0 = not at all, 3 = severely). A score of 9 or higher is indicative of anxiety. The measure was used in this

study to examine anxiety symptoms in IMPs. Researchers conducted two separate studies when testing the effectiveness of the BAI. Study number one yielded high internal consistency with a Cronbach's alpha of .94, with an acceptable level of reliability (Osman et al., 2008). The second study focused on the discriminate validity; it conducted a comparison of the BAI and the State Anxiety Inventory, (SAI), a section from the State-Trait Anxiety Inventory, results indicated that the BAI fared better than the SAI when rated for convergent and discriminant factors (Beck, Steer, &Brown 1993). Permission was obtained from the publisher to use the instrument in this study (Appendix A).

Relationship Assessment Scale. One of the key aspects to measuring relationship satisfaction is relationship assessment. The Relationship Assessment Scale (RAS) was developed by Hendrick and Hendrick (1998). It contains seven questions anchored to a 5-point Likert scale. The RAS consists of 7 item relationship satisfaction questions that use a 5-point scale ranging from 1-low satisfaction to 5- high satisfaction.

The measure is used for married, cohabitating, dating, or engaged couples. According to research, the RAS correlates with other measures used to assess individuals in committed relationships (Hendrick & Hendrick 1998). The brevity of the RAS makes it more practical for use in most clinical settings. The measures possess good internal consistency reliability ($\alpha = .87$), and it is proven to be reliable as it correlates with a variety of other instruments used to measure attitude and relationship satisfaction (Hendrick & Hendrick 1998). Reliability of the RAS has been examined through comparison with scores on the Dyadic Adjustment Scale (DAS) in a clinical forum using

63 women and 55 men. The findings suggest that there is a high degree of convergence between the two instruments.

Data Analysis Plan

The software used to analyze collected data is the Statistical Package for Social Sciences (SPSS) Version 24 (Field, 2012). Before testing the hypotheses, the data was examined for appropriate distributional properties, to ensure that the assumptions of each statistic were met (Frankfort-Nachmias, & Nachmias 2008).

The research questions and hypotheses are as follows:

Research Question (RQ)1: Is there a difference between female veterans with and without PTSD (as reported by their IMP's) on the following variables (length of time in a relationship, combat experience, a total number of deployments, and IMP psychological distress)?

$H_0$1: There is no difference between female veterans with and without PTSD (as reported by their IMP's) on the length of time in the relationship, combat experience (yes/no), the total number of deployments and IMP distress (as measured by the BDI and BAI-II and PCL-5).

H_0a: There is a difference between the female veterans with PTSD and the Female veteran without PTSD (as reported by the IMP's) on the length of time in the relationship, combat experience (yes/no), the total number of deployments and IMP distress (as measured by the BDI and BAI-II and PCL-5)

Research Question (RQ)2: What is the influence of female veteran PTSD (as reported by their IMP's), length of time in a relationship, combat experience, the total number of deployments, and psychological distress on relationship quality?

$H_0$2: There is no influence of female veteran PTSD (as reported by their IMP's), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II, and PCL-5) on relationship quality (as measured by the RAS).

H_0a: There is a significant influence on female veteran PTSD (as reported by their IMP's), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II and PCL-5) on relationship quality (as measured by the RAS).

Two types of correlational, predictive analyses were conducted: discriminant function analysis for RQ#1; and multiple regression analysis for RQ#2. Confidence intervals and p values were used to estimate statistical significance.

Threats to Validity

External threats to validity were considered when soliciting participation for research. Invitations to military families to participate in the research may be threatening or concerning due to impact on a military career. The response rate to survey questionnaire may be low or biased. Some participants might have answer the questions more subjective than others. Participation accountability may have been lost; there was no way to verify who completed the survey, the participant may ask someone else to

respond on their behalf. Location of the data collection may have produced external threats to validity as well (Frankfort-Nachmias, & Nachmias, 2008).

The use of the internet as a method to participate in a research project may also present an internal threat to validity. Maintaining complete control over the access to the secured link may not be feasible. There is no way to prevent the intended participant from sharing information regarding the questionnaire or even allowing others to complete the survey for them. Data entry and analysis may also compose a threat to internal validity; mistakes could have been made when entering data, therefore, and random spot check for quality control was conducted by the researcher to ensure the accuracy of information input (Frankfort-Nachmias, & Nachmias 2008).

Ethical Procedures

All standards of regulations and guidelines regarding ethical research as set by the American Psychology Association (APA), and by Walden University were followed. Data was not collected until approved by the Institutional Review Board at Walden University. To ensure that each participant in the study were aware of the privacy and ethical agreements and standards, each participant was asked to complete consent of understanding. This consent explained to the participants that they are volunteers in the research and that they were free to withdraw from the research at any time. The consent outlined any specific risk to the participants for participating in the study as well as the potential benefit of being a part of the research in that their participation may be instrumental in improving the understanding of mental health concerns of IMPs of female veterans. The letter also stated that no incentive was offered to the participants for their

participation in the research. The researcher provided contact information to participants in case there are questions. They may request the summary of the research.

The researcher solicited data from partners of veterans from the non-profit organization not affiliated with the military. This avoided a conflict of interest with the military. There was no request for permission required from military to engage with members of this community.

Only the researcher and those assigned by Walden University to oversee the research had access to the questionnaires and the collected data. The data is stored in a fireproof combination locked safely inside the closet of the researcher home.

All participants were treated with respect. Participants were briefed before the study. Data was stored in a secure safe which only the researcher will have access and will be maintained for five years and then destroyed by fire. Data collection was conducted through a secure link on the web.

Summary

This chapter provided information on the methodology for this research. The quantitative design was selected to study the research variables. It also included information on the proposed research questions, the participants in the study, the desired design, psychometrics, and mitigation plans to prevent harming participants. This design was chosen to help to predict the impact of female veteran posttraumatic stress disorder on psychological distress to her IMP. In Chapter 4, the results of the collected data are discussed in detail. Tables are used to depict the results of the study in a manner which is easy to understand for everyone. These tables will offer information regarding the

analysis of the research questions, the hypotheses and the possible correlations between the groups. The instruments used played an essential part in determining the outcome of the results in the research. In Chapter 4 the demographics, data collection, characteristics of the sample, descriptive and analysis of the research questions are provided.

Chapter 4: Results

Introduction

The purpose of this quantitative study was (a) to examine how length of time in relationship, combat experience, total number of deployments, and IMP distress discriminate between female veterans with and without PTSD and (b) to examine the extent to which female veteran PTSD, length of time in relationship, combat experience, total number of deployments, and IMP distress predict relationship quality. In Chapter 4, I provide the results of the participant demographics, interventions, interpretation, analysis, data collection, results, and summary from this research.

Data Collection

Data were collected between October 5 and December 4, 2018. All data were collected remotely via the Internet. Although the targeted number of participants was 134, there were 92 participants, and the number of valid surveys was 71. The recruitment materials for the study specifically requested male participants, but responses were received from 11 females, and 10 additional surveys were invalid. Some of these responses were from females who were in relationship with females while in the U.S. Army.

There was no face-to-face collection of data. Participants were recruited by word of mouth and flyers. The word-of-mouth process generated enthusiastic responses around the world, including from U.S. cities and towns such as Richmond, Virginia; Halley and Dermott, Arkansas; and Honolulu, Hawaii, as well as from individuals in European cities

such as Hanau, Germany. Word-of-mouth contacts were conducted by the Internet, cell phones, interpersonal contact, and flyers shared on social media outlets.

IMPs of female veterans with and without a diagnosis of PTSD who decided to participate in the study acknowledged reading, understanding, and agreeing to participate in the survey by clicking the *OK* button on the consent form. Once the participants clicked *OK*, the survey officially began. Participants were informed of their rights to terminate the survey at any time. Survey Monkey and Pearson Q Global remote access were used to collect data via the Internet. Protocols set by the Walden University IRB were followed throughout the data collection process. All participants were administered the IRB approved consent form and acknowledged understanding the terms of the study prior to completing the surveys.

Restated Research Questions

The two research questions, together with their associated null and alternative hypotheses are restated below:

Research Question (RQ)1: Is there a difference between female veterans with and without PTSD (as reported by their IMP's) on the following variables (length of time in the relationship, combat experience, the total number of deployments, and IMP psychological distress)?

$H_0$1: There is no difference between female veterans with and without PTSD (as reported by their IMPs) in the length of time in the relationship, combat experience (yes/no), the total number of deployments, and IMP distress (as measured by the BDI, BAI-II, and PCL-5).

H_1a: There is a difference between the female veterans with PTSD and the female veterans without PTSD (as reported by the IMPs) in the length of time in the relationship, combat experience (yes/no), the total number of deployments, and IMP distress (as measured by the BDI, BAI-II, and PCL-5).

Research Question (RQ)2: What is the influence of female veteran PTSD (as reported by their IMPs), length of time in the relationship, combat experience, the total number of deployments, and psychological distress on relationship quality?

H20: Female veteran PTSD (as reported by their IMPs), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II, and PCL-5) do not predict relationship quality (as measured by the RAS).

H2a: Female veteran PTSD (as reported by their IMPs), length of time in relationship, combat experience (yes/no), total number of deployments, and psychological distress (as measured by the BDI, BAI-II and PCL-5) predict relationship quality (as measured by the RAS).

Discrepancies

There were discrepancies in the data collection plan as outlined in Chapter 3. The expectation of 134 participants, as previously calculated using the G*power calculator (see Faul et al., 2007), was not met, as only 92 individuals participated in the study. Additionally, a number of surveys were found to be incomplete, and many participants who completed Part 1 failed to complete the second part of the survey, further reducing the sample size to 82. Finally, 11 persons who completed the survey were women, who

were outside the inclusion criteria for the study. Results from the final sample of 71 records were evaluated for post hoc power with four predictors and a medium effect size of .15 ($\alpha = .05$). The achieved power of this study was $\beta = .71$, meaning that the results had only a 71% chance of showing a significant result if there was one. Therefore, nonsignificant results will be interpreted with caution.

Results

Characteristics of the Sample

The final sample included 71 males in a relationship with female Army military personnel. The demographic characteristics of the sample are shown in Table 1. Almost 85% of the sample was Black/African and American ($n = 60$). Hispanic participants represented only 2% of the sample, and White participants represented 10%. Most of the participants (63%) were married, and only 1% of the sample was divorced. The IMPs who responded to the survey were all at least 30 years old, with almost two-thirds (66.2%) between 45 and 59 years of age. About 55% of the participants reported that their female veteran partner had combat experience. IMPs also reported that 51% did not have a diagnosis with PTSD, 30% had a diagnosis of PTSD, and 19% were not sure if their female partner had PTSD. Almost half of the participants (43.7%) had been in the relationship for no more than 5 years, and approximately another one third had been in the relationship for more than 15 years. More than one half of the IMPs (56%) reported that their army partner had deployed between one and four times during the relationship, and 44% reported that their partner had never deployed.

Table 1

Demographic Distribution of Participants (N = 71)

Variable	Frequency
Race/ethnicity	
Black or African American	60 (84.5%)
Hispanic	1 (1.4%)
White	7 (9.9%)
Multiple ethnicities	3 (4.2%)
Marital status	
Married	45 (63.4%)
Divorced	1 (1.4%)
Separated	11 (15.5%)
Domestic partnership/civil union	2 (2.8%)
Single but cohabiting with partner	3 (4.2%)
Single, never married	9 (12.7%)
Age	
30 to 44	18 (25.4%)
45 to 59	47 (66.2%)
Over 60	6 (8.5%)
Highest level of education	
High school graduate	12 (16.9%)
At least 3 years of college	10 (14.1%)
College graduate	22 (31.0%)
Some graduate school	5 (7.0%)
Completed graduate school	22 (31.0%)
Number of years in relationship	
1 to 5	32 (45.1%)
5 to 10	2 (2.8%)
10 to 15	15 (21.1%)

table continues

15 to 20	7 (9.9%)
More than 20	15 (21.1%)
Number of times partner was deployed during relationship	
Never	31 (43.7%)
1	17 (23.9%)
2	16 (22.5%)
3	5 (7.0%)
4 or more	2 (2.8%)

Summary variables. Two of the measures were made up of individual items that were then summed to create single measures of the constructs. The RAS is composed of seven items, which was summed to create a single score that measures the IMP's perception of their intimate relationship. Low scores represent poor relationship quality, and high scores represent good relationship quality (Hendrick & Hendrick 1998). The PCL-5 is composed of 20 items that measures and assesses symptoms of PTSD in the IMPS (Weathers et al., 2015). Low scores represent few PTSD symptoms, and high scores represent many PTSD symptoms (Weathers et al., 2015). The descriptive statistics are presented in Table 2.

Analyses for Research Questions

In preparation for the multivariate analyses, the following statistics were computed to explore the distributional properties for the two summary variables (PCL-5 and RAS). Table 2 reveals that while the distributions of the variables are not perfectly

normal, skewness and kurtosis values occur well within the boundaries of the assumption for a normal distribution based on linear models (see Nachmias, 2008).

Table 2

Psychological Distress and Relationship Quality

		Psychological distress (PCL-5)	Relationship quality (RAS)
N	Valid	71	70
	Missing	0	1
Mean		32.662	15.029
Median		29.000	14.000
Mode		46.000	14.000
Std. Deviation		9.745	1.523
Skewness		0.126	0.027
Std. Error of Skewness		0.285	0.287
Kurtosis		-1.435	-1.080
Std. Error of Kurtosis		0.563	0.566
Minimum		14.000	12.000
Maximum		46.000	17.000

For the regression analysis, the three categories of the variable, diagnosed with PTSD (*diagnosed, not diagnosed, not sure*) were recoded into two dummy variables so that the variance across the categories in relation to the outcome variable could be accurately captured (see Field, 2009). Table 3 presents the frequencies, descriptive statistics, and correlations with partner diagnosed.

Table 3

Descriptive Statistics for Dummy Variables of PTSD Diagnosis

Variable name	Freq	%	*M*	*SD*	Corr. with diagnosed
Diagnosed	21	29.58%	.300	.462	NA
Not diagnosed	36	50.70%	.186	.392	-.657
Not sure	14	19.72%	.186	.392	.321

The correlations among criterion and predictors shown in Table 4 reveals that none of the predictors are substantively correlated (r = +/- .70) with each other, upholding the assumption of noncollinearity among the predictor variables.

Table 4

Correlations Among Predictors and Criterion

	2	3	4	5	6	7
1. Length of Time in Relationship	-0.071	-0.017	-0.085	-.269*	-0.075	.280*
2. Partner Combat Experience		.520**	.463**	-0.120	-0.190	-0.115
3. Partner Number of Deployed During Relationship			.418**	0.019	-.277*	-0.050
4. Partner Reports that Spouse was Diagnosed with PTSD				-.321**	-.312**	-.322**
5. Partner Not Sure if Spouse was Diagnosed with PTSD					.431**	-0.203
6. Psychological Distress						.397**
7. Relationship Quality						

* $p < .05$
* $p < .01$
* $p < .001$

Research Question (RQ)1: Is there a difference between female veterans with and without PTSD (as reported by their IMP's) on the following variables (length of time in the relationship, combat experience, the total number of deployments, and IMP psychological distress)?

In conducting a DFA, assumptions of normality of the scale variables, linearity and collinearity were addressed above. It should be noted that originally the intention was to examine differences between two groups (with and without PTSD). However, participants were also given the choice of "I'm not sure", and 14 (19.7%) people chose that option. All subsequent analyses examine a three-group model.

To examine univariate differences between the three groups, means and SD were computed, as shown in Table 5. Group 1 (No PTSD) reported being in relationship the longest, less likely to have combat experience and fewer deployments. Group 2 (PTSD) participants reported the most combat experience and highest number of deployments. Interesting, psychological distress (PCL-5) was rated the lowest for this group. Group 3 participants ("I am not sure") reported the greatest amount of psychological distress (PCL-5).

Table 5

Group Statistics

Partner diagnosed with PTSD	Mean	Std. Deviation	Valid *N* (list/wise) Unweighted

No	Length of Time in Relationship	3.06	1.67	36
	Partner Combat Experience	0.39	0.49	36
	Partner Number of Deployed During Relationship	0.58	0.84	36
	Psychological Distress	32.11	8.88	36
Yes	Length of Time in Relationship	2.38	1.40	21
	Partner Combat Experience	0.90	0.30	21
	Partner Number of Deployed During Relationship	1.76	1.14	21
	Psychological Distress	28.00	8.46	21
I am Not Sure	Length of Time in Relationship	1.71	1.49	14
	Partner Combat Experience	0.43	0.51	14
	Partner Number of Deployed During Relationship	1.07	1.33	14
	Psychological Distress	41.07	8.77	14
Total	Length of Time in Relationship	2.59	1.63	71
	Partner Combat Experience	0.55	0.50	71
	Partner Number of Deployed During Relationship	1.03	1.15	71
	Psychological Distress	32.66	9.75	71

The Test of Equality of Group Means Table 6 indicates, at the univariate ANOVA level, that all of the predictors demonstrated a statistically significant discriminative ability to differentiate among the three groups at the .023 or smaller.

Table 6

PTSD Means								
	No (n=36)	Yes (n=21)	I am not sure (n=14)	Wilks' Lambda	F	df1	df2	Sig.
Length of Time in Relationship	3.06	2.38	1.71	.895	3.992	2	68	.023
Partner Combat Experience	0.39	0.90	0.43	.785	9.327	2	68	.000
Partner Number of Deployed During Relationship	0.58	1.76	1.07	.799	8.539	2	68	.000
Psychological Distress	32.11	28.00	41.07	.781	9.547	2	68	.000

The Box's M test of equality of covariance matrices indicated that the group distributions do not differ significantly from multivariate normal, and the assumption of homogeneity of variance has been met, Box's M = 18.294, F = 1.406 (12, 8241.6), p =.155.

Tables 7 shows the stepwise algorithm which allowed the backward, forward, and stepwise addition of the predictors, and indicated the statistical significance of the addition of each variable to the equation. The results of this analysis indicate (with the reducing of Wilks' Lambda at each step) that the addition of three predictors reduces the

unexplained variance in discriminating between the three groups. The fourth predictor (number of combat experiences) did not explain enough unique variance to enter into the final equation, tolerance = .992, F to remove = 3.898, Wilks' Lambda = .631

Table 7

Stepwise Statistics

Variables Entered

Step	Entered	Wilks' Lambda							
		Statistic	df1	df2	df3	Exact F			
						Statistic	df1	df2	Sig
1	Psychological Distress	.781	1	2	68.0	9.547	2	68.00	.000
2	Partner Number of Deployed During Relationship	.631	2	2	68.0	8.661	4	134.00	.000
3	Length of Time in Relationship	.565	3	2	68.0	7.278	6	132.00	.000

Note. At each step, the variable that minimizes the overall Wilks' Lambda is entered. [a,b,c,d]

a. Maximum number of steps is 8.

b. Minimum partial F to enter is 3.84

c. Maximum partial F to remove is 2.71.

d. F level, tolerance, or VIN insufficient for further computation.

Table 8 presents the eigenvalues and canonical correlations of the two functions (n – 1 groups). Almost 57% of the variance distinguishing between the groups is found in

the first function, and 27.25% of the variance explained by the model (the canonical correlation squared). The remaining 43% of the variance distinguishing the groups is explained by the second function, with 22.4% of the variance explained by the model.

Table 8

Summary of Canonical Discriminant Functions Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical correlation
1	.375[a]	56.6	56.6	.522
2	.288[a]	43.4	100.0	.473

The Wilk's Lambda Table 9 shows the ratio of within groups to the total sums of squares and the variance proportions not explained using the discriminate scores by the different groups. A Lambda of 1 indicates that group means are equal. The Lambda of .565 and .777 has a significant value (Sig =.000); thus, indicating that there are differences in the group means

Table 9

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	*df*	Sig.
1 through 2	.565	38.295	6	.000
2	.777	16.934	2	.000

Table 10 presents the standardized discriminant coefficients for each function. This table reveals that for the first function, the largest and most significant contributor is

psychological distress, followed by the number of deployments. In the second function, these two variables were also the most important, but the number of deployments has a negative relationship.

Table 10

Standardized Discriminant Coefficients

Type of coefficient	Standardized coefficients	
Function	1	2
Length of Time in Relationship	-.620	.081
Partner Number of Deployed During Relationship	.674	-.627
Psychological Distress (PCL-5)	.691	.635

Table 11 presents the accuracy of correctly classifying cases to each group based on the scores of each of the variables in the equation. Overall, 63.4% of the participants were correctly classified based on the three variables. About 67% of the participants who reported "no" were correctly classified; 52% of those who reported yes were correctly classified and 71.4% of those who reported "not sure" were correctly classified.

Table 11

Classification Results

			Predicted Group Membership			
		Partner Diagnosed with PTSD	No	Yes	I am Not Sure	Total
Original	Count	No	24	7	5	36
		Yes	6	11	4	21
		I am Not Sure	2	2	10	14
	%	No	66.7	19.4	13.9	100.0
		Yes	28.6	52.4	19.0	100.0

I am Not Sure	14.3	14.3	71.4	100.0

Note. a. 63.4% of original grouped cases correctly classified

Research Question (RQ) 2: What is the influence of female veteran PTSD (as reported by their IMP's), length of time in a relationship, combat experience, the total number of deployments, and psychological distress on relationship quality?

In conducting the stepwise multiple regression analysis, assumptions of normality of the scale variables, linearity, and collinearity were examined and were addressed above. It should be noted that originally the intention was to examine differences between two groups (with and without PTSD). However, participants were also given the choice of "I'm not sure", and 14 (19.7%) people chose that option. As described above, this variable was recoded into two dummy variables that were used in the analyses, Diagnosed with PTSD and Not Sure. As indicated in the earlier correlation table, correlations with the criterion variable Relationship Quality ranged from -.322 to .397, and the significant correlations with Length of Time in Relationship ($r = .280$, $p < .05$); Spouse Diagnosed with PTSD ($r = -.322$, $p < .01$); and Psychological Distress ($r = .397$, $p < .01$). Spouse Diagnosed – Not Sure was not statistically significant, $r = -.203$.

Table 12 presents the order of entry of the variables into the stepwise model. The stepwise criteria were: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). No variables that were entered were removed, indicating each was able to significantly contribute to explaining unique variance in the model.

Table 12

Variables Entered/Removed for the Regression Model

Model	Variables Entered	Variables Removed
1	Psychological Distress	.
2	Not Sure	.
3	Has PTSD	.
4	Partner Number of Deployed During Relationship	.

Tables 13 and Table 14 demonstrate the addition of the variables that contribute most significantly to predicting relationship quality. In Model 1, psychological distress was added in first, accounting for 15.8% of the variance. In Model 2, Partner Diagnosed - Not Sure was entered next, accounting for an additional 16.1% of the variance. In Model 3, Partner Diagnosed with PTSD was entered next, accounting for an additional 9.3% of the variance. Partner Number of Deployed during Relationship was added in as the last variable, accounting for 7.7% more unique variance, and the final R^2 was .457, $p < .01$.

Table 13

Model Summary

					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	.397[a]	.158	.145	1.407	.158	12.744	1
2	.564[b]	.318	.298	1.276	.161	15.779	1
3	.641[c]	.411	.384	1.195	.093	10.409	1
4	.699[d]	.488	.457	1.122	.077	9.767	1

Table 14

ANOVA Table for the Regression

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.244	1	25.244	12.744	.001[b]
	Residual	134.699	68	1.981		
	Total	159.943	69			
2	Regression	50.919	2	25.460	15.646	.000[c]
	Residual	109.024	67	1.627		
	Total	159.943	69			
3	Regression	65.772	3	21.924	15.365	.000[d]
	Residual	94.171	66	1.427		
	Total	159.943	69			
4	Regression	78.074	4	19.518	15.497	.000[e]
	Residual	81.869	65	1.260		
	Total	159.943	69			

Note. a. Predictors: (Constant), Psychological Distress
b. Predictors: (Constant), Psychological Distress, Not Sure

c. Predictors: (Constant), Psychological Distress, Not Sure, Has PTSD
d. Predictors: (Constant), Psychological Distress, Not Sure, Has PTSD, Partner Number of Deployed During Relationship

Table 15

Standardized and Unstandardized Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	13.000	.593		21.935	.000
	Psychological Distress	.062	.018	.397	3.570	.001
2	(Constant)	12.401	.558		22.229	.000
	Psychological Distress	.091	.017	.577	5.218	.000
	Does Not Know	-1.706	.430	-.439	-3.972	.000
3	(Constant)	13.134	.570		23.056	.000
	Psychological Distress	.080	.017	.507	4.797	.000
	Does Not Know	-1.994	.412	-.513	-4.840	.000
	Has PTSD	-1.081	.335	-.328	-3.226	.002
4	(Constant)	12.471	.576		21.662	.000
	Psychological Distress	.093	.016	.589	5.736	.000
	Does Not Know	-2.314	.400	-.595	-5.779	.000
	Has PTSD	-1.527	.346	-.463	-4.418	.000
	Partner Number of Deployed During Relationship	.423	.135	.321	3.125	.003

Table 15 presents the unstandardized and standardized regression coefficients that indicate how the predictors influence the criterion (positive or negative); and the relative importance of each predictor in terms of amount of variance explained (absolute size).

These data produced an unexpected finding, as well as findings that are consistent with prior literature. First, Psychological Distress was a significant positive predictor across all three models, indicating that greater reports of psychological distress predicted

Model		Collinearity statistics	
		Tolerance	VIF
1	(Constant)		
	Psychological Distress	1.000	1.000
2	(Constant)		
	Psychological Distress	.833	1.200
	Does Not Know	.833	1.200
3	(Constant)		
	Psychological Distress	.799	1.252
	Does Not Know	.794	1.259
	Has PTSD	.865	1.156
4	(Constant)		
	Psychological Distress	.746	1.341
	Does Not Know	.742	1.347
	Has PTSD	.717	1.394
	Partner Number of Deployed During Relationship	.747	1.339

higher relationship quality, and this was expected to be negative. Second, the lower the PTSD score of PTSD – Not Sure, the higher relationship quality. This was unexpected. Third, as expected, the lower the PTSD score of PTSD – Diagnosed, the

higher relationship quality. Fourth, as the number of soldier deployments went up, relationship quality was rated higher as well. This was also an unexpected finding. Collinearity issues were examined (Table 16), but all values were well within range indicating no issues with multicollinearity.

Table16

Collinearity Diagnostics

Summary

The original sample size of 134 was determined to be sufficient for both research questions using G* Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007), using an effect size of .15, alpha = .05, and seven predictor variables. A convenience sample was created by inviting participants through a non-profit female and male veteran organizations not directly affiliated with the military. The study was announced with flyers posted in waiting rooms, bulletin board hallways, and in newsletters (print and electronic), after receiving permission from the organizations and IRB approval (IRB approval # is 10-03-18-0368117). The criteria for selection included IMP's who responded to the flyers' information and utilized the link to go online to complete the questionnaires. In Phase I, participants were directed to surveymonkey.com to complete the Informed Consent process, the PCL-5, the relationship assessment scale, and demographics. In Phase 2, participants were directed to the Pearson's Q-Global website to complete the BDI and the BAI. The data collection tools consisted of a demographic form, and four questionnaires (BAI, BDI- II, PCL-5, and the RAS). Survey Monkey and Pearson's Q- Global were used to export data to SPSS database file (version 24.0) for analyses. Unfortunately, no usable

data was collected in Phase 2. Data collection ended with 94 cases collected and only 71 were viable for the conduct of the analyses. The post hoc power analysis (alpha = .05, four predictor variables) for the three variables in the final equation, ß = .763, below the standard of ß = .80. This will be discussed in Chapter 5.

The study consisted of two research questions as noted below. Both research questions, the hypothesis and alternative hypothesis were explained in detail in the above chapter. I used a correlational survey research design in this study to determine the relationship between the predictor and criterion variables for the following questions:

Research (RQ)1: Is there a difference between female veterans with and without PTSD (as reported by their IMP's) on the following variables (length of time in the relationship, combat experience, the total number of deployments, and IMP psychological distress)?

Research (RQ)2: What is the influence of female veteran PTSD (as reported by their IMP's), length of time in the relationship, combat experience, the total number of deployments, and psychological distress on relationship quality?

I used the DFA to examine RQ#1, and a multiple regression analysis to examine RQ#2. The results of the analyses for the first question revealed that three variables were significant in discriminating among the three groups. The results of the analyses for the second research question revealed that the psychological distress of IMPs is positively related to relationship quality, meaning as their reported distress goes up, their relationship satisfaction also goes up. It revealed that the lower the PTSD score, the higher relationship satisfaction. IMP rated their relationship better if their female soldiers

did not have PTSD, or if they were unsure if their IMP was diagnosed. Unexpectedly, as the frequency of soldier deployments was higher, so was relationship quality. Importantly, this study revealed that many of the intimate partners were unsure if their female partner had been diagnosed with PTSD. These findings are discussed in reference to the literature and theory in Chapter 5, along with recommendations for future research and application.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to examine the influence of female veteran PTSD, length of time in relationship, combat experience, and total number of deployments on IMP distress and relationship quality and also to examine how length of time in relationship, combat experience, total number of deployments, and IMP distress discriminate between female veterans with or without PTSD. The study was conducted in response to the identified need for more research on the influence on of female veteran's PTSD on partner psychological distress and relationship quality.

I posed two research questions. The first addressed differences between groups. While my original intent was to look at differences between two groups (female veterans with and without PTSD), the results revealed three groups: female veterans with PTSD, female veterans without PTSD, and the not sure group, as reported by the IMPs. Three variables significantly predicted the differences between groups. Psychological distress was the most important discriminator, number of deployments was the second, and the third was the length of time in the relationship. Approximately 19% of the sample surveyed was not sure if their female veteran partner had ever been diagnosed with PTSD. Fifty percent (50%) of the sample reported no PTSD diagnosis in their female partner, and 30% of the IMPs reported that their female partner had diagnoses for PTSD. The groups who reported NO PTSD or not sure reported the greatest amount of psychological distress. The IMPs who reported that their female veteran partner did not have PTSD reported being in the relationship the longest (between 10-15 years), less combat experience, and fewer deployments of their female veteran partner. The IMPs

who reported that their partner had a diagnosis of PTSD reported the most combat experience and highest number of deployments; they appeared to have the least psychological distress of all IMPs.

The second research question addressed the influence of time in the relationship, combat experience, number of deployments, and psychological distress on relationship quality. Psychological distress was significant: The greater the IMP psychological distress scores on the PCL-5, the higher the relationship satisfaction scores on the RAS. When the IMP is in psychological distress, the quality of the relationship goes up. The number of deployments was also shown to be higher for participants who self-reported higher relationship quality. The results also indicated that the IMP's response of "not sure" was predictive of a higher rating of relationship quality.

Interpretation of the Findings

Published Literature

The impetus for the current study came from the work of Lambert et al., (2012), Renshaw et al., (2008), Taft et al. (2011), and others who have shown that more women are returning home from military deployments with PTSD. While the research on the relationship consequences for male partners is extremely limited, the findings of the current study seem to parallel what took place in the early years of research on relationships where the male partner was the military person with combat experience, and significant numbers of returning soldiers were undiagnosed (see Yeager, Magruder, Knapp, Nicholas, & Frueh, 2007). Mittel et al. (2013) conducted a meta-analysis with a military focus group and found that 44%of traumatized combat veterans avoided

treatment for symptoms of PTSD in an effort to circumvent stigma and career challenges. The focus groups consisting of 16 Operation Iraqi Freedom (OIF)/Operation Enduring Freedom (OEF) veterans who identified perceived stereotypes and labels associated with seeking treatment for combat related symptoms of PTSD were considered weak, feeble, lazy, dangerous, violent, or crazy (Mittel et al. (2013).

The first obstacle is assessment and diagnosis. In this study, about 19% of the IMPs did not know if their partner was diagnosed with PTSD, and 30% of the partners were diagnosed with PTSD. The results of the current study align the earlier findings of Calhoun et al. (2002), in which research, anecdotal and clinical evidence indicated that PTSD is not a gender-based disorder.

The results indicated that IMPs with spouses of unknown diagnosis reported the most psychological distress (M = 41.07, SD = 8.77), and those with a diagnosis of PTSD reported the least (M = 28, SD = 8.46). This is a discrepant finding, as the literature on female partners of male veterans with PTSD have reported the most psychological distress. According to Lehavot et al. (2018), women veterans reported PTSD at a rate of 13.4% compared to men veterans who reported at a rate of 7.7%. At the same time, when U.S. adults were represented in the sample, women civilians reported 8.0% PTSD while men civilians reported 3.4% PTSD (Calhoun et al. 2002). The findings suggested that civilian men are least likely to seek treatment after traumatic exposure; therefore, it is possible that this finding is unreliable, given the challenges with data collection. However, future researchers should investigate this more closely.

The other finding is that combat experience was a significant discriminator, and IMPs with a spouse diagnosed PTSD were in combat more times (M = .9, SD = .3) than IMPs with a spouse with no PTSD (M = .39, SD = .49). However, IMPs who did not know if their spouses were diagnosed with PTSD reported the most combat experience (M = 1.07, SD = 1.37).

These findings are consistent with previous studies conducted by the National Center for Veterans Analysis and Statistics (see U.S. Department of Veteran Affairs 2013) in that combat exposure contributes to psychopathology and psychological distress among male and female veterans and may also contribute to symptom severity of other psychopathological risk factors. These findings differ from those of Street, Vogt, and Dutra (2009), suggesting that post battle experiences and PTSD were not associated, and psychopathology is subjective based on gender and specific combat experience. This study also agrees with findings of Renshaw et al. (2011), in that exposure to combat, psychological distress, vicarious trauma, and relationship quality are all linked to PTSD. Additional research is warranted to clarify these relationships (see U.S. Department of Veteran Affairs 2013).

Interpretation Using Theoretical Framework

The CATS theoretical model was used in this study to address the following elements: to show the significance of communication between military couples exposed to trauma and the functioning of the couple's relationship and to reveal the psychopathology seen in partners of veterans as a result of veteran- to-partner disclosure of combat deployment experiences (see Nelson Goff et al., 2006). The CATS model was used to show the

influence of trauma exposure and its relationship to PTSD in the veterans (primary effects) and the IMP (secondary effects). Other components of the CATS model used in this study were communication and relationship quality assessment, psychological distress, and secondary traumatic process (i.e., awareness, omission of combat-related factors), and connection within the relationship, (i.e., intimacy, closeness, and attachment) and to identify the effects of trauma on the quality of the relationship.

The current research findings from RQ1 suggest a complex relationship between the trauma of the veteran and consequences for the IMP. Most importantly, the CATS model posits that the quality of couple functioning is influenced by the acute/chronic nature of the trauma as well as predisposing factors on the part of both veteran and IMP (Oseland et al., 2016). In the model (Figure 1), the arrows of influence go both ways. The current study supports this premise, as the IMPs with veteran spouses not diagnosed with PTSD reported being in the relationship the longest (between 10-15 years), having less combat experience, and having fewer deployments. The IMPs who reported that their partner had a diagnosis of PTSD reported the most combat experience and highest number of deployments but self-reported the least psychological distress. This affirms a much more complicated and multidimensional picture.

Similarly, RQ2 results were equally complex: The greater the IMP psychological distress, the higher the relationship satisfaction. That is, when the IMP is in psychological distress, the quality of the relationship is reported as better. The number of deployments was also shown to be higher for participants who self-reported higher relationship quality

and the IMPs' response of PTSD Not Sure reported a higher rating of relationship quality as well.

Limitations of the Study

Limitation included the following factors: (a) The majority of the participants in the study were African-American and (b) data from female veterans had to be omitted as they were completed by females in relationships with female veterans. These surveys, although appreciated, were not included in the analyses. The survey consisted of two phases, yet only 7.4% of participants completed the entire process, thus limiting the possibility of testing the complete model. Data collection during the peak of the holiday season may have impacted the lack of documented responses to Phase II of the survey, accounting for 92.6% of the participants.

Regarding measurement and construct validity, all questionnaires were selected for their strong psychometric properties. However, challenges with data collection (BAI & BDI II) resulted in two of the measures not being incorporated into the analyses. This potentially weakens the construct validity of the IMP distress construct and increases the risk for missing importance variance to be explained in the model. Further, the time constraints and logistical challenges of completing the questionnaires suggest that from an internal validity perspective, the results must be interpreted with caution as this research is threatened by model under specificity (see Frankfort-Nachmias & Nachmias 2008).

The data collected in this study could have been influenced by social desirability bias and over- or under-reporting (see Frankfort-Nachmias & Nachmias 2008). This is

certainly a possibility as 12% completed only half of the questionnaires. This is endemic to the nature of anonymous survey research (Frankfort-Nachmias & Nachmias 2008).

The primary concern with external validity in this study was that recruitment of participants was based on convenience sampling in one location. Again, the relevance of the findings to other armed services and locations is unknown. The use of convenience sampling precludes generalizing to the population of interest.

Finally, results of the post hoc power analysis with four predictors and a medium effect size of .15 ($\alpha = .05$) achieved power of $\beta = .71$, meaning that the results had only a 71% chance of showing a significant result if there was one. Therefore, nonsignificant results (i.e., variables that did not enter into the discriminant or regression equation) may have been a function of lack of sample variability due to a small sample size.

Recommendations

Complete understanding of the veteran personal experiences (both positive and negative) and the systematic impact of full disclosure of trauma to partners and other survivors has not been thoroughly addressed in the literature and warrants the need for additional research. Furthermore, theoretically-based literature hypothesizing the system of influences of trauma exposure on the female veteran is limited.

I recommend more quantitative research, with more samples and more complete designs using casual models such as the Structural Equation Modeling (SEM) (Hair, et al., 2006). This type of model will allow for a more diverse set of algorithms, statistical equations, and methods to be applied to testing more sophisticated models that can more comprehensively test such theories as the CATS. Using the SEM will allow the

researcher the opportunity to assess unobservable constructs using latent variables as well. The SEM may be used to reduce theoretical complexity between the quality of functioning within the relationship between the (primary), individual traumatized and (secondary), partner as well as looking at other predisposing factors, i.e. cognitive, behavior, and emotional levels of both female veteran and the IMP.

It is also recommended that a future study using a qualitative research design could be conducted. Use of a qualitative approach creates the opportunity for a more intensive examination of how IMPs and their female veteran partners cope and thrive after military life. Utilizing a qualitative research design may allow the researcher to gain more interpersonal perspective of the partners' definitive understanding of PTSD as well as its role in how the relationship functions. This research may offer interesting findings into the complexities of PTSD when observed on a day- to- day basis and when reported by the IMP of the diagnosed veteran. The research could consist of individual case studies of females diagnosed with PTSD as well as females who have not been diagnosed with PTSD. This avenue would also be worthwhile to explore how the diagnosis of PTSD emerges in the relationship, which could provide insights into the consequences for IMPs where the diagnosis of PTSD is not known.

Even though there are still many gaps in research involving female veteran's PTSD, I restricted my study to that of IMPs of female veterans. I recommend a future research study using either quantitative or qualitative design incorporates samples using lesbian, gay, bisexual, transgender, transsexual, and queer (LGBTQ) partners of female veterans. Development of the understanding of the diversity in the military family

systems/subsystems and the ramifications of PTSD could create better understanding or awareness not only for the veteran and the partner, but also for the military community. This study may be useful in reducing the negative connotations associated with both PTSD and being in a family system that may not be popular. Conducting this study, regardless of the research design used (qualitative, quantitative, or mixed), the outcome could contribute to enhancing the lives of female veterans and their partners.

Implications

This quantitative study can contribute to positive social change by increasing awareness of the gap in literature on female veterans and the consequences of combat exposure, PTSD, and family. It is hoped that the results of this study will be part of the "voice" of the IMP's of female veterans who have been secondarily exposed to combat-related trauma and stress. This approach allowed the IMPs to report the diagnoses of their female partner as they understood it, i.e. (Yes, has PTSD, No, does not have PTSD, or Not Sure), and this approach could be a vehicle for giving the IMPs the opportunity to develop a new perspective in understanding the impact of their female veteran's PTSD on their own psychological distress and also the quality of the relationship.

Although the concerns for veterans and their family members are not something new, previous researchers have mainly focused on the symptoms and behavior of only those who experienced the trauma directly. This correlational approach focused on primary and secondary combat trauma exposure. This research was designed with the intent to develop a picture of reality of trauma exposure as viewed from the lens of the IMP of a female veteran with PTSD. What the study revealed is that there is no cookie

cutter way to measure to the influence of PTSD. The outcome affects each veteran and each IMP differently regarding psychological distress and relationship quality. Each veteran and IMP presents different symptoms and outcomes. Understanding these differences may be helpful in establishing the importance of education and awareness on the influence of female veteran PTSD on psychological distress and relationship quality.

The CATS model was a helpful theoretical foundation to address the role of predisposal to trauma from the primary and secondary effects. This model allowed me to understand the theoretical proposition of the previous authors who theorized that even though secondary survivors (partners) of trauma may not have been directly exposed to the trauma they, through mental internalization, are vicariously exposed to the trauma themselves, thus leading to the possibility that the relationship is disrupted when trauma occurs and is even more affected when there is a failure to address the trauma. Giving grounds to the assumption of the CATs model, it is imperative to the foundation of the relationship to address trauma- related symptoms early on in an effort to reduce the residual impact on both the member and the survivors.

My study has the potential to impact numerous stakeholders, some directly and some indirectly affected by female veteran PTSD. The intent is to provide a better understanding and to recommend innovative ideas to reduce the residual effect of trauma exposure. The preliminary findings of this study will be shared with stakeholders to contribute to interest in helping the military design a more vigorous behavioral health care programs specifically designed to facilitate the needs of female veterans and their IMPs. The results of this study could be used as the impetus for incorporating more

support services for couples where the veteran spouse is female. These and future implications of PTSD in female veterans may impact the military community and the rest of society more and more as battlefield operations continue to change and more female veterans are placed in more vigorous combat roles.

Conclusion

The influence of female veteran PTSD on psychological distress and relationship satisfaction in IMP's is an issue of concern in the military and is seriously affecting the veterans exposed to trauma and their partners. One important factor that must be addressed is the inattention to the consequences of PTSD symptoms for both the veteran and the partner. This reluctance only intensifies the problems within the relationship. In the past there was very limited research on PTSD, however today there is so much research on the disorder. There still remains a small focus on female veterans' PTSD. My research is a step in the direction of rectifying the problem of limited research on PTSD in females.

There is an underlying belief that the military is responsible for the well-being of the soldier, whether in combat or safe on American soil, while on active duty and when discharged. However, there must be a level of responsibility and acceptance that lies with the soldier to seek assistance for battle wounds and symptoms of PTSD. My research provided insight that PTSD is a complex disorder that is not a gender specific and affects female combat service members as much as their male counterparts. Additionally, the research points to the need for more attention at behavioral healthcare level to facilitate the needs of the IMPs. Communicating the need for additional awareness and education

may be beneficial to not only members of the army, but to couples in all military branches. Although my research is not the first to offer data on the PTSD, it may be the first to offer results on the influence of female PTSD on psychological distress and relationship quality on the IMPs. Although the sample was small, the results are indicative of the need for future study. It is hoped that the service branches will improve targeted services offering increasing level of continuity of care for this returning group of soldiers and their families.

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Appendix A: Permission Letter for BDI-II and BAI on behalf of

Licensing, - <pas.licensing@pearson.com>

Reply all|
Sun 10/29/2017, 7:14 AM
Theresa Abraham

Beck Anxiety Inventory - Samples.doc 33 KB	Beck Depression Inventory-II Sample 5-5-17.docx 19 KB

2 attachments (52 KB) Download all
Save all to OneDrive - Laureate Education

Action Items
Dear Ms. Abraham,

Permission to use a Pearson assessment is inherent in the qualified purchase of the test materials in sufficient quantity to meet your research goals. In any event, Pearson has no objection to you using the Beck Depression Inventory®-II (BDI®-II) and the Beck Anxiety Inventory® (BAI®), and **you may take this email response as formal permission from Pearson to use the tests in their as-published formats in your student research upon purchase qualification**.

The BDI-II and BAI are sensitive clinical assessments that require a high degree of qualification (B Level) to purchase, administer, score and interpret. They also represent Pearson copyright and trade secret material. As such, Pearson **does not permit photocopying or other reproduction of our test materials by any means and for any purpose when they are readily available in our catalog. Consequently, you may not simply reproduce or further adapt the BDI-II and BAI test forms**.

Long-term license agreements with our Test Authors prohibit Pearson from providing or licensing our test materials at no charge/gratis for any purpose.

If you do not yet meet the qualifications to purchase the test materials, your professor or faculty supervisor may be able to assist you by lending their qualifications.

The following links to the product pages in our online catalog are:

For the BDI-II: https://www.pearsonclinical.com/psychology/products/100000159/beck-depression-inventoryii-bdi-ii.html?origsearchtext=100000159

For the BAI: https://www.pearsonclinical.com/psychology/products/100000251/beck-anxiety-inventory-bai.html

Finally, because of test security concerns, permission is not granted for appending tests to theses, dissertations, or reports of any kind. You may not include any actual assessment test items, discussion of any actual test items or inclusion of the actual assessment product in the body or appendix of your dissertation or thesis. You are only permitted to describe the test, its function and how it is administered; and discuss the fact that you used the Test, your analysis, summary statistics, and the results.

That said, we have prepared a few sample test items that you may include in your research results, and I have attached them herein for your possible use.

Regards,

XXXXXXXXXXXXX
Senior Legal Licensing Specialist