

2015

# Combat-Related Posttraumatic Stress Disorder: Locus of Control and Marital Satisfaction

Jesus Botello  
*Walden University*

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# Walden University

College of Social and Behavioral Sciences

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Jesus Botello Jr.

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## Review Committee

Dr. Patricia Heisser-Metoyer, Committee Chairperson, Psychology Faculty

Dr. Deborah Elliott-De Sorbo, Committee Member, Psychology Faculty

Dr. Rachel Piferi, University Reviewer, Psychology Faculty

Chief Academic Officer

Eric Riedel, Ph.D.

Walden University

2014

Abstract

Combat-Related Posttraumatic Stress Disorder: Locus of Control and Marital Satisfaction

by

Jesus Botello Jr.

MS, University of Phoenix, 2009

BA, University of Texas San Antonio, 2006

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

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## Abstract

Combat-related posttraumatic stress disorder (PTSD) is a psychological condition researchers have cited as a major cause of marital discord and divorce for veterans with PTSD. This study examined the psychological construct of locus of control among the wives of veterans diagnosed with combat-related PTSD and whether or not it was a predictor of marital satisfaction within this context. An extensive search of the current literature revealed no previous studies that had investigated this relationship. Utilizing the family systems theory to address this gap, this study sought to compare reported marital satisfaction in wives with an internal locus of control to those with an external locus of control. Participants for this study were 111 wives of veterans with combat-related PTSD, each of whom completed a demographic questionnaire, the Kansas Marital Satisfaction Survey, and the Duttweiler Internal Control Index. A multiple linear regression was conducted to determine if age, number of years married, number of children, level of education, household income, and internal locus of control were predictors of marital satisfaction reported by wives of veterans with combat-related PTSD. The results indicated that an internal locus of control accounted for a significant degree of the variance in marital satisfaction while the demographic variables were not significant predictors. This study contributes to social change by providing an empirical insight into the relationship between locus of control and marital satisfaction in wives of veterans with PTSD. The results of this study could help improve the quality of life of veterans with PTSD by enhancing awareness of locus of control to practitioners while developing a therapeutic treatment plan that will fit the veteran's locus of control orientation.

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## Dedication

I dedicate this dissertation to the loving memory of my mother, Mary Jane Ruiz Botello (8 December 1942 – 17 April 2013). My mother was my inspiration and motivation to better myself. Since I was child, she recognized my potential, even when no one could see it. She never gave up on me. Though no longer with me, I know she'll be present throughout my future endeavors. She is due much credit for all my successes.

My second dedication is to my father, Jesus Botello Sr., and my stepmother, Irene Botello. Their never-ending support and encouragement helped me get through the rough times. Their continued motivation gave me the strength to continue when it seems like quitting was the better option.

My third dedication is to my daughters, Vanessa, Veronica, and Jessica. For all of your encouragement and support, I cannot thank you enough. I hope that my accomplishment will motivate you to never give up. You can accomplish anything you set your mind to. I love you more than I could ever say.

My final dedication is to my wife, Gloria. Many obstacles were encountered during this whole process and you never stopped supporting me. Your sacrifices enabled me to complete my degree. I give to you my undying gratitude and love. Thank you for being so strong and believing in me.

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## Chapter 1: Introduction to the Study

### **Background**

In this time of growing conflict and global unrest, the United States military has been called on to serve in various battlefronts all around the world. For the veteran who has served on the battlefield, combat is beyond the scope of normal human experience (Military.com, 2006). One way in which this manifests is when veterans attempt to resume normal lives with their spouses, friends, and families. After the Vietnam War, veterans encountered many mental problems that affected their daily functioning (MacLean, 2010). This behavior stimulated research that provided the information that eventually led to the current concept of posttraumatic stress disorder (PTSD) (Grinage, 2003). Prior to this, scholars and practitioners knew very little about PTSD and its effects on the veteran's behavior. At present, much less is known about how a veteran's PTSD affects his or her spouse. PTSD "develops after a terrifying ordeal that involved physical harm or the threat of physical harm. The person who develops PTSD may have been the one who was harmed, the harm may have happened to a loved one, or the person may have witnessed a harmful event that happened to loved ones or strangers." (National Institute of Mental Health , 2013, para. 2). For as long as the historical events of battle have been documented, combat-related PTSD has been an unidentified psychological disorder that people have only recently linked to the stress of battle (Jones & Wessely, 2005). Prior to its recognition as a bona fide psychiatric disorder, the behaviors associated with what is now known as PTSD were variously labeled: *shellshock*, *combat*

*fatigue, soldier's heart, and operational fatigue* (eMedicine Consumer Health, 2003; Grinage, 2003).

Our military servicemen and women are exposed to a number of combat stressors that may eventually result in a diagnosis of PTSD (Chard, Schumm, Owens, & Cottingham, 2010). Consequently, veterans' return home in a different mental state than when they left. Upon their return, they are faced with a number of issues because of their mental condition. The violent events of the war become a part of the veteran's psyche and can affect each individual differently. Pathognomonic indicators of PTSD are a conditioned emotional response to stimuli that provokes feelings, memories, or thoughts that are associated with the veteran's war experience (Kolb, 1987). In some veterans, the traumatic experiences are suppressed and ignored. With others, the overt symptoms of PTSD can often be triggered by a variety of normal events such as popcorn popping in the microwave, the backfiring of an automobile, fireworks, thunder, sirens, and so forth. These triggers often provoke a variety of disturbing emotions and behaviors such as isolation, defensiveness, intense anger, fear, extreme anxiety, panic attacks, and violent nightmares (Tendall & Fishler, 2003). When in public, a veteran could respond to stimuli with an exaggerated, startled response resulting in the veteran becoming defensive and seeking to disassociate him- or herself from the stimuli. Friedman (1991) suggested that this response has an underlying neurobiological cause and could possibly be the most pathognomonic symptom of PTSD. As previously stated, veterans suffering from combat-related PTSD experience a broad range of symptomology. For the purposes of this study, the symptomology of primary concern was avoidance and hyper arousal.



Where all symptomology can negatively affect the marital relationship, I had identified avoidance and hyper arousal to be of significant importance to the marital satisfaction of veterans' spouses, specifically wives.

Spouses are often unprepared to contend with the aforementioned behaviors of PTSD (Batten et al., 2009). Often the spouse is burdened with the responsibility of adapting to the emotional and mental condition of his or her spouse with PTSD as well as taking on the task of maintaining the family stability and moving forward (Galovski & Lyons, 2004). After a deployment, the spouse looks forward to the return of the veteran, with the hope that the duties and responsibilities in the household can once again be divided and lightened. Unfortunately, the existing research showed that this is not always the case (Batten et al., 2009). A research study conducted by Evans, Cowlshaw, Forbes, Parslow, & Lewis, (2010) determined that spousal attributes and family dynamics play a significant role in healthy family functioning. The family dynamic is a unit made up of individuals whose personalities interact and impact one another. Where the sizes of the family unit can vary, each member has a different status, which one could almost compare to the ranking structure of the military. Generally speaking, the veteran and his or her spouse would normally be at the top of the family unit. When combat veterans return to the family with emotional issues associated with combat-related PTSD, their behaviors often have an adverse effect on the marital relationship and the other members of the family. When these veterans exhibit the behaviors associated with combat-related PTSD, their spouses, due to a lack of understanding of the this disorder, frequently perceive and react to these behaviors negatively (Renshaw & Campbell, 2011).

Consequently, the combination of the veteran's behaviors and the spouse's misperceptions of these behaviors often results in the eventual erosion of marital harmony (Evans et al, 2010). A wife's perception of these behaviors, in conjunction with her personality, plays a major role in the stability and permanence of the marital relationship (Carlson, Vazire, & Oltmanns, 2011; McManus, & Saucier, 2012). One aspect of personality that plays a major role in perception and behavior is locus of control.

Rotter (1966) defined and described locus of control as

The effects of reward or reinforcement on preceding behavior depends in part on whether the person perceives the reward as contingent on his own behavior or independent of it. Acquisition and performance differ In situations perceived as determined by skill versus chance. Persons may also differ in generalized expectancies for internal versus external control of reinforcement. (p.1)

Locus of control is a key variable in a person's determination and perseverance (Hill, 2011) and is likely to impact the satisfaction of a marriage between spouses (specifically wives for the purposes of this study) and veterans with combat-related PTSD. Because locus of control plays such a large role in people's belief that they have or do not have the ability or power over circumstances and events in their lives to be able to influence the outcomes, then its importance as a variable in the success of a marriage warrants investigation.

The impact of locus of control on marital satisfaction was the principal focus of a study conducted by Bugaights, Schumm, Bollman, and Jurich (1983). Based on their

investigation of the correlation of locus of control and marital satisfaction, these researchers found that high external locus of control was associated with marital dissatisfaction and that high internal locus of control was associated with marital satisfaction. Their results also indicated that this positive satisfaction was not the result of social desirability and that wives in unstable marriages were high external, which suggested that they believed the factors that affected their unstable marriages were beyond their control.

PTSD is a condition that can wreak havoc on a marriage. When a person's spouse returns from combat displaying behavioral symptoms of PTSD, elevated stress levels are typical and often result in the dissolution of the marriage (Renshaw & Campbell, 2011). Given the differing perspectives between individuals with high internal and high external locus of control, and their response to stressful situations, it is a logical hypothesis that locus of control may serve as a reliable indicator of how a wife will cope with the increased stress brought upon by her veteran husband's PTSD. A study conducted by Roddenberry and Renk (2010) found that individuals with a high internal locus of control experienced lower levels of stress than did individuals with a high external locus of control. If a wife has a high internal locus of control, it is a tenable hypothesis that she would take the stance that she controls the destiny or outcome of their marriage. If, on the other hand, she has a high external locus of control, one could also argue that she may perceive herself as a victim of circumstances with little to no control over the success or failure of her marriage. The veteran's wife can arguably be the most influential person in the veteran's life and, depending upon her orientation with regard to locus of control

(internal vs. external), can potentially impact how well the veteran adjusts upon returning from combat. The principal focus of this research study, therefore, was the role that locus of control plays among the wives of veterans who demonstrate combat-related PTSD symptomology.

Bugaights et. al. (1983) concluded that individuals with a high internal locus of control had higher rates of marital satisfaction than individuals with high external locus of control. However, that study was conducted in an ideal setting with no stress-causing variables. In the current study, I wished to examine if locus of control contributed to marital satisfaction in a marriage between a veteran and his wife when PTSD was present as a stress-causing variable.

A common misconception has been that individuals with high internal locus of control believe they are in total control of their entire situation. However, this is not necessarily the case. Individuals with high internal locus of control believe that they control the outcome of their situation by manipulating behavior and not the variables in their situation (Hill, 2011). The cause would be of less importance to the person with a more internal orientation than it would to the person with a more external orientation (Hill, 2011). Individuals with an internal orientation will evaluate their situation and determine the best way to resolve their issue without much regard to the cause. Persons with an external orientation are likely to view the cause as a sign of God's will, luck, astrology, or other external forces they believe control the outcome of their situation and may easily capitulate to the effect of the cause, accepting their situation as destiny (Rotter, 1966).

There are situations and variables within those situations over which no one has control. Examples include PTSD, illness, or financial hardship. Even with uncontrollable variables present, individuals with a high internal locus of control will evaluate the stressors and determine how best to deal with or resolve circumstances to achieve their desired outcome (Hill, 2011, Marks, Richardson, & Graham, 1986). Individuals with a high external locus of control will capitulate to the idea that powers and forces beyond their control determine the outcome of their situation. For example, an individual with a high internal locus of control that faces a financial crisis will evaluate his or her situation and determine the best course of action utilizing the resources available to him or her (Phares, 1976). Contrastingly, people with a high external locus of control in the same situation will attribute their predicament to an external force such as God's will or luck. As they progress through their situation, their behaviors are manipulated by the external forces they believe are controlling their situation. This is contrary to the behaviors of individuals with high internal locus of control, who believe they influence their destiny and strive to obtain their desired outcome (Phares, 1976).

A person with a high internal orientation demonstrates more determination to accomplish his or her expected outcome, even when stress variables are present (Marks et. al., 1986). Divorce rate in military marriages has been increasing over the past 10 years, and the majority of couples reported that PTSD was the principal cause (Negrusa & Negrusa, 2012). However, not all military marriages that deal with the symptomology of PTSD end in divorce. In these marriages, acclamation to the stressor has to be achieved in some form in order for the marriage to continue. Locus of control may

possibly be a significant, contributing variable that explains how a wife deals with an uncontrollable stressor that disrupts her marriage and how she strives to acquire marital satisfaction. This study examined marriages in which the uncontrolled variable of combat-related PTSD was present and whether or not a wife's locus of control correlated to her marital satisfaction or dissatisfaction.

Individuals with a high internal locus of control, in this case the wives of veterans with combat-related PTSD, perceive themselves to be able to take control of a situation, identify the problem, identify how best to address the problem, and are less apt to attribute the problem to external forces such as God's will, luck, or timing (Hill, 2011). It is important to note that locus of control is a continuum with most individuals situated between the two extremes, that is, internal or external (Rotter, 1966).

For this dissertation, I hypothesized that the wives of veterans with PTSD who had high internal locus of control would be more resourceful in learning to understand and conform to the stressor of PTSD, ultimately leading to greater marital satisfaction than their counterparts with a high external locus of control. The rationale for this was that individuals with high internal locus of control have a better understanding of that which they can and cannot control as compared to individuals with high external locus of control, whose understanding is that they control very little or nothing at all (Hill, 2011). According to existing research, individuals with a high internal locus of control will have a higher probability of being able to adapt and cope with stress-causing variables in search of higher marital satisfaction than those with a high external locus of control (Gilbert, 1976).

As the number of PTSD cases increases in veterans returning from combat, the awareness of marriages adversely affected by PTSD increases (Baddeley & Pennebaker, 2011). Prior studies have shown that, in a marriage where no stress-causing variables were present, individuals with a high internal locus of control experienced greater marital satisfaction than those with a high external locus of control (Bugights et. al., 1983). This study, therefore, investigated if the same held true in a marriage between a woman and a man with combat-related PTSD. I hypothesized that a wife with a high internal locus of control, even though she could not control her husband's PTSD, would be more likely to rate her marriage as satisfying than a wife with a high external locus of control. I hypothesized that she would obtain this higher level of satisfaction because she believed she could control the outcome of her situation (in this case her marriage) by learning about her husband's condition, learning how to best deal with the condition, and doing what was necessary to maintain her marriage. She was aware that she was not in control of the cause of the stress in her marriage, but rather that she was in control of how she dealt with the stress in her marriage. I further hypothesized that a wife with a high external locus of control would be more likely to rate her marriage as unsatisfactory due to her perception that destiny was willed or bestowed by an external force greater than she, and therefore she would have no control over the cause of the stress in her marriage. She would be more apt to believe that the stress in her marriage was either a sign that her marriage was not to be or her low marital satisfaction was a punishment for prior behavior (Rotter, 1966).

This study was intended to improve the quality of life of veterans and their spouses by identifying if locus of control contributed to veteran's wives' marital satisfaction, which, in turn, may contribute to improvements in treatment and predicted outcomes.

An abundance of research has addressed the negative aspects of PTSD, showing how the condition destroys veterans' ability to function in the society they left behind and to which they subsequently returned. Current researchers have focused on causation, reaction, and treatment in attempts to improve quality of life. PTSD is a relatively new condition and there is vast room for growth in research. How personality, more specifically locus of control, impacts the response to the behavior caused by PTSD is one of the areas where there was no current research, and exploring this correlation could prove beneficial to improving the quality of life for many couples. Dekel and Monson (2010) showed a correlation in PTSD and stress levels within a family unit. That study, along with many others, showed the adverse effects of PTSD on relationships. If one is to combat these adverse effects of PTSD on an intimate and personal level, beyond the levels of treatment currently offered, a logical starting point would be to determine how the individual affected by PTSD responds to his or her situation.

Evans, Cowlshaw, and Hopwood (2009) demonstrated how family functioning was a predictor of how a veteran responded to treatment. Research indicated that the environment within the family unit affects how a veteran responds to treatment for PTSD. The family unit consists of different personality types among the different members of the family (Renshaw et al., 2011). To date, the primary focus of PTSD research has been



on the veteran. However, as Evans et al. (2009) proved, socioenvironmental factors play a part in the reactionary behavior of the veteran with PTSD, and part of this influence is the family, and within the family is the veteran's spouse (in the current study, the veteran's wife). There is a clear distinction in the relationship between a veteran and his or her spouse as opposed to the veteran and his or her children, the veteran and his or her parents, and the veteran and his or her siblings. It is implied that this spousal relationship is very influential. The matrix of this relationship is largely influenced by the personalities of the husband and wife.

This is evident in the relationship traits, such as who is the more dominant and who is more submissive or who is emotionally stronger and who is emotionally weaker (Muttukumar, 2011). The influence that the symptomology of PTSD can have on a marriage has been abundantly researched. To my knowledge, the influence a wife can have or not have, depending on her locus of control, as a tool to combat the adverse effects of PTSD on her marriage has not been examined.

### **Problem Statement**

According to the *Diagnostic and Statistical Manual of Mental Disorders* (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000), veterans returning from combat diagnosed with PTSD may display symptomatic behaviors that include, but are not limited to, flashbacks, depression, social withdrawal, sleep disorders, irritability, risky health behaviors, and hyper-vigilance (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000)

. Symptomatic behaviors as a result of PTSD can place a strain on a marriage that can prove to be insurmountable. A recent study by Khaylis, Polusny, Erbes, Gewirtz, and Rath, (2011) indicated that the wives of National Guard soldiers recently returning from either Operation Enduring Freedom or Operation Iraqi Freedom demonstrated high levels of PTSD and depression. The study showed how transference of symptomology creates increased marital discord. The level of transference was in part connected to the spouses' perception of the PTSD symptomology and levels of depression (Khaylis et al, 2011). A person's perception is linked to the traits unique to his or her personality. In this study, I examined the personality trait of locus of control in the wives of veterans with combat-related PTSD, and whether or not locus of control was a predictor in marital satisfaction.

The dissertation research examined the symptomatic behavior of veterans with PTSD in conjunction with their wives' locus of control as a critical variable in marital satisfaction. The two extremes of locus of control, internal versus external, have proven to be good predictors of how an individual will deal with a situation involving mental illness (Beckman, 1972). Because locus of control can be considered a predictor of how one might deal with mental illness, it was the intent of this study to identify if the locus of control of a wife married to a veteran with PTSD could be correlated to her marital satisfaction or dissatisfaction. After an intense search, I did not locate any studies conducted on a wife's locus of control as an indicator to the marital satisfaction while married to a man with combat-related PTSD. The understanding of this correlation could help predict the treatment process of the veteran as well as the level of satisfaction in the marriage. At present, research considering the spouse as a variable in the success of

veterans' marriages has been minimal. In order to develop treatment, it is necessary to examine the relationship between the symptomatic behavior as a result of PTSD and the spouses' locus of control.

### **Purpose of the Study**

There has been a great deal of literature dedicated to how combat-related PTSD directly affects the veteran. There was literature covering PTSD, working relationships, assimilation into society, and how the veteran with PTSD affects the family (Adler, Britt, Castro, McGurk, & Bliese, 2011; Campbell & Renshaw, 2012; Thomas, Britt, Odle-Dusseau, & Bliese, 2011; Tsai, Harpaz-Rotem, Pietrzak, & Southwick, 2012). This quantitative study explored the correlation of age, education, years married, number of children, income, and locus of control in predicting marital satisfaction in wives of veterans with PTSD.

### **Nature of the Study**

With this research study, I intended to lay a foundation for future research investigating how personality traits in spouses of veterans with combat-related PTSD affect the manner in which they confront the issue. Because no prior research in this area was found, this was a foundational, information-gathering study. Marriage or a relationship of any kind is a product of the individuals involved. When a couple is united, their individual personalities blend to create a personality identifiable to them as a couple. Although they have a newfound identity as a couple, their individual personalities remain intact. When one of the individual's personalities changes, the other reacts to that change

based on his or her own individual personality. This is what happens when a veteran comes home from combat with PTSD (Bentley, 2005).

When the veteran develops PTSD, his or her personality undergoes a major change, especially in his or her behavior pattern (Pukay-Martin et al., 2012; Thomas et al., 2011; Tsai et al., 2012). Veterans will isolate themselves in their own mental and physical worlds, creating a disturbance in the “norm” the couple has established within their relationship. The spouses’ then find themselves in a situation that they have never before encountered. The possibility that spouses will encounter elevated stress levels and experience depression grows everyday they are together (Evans et al, 2010). A wife’s personality, combined with her perception of the change, will determine how she deals with said change. A very important personality trait is locus of control. The two types of locus of control, external versus internal, can be an important variable indicating how the spouse might approach and deal with the change. A wife who is more internally oriented will approach the change with the attitude that she can affect the outcome. The wife who is more externally oriented will believe that external forces control the changes in their relationship and she is merely a bystander and will capitulate to them (Lefcourt, 1976).

There are variations to the degree of impact along the continuum of external and internal locus of control. Locus of control is a very important trait in a person’s personality and can be indicative in how a spouse will deal with the veteran’s PTSD.

Locus of control in combination with other variables such as age, education, years married, number of children, and income can have a significant impact in marital satisfaction of the spouse of combat veterans.

Participation in this study was strictly voluntary. Information pertaining to the study was solicited at all 20 of the Vet Center's located in Texas, where wives of veterans with combat-related PTSD had access to flyers with information on how to access the study online. Volunteers for the study participated in an online survey. Volunteers had to qualify for the survey by answering some questions on a demographics questionnaire. Once qualified, they participated in two surveys. The data were collected from the online survey and analyzed using the SPSS software. I outline the results of the survey data in Chapter 4.

A number of homogeneous variables such as locus of control affect personality. This research study examined the variable of locus of control as a predictor of marital satisfaction in wives of veterans with combat-related PTSD. However, more than one variable could have possibly affected the outcome and needed to be taken into consideration; even though the focus of the study was on locus of control, the results could have indicated some correlations with other variables. The variables this study took into consideration along with locus of control were age, level of education, the number of years married, the number of children, and the couple's household income level.

### **Research Questions and Hypotheses**

This study addressed the following research questions:

*Research Question 1:* Among women who are married to combat veterans diagnosed with PTSD, is there a correlation between her locus of control and her marital satisfaction?

$H1_0$ : Locus of control does not predict marital satisfaction in women whose husbands have combat-related PTSD.

$H1_a$ : Locus of control does predict marital satisfaction in women whose husbands have combat-related PTSD.

*Research Question 2*: Do demographic characteristics of the wives of veterans with combat-related PTSD impact her marital satisfaction?

$H2_0$ : Age, education, years married, number of children, do not impact marital satisfaction in women whose husbands have combat-related PTSD.

$H2_a$ : Age, education, years married, number of children, do impact marital satisfaction in women whose husbands have combat-related PTSD.

### **Theoretical Framework**

The principal focus of this study was to investigate whether locus of control in wives of veterans with combat-related PTSD affected their satisfaction with the marital relationship. The likelihood that these two variables significantly impact marital and family dynamics was supported by the family systems theory (Bowen Center for the Study of the Family, 2004), which will be further examined in Chapter 2.

When the veteran returns from service with a diagnosis of combat-related PTSD, the behaviors associated with the condition undeniably impact the marriage (Sautter, Glynn, Thompson, Franklin, & Han, 2009). A more in-depth examination of how PTSD affects the marriage will be addressed in Chapter 2. As family systems theory indicates, the behavior of one member of the family impacts the unit as a whole (Papero, 1990).

This study examined how a wife's locus of control, as manifested by her behaviors in response to her husband's PTSD symptoms, affected her level of marital satisfaction.

In this dissertation, the relationship between a veteran's PTSD and his wife's locus of control was investigated for the first time. Current researchers had yet to consider the effect of these two variables simultaneously as indicators of marital satisfaction. Locus of control is a personality trait that indicates the degree to which individuals believe that they control their situation. However, PTSD can present situations beyond any one person's control.

Locus of control has been associated with positive results within the context of education and workplace settings (Findley & Cooper, 1983; Ng, Sorensen, & Eby, 2006). Internal locus of control correlates with improved job satisfaction, higher academic achievement, increased motivation, and improved job performance (Findley & Cooper, 1983; Ng et al., 2006). Just as locus of control has been associated with positive results within the context of education and workplace settings, it has also been associated with psychological problems (Lloyd & Hastings, 2009). Research suggested that persons with high internal locus of control are better equipped to handle the effects of stress than individuals with a high external locus of control (Lloyd & Hastings, 2009). Anderson (1977) discovered that individuals who demonstrated high external locus of control experienced higher levels of stress and exhibited increased defensiveness and anxiety when compared to individuals with a high internal locus of control. Sandler and Lahey (1982) performed a study that examined anxiety levels in college students. The study

identified that students with a high external locus of control more often reported considerably higher levels of anxiety than students without high internal locus of control.

In all of the studies that involved stressful situations beyond the participants' control, locus of control proved to be a viable indicator of either emotional satisfaction or performance satisfaction. Situations often include variables over which no one has control. Research has indicated that locus of control is a good predictor of the effort one may exert in resolving one's situation (Hill, 2011). Locus of control is just one of many variables a person will use in resolving a particular situation. Bugaights et al. (1983) demonstrated how individuals with a high internal locus of control experienced higher rates of marital satisfaction than individuals with a high external locus of control in a normal environment with no stressors present. If locus of control was shown to be a contributing variable to marital satisfaction in a marriage without stressors, it warrants investigation to ascertain whether or not locus of control can be a variable in a marriage with stressors. This dissertation examined wives' locus of control as an indicator to marital satisfaction with PTSD as the stressor.

### **Definition of Terms**

For a clear understanding of key terminology, the following terms are defined to clarify their intended meaning. Providing explicit meanings to the terminology used in the study helps to ensure that the reader has a clear understanding of the language used in this study and assists in eliminating ambiguity (Cooper & Schindler, 2003).

*Combat veteran:* "A combat veteran is any military member who experiences any level of hostility for any duration resulting from offensive, defensive or friendly fire



military action involving a real or perceived enemy in any foreign theater.” (American War Library, 2008, para. 3).

*Locus of control (internal, external):* A theory designed by Julian Rotter, to measure a person's perceived control over their own behavior. The two classifications of locus of control are *internal locus of control* and *external locus of control*. Internal locus of control measures a person's perceived control over their own behavior. External locus of control measures a person's perceived control that external forces have over their own behavior (The American Heritage Medical Dictionary, 2007).

*Personality traits:* A personality trait is a quality or a characteristic that individualizes a person. There is a great variety of personality traits that are categorized by five factor model, openness, conscientiousness, extraversion, agreeableness, and neuroticism (Gore & Widiger, 2013).

*Posttraumatic stress disorder (PTSD):* According to the *DSM-IV-TR* (2000), PTSD is

the development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate (p. 463).

### **Assumptions**

This research study took into consideration four basic assumptions. First, it was assumed that every participant in the study fully understood the stated confidentiality of the study. Second, I assumed that every participant in the study would respond to each questionnaire in a factual and accurate manner based on her personal experience. Third, it was assumed that the wife participating in the study, by her own admission, had no identifiable measure of depression prior to the return of her husband. Finally, it was assumed that the participants qualified for the study, by their own admission, adhering to qualifying criteria of the study.

### **Limitations**

This research study was limited to the wives of veterans demonstrating symptoms of PTSD who voluntarily agreed to participate in the study, the reliability of the instruments used to obtain data, and the qualifying criteria for participation. Furthermore, it was necessary to identify a valid and satisfactory number of participants based on their responses to the demographic questionnaire available online. Because I collected data through a website, it was important to ensure the website was clear, easily understood, secure, and easy to navigate. The participants in the study were not engaged in a treatment plan. The treatment plan could be viewed as an external force by the participant.

### **Delimitations**

Personality traits are key variables in any relationship, especially a marriage. No research was found addressing locus of control as a variable in marital satisfaction in the

wives of veterans with combat-related PTSD. With a primary focus of locus of control in the wife of a combat veteran with PTSD as the variable of interest in this study, the population was limited to wives of combat veterans demonstrating symptoms of PTSD. With any relationship, there is no one variable that can contribute to the success or failure, therefore other homogeneous variables were taken into consideration such as the education levels of the wives as well as the number of years each couple had been married. For this study, length of marriage was limited to a minimum of 1 year and spanned to a maximum of 40 years. The two final variables taken into consideration were the wife's age and the couple's socioeconomic status. Although the design of this study was specific, the end result may apply to other marriages not involving a spouse diagnosed with PTSD.

### **Significance of the Study**

Data from this study validate the need for expanded research on the effects of PTSD transferred to the spouse. This study will provide a resource for the U.S. Department of Veteran's Affairs (VA), mental health care providers, community support organizations, and other resources that currently provide assistance to veterans and their families. The information from this study can be used to enhance current methods of treatment and help develop future methods of treatment for spouses of combat veterans with PTSD. After an extensive search of the literature, no studies were found that examined locus of control as a predictor of marital satisfaction in spouses of veterans with combat-related PTSD. This study laid the foundation for further exploration in this area of intimate relationships with PTSD and personality traits as variables.

## **Summary**

Chapter 1 introduced the topic of research and the purpose of the research by providing the theoretical framework, the limitations, and explaining the purpose for the study. The participants used in this study were clearly identified. The participant selection was based on spouses (specifically wives) of combat veterans with combat-related PTSD. Data collection involved questionnaires and surveys made available to participants by way of a website. The research design assisted in acquiring a better understanding of the research topic by comparing the designated variables outlined in the qualifying criteria.

An in-depth review of the literature appears in Chapter 2. This literature explored the issues of PTSD and the influences of locus of control. The reviewed literature provided an in-depth look at the two variables and how they influence behaviors.

## Chapter 2: Literature Review

### **Introduction**

As far back as wars have been chronicled, PTSD has existed (Birmes, Hatton, Brunet, & Schmitt, 2003). The objective of this research study was to explore the idea that veterans' symptoms of PTSD are a problematic issue that can have a negative impact on intimate relationships, and a spouse's locus of control is a contributing factor to the success or failure of his or her relationship. Literature reviewed for the study was obtained using the databases EBSCO and ProQuest through the Walden University Library as well as Google. Research was found using the following keywords: *posttraumatic stress disorder, PTSD, combat veteran, marital satisfaction, personality traits, relationships, and locus of control*. The majority of research obtained was published between 2003 and 2013. Because there had been little research on this combination of variables, it was necessary to obtain some pioneering research dating back several decades, particularly when researching locus of control. The most recent information was obtained pertaining to all variables.

### **Family Systems Theory**

The theoretical foundation for the study was family systems theory. In an attempt to examine family interaction, Murray Bowen developed the family systems theory in the 1950s (Wolman & Stricker, 1983). According to this theory, members of a family unit "profoundly affect each other's thoughts, feelings, and actions that it often seems as if people are living under the same 'emotional skin'. People solicit each other's attention,

approval, and support and react *to* each other's needs, expectations, and distress” (Bowen Center for the Study of the Family, 2004, para. 4).

The emotional issues combined with the troubled behavior that veterans demonstrate as a result of PTSD have a profound impact on the spouse and their marriage. These emotional and/or physical problems negatively affect the marriage, often requiring professional intervention. As noted by the Bowen Center for the Study of the Family (2004),

A core assumption is that an emotional system that evolved over several billion years governs human relationship systems. People have a "thinking brain," language, a complex psychology and culture, but people still do all the ordinary things other forms of life do. The emotional system affects most human activity and is the principal driving force in the development of clinical problems.

Knowledge of how the emotional system operates in one's family, work, and social systems reveals new and more effective options for solving problems in each of these areas. (para. 4)

Returning American veterans brought home issues that, over time, provided a deeper and more accurate understanding of PTSD (Grinage, 2003). Prior to 1980, PTSD existed as nameless phenomena. Only in recent history have researchers and practitioners begun to understand PTSD well. As noted in the *DSM-IV-TR* (2000), PTSD includes the following:

- the “development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event

that involves actual or threatened death or serious injury or other threat to one's physical integrity;

- or witnessing an event that involves death, injury, or other threat to the physical integrity of another person;
- or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate” (p. 463).

Now researchers have a clear understanding of what is infiltrating the veterans psyche.

### **History of PTSD**

Long before the American Psychiatric Association (2000) introduced the term *PTSD* as a legitimate psychiatric condition in 1980, many soldiers were returning from combat exhibiting its symptoms. As stated in Chapter 1, the symptoms went by many names (soldier's heart, battle fatigue, etc.). The symptoms of PTSD alter a person's life to the point that it can be potentially disabling. These symptoms are clinically identified in two categories: behavioral and emotional. These symptoms generally occur in individuals who have been exposed to severe psychological trauma such as combat, sexual abuse, or natural disasters (American Psychiatric Association, 2000).

Among the first to recognize what is now referred to as PTSD were physicians from the Swiss Army in 1678 (Bentley, 2005). These Swiss doctors called the condition *nostalgia*, and the more common symptoms were loss of appetite, anxiety, inability to sleep, physical weakness, and fever (Birmes et al., 2003). Around the same time as the Swiss doctors were identifying PTSD, German doctors were also recognizing the condition. The German doctors referred to PTSD as *heimwen*, which means *homesickness*

in German (Baran, 2010). They named it *heimwun* because they believed it was caused by soldiers longing to return home. Eventually other countries also began exploring the phenomena of PTSD. The French called it *maladie du pays*, which also means *homesick*, and the Spanish termed it *estar roto*, which means to be “torn down” (Baran, 2010).

During and after World War I, veterans were returning from combat with peculiar behaviors as a result of their combat experience. The condition these veterans were suffering from was labeled *shell shock* (Birmes et al., 2003). There was no research of this phenomena and thus no scientific treatment for shell shock (Holmes, 1985). Diagnosis and treatment of shell shock was purely speculation. Clinicians initially believed that shell shock was caused by damage to the central nervous system without evidence of any physical injuries (Bentley, 2005). Veterans who were diagnosed with shell shock demonstrated symptoms identical to today’s veterans diagnosed with combat-related PTSD. These symptoms include but are not limited to nightmares, agitation, irritability, startled response, and fear (Birmes et al. 2003). PTSD was officially recognized in 1980 by the American Psychiatric Association. It was officially added to the third edition of its *Diagnostic and Statistical Manual of Mental Disorders* (3<sup>rd</sup> ed.; *DSM III*; American Psychiatric Association, 1980). Now the phenomenon has legitimate recognition and the true beginning to research and treatment begins.

PTSD is a very serious mental condition that, after long-term exposure, affects other individuals than just the person diagnosed with the condition. PTSD has serious environmental impacts. Lombardo and Gray (2005) stated that “if depression is the



common cold of behavior disorders, posttraumatic stress disorder (PTSD) may be the influenza” (p. 3). Veterans returning home who have PTSD have demonstrated some very serious public health issues (Grinage, 2003).

Upon their return after experiencing a hostile environment, it is common for veterans to experience difficulty acclimating to a non-hostile environment. The main reason this occurs in part is that the military does an excellent job conditioning and training service members to perform and survive in the hostile environment but does a poor job de-conditioning them upon their return to a non-hostile environment (Grinage, 2003).

There are four basic training methods that militaries (including the United States) all over the world use. They are brutalization, classical conditioning, operant conditioning, and role modeling (Grossman, 1998). Brutalization and desensitization are the very first techniques military members are exposed to. It starts during basic training. From the very second trainees arrive to the training base they are physically and verbally abused. Instructors are constant yelling at recruits, and trainees have to do what seems like an endless amount of push-ups, long periods of standing at attention, and running or marching with heavy loads. Trainees are stripped of their personality by having their heads shaved (for males) or wearing their hair up in a bun (for females). They are forced to shower, sleep, eat, and work together while following a rigid schedule. They are required to dress alike, diminishing their individuality. This practice is designed to break down individuals, taking away their existing morals and norms to give way to a new set of values that adopt the belief that survival depends on death, destruction, and violence

(Grossman, 1998). As the service members advance in their training, the design of their conditioning changes to accommodate their military specialization. The overall goal, in the end, is to have the service member desensitized to violence and accept it as a normal and essential survival skill in his or her brutal new world.

The military effectively conditions service members for a brutal world of violence. They desensitize people for combat but do nothing to recondition them for life in a non-hostile environment. It is very common for veterans, for various reasons, to go without getting the support they and their families require in order to be able to adjust to life after combat. This includes obtaining help in coping with the conflicts that hinder the development and maintenance of an intimate relationship (Batten et al, 2009).

The stress of combat can push a person to his or her emotional limits (Bentley, 2005). American warriors have had to deal with this stress on their own, without help until the early 1980s. Family members have often reported that their loved one has returned from combat as a totally different person than when he or she left. This change can be for the better, but often after combat, it is for the worse. Veterans, who return home from combat often find themselves unable to deal with their combat-related PTSD and experience symptomatic behavior that weighs heavy on the lives of their family, friends, and especially their spouses (Boudewyns & Hyer, 1990).

### **Vietnam: The Catalyst**

The Vietnam War ended in March of 1975 (USHistory.org, 2013). Many combat veterans returned home unaware that they had combat-related PTSD. Veterans faced a different type of hostile environment upon returning home. The Vietnam War was a very

unpopular war with a great many of the U.S. population (Hagopian, 2011). Returning veterans faced ridicule and harassment by the public. In addition, combat related PTSD was unrecognized. Veterans had no support system of any kind from the government and little to no help in the private sector. Returning veterans did their best to return to life, as they knew it before the war, a normal life with their families and friends. Vietnam veterans returned home different than when they left. The war in South Vietnam was unlike any war ever experienced by American troops. All the wars fought by Americans prior to the Vietnam War were, by military standards, conventional. In all the previous wars, American forces had an identifiable enemy and battle lines that were clearly identified. South Vietnam was known as the war without fronts (Culbertson, 2003). The guerrilla fighters looked just like the local population. There was no way for American forces to distinguish civilians from the guerrilla fighters (Culbertson, 2003). American troops were at war with an enemy that disappeared immediately after they attacked, quickly blending in with the civilian population (Culbertson, 2003). American troops, as a matter of life and death were forced to fire upon innocent civilians in order to defend themselves. This, combined with opposition to the war gaining momentum back in the United States, presented serious emotional implications with a large number of American troops upon their return (Rose, 2012). In the midst of this negative reception, veterans who were already experiencing unexplained behaviors and emotions, found their behaviors amplified by the environmental conditions they faced upon their return. These behaviors include but are not limited to, aggression, emotional instability, irritability, lack of intimacy, anger, the inability to acquire and maintain a job, and alcoholism.

Studies suggest that more severe the PTSD symptoms are, as a consequence of combat exposure, the greater the likelihood of physically aggressive outbursts directed toward spouses and other family members (Taft, Schumm, Panuzio, & Proctor, 2008). Physical aggression has been identified as a major component in relational problems among veterans returning from combat, ultimately resulting in a higher divorce rate (Cook, Riggs, Thompson, Coyne, & Sheikh, 2004). Physical aggression with combat veteran causes lower family cohesiveness, poor communication, elevated levels of relationship distress, and poor family adjustment (Taft et al, 2008). Higher incidence of anger outbursts have been reported in veterans returning from Operation Iraqi Freedom and Operation Enduring Freedom. Subsequently, these outbursts of anger compound other symptomatic behavior such as domestic violence. In a study performed by Milliken, et al (2007) it was learned that over half of the Operation Iraqi Freedom and Operation Enduring Freedom veterans in the VA behavioral health system reported mild to moderate partner violence. This is consistent with prior generations of combat veterans also diagnosed with PTSD (Galovski & Lyons, 2004). Anger outburst in the combat veteran, are usually reactive responses to particular triggers stimulating recall of the traumatic event (Nelson, Goff, Crow, Reisbig, & Hamilton, 2007). The volatile displays of anger has the potential to reduce the effectiveness of communication in a marriage as well as problem-solving skills and the acceptance of social support (Owens, Chard, & Cox, 2008; Sherman, Zanotti, & Jones, 2005). Longitudinal evidence suggests that veterans with combat related PTSD will result to alcohol as a form of self-medication in order to relieve the symptoms of PTSD (Jacobson, Southwick, & Kosten, 2001).

Alcoholism in combat veterans has a direct correlation with marital discourse causing elevated distress, negative family interaction, and ultimately high rates of divorce (Meis, Erbes, Polusny, & Compton, 2010). Social withdrawal is a common symptomatic behavior of veterans with PTSD that further complicates the marital relationship (Monson, Taft, & Fredman, 2009). The aforementioned research focuses on the veteran, however little or no attention has been given to his or her spouse. Thus far, no significant research has examined the complications of the marital relationship from the perspective of the spouse. This is not altogether surprising, given that researchers had not yet acquired a full understanding of PTSD and its repercussions. The greatest increase in research pertaining to combat-related PTSD occurred after the Vietnam War (Oberle, 1991). Much research has been dedicated to cause and effect and primarily focused on the veteran.

Although there is now a better understanding of the origin of PTSD and how it affects the veteran, the current research continues to focus primarily on the veteran. In recent years some research has turned its attention to the family unit. Some current research has focused on parental relations, family interaction, and family cohesion. However, research focusing solely on how PTSD impacts the spouse and the attributes that result in effective or ineffective adaptation and coping is nonexistent.

When discussing combat-related PTSD, it is commonly associated directly with the veteran diagnosed with the condition. However, it is not the diagnosed veteran alone who suffers. People closely associated with the veteran have an increased probability of feeling the effects of the PTSD (Renshaw, Allen, Rhoades, Blais, Markman, & Stanley,

2011). Persons who are exposed to the veteran in a very intimate environment run the highest risk of transference due to the nature of their relationship. The spouse of a veteran with PTSD has the highest probability of suffering some sort of effect of the veteran's condition (Renshaw, Rodebaugh, & Rodrigues, 2010).

Personality traits, such as locus of control, can determine how one looks at situations in life and determine how to best deal with them. From a locus of control point of view, the symptoms of PTSD could be viewed as an external force that could possibly impact the future of the relationship (Green, 2011). Whether the impact of this external force plays a factor or not depends on the spouse's locus of control orientation. This research study examined the issues from the wives' perspective and their understanding of how PTSD has affected their husband's life and inadvertently their relationship.

### **Locus of Control**

Locus of control is a concept developed by Julian Rotter in the 1954 that refers to an individual's perception about the underlying causes of events that happen in their life (Rotter, 1966). Does an individual believe that they control their own destiny or do external forces or other people control their own destiny? Rotter wanted to examine the extent to which people believe whether or not they have power to control events in their lives. Internal locus of control is when a person believes that they can influence the events in their lives and to a great extent, their outcomes. Persons with an external locus of control believe that forces are to blame for events that happen in their life (Cummings & Swickert, 2010). The underlying question regarding locus of control is "do I control my life or does someone or something else control it? The idea is simple but profound.

Locus of control is very significant construct as it influences many peoples' beliefs and most people are not even aware of it. Within psychology, locus of control is considered to be an important aspect of personality (Rotter, 1966).

The constructs full title is locus of control of Reinforcement. Rotter believed that behavior was primarily guided by reinforcements such as rewards and punishments (Kormanik & Rocco, 2009). The title reflects Rotter's theory of bridging behavioral and cognitive psychology (Rotter, 1966). Because Rotter believed that human behavior was guided through contingencies such as rewards and punishments, people develop beliefs about what causes their actions (Kormanik et al, 2009). These beliefs, then, guide the attitudes and behaviors individuals adopt. A locus of control orientation is a person's belief whether the consequences of their actions are contingent on what they do (internal control orientation) or that of external forces outside of their control (external control orientation). (Kormanik et al, 2009). Locus of control is conceptualized as referring to a one-dimensional continuum, ranging from external to internal (Solomon, & Mikulincer, 1990). A person with internal locus of control believes that they, and only they control their life. Individuals with an external locus of control believe that decisions they make, and/or life events are controlled by environmental factors over which they have no control, such as God or luck. In viewing the full range of locus of control, one may ask if an internal locus of control is desirable. Generally speaking, an internal locus of control, to perceive that one has control over those things that one is capable of influencing, is psychologically healthy because a more internal locus of control is generally viewed as desirable (Ng et al., 2006). People may view an individual with internal locus of control

as confident, in control, or determined. Research indicates that men tend to be more internal than women (Grey-Stanley et al, 2010). It also suggests that as people get older they become more internal (Grey-Stanley et al, 2010). And as individuals advance within organizational structures they tend to become more internal (Grey-Stanley et al, 2010). An internal orientation is not to be misunderstood as a person who has total control over their life but rather a person who can believe they can control a situation to achieve a particular outcome (Hill, 2011).

There are some very important subtleties and complexities to be considered regarding internal and external locus of control. In the preceding paragraph, it was stated that “generally speaking” an internal locus of control is psychologically healthy. In order for that healthiness to exist, the internal orientation should be accompanied by an equal self-efficacy, competence, and opportunity (Rotter, 1966). This is necessary so that an individual can be successful in the sense of self-control (Rotter, 1966). If an individual possesses an internal orientation and lacks the competence, efficacy and opportunity necessary to be successful, they can become neurotic, anxious and depressed (Cheng, Cheung, Chio, & Chan, 2013). Individuals with an internal orientation should have an understanding of their circle of influence and operate within that circle so they may experience success.

People who demonstrate an external locus of control can lead a very relaxed and happy life because they tend to defer or avoid issues. Studies tend to suggest that individuals with an external locus of control tend to be satisfied rather than seeking and taking advantage of opportunities. On the other end of the spectrum, individuals with a



more internal locus of control tend to be more achievement oriented and usually strive for more (Green, 2011).

Locus of control has is a good predictor of marital satisfaction. A study conducted by Bugaighis et al. (1983), demonstrated that wives with a high internal orientation experienced higher marital satisfaction than wives with a high external orientation. Research shows that locus of control is a good predictor in determining marital satisfaction (Bugaighis et al. 1983); however this study was conducted examining marriages that presented no overt obstacles such as PTSD. Stress is a situation that will undoubtedly be introduced to the marital relationship by the husbands PTSD.

Roddenberry and Renk (2010) demonstrated the mediating effects of locus of control among Stress in College Students. The study indicated that high external locus of control correlated with higher levels of stress where higher internal locus of control correlated with lower levels of stress (Roddenberry & Renk, 2010). Locus of control has been shown to be a good predictor in determining job satisfaction by showing that individuals with a high internal locus of control demonstrated better job performance and job satisfaction (Lloyd & Hastings, 2009). Furthermore, Ng et al., (2006) conducted a study that proved individuals with a high internal locus of control performed better in academic settings with higher grades and better academic performance than students with a high external locus of control.

This study applied the same theoretical approach as Bugaighis et al, (1972) did in a study pertaining to marital satisfaction with one major change, I introduced the variable of PTSD in the marital relationship. Bugaighis, et al. (1972) conducted a study

demonstrating that locus of control is a good indicator of marital satisfaction in a marriage without any overt problems. This dissertation research examined the idea that locus of control is or is not a good indicator of marital satisfaction in a marriage where PTSD introduces extenuating circumstances.

### **PTSD and the Spouse**

Veterans returning from combat often face entirely different family situations than the one they left. A study conducted by Hankin, Spiro, Miller, & Kazis (1999) examined a group of out-patient veterans indicated that those diagnosed with PTSD are more likely to have had a traumatic experience in their life. In addition, the study also demonstrated that individuals with PTSD experience higher levels of depression and alcohol related disorders (Hankin et al., 1999). These conditions are sure to affect a spouse of a veteran with PTSD and their marriage. Common sense and knowledge of human interaction suggest that the spouse of a veteran with PTSD is dramatically affected by the veterans' behavior (Sherman, Zanotti, & Jones, 2005). Consequently they are instrumental in the veterans' treatment. Unfortunately there are few resources available for guidance in meeting the needs of the spouses (Sherman et al, 2005).

The nature of PTSD demands that traumatic events the veteran experiences while in a combat situation become a permanent fixture in their memory. Some veterans show symptomatic behavior immediately after their exposure while others never suffer any symptomatic behavior at all. This is due to the level the experience is imbedded in their memory. Some veterans will bury the experience very deep while for other veterans the experience remains shallow causing them to easily recall the traumatic event, have

terrible nightmares, and or experience daily triggers that recall the traumatic event. All of this, along with other symptoms can inhibit normal daily functioning (Tendall & Fishler, 2006). It is a very difficult situation, living with PTSD and all of its symptoms. The most common social and health disorders among veterans with PTSD is depression, anxiety, and substance abuse (eMedicine Consumer Health, 2003).

The symptomology of veterans with PTSD is very broad. However, there are specific symptoms of PTSD that are detrimental to a marriage. Kulka, Fairbank, Jordan, Weiss, Schelenger, Hough, and Marmar, (1990) propose that William Shakespeare wrote about PTSD symptomology in a play. In *Henry IV, Act III, Scene III*, Lady Percy speaks of the nightmares her husband endures as well as his inability to enjoy life, symptoms that surfaced after his service in Henry's army (Kulka et al., 1990). Lady Percy further stated that her husband will isolate himself refusing to associate with anyone. She stated how sounds provoked violent behavior by her husband. These symptoms are consistent with that of Vietnam veterans from Australia and New Zealand whose wives complained that their hyper arousal and avoidance were negatively impacting their marriage (Frederikson, Chamberlain, & Long, 1996).

Studies which utilized traumagenic stimuli produced psychophysiologic states of arousal that cause veterans with PTSD to stand out from other subject groups (Boudewyns & Hyer, 1990). These studies included recorded audio of the sounds of combat as well as pictures of combat scenes (Boudewyns et al., 1990). Based on these findings, it is possible to invoke the symptomology of PTSD which causes the behavior of a person suffering from this condition to be unpredictable. Studies conducted using

veterans of Vietnam confirmed that individuals suffering from combat related PTSD would exhibit abnormal behavior and increased physiological arousal when subjected to stimuli that reflected their combat experience (Kolb, 1987). These veterans were more apt to avoid social or public situations, engage in aggressive behavior, and have difficulty with sleep. Veterans with PTSD are more susceptible to demonstrate heightened arousal as indicated by increased pulse rate and blood pressure when exposed to sounds of combat or pictures of combat scenes (Boudewyns et al., 1990). Kolb, Burris, and Griffiths (1984) conducted a study that suggests avoidance behavior is a defensive strategy implemented as a method of reducing the stress level a veteran experiences as a result of certain stimuli. Avoidance is a way for the veteran to prevent situations in which they feel endangered. The VA conducted a study which showed a correlation in PTSD and changes in the central and autonomic nervous system. One of the major changes noted was hyper arousal of the sympathetic nervous system (Friedman, Chamey, & Deutch, 1995).

It is clear that avoidance and hyper arousal can negatively impact the marital satisfaction of a wife of a veteran with combat related PTSD experiences. These self-injurious coping behaviors eventually elicit offers of assistance and intervention. The needs of the spouses however, are seldom addressed and are frequently overlooked. Longitudinal research study of soldiers returning from the Iraq war suggests a significant concern exists regarding their interpersonal relationship problems (Milliken et al, 2007). In addition to veterans experiencing relationship issues, research overwhelmingly suggests that combat related PTSD is associated with psychological distress in their

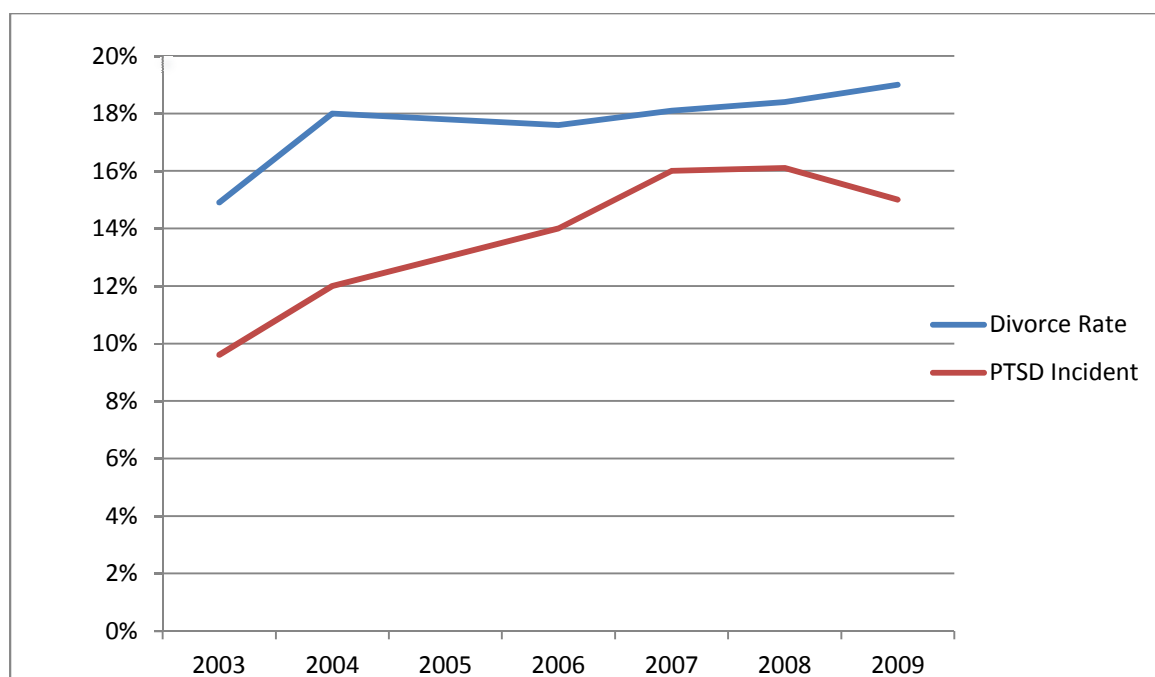
spouses (Campbell & Renshaw, 2012). In some cases, the level of distress a wife experiences can cause her to develop PTSD-like symptoms herself (Campbell et al., 2012). With the return of the PTSD veteran, the spouse is constantly exposed to behaviors that create a hostile family environment (Sautter et al., 2009). In addition to the veterans behavior, spouses continue to bear the household burdens and responsibilities that should have eased upon their spouses return home. Witnessing the suffering their spouse endures and having to learn how to deal with their spouse's psychological issues creates an even heavier burden (Renshaw et al., 2011). Spouses often face psychological issues that are damaging, not only to their relationship but equally damaging to their own emotional health.

Military members who are married make up more than half of Americas fighting force (Tanielian, & Jaycox, 2008). There have been a high number of health related symptoms reported by veterans and/or their spouses after the completion of a deployment, that have adverse effects on the marriages and family relationships of veterans, and could potentially lead to divorce (Tanielian, & Jaycox, 2008).

Veterans who suffer from PTSD can also experience interpersonal difficulties and expression of feelings to include but not limited to sexual intimacy, disclosure, family cohesion, and they have difficulty expressing affection while they find it relatively easy to express hostility and aggression (Deville, 2002). These behaviors will have a notable impact on a marriage. As a result, spouses of veterans experience increased amounts of stress (Calhoun & Beckham, 2002).

A study conducted by Beckham, Lytle, and Feldman (1996) compared certain variables within the relationship between veterans and their spouses' in Vietnam veterans with and without PTSD. The study suggested spouses' of veterans with PTSD experienced high levels of stress and adjustment problems (Beckham et al., 1996).

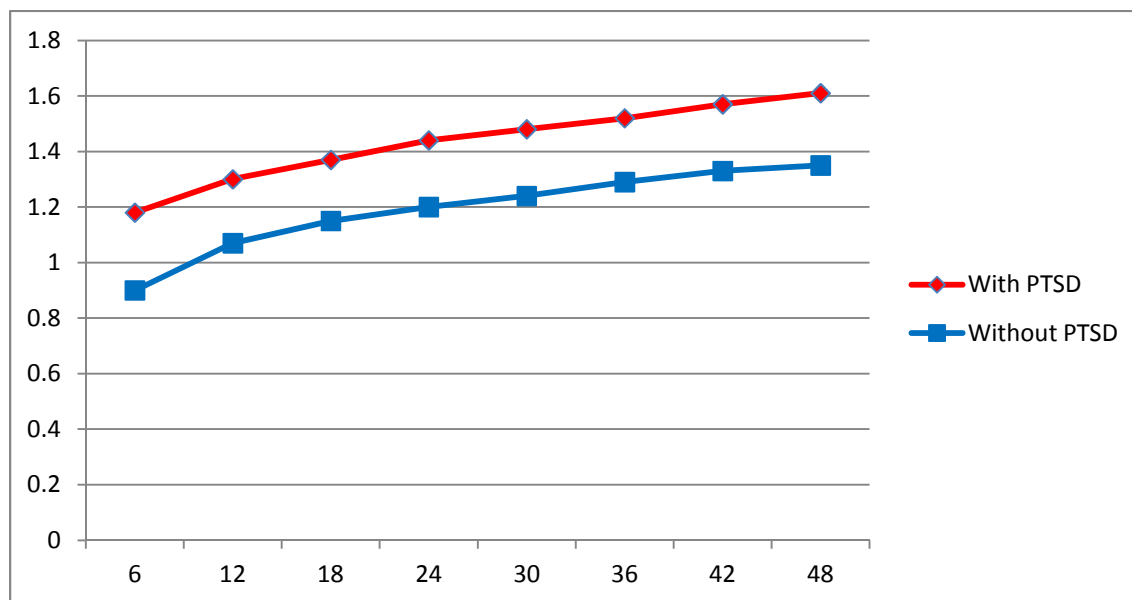
Figure 1 indicates that the annual rate of divorce and the frequency of self-reported PTSD symptoms for Army personnel on active duty increased between 2003 and 2009. This suggests a correlation between divorces and PTSD symptoms.



*Figure 1.* Annual divorce rates and PTSD incidence in the army (Enlisted, 2003-2009). Reprinted from “Home front post deployment mental health and divorces” (No. WR-874-OSD) Working Paper by Negrusa, B. & Negrusa, S., 2012. Reprinted with permission.

After a one year deployment, studies show that soldiers who have reported PTSD symptoms experience higher divorce rates than soldiers without PTSD. Figure 2 indicates the divorce at the rate of 1.1% higher than soldiers who experience no PTSD symptoms at six months after a one-year deployment and 1.6% after 48 months after a one-year

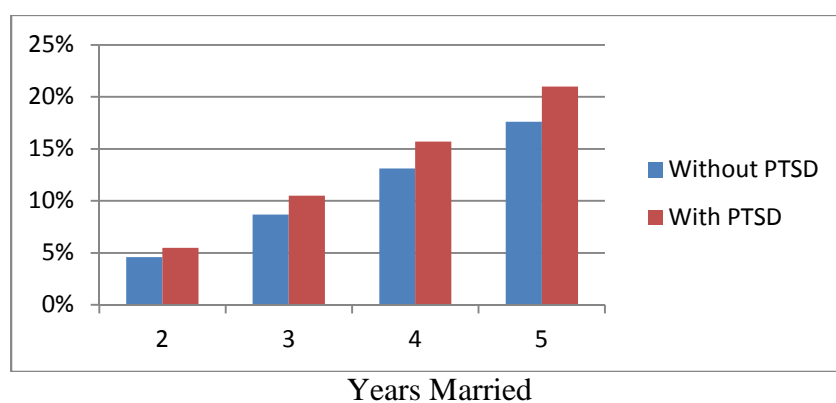
deployment. The values suggest a total higher divorce rate of 21.4% over the 48 month period in soldiers who have PTSD over soldiers who do not have PTSD.



*Figure 2.* Predicted divorce hazard after a 12-month deployment (Army Active Duty, Enlisted Personnel, 2003-2010). Reprinted from “Home front post deployment mental health and divorces” (No. WR-874-OSD) Working Paper by Negrusa, B. & Negrusa, S., 2012. Reprinted with permission.

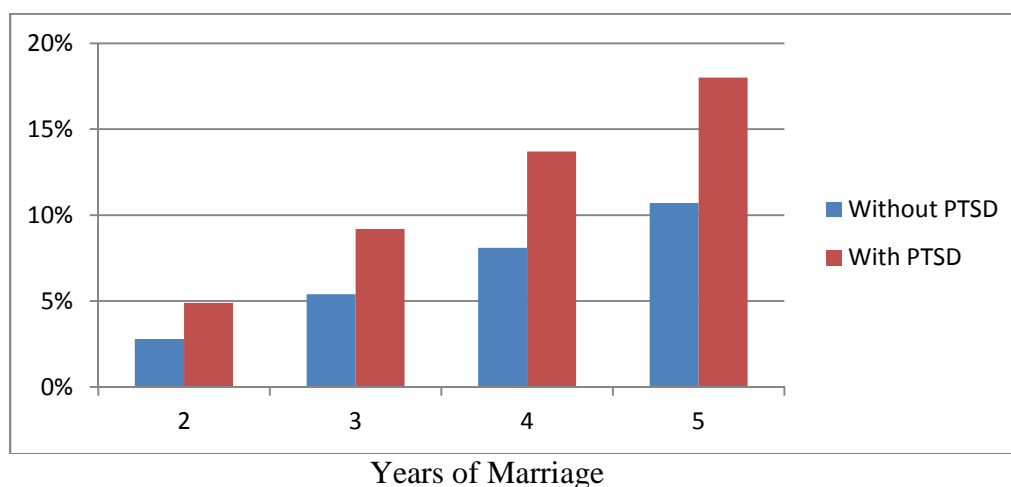
The stress factor in a marriage for spouses married to veterans with combat related PTSD can often be extremely high. Much like a working environment with high stress levels, a contributing factor could be a lack of knowledge (Grey-Stanley et al., 2010). The best way to combat the symptoms of combat related PTSD is psycho-education. As time goes by, more programs are being created for the purpose of educating families of veterans with PTSD such as the Oklahoma City VA Family Mental Health Program, which began over 32 years ago. This service provides couples and family therapy. It went on to expand its services in 1999 with the creation of the Support and Family Education (SAFE) program that consists of a curriculum of educational and

support workshops for family members of veterans who have been diagnosed with PTSD (Sherman, Fischer, Sorocco, & McFarlane, 2011). Quality couples therapy has the potential to help veterans learn about the emotional impact their diagnosis has on their spouse and enable them to cope more effectively with trauma-related distress. At the same time the spouse will better understand the veterans' diagnosis and learn to empathize with confusing behavior, enabling them to strengthen intimate relationships (Sherman et al., 2005). A study conducted at the University of Texas in 2011 suggests that veterans who express their feelings have increased marital satisfaction (Baddeley & Pennebaker, 2011). The study consisted of an expressive writing intervention while deployed. The feelings and emotion of the couple were expressed in writing resulting in lower stress levels, fewer cases of depression, and increased marital satisfaction.



*Figure 3.* Predicted probability of divorce after a 12-month deployment (Army Active Duty Enlisted, 2003-2010). Reprinted from “Home front post deployment mental health and divorces” (No. WR-874-OSD) Working Paper by Negrusa, B. & Negrusa, S., 2012. Reprinted with permission.





*Figure 4.* Predicted probability of divorce after a 12-month deployment (Army Active Duty Officer, 2003-2009). Reprinted from “Home front post deployment mental health and divorces” (No. WR-874-OSD) Working Paper by Negrusa, B. & Negrusa, S., 2012. Reprinted with permission.

The veteran as well as the spouse needs to become as informed as possible on combat related PTSD and the emotional impact it will have on their marriage. Marital discontent is one of the most common symptoms in a marriage of a combat veteran diagnosed with combat related PTSD (Cordova, Scott, Dorian, Mirgain, Yaeger, & Groot, 2005). Once the level of discontent becomes extreme, the couple’s chances of becoming depressed increases considerably. Unfortunately it often takes getting to this level before the spouse, the veteran, or both seek professional help.

### **Locus of Control and the Stress Factor**

When PTSD was validated as a legitimate condition, actual scientific research has primarily focused on how combat related PTSD affects the military member. More recently, new research is beginning to concentrate on different aspects of combat-related PTSD, including how the family is affected. However the number of studies to date is minimal. Some of these studies have been completed on the transference effect on family

members of veterans who have been diagnosed with combat-related PTSD. Narrowing the focus on the intimacy of relationships between veterans and their spouse is even less. To my knowledge, no research has been done from the view point of the spouse of a veteran with PTSD where their feelings are taken into consideration regarding their spouses PTSD and their own level of locus of control.

Research clearly indicates that PTSD causes increased levels of stress in intimate relationships (Donovan, 2004). Stress occurs when there is a disruption of the norms in the relationship (Donovan, 2004). How the wife deals with the stress depends largely on her personality. It has been shown that individuals with higher internal locus of control experience less stress than individuals with a higher external locus of control (Myers, 1993). Lower levels of stress within the higher internal locus of control mentality exist because these individuals take control of their situation and seek solutions (Myers, 1993). Individuals with a higher external locus of control can develop a feeling of helplessness and capitulate to the consequences of stress (Myers, 1993).

It has been confirmed that PTSD causes high levels of stress in a marital relationship (Myers, 1993). Based on this finding, it is logical that the manner in which the wife will deal with this stress can be greatly influenced by her locus of control orientation. Therefore an assumption can be made that the wife's locus of control orientation can be a determinant in how she would likely deal with a stressful situation and the degree in which her contribution can help overcome the obstacles caused by the symptomology of PTSD.

This study explored a relationship from the perspective of the spouse of a veteran who has been diagnosed with combat-related PTSD. Two primary factors that were considered were; the symptomatic behavior of the veteran diagnosed with combat-related PTSD and their spouse's locus of control. Other homogeneous variables, which will be further discussed in the next section, were considered as well, however the primary focus is locus of control. Symptomatic behaviors of the veteran can include but are not limited to depression, social withdrawal, sleep disorder, flashbacks of the initial trauma, the inability to recall details of the traumatic event, irritability, anger, exaggerated startled response, and unable to express loving feelings (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000)

. Studies indicate that evidence of transference of these symptoms can occur over time to family members, friends, co-workers, or any other person who spends a considerable amount of time with the veteran (Renshaw et al., 2011). It has been suggested that locus of control and depression coincide with one another. A study conducted by Benassi, Sweeney, and Dufour (1988) identified the "depressive paradox" that exists between two major areas of depression. The first theory being Seligman's helplessness which states that people who were depressed will perceive events as uncontrollable. The second theory is Beck's negative schematic suggest that depressed people experience thoughts of self-deprecation and self-blame. Both have received substantial empirical support. The depressive paradox appears to involve locus of control orientation because of the fact that individuals who were depressed, perceive events as

being beyond their personal control (external), while blaming themselves simultaneously for failure (internal) (Clarke, 2004).

### **The Homogeneous Variables**

Locus of control is but one of many variables that impact personality. It cannot be said that any one variable can be credited for the actions of an individual. Where locus of control is going to be the variable of focus, other variables must be considered because they do exist. A marriage is a complex relationship that is affected by many things, therefore when situations arise within the marriage the solutions can sometimes be painstaking. The marital discord can be brought upon or dealt with any of these variables. The additional homogenous variables that were considered were the wife's age, her level of education, the number of years she and her husband have been married, the number of times she has been married, the number of children she has, and the yearly household income.

#### **Age**

Research suggests that there is a greater chance of success in a marriage if the woman marries when she's over the age of 24 (Manning, Trella, Lyons, & DuToit, 2010). Results indicated that the largest common variable in women under the age 24 was fear. It also suggested that what they were afraid of was that their marriage would end in divorce (Manning et al., 2010). Women over the age of 24 demonstrated more stability and confidence (Manning et al, 2010). A common variable with older women was a higher level of education.

**Education**

Education is going to be a key variable to examine. Women who have a college degree have a tendency to marry when they are older, often after they've graduated and began their career (Isen & Stevenson, 2010). Women who have earned their college degrees have a tendency to demonstrate a higher internal locus of control (Miu, 2010). They tend to marry more for love and happiness rather than security (Isen et al., 2010). They will tend to be more confident in themselves and more likely to have a career in stable financial resources.

**Income**

Socioeconomic status is a variable that affects every person. The financial factor is key and how a marriage develops. It has been demonstrated that a good socioeconomic status helps reduce stress and facilitates peace and tranquility in a marriage, as to where a poor socioeconomic status contributes to increased stress and anxiety and marital discord (Hallday–Hardie, & Lucas, 2010).

**Number of Children**

The number of children a couple has can be a significant variable, as it relates to the financial variable. Traditionally, if a marriage ended in divorce, custody of the children was automatically awarded to the mother. However family units have evolved and adapted to changing environmental influences. The single income family is giving way to a two income family where the mother and the father both work (Braver, Ellman, Votruba, & Fabricius, 2011). Courts are now considering many different factors when awarding custody of children to parents who are divorcing with the most influential

variables being time and money (Braver et al., 2011). Every woman will consider her own particular variables if she contemplates divorce. It is a good possibility she may be discouraged from divorcing if she feels she is unable to take care of her children by herself or if she's afraid to risk losing custody of her children thus being separated from them. In any event she may, for the sake of her children, remain in a marriage that no longer gives her happiness and satisfaction.

### **Years Married**

Among many other things, time is a valuable investment in a marriage. A woman who was been married for considerable amount of time is more apt to exert more effort in resolving problematic issues that exist in her marriage (Isen et al., 2010). Therefore, the assumption can be made that a woman who has been married longer than a woman who was recently married may have more to lose by getting a divorce. The marriage grows over time and like children, other things have been developed and acquired over the term of the marriage such as financial investments, property, and or status (Isen et al., 2010).

So it is clear to see that these other variables can play as much a factor in how a person makes a life altering decision. However, the focus of this study was the wife's type of locus of control (internal vs external).

This study examined the probability of success in a relationship between a veteran diagnosed with combat related PTSD and their spouse considering the symptomatic behavior of the veteran and the spouse's locus of control. The study looked at whether the symptomatic behavior of the veteran was an issue within their relationship causing distress. Finally it examined the locus of control that the spouse has and if it

might be a determining factor on the success or failure of the relationship. To what degree does locus of control factor in determining if a spouse will cope, adapt, or acquire the symptomatic behavior of their spouse thus inflecting further damage to the relationship?

### **Summary**

Locus of control and PTSD are too emotional entities that have been well researched and well documented. However, they have never been studied as variables that impact one another. Locus of control is a personality trait that definitely impacts an individual's life. An individual's accomplishments, goals, and aspirations are largely based on an individual's locus of control, this includes their relationship. By understanding a person's locus of control, one could use it as an indicator to predict the behavior patterns of an individual. It could be argued that the locus of control can also affect individuals that are close to this person. A person's personality type is a major influence, not only on the person themselves but the company that they keep. Thus, it could be argued that a person's locus of control can affect the probability of success or failure of a marriage.

Research on PTSD confirms the devastating effects it can have on the individual as well as people there close to. Combat related PTSD has been around as long as wars have been fought. It was not until PTSD was actually deemed a valid emotional condition that legitimate research has been conducted. The range of research on PTSD is vast and shows the implications that symptomatic behavior can have on the individual. PTSD research has even demonstrated how symptomatic behaviors can affect family members

to include but not limited to children, working environment, and intimate relationships.

None of the aforementioned studies have focused on or addressed how the symptomatic behavior of a veteran with combat related PTSD and their spouse's locus of control impact their marriage. This study investigated how a veteran diagnosed with combat-related PTSD and their spouses' locus of control impacts the satisfaction of their marriage.



## Chapter 3: Research Method

### **Introduction**

This quantitative survey study was conducted to determine whether there was a relationship between the independent variables, locus of control in wives of combat veterans diagnosed with PTSD, and the dependent variable, marital satisfaction. In Chapter 3 I explain the research design and the approach method used to collect data. Chapter 3 also includes a description of the sample population and the measurement tools utilized in the study. The current research on locus of control has demonstrated the impact on a person's personality and how it influences a person's overall satisfaction of life (Hong & Giannakopoulos, 1993; Kostka & Jachimowicz, 2010). However, I found no research on how locus of control influences the satisfaction of a marriage from the perspective of wives of veterans diagnosed with combat-related PTSD. In this chapter, I explain the research design and approach, the setting and sample, the data collection and analysis, the instrumentation and materials used, and the protection of human participants.

### **Research Approach and Design**

This is a quantitative research study that utilized a correlational design that consisted of a demographic survey, the Duttweiler Internal Control Index to measure locus of control (Duttweiler, 1984), and the Kansas Marital Satisfaction instrument to determine marital satisfaction (Schumm, Nichols, Schectman, & Gribbsby, 1983). This study was conducted to determine if a relationship exists between the independent variable of locus of control and the dependent variable of marital satisfaction. The

independent variable of locus of control was measured taking into consideration each participant's age, education, the number of years married, the number of children, and income level. This study did not manipulate the environment of the participants. The purpose was to show a correlation between the variables.

The participants in this study were wives of combat veterans who demonstrated symptomatic behavior of PTSD. Preliminary recruitment of participants was done at all 20 Vet Centers in Texas. Information pertaining to the study was publicized by placing flyers in the lobbies of the Vet Centers. Wives who volunteered to participate in the study were directed to a website I created. This website provided access to a demographics questionnaire, locus of control measurement scale, and a marital satisfaction survey. When participants logged onto the website, they were again briefed on the study and presented with a confidentiality form that required their consent to participate.

### **Setting and Sample**

#### **Participants**

The participants selected for this study were wives of veterans who demonstrated symptomatic behavior of PTSD. They were wives of veterans with combat-related PTSD who learned of the research study at one of the 20 Vet Centers in Texas. The Vet Centers distributed survey information; therefore, no formal consent was necessary. Because the survey was anonymous in nature, participants were asked to confirm their husbands' diagnoses of PTSD in the demographics questionnaire, and their confirmation was based solely on their integrity. They were all over the age of 18, legally married to their husbands, had husbands diagnosed with PTSD, and were not married less than 1 year. A

multiple linear regression was used to assess the research question. To calculate an empirically valid sample size for the regression, G\*Power 3.1.4 was used. For a multiple linear regression with six predictors, using a medium effect size ( $f^2 = .15$ ), an alpha of .05, and a generally accepted power of .80 (Howell, 2010), the required minimum sample size was calculated to be 98 participants.

### **Data Collection and Analysis**

Approval to conduct this research study was obtained from the Institutional Review Board at Walden University, approval number 07-22-14-0160243. Participants were provided with the web address for the website containing the survey material. The website was used to collect data and ensure the anonymity of the participants. When participants logged into the website, the first page that was displayed was the consent form. Participants had to agree and give consent to participate in the survey. If they did not give consent, they were not allowed access to the survey instruments. After consenting to participate in the study, the following page was the confidentiality information. After the confidentiality page was a general information page pertaining to the study. After the general information page, participants were directed to the surveys created on Survey Gizmo ([www.surveygizmo.com](http://www.surveygizmo.com)). Participants were able to opt out at any time. Upon completion of the survey, participants were directed to a debrief page where they received information pertaining to the study and contact information. No further participation was necessary upon completion.

Once the data collection process was complete, the data were transferred to SPSS 21.0 for analysis. The sample was explained with descriptive statistics. Frequencies and

percentages were presented for income. Means and standard deviations were presented for age, education, years married, number of children, locus of control, and marital satisfaction.

### **Research Questions**

*Research Question 1:* Among women who are married to combat veterans diagnosed with PTSD, is there a correlation between her locus of control and her marital satisfaction?

$H1_0$ : Locus of control does not predict marital satisfaction in women whose husbands have combat-related PTSD.

$H1_a$ : Locus of control does predict marital satisfaction in women whose husbands have combat-related PTSD.

*Research Question 2:* Do demographic characteristics of the wives of veterans with combat-related PTSD impact her marital satisfaction?

$H2_0$ : Age, education, years married, number of children, do not impact marital satisfaction in women whose husbands have combat-related PTSD.

$H2_a$ : Age, education, years married, number of children, income, do impact marital satisfaction in women whose husbands have combat-related PTSD.

### **Cronbach's Alpha**

Cronbach's alpha tests were conducted to assess the internal consistency of the Detweiler Internal Control Index (Duttweiler, 1984) and the Kansas Marital Satisfaction instrument (Schumm et al., 1983). The coefficients were evaluated based upon the guidelines provided by George and Mallery (2010) where greater than .9 is *excellent*,

greater than .8 is *good*, greater than .7 is *acceptable*, greater than .6 is *questionable*, greater than .5 is *poor*, and less than .5 is *unacceptable*.

To determine if locus of control, age, education, years married, number of children, income, predict marital satisfaction, a stepwise multiple linear regression was conducted. Multiple regression is the most appropriate analysis when the goal of research is to determine the extent of prediction in a continuous dependent variable that can be attributed to a set of continuous or dichotomous predictor variables (Tabachnick & Fidell, 2012).

The dependent variable in the analysis was marital satisfaction. Marital satisfaction was measured using the Kansas Marital Satisfaction instrument (Schumm et al., 1983). These data were as treated as a continuous level. The independent variables in the analysis were locus of control, age, education, years married, number of children, and income.

In Step 1 of the regression, age, education, years married, number of children, and income were imputed as the predictor variables. This determined the extent to which these demographic variables were able to account for marital satisfaction. All four of these variables came from the demographic portion of the survey and were treated as continuous variables. Income was treated as a categorical variable and dummy coded for use in the analysis (0 = non-inclusion, 1 = inclusion). For this step of the regression, the  $R^2$  was reported to explain the percentage of variability in marital satisfaction that the demographic variables explained. In the next step of the analysis, locus of control was added to the model. The change in  $R^2$  was used to explain how much more locus of

control was able to account for marital satisfaction than the demographic variables alone. Locus of control was measured with the Duttweiler Internal Control Index (Duttweiler, 1984); these data were treated as continuous level.

The following regression equation was used:  $y = b_0 + b_1*x_1 + b_2*x_2 + b_3*x_3 + b_4*x_4 + b_5*x_5 + b_6*x_6 + e$ ; where  $y$  = the response variable,  $b_0$  = constant (which includes the error term),  $b_1$  = regression coefficient for age,  $b_2$  = regression coefficient for education,  $b_3$  = regression coefficient for years married,  $b_4$  = regression coefficient for number of children,  $b_5$  = regression coefficient for income,  $b_6$  = regression coefficient for internal locus of control,  $b_7$  = regression coefficient for the symptomology of PTSD,  $x$  = predictor variables, and  $e$  = the residual error (Tabachnick & Fidell, 2012). The model was presented with the  $F$  test and the  $R^2$  and presented the amount of variance in marital satisfaction that was attributed to the regression model; in the first step it explained the contribution of the demographic variables, and in the second step it explained the contribution of the demographic variables as well as Locus of Control scores. The difference in these  $R^2$  values determined how much of this variability was attributed to Locus of Control scores alone. The  $t$  test was used to determine the significance of the individual predictor variables. For the significant predictors, a one unit increase in the predictor indicates marital satisfaction will increase or decrease by the unstandardized beta units.

Prior to conducting the regression the assumptions of linearity, homoscedasticity, and absence of multicollinearity was assessed. Linearity assumes each of the predictors is linearly related to marital satisfaction and will be assessed with scatterplots.

Homoscedasticity assumes scores are normally distributed about the regression line and was assessed with a residuals scatterplot. Absence of multicollinearity assumes the predictor variables are not too related and will be assessed with the examination of variance inflation factors (VIF). VIF values less than 10 will indicate the assumption is met (Stevens, 2009).

### **Sample Size**

A multiple linear regression was proposed to assess the research question. To calculate and empirically valid sample size for the regression, G\*Power 3.1.4 was used. For a multiple linear regression with six predictors, using a medium effect size ( $f^2 = .15$ ), an alpha of .05, and a generally accepted power of .80 (Howell, 2010), the required minimum sample size was calculated to be 98 participants (Faul, Erdfelder, Buchner, & Lang, 2013). Data will be stored for a period of five years on a flash drive kept in a safe in the researcher's home office.

## **Instrumentation**

### **Demographics**

A demographics questionnaire was administered to collect the following data pertaining to each participant: if their husband has a diagnosis of PTSD, age, education, number of years married, number of children, and income (Botello, 2014). The demographics questionnaire was used to select the participants that met the criteria and standards for participation in the study.

### **The Duttweiler Internal Control Index**

The Duttweiler Internal Control Index was used to measure the independent variable locus of control (Duttweiler, 1984). The Internal Control Index is an instrument consisting of 28 items that is designed to measure a person's locus of control. The Internal Control Index considers two factors in measuring a person's locus of control, the first one is called self-confidence and the second one is called autonomous behavior or behavior that is independent of social pressure. The Internal Control Index was developed and tested using a sample of 1365 college students of both sexes with the means broken down by age, sex, group, race, education levels, and socioeconomic levels and a range from 99.3 to 120.8. When the Internal Control Index was first introduced, it underwent intense psychometric analysis. This analysis was based on field test (N = 684) and validation (N = 133) administrations. Factor and item analysis of the Internal Control Index was provided in addition to the convergent validation against the Rotter's I – E scale. The analysis completed on the Internal Control Index suggested it was a reliable and valid instrument. It demonstrated internal consistency reliabilities of .84 and .85 and the two samples taken. There's a significant negative relationship with the Rotter IE scale in the validation study ( $r = -.39$ ).

The Internal Control Index is scored using a five-point Likert scale: A - Rarely (less than 10% of the time), B - Occasionally (about 30% of the time), C - Sometimes (about half of the time), D - Frequently (about 70% of the time), E - Usually (more than 90% of the time). The Internal Control Index is designed with half of the items worded in a way so that people with a high internal orientation are expected to answer at the



“usually” end and the other half of the items will solicit responses towards the “rarely” end. People who answer the opposite will be identified as high external orientation. The Internal Control Index contains no subscales, so results were based off the total score.

### **Kansas Marital Satisfaction Scale**

The Kansas Marital Satisfaction Scale (KMSS) is a measure that is designed to quickly assess marital satisfaction using only three items (Schumm et al., 1983). The KMSS utilizes a seven point Likert scale: 1 - Extremely Dissatisfied, 2 - Very Dissatisfied, 3 - Somewhat Dissatisfied, 4 - Mixed, 5 - Somewhat Satisfied, 6 - Very Satisfied, 7 - Extremely Satisfied. Respondents will select the response. This scale is scored by the total sum of the scores for the individual items. The KMSS underwent numerous studies throughout the state of Kansas. These studies give a range of .84 - .98 with Cronbach's alpha. Discriminate validity of the KMSS was tested by correlating it with the Dyadic Adjustment Scale. The items used for the correlation were from the satisfaction subscale and ranged from a high of .76 ( $p < .001$ ) to a low of .39 ( $p < .04$ ) (Crane, Middleton, & Bean, 2000). The correlation of all items was significant except for item 21, “how often do you argue with their spouse”? Correlations between the KMSS and five subscales from the Family Environment Scale provided construct validity. These are cohesion .42, control .08, morale/religious orientation .31; active/recreational orientation .11; and independents .19 (Crane et al, 2000). The KMSS has also been correlated with marital social desirability (.42 to .54, positive regard (.42 to .70), individual social desirability (.05 to .39), locus of control (.18 to .31), church attendance (.22 to .24), total family income (.30), and personal depression (.33) (Crane et al, 2000).

### **Protection of Human Participants**

All participants in this study were presented with an informed consent. This informed consent explained the expectations, the procedure for the study, and any risks that may be present. All participation in the study was voluntary and participants could withdraw from the study at any time without consequence. No identifying information was gathered at any time during the survey in order to protect the confidentiality of the participants who agreed to participate in the study. The informed consent form and all raw data collected for the study will be stored for five years in a secure location and sole possession of the researcher. This study involved no experimental treatment resulting in minimal to no physical and/or psychological risks. The psychometric measures of the study required the participants to rate their marital satisfaction which may have brought upon interest in certain aspects of their marriage not previously thought about. There was no compensation for participants of this study. Participants were notified that the findings from the study may assist in increasing the awareness of the adverse effects of PTSD in a marriage. The data from this study might also lead to further research on the role of locus of control within the marital dynamic.

### **Summary**

In Chapter 3 I present the methodology used in this study as well as addressing the research and approach design. I also addressed where the sample population would be acquired from and the qualifying criteria used to select the population sample. I further discuss the method in which the participants would be able to access the survey, the data collection process, and Cronbach's alpha for internal consistency. A thorough description

of the instruments (The Duttweiler Internal Control Index and the Kansas Marital Satisfaction Scale) used in this study was presented, and to ensure the validity and reliability of the psychometric measures of each instrument, an in-depth review and description of the characteristics were included. The process of collecting data and analyzing that data were discussed in detail. In Chapter 4, I will provide a comprehensive review of the data analysis performed in the hypothesis results.

## Chapter 4: Results

### Introduction

The purpose of this study was to examine and determine if locus of control was a predictor in marital satisfaction among women married to veterans who have PTSD. The research questions asked, among women who are married to combat veterans diagnosed with PTSD, is there a correlation between locus of control and marital satisfaction? A second research question asked if the demographic characteristics of the wives of veterans with combat-related PTSD had an impact the women's marital satisfaction. A quantitative research design was selected; data were collected from an online website that hosted a demographics questionnaire (Botello, 2014), the Kansas Marital Satisfaction Survey (Schumm et al, 1983), and the Duttweiler Internal Control Index (Duttweiler, 1984). This chapter presents the results of the data collected during a 5-week period between July 22, 2014 and August 26, 2014. This chapter includes descriptive statistics for the participants, such as age, years married, number of children, years of education, and household income. It also includes the results of statistical analyses described in Chapter 3

### Results

#### Descriptive Statistics

Responses were collected from 111 participants. The average age in the sample was 37 years ( $SD = 8.80$ ). On average, the number of years that participants were married was 11 years ( $SD = 6.51$ ). Participants had an average of two children ( $SD = 1.16$ ). The mean number of years of education for the sample was 13 years ( $SD = 2.03$ ). Means

and standard deviations for continuous demographic information are presented in Table

1.

Table 1

*Descriptive Statistics for Continuous Demographic Information*

Demographic	Minimum	Maximum	Mean	Std Deviation
Age	22	64	37.24	8.80
Years Married	1	40	11.10	6.51
Number of Children	0	6	2.15	1.16
Years of Education	5	18	13.30	2.03

One participant (1%) had an income less than \$25,000, 12 participants (11%) had an income between \$25,000 and \$29,999, 30 participants (27%) had an income between \$30,000 and \$49,000, 29 participants (26%) had an income between \$50,000 and \$74,999, 31 participants (28%) had an income between \$75,000 and \$99,999, seven participants (7%) had an income between \$100,000 and \$149,999, one participant (1%) had an income between \$150,000 and \$174,999. Results for the frequencies of income brackets are found in Table 2.

Table 2

*Frequencies for Income Levels for the Selected Sample*

Demographic	<i>n</i>	%
<b>Income</b>		
Less than \$25,000	1	1
\$35,000	12	11
\$50,000	30	27
\$75,000	29	26
\$100,000	31	28
\$125,000	7	6
\$150,000	1	1

**Reliability**

Cronbach's alpha tests of reliability and internal consistency were conducted on the marital satisfaction and locus of control subscales. The Cronbach's alpha provides mean correlation between each pair of items and the number of items in a scale (Brace, Kemp, & Snelgar, 2006). The alpha values were interpreted using the guidelines suggested by George and Mallery (2010) where greater than .9 is *excellent*, greater than .8 is *good*, greater than .7 is *acceptable*, greater than .6 is *questionable*, greater than .5 is *poor*, and less than .5 is *unacceptable*. Results indicated excellent reliability for marital

satisfaction (.96) and acceptable reliability for locus of control (.73). Cronbach's alpha means and standard deviations are presented in Table 3.

Table 3

*Cronbach's Alpha, Means, and Standard Deviations for the Research Variables*

Scale	No. of Items	$\alpha$	$M$	$SD$
Marital Satisfaction	3	.96	12.13	4.60
Locus of Control	28	.73	90.57	12.21

### **Research Question 1**

Among women who are married to combat veterans diagnosed with PTSD, is there a correlation between her locus of control and her marital satisfaction?

$H1_0$ : Locus of control does not predict marital satisfaction in women whose husbands have combat-related PTSD.

$H1_a$ : Locus of control does predict marital satisfaction in women whose husbands have combat-related PTSD.

### **Research Question 2**

Do demographic characteristics of the wives of veterans with combat-related PTSD impact her marital satisfaction?

$H2_0$ : Age, education, years married, number of children, do not impact marital satisfaction in women whose husbands have combat-related PTSD.

*H2<sub>a</sub>*: Age, education, years married, number of children, income, do impact marital satisfaction in women whose husbands have combat-related PTSD.

A multiple regression utilizing the stepwise method of entering variables was conducted to assess the relationship between locus of control and marital satisfaction while controlling for changes in marital satisfaction due to age, education, years married, number of children, and income. The assumptions of multiple regression—normality, homoscedasticity and absence of multicollinearity— were assessed. Normality was assessed using a normal P-P plot (see Figure 1). The data did not deviate greatly from the normal line, and this assumption was met (Tabachnick & Fidell, 2012). Homoscedasticity was assessed using a residuals scatterplot (see Figure 2). The data did not deviate greatly from a rectangular distribution and this assumption was met as well. The absence of multicollinearity was assessed through examination of variance inflation factors (VIFs), where any VIF greater than 10 was considered to possess high levels of multicollinearity and violate the assumption (Stevens, 2009). The VIFs ranged from 1.11 to 2.76 for the first block and ranged from 1.07 to 2.78 in the final block. Thus, the assumption of absence of multicollinearity was met for the analysis.

Results of the multiple linear regression to determine the relationship between locus of control and marital satisfaction indicated a statistically significant final model. The first block, which examined the five covariates without locus of control, was not statistically significant ( $F(5, 105) = 1.76, p = .127$ ). This indicated that a linear combination of age, education, number years married, number of children, and income did not significantly predict marriage satisfaction. However, the block utilizing all five



covariates and including locus of control was statistically significant ( $F(6, 104) = 19.67$ ,  $p < .001$ ). Thus, the null hypothesis was rejected in favor of the alternative.

The  $R^2$  coefficient of determination was then examined for a change from the block including only the covariates to the block including locus of control with the covariates included. The change in  $R^2$  of .45 indicated that locus of control accounted for approximately 45% more variance in marriage satisfaction scores. The control variables alone accounted for a variance of approximately 8% in marital satisfaction scores. In the final model, locus of control was the only statistically significant independent variable in the presence of all covariates, ( $t = 10.04$ ,  $p < .001$ ). The unstandardized beta coefficient of 0.26 suggested a positive relationship in which a single unit increase in locus of control scores corresponded to an increase in marriage satisfaction scores of 0.26. Results of both steps of the multiple linear regression are presented in Table 4.

Table 4

*Multiple Linear Regression: Relation of Locus of Control and Covariates in Relation to Marital Satisfaction*

Model	<i>B</i>	SE	$\beta$	<i>t</i>	<i>p</i>	<i>R</i> <sup>2</sup>
Block 1						.08
Age	-0.14	.08	-.27	-1.72	.089	
No. of years of education	0.15	.24	.07	0.63	.530	
No. of years married	0.25	.10	.36	2.54	.013	
No. of children	0.30	.39	.08	0.77	.441	
Income	-0.62	.49	-.16	-1.27	.206	
Block 2						.53
Age	-0.10	.06	-.17	-1.55	.124	
No. years of education	0.14	.17	.06	0.80	.424	
Number of years married	0.12	.07	.16	1.59	.116	
Number of children	0.50	.28	.13	1.76	.081	
Income	-0.12	.35	-.03	-0.35	.728	
Locus of control	0.26	.03	.70	10.04	.000	

*Note.* Block 1:  $F(5, 105) = 1.76, p = .127$ ; Block 2:  $F(6, 104) = 19.67, p < .001$ .

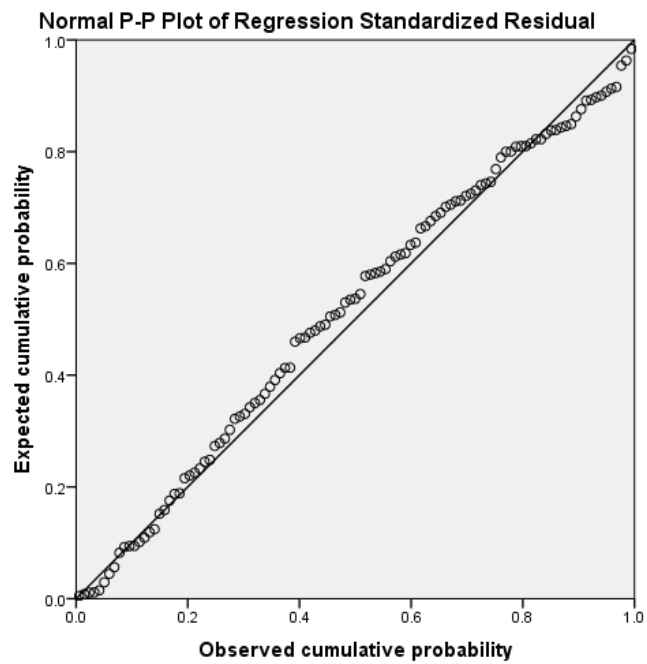


Figure 5. Normal P-P plot to assess for normality.

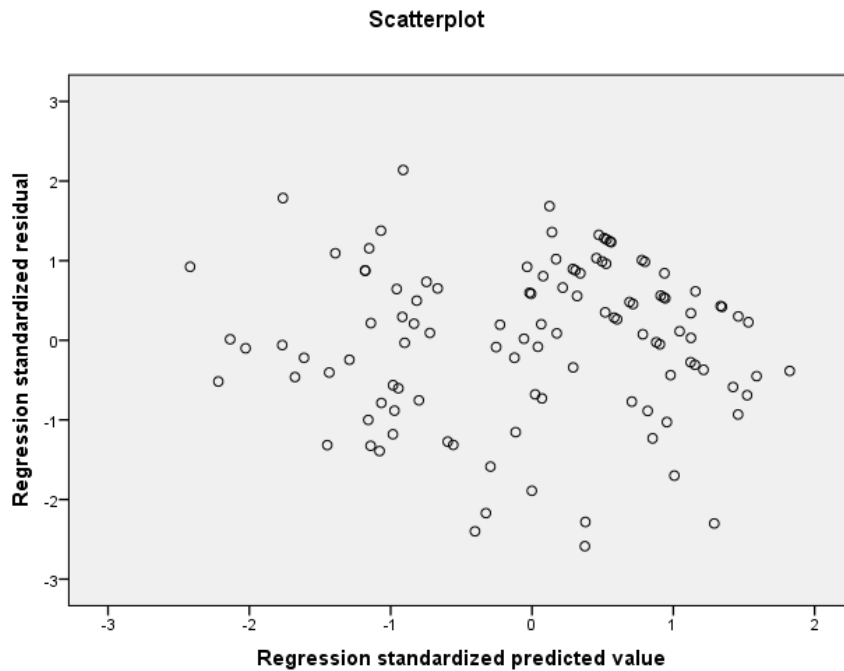


Figure 6. Residuals scatterplot to assess for homoscedasticity.

### Summary

111 wives participated in this study by completing a demographics questionnaire (Botello, 2014), the Kansas Marital Satisfaction Scale (Schumm et al, 1983), and the Duttweiler Internal Control Index (Duttweiler, 1984). A multiple regression utilizing the stepwise method of entering variables was conducted to assess the relationship between locus of control and marital satisfaction while controlling for changes in marital satisfaction due to age, education, years married, number of children, and income. The assumptions of multiple regression – normality, homoscedasticity and absence of multicollinearity – were assessed. The analysis was conducted in two blocks. The first block examined the five covariates without locus of control and the second block examined the five covariates with locus of control.

The first block, which examined the five covariates without locus of control, was not statistically significant suggesting that a linear combination of age, education, number years married, number of children, and income did not significantly predict marital satisfaction. The second block utilizing all five covariates and including locus of control was statistically significant. Thus, the null hypothesis was rejected in favor of the alternative. Chapter 5 discusses the study's findings as well as limitations and suggestions for future research.

## Chapter 5: Discussion, Conclusions, and Recommendations

### Introduction

Military families have always faced challenges that are different from civilian families. Since the very first time organized armies met on the battlefield, the military family would forever differ in the challenges, benefits, and sorrows that accompany military service. Long has the combat soldier been exposed to conditions that many people never experience in their entire lifetime. As a result of this exposure, some soldiers returned from war, acting peculiar and unable to assimilate into the society they once were a part of. This phenomenon was called by many names but was never empirically studied. This phenomenon was not officially recognized until 1980, when the American Psychological Association identified the disorder as PTSD (4<sup>th</sup> ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000)

. As is true of other psychological disorders, the adverse effects of PTSD are not limited to the combat veteran. All too often, family members and marital relationships are caught up in the deleterious effects of this disorder. This study examined the military marriage that has PTSD as a stressor. However, unlike previous research, this study focused on the locus of control orientation of wives of veterans with PTSD. Previous research has shown that PTSD negatively affects military marriages, often resulting in high rates of separation and/or divorce (Campbell & Renshaw, 2012). This previous research, however, did not examine the effects of locus of control as a predictor in marital satisfaction among wives of veterans with PTSD.

The purpose of this research study was to identify if locus of control was predictive of marital satisfaction among women married to veterans with PTSD. The goal was to offer an insight to the therapeutic methods currently used to treat veterans and their families in order to improve their quality of life. In this chapter, the results, conclusions, and limitations of this study will be discussed. Finally, recommendations for future research are proposed and the implications for social change are presented.

### **Research Questions and Hypothesis**

The number of veterans diagnosed with PTSD has been on the rise, as has the rate of divorce among military families (Tanielian, & Jaycox, 2008). In my review of the literature, I discovered that the current research related to PTSD primarily centered around the veterans' perspective. Additionally, only a minimal number of researchers have focused their investigation on the family and spouse. Furthermore, my exhaustive review of the literature found no empirical studies that examined the spouses' locus of control and its relational contribution to the level of satisfaction between a veteran with PTSD and his or her spouse. Because locus of control is an intricate part of an individual's psyche, one would argue that a better understanding of the impact of an individual's locus of control might help define his or her perspective on any given life situation, particularly with regard to his or her marriage to a veteran with PTSD. This study, therefore, is likely to be the first to examine locus of control as a predictor of marital satisfaction among women married to veterans with PTSD.

### Interpretation of Results

In a marital relationship, no single factor alone is responsible for marital satisfaction. This study acknowledged homogenous variables that are common in a marriage. These variables were analyzed with and without the contribution of locus of control. When the level of marital satisfaction, as reported by the wife, was examined utilizing only the homogenous variables of age, years married, education level, number of children, and household income, the impact of these independent variables was not significant, whether measured collectively or independently of each other. However, when locus of control was introduced, the results of the data indicated that locus of control proved to be a significant factor in predicting marital satisfaction. Results of the multiple linear regression to determine the relationship between locus of control and marital satisfaction indicated a statistically significant final model. The data were analyzed in two separate blocks with the first block examining the five covariates, excluding locus of control. This group proved to be statistically not significant ( $F(5, 105) = 1.76, p = .127$ ), suggesting that a linear combination of age, education, number years married, number of children, and income did not significantly predict marriage satisfaction. However, the second data block utilized all of the five covariates and also included locus of control. The results of this block were statistically significant ( $F(6, 104) = 19.67, p < .001$ ) and indicated that locus of control accounted for approximately 45% of the variance in marital satisfaction scores than the control variables alone, which accounted for a variance of approximately 8% in marital satisfaction scores.

The fact that internal locus of control accounted for such a significant variance in marital satisfaction should come as no surprise. A study conducted by Bugaighis et al. (1983) demonstrated how women with a high internal locus of control experienced greater levels of marital satisfaction than did women with a high external locus of control. Earlier studies conducted by Mlott and Lira (1977) also demonstrated that women with high internal locus of control experience greater levels marital satisfaction.

When the marital relationship is examined, taking into consideration many of the common variables such as age, number of years married, education levels, socioeconomic status, and the numbers of children, these variables have a minimal impact on the level of marital satisfaction the wife experiences. However when internal locus of control is included, the variance proves to be significant. This study concluded that internal locus of control accounted for a 45% variance in marital satisfaction compared to the 8% variance without internal locus of control. Why is internal locus of control so influential with regard to marital satisfaction?

Individuals who have an internal orientation of locus of control demonstrate a desire for information related to their well-being and/or concerning factors that affect them directly (Cummings & Swickert, 2010). This would correlate with the wives who participated in this study. Their husbands' PTSD is a hindrance to the satisfaction level experienced within their marriage. Thus, a wife with an internal orientation would be more likely to study PTSD so that she may gain a better understanding on how to deal with the condition. High internal are consistently more health focused and are much better prepared to deal with adversity (Lefcourt, 1980). Existing literature confirmed that



internal orientation consistently correlates to greater life satisfaction and happiness (Hickson, Housley, & Boyle, 1988). Furthermore, other studies have shown that internal locus of control is a good predictor of life satisfaction with a predictive power that ranges between 4.6% to 23% (Klein, Tatone, & Lindsay, 1989). This also correlated with the participants of the study. The results indicated that greater levels of marital satisfaction are experienced by the wives with an internal orientation, suggesting that they are indeed better prepared to deal with the adversity in their marriage.

### **Limitations**

The data collected in this study were self-reported. Self-report measures can have limited reliability due to the possibility that social desirability, demand characteristics, and response sets may influence participant responses (Mitchell & Jolley, 2007). Although highly unlikely, there is also the possibility that a participant could have responded more than once to the survey. Another limitation is that there could also be other potentially confounding variables that may have affected the outcome. For example, stress tolerance varies from one individual to another; the perception and experience of stress is a relative variable rather than an absolute. Additional confounding variables might include the ages of the children, whether or not the children live at home, the developmental and cognitive status of the children, where the couple resides in relation to their home of residence. If, for example, the couple resides in a country other than the United States, then access to a familial support system will be limited if not nonexistent. Other variables that were not accounted for and which may have had a

limiting effect include but are not limited to the number of previous marriages of either spouse, physical health of either spouse, and religious beliefs (Mitchell & Jolley, 2007).

### **Importance of the Study**

After an exhaustive search of the literature, I was unable to identify any empirical studies that investigate locus of control as a predictor in marital satisfaction among women married to veterans with PTSD. The results of the data indicated that locus of control accounted for a higher variance in marital satisfaction scores of approximately 45% than the controlled variables alone. The controlled variables examined in this study are taken into consideration in the therapies currently being used to treat veterans and their families. However, with regard to marital satisfaction, these control variables have very little to do with the marital satisfaction level the wives reported. Locus of control, on the other hand, proved to be highly significant in predicting marital satisfaction. With this discovery, the orientation of locus of control could significantly impact the therapeutic methods utilized to treat veterans and their families. By understanding the orientation of locus of control, the therapist may be better able to focus on the strengths of the individuals they are counseling, develop strategies that complement their locus of control orientation to help achieve the goals they have set, and thereby improve a couple's chances for successful marital therapy.

### **Social Implications**

The result of this study confirms that locus of control is a valid psychological construct. On a larger scale, if locus of control can be used as a predictor for marital satisfaction it could potentially lead to other predictions as well. These predictors could

include, but are not limited to, veterans obtaining treatment for PTSD, the probability of success with re-assimilation into society post deployment, family unity and happiness post deployment, and suicidal ideation. However the benefits reach beyond the military scope. The civilian society could benefit just as much from the understanding of locus of control and the impact it has on an individual in stressful situations that are a real part of life. This study examined just one life aspect that locus of control impacts, the results overwhelmingly justify the importance of locus of control. If locus of control has a similar impact on other aspects of life, the importance of understanding locus of control and how it affects people in their ability, or lack thereof, to function on a daily basis could prove invaluable for the betterment of our society.

The benefits of understanding locus of control and its impact on individuals would prove to be a vital tool to psychologists and therapists who treat veterans and their families on a daily basis. Being able to develop and implement therapy with an understanding to how a person would approach the therapeutic process, before, during, and after, has the potential to result in a much higher success rate. With a tool such as locus of control, the therapeutic process has the potential to become more productive. Practitioners now have useful information to help them when making suggestions to their patients. The results of this research are significant in providing information to couples who were on the verge of separation or divorce. The information discovered in this study can guide practitioners working with couples in a strained relationship to work at a quicker pace, thus helping veterans and their families readjust, and maybe better adjust and then before they were deployed.

### **Recommendations**

This study only scratches the surface with regard to the importance of locus of control and its relationship to PTSD. Much research is still needed in this area. The covariates used in the study were general in nature. Future researchers may choose to expand on this study and consider breaking down the covariates used in this study. Perhaps a more detailed list of covariates, such as how many times married, if children are biological, adopted, or step, and is the educational level obtained by choice or circumstance. This study examined locus of control as a predictor in marital satisfaction among the wives of veterans with PTSD. An expansion of this study could also address locus of control as a predictor in marital satisfaction among men with PTSD? Another suggestion for future research is to consider the orientation of locus of control based on gender, life role, and personal and social expectations. Future studies might also investigate spousal differences and similarities in locus of control and marital satisfaction.

Since locus of control has proven to be significant in predicting marital satisfaction, it may warrant further investigation with regard to its effects on the veteran's decision to seek and continue treatment for his PTSD. Examining locus of control as a predictor in a veteran's efforts to obtain treatment could effectively prove helpful in the recovery process in more ways than one. One key symptom of PTSD is isolation. If locus of control could prove to predict whether or not a veteran seeks treatment, it could also be a key component in treating the tendency to withdrawal.

## **Conclusion**

This result of this research study begins to fill a gap in the current literature by examining the idea of locus of control orientation as a predictor in marital satisfaction among wives of veterans with PTSD. This was a pioneer study that examined the link between locus of control and marital satisfaction. Where this research collected important information on target population, further research in this area is still needed. The purpose of this quantitative study was to extend research in the area of combat-related PTSD and the adverse effects it has on the veteran and their families. Participants were wives of veterans with PTSD who voluntarily completed online surveys. The goal of the study was to determine if locus of control would be a good predictor of the level of marital satisfaction among women married to veterans with PTSD. The study found that locus of control had a significant effect, accounting for approximately 45% more variance in marriage satisfaction than the control variables alone. This result of this research study begins to fill a gap in the current literature by examining the idea of locus of control orientation as a predictor in marital satisfaction among wives of veterans with PTSD.

To my knowledge, this study was the first to examine the link between locus of control and marital satisfaction. I collected important information on a target population. However, further research in this area is still needed. To date, no other research has been found that primarily focuses on the link between locus of control and marital satisfaction with PTSD as the stressor. The knowledge learned in this study has enhanced the current literature relating to the effects of PTSD on the spouse. This study introduced a new perspective that could greatly improve the quality and success rate of therapy for married

couples where PTSD is a present stressor. This study will benefit the psychologists and therapist who treat veterans and their spouses by giving them a theoretical base of locus of control to assist in case conceptualization. By better understanding the locus of control orientation of the spouse, a better suited therapeutic strategy can be developed and implemented, thus increasing the chances for success. By understanding the spouses' locus of control orientation, the therapeutic process can be geared to promote her strengths in achieving marital success. This study will benefit the VA and other treatment facilities that service the needs of veterans and their families. Further, this study is the first to examine locus of control as a predictor in marital satisfaction, which might lead the way to research in other areas locus of control might impact such as veterans seeking treatment programs, the probability that a veteran will complete a treatment program, and predictability of suicidal ideation. Finally, this study provides benefits for society in general as it provides awareness to the personality trait of locus of control, that greatly impacts every individual, often without them even being aware of it.

## References

- Adler, A.B., Britt, T.W., Castro, C.A., McGurk, D., & Bliese, P.D. (2011). Effect of transition home from combat on risk-taking and health-related behaviors. *Journal of Traumatic Stress, 24*(4), 381–389.
- American Psychiatric Association. (1980). *Diagnostic and Statistical manual of mental disorders* (3<sup>rd</sup> ed.). Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and Statistical manual of mental disorders* (4<sup>th</sup> ed., text rev). Washington, DC: Author.
- American War Library. (2008). What is a veteran? Retrieved from <http://www.americanwarlibrary.com/whatvet.htm>
- Anderson, C.R. (1977). Locus of control, coping behaviors, and performance in a stress setting: A longitudinal study. *Journal of Applied Psychology, 62*, 446-451.
- Baddeley, J.L. & Pennebaker, J.W. (2011) A postdeployment expressive writing intervention for military couples: A randomized controlled trial. *Journal of Traumatic Stress, 24*(5), 581-585. doi:10.1002/jts.20679
- Baran, M. (2010). The red bulls: Beyond deployment. Timeline: Mental illness and war through history. *MPR News*. Retrieved October 29 2012, from <http://minnesota.publicradio.org/projects/2010/02/beyond-deployment/ptsd-timeline/index.shtml>
- Batten, S.V., Drapalski, A.L., Decker, M.L., DeViva, J.C., Morris, L.J., & Mann, M.A. (2009). Veteran interest in family involvement in PTSD treatment. *Psychological Services 6*(3), 184-189.

- Beckham, J.C., Lytle, B.L., & Feldman, M.E. (1996). Caregiver burden in partners of Vietnam War veterans with posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, *64*, 1068–1072.
- Beckman, L. (1972). Locus of control and attitudes toward mental illness among mental health volunteers. *Journal of Consulting and Clinical Psychology*, *38*(1), 84-89.
- Benassi, V.A., Sweeney, P.D., & Dufour, C.L. (1988). Is there a relation between locus of control orientation and depression? *Journal of Abnormal Psychology*, *97*(3), 357–367.
- Bentley, S. (2005). A short history of PTSD: From thermopylae to hue soldiers have always had a disturbing reaction to war. Retrieved from [http://www.vva.org/archive/TheVeteran/2005\\_03/feature\\_HistoryPTSD.htm](http://www.vva.org/archive/TheVeteran/2005_03/feature_HistoryPTSD.htm).
- Birmes, P., Hatton, L., Brunet, A., & Schmitt, L. (2003). Early historical literature of post traumatic symptomatology. *Stress and Health*, *19*, 17-26.
- Botello, J. (2014). Demographics Questionnaire. Unpublished.
- Boudewyns, P.A., & Hyer, L. (1990). Physiology response to combat memories and preliminary treatment outcome in Vietnam veteran PTSD patients treated with direct therapeutic exposure. *Behavior Therapy*, *1*, 63-87.
- Bowen Center for the Study of the Family. (2004). *Bowen theory*. Retrieved from <http://www.thebowncenter.org/pages/theory.html>
- Brace, N., Kemp, R., & Snelgar, R. (2006). *SPSS for psychologists* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Publisher.
- Braver, S.L., Ellman, I.M., Votruba, A.M., & Fabricius, W.V. (2011) Lay judgments



- about child custody after divorce. *Psychology, Public Policy, and Law*, 17(2), 212–240. doi:10.1037/a0023194
- Bugaighis, M.A., Schumm, W.R., Bollman, S.R., & Jurich, A.P. (1983). Locus of control and marital satisfaction. *The Journal of Psychology* 114, 275-279.
- Calhoun, P.S. & Beckham, J.C. (2002). Caregiver burden and psychological distress in partners of veterans with chronic posttraumatic stress disorder. *Journal of Traumatic Stress*, 15(3), 205–212.
- Campbell, S.B. & Renshaw, K.D. (2012). Distress in spouses of Vietnam veterans: Associations with communication about deployment experiences. *Journal of Family Psychology*. 26(1), 18-25.
- Carlson, E.N., Vazire, S., & Oltmanns, T.F. (2011). You probably think this paper's about you: Narcissists' perceptions of their personality and reputation. *Journal of Personality and Social Psychology* 101( 1), 185–201.
- Chard, K.M., Schumm, J.A., Owens, G.P., & Cottingham, S.M. (2010). A comparison of OEF and OIF veteran in Vietnam veteran receiving cognitive processing therapy. *Journal of Traumatic Stress*. 23(1), 25-32.
- Cheng, C., Cheung, S., Chio, J.H., & Chan, M.S. (2013). Cultural meaning of perceived control: A meta-analysis of locus of control and psychological symptoms across 18 cultural regions. *Psychological Bulletin*, 139(1), 152-188.  
doi:10.1037/a0028596
- Clarke, D. (2004). Neuroticism: Moderator or mediator in the relation between locus of control and depression? *Personality and Individual Differences* 37, 245–258

- Cook, J.M., Riggs, D.S., Thompson, R., Coyne, J.C., & Sheikh, J.I. (2004). Posttraumatic stress disorder and current relationship functioning among World War II ex-prisoners of war. *Journal of Family Psychology, 18*, 36–45.
- Cordova, J.V., Scott, R.L., Dorian, M., Mirgain, S., Yaeger, D., & Groot, A. (2005). The marriage checkup: An indicated preventive intervention for treatment-avoidant couples at risk for marital deterioration. *Behavior Therapy, 36*, 301–309. doi:005-7894/0510301-030951.00/0
- Crane, D.R., Middleton, K.C., & Bean, R.A. (2000). Establishing criterion scores for the Kansas marital satisfaction scale and revise dyadic adjustment scale. *American Journal of Family Therapy, 28* (1), 53-60.
- Creswell, J.W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publication, Inc.
- Culbertson, J.J. (2003). *13 cent killers: The 5<sup>th</sup> Marine snipers in Vietnam*. New York, NY: Random House.
- Cummings, J. & Swickert, R. (2010) Relationship between locus of control and posttraumatic growth. *Individual Differences Research, 8*(3), 198-204.
- Dekel, R. & Monson, C.M. (2010). Military-related post-traumatic stress disorder and family relations: Current knowledge and future directions. *Aggression and Violent Behavior 15*, 303–309.
- Devilly, G.J. (2002). The psychological effects of a lifestyle management course on war veterans and their spouses *Journal of Clinical Psychology, 58*(9), 1119–1134  
doi:10.1002/jclp.10041

- Donovan, S. (2004). *Stress and coping techniques and successful intercultural marriages*. Unpublished master's thesis, Virginia Polytechnic Institute and State University.
- Duttweiler, P.C. (1984). The internal control index: a newly developed measure of locus of control. *Educational and Psychological Measurement* 44, 209-221.
- Ebstrup, J.F., Eplöv, L.F., Pisinger, C., & Jørgensen, T. (2011) Association between the five factor personality traits and perceived stress: Is the effect mediated by general self-efficacy. *Anxiety, Stress & Coping*, 24(4), 407-419, doi:10.1080/10615806.2010.540012
- eMedicine Consumer Health. (2003). Post-traumatic Stress Disorder (PTSD): What is PTSD? Retrieved from <http://www.emedicinehealth.com/articles/29064-1.asp>
- Evans, L., Cowlshaw, S., & Hopwood, M. (2009). Family functioning predicts outcomes for veterans in treatment for chronic posttraumatic stress disorder. *Journal of Family Psychology* 23(4), 531–539.
- Evans, L., Cowlshaw, S., Forbes, D., Parslow, R., & Lewis, V. (2010). Longitudinal analyses of family functioning in veterans and their partners across treatment. *Journal of Consulting and Clinical Psychology*. 78(5), 611–622.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160.
- Findley, M.A., & Cooper, H.M. (1983). Locus of control and academic achievement: A literature review. *Journal of Personality and Social Psychology*, 44, 419-427.
- Frederikson, L.G., Chamberlain, K., & Long, N. (1996). Unacknowledged casualties of

- the Vietnam War: Experiences of partners of New Zealand veterans. *Qualitative Health Research*, 6, 49.
- Friedman, M. J. (1991). Biological approaches to diagnosis and treatment of posttraumatic stress disorder. *Journal of Traumatic Stress*, 4, 67-91.
- Friedman, M.J., Chamey, D. S., & Deutch, A.Y. (1995). *Neurobiological and clinical consequences of stress: From normal adaptations to PTSD*. New York, NY: Raven Press.
- Galovski, T. & Lyons, J.A. (2004). Psychological sequelae of combat violence: A review of the impact of PTSD on the veteran's family and possible interventions. *Aggression and Violent Behavior* 9. 477–501.
- George, D. & Mallery, P. (2010). *SPSS for Windows step by step: a simple guide and reference, 18.0 update* (11<sup>th</sup> ed.). Boston, MA: Allyn and Bacon.
- Gilbert, L. A. (1976). Situational factors and the relationship between locus of control and psychological adjustment. *Journal of Counseling Psychology*, 23(4). 302-309.
- Gore, W.L., & Widiger, T.A. (2013). The DSM-5 dimensional trait model and five-factor models of general personality. *Journal Of Abnormal Psychology*, 122(3), 816-821. doi:10.1037/a0032822
- Gray-Stanley, J.A., Muramatsu, N., Heller, T., Hughes, S., Johnson, T.P., & Ramirez-Valles, J. (2010) Work stress and depression among direct support professionals: the role of work support and locus of control. *Journal of Intellectual Disability Research*, 54(8), 749-761
- Green, S.E. (2011) Depression before and after 9/11: The interactive relationship of

internal and chance health locus of control beliefs. *Journal of Loss and Trauma*, 16, 306-322.

Grinage, B.D. (2003). Diagnosis and management of posttraumatic stress disorder.

*American Family Physician*, 68(12), 2401-2408.

Grossman, D. (1998). Trained to kill *Christianity Today*. Retrieved from

<http://www.christianitytoday.com/ct/1998/august10/>

Hagopian, P. (2011). *The Vietnam War in American memory: veterans, memorials, and*

*the politics of the healing*. Boston, MA: Univ of Massachusetts Press.

Hallday–Hardie, J. & Lucas, A. (2010). Economic factors and relationship quality among

young couples: Comparing cohabitation and marriage. *Journal of Marriage and*

*Family* 72(5), 1141-1154. doi:10.1111/J.1741-3737.2010.00755.X

Hankin, C.S., Spiro III, A., Miller, D.R., & Kazis, L. (1999). Mental disorders and mental

health treatment among U.S. department of veterans affairs outpatients: The

veterans health study. *American Journal of Psychiatry*, 156(12), 1924-1930.

Hickson, J., Housley, W. F., & Boyle, C. (1988). The relationship of locus of control,

age, and sex to life satisfaction and death anxiety in older persons. *International*

*Journal of Aging and Human Development*, 26, 191-199.

Hill, R. (2011). *Teach internal locus of control: A positive psychology app*. Beach Haven,

NJ: Will to Power Press.

Hoge, C.W., Auchterlonie, J.L., and Milliken, C.S. (2006). Mental health problems, use

of mental health services, and attrition from military service after returning from

deployment to Iraq or Afghanistan. *Journal of the American Medical Association*,

295(9) 1023-1032

- Holmes, R. (1985). *Acts of war: The behavior of men in battle*. New York, NY: The Free Press.
- Hong, S.M. & Giannakopoulos, E. (1993). The relationship of satisfaction with life to personality characteristics. *The Journal of Psychology*, 128(5), 547-558.
- Howell, D.C. (2010). *Statistical methods for psychology* (7th ed.). Belmont, CA: Wadsworth Cengage Learning.
- Isen, A. & Stevenson, B. (2010). Women's education and family behavior: Trends in marriage, divorce, and fertility. (Working Paper No. 15725). Retrieved from [http://www.nber.org/papers/w15725.pdf?new\\_window=1](http://www.nber.org/papers/w15725.pdf?new_window=1)
- Jones, E. & Wessely, S. (2005). *Shell shock to PTSD: Military psychiatry from 1900 to the gulf war*. New York, NY: Psychology Press.
- Khaylis, A., Polusny, M.A., Erbes, C.R., Gewirtz, A., & Rath, M. (2011). Posttraumatic stress, family adjustment, and treatment preferences among National Guard soldiers deployed to OEF/OIF. *Military Medicine*, 176(2), 126.
- Klein, H. A., Tatone, A. L., & Lindsay, N. B. (1989) Correlates of life satisfaction among military wives. *The Journal of Psychology*, 123, 465-475.
- Kolb, L.C. (1987). A neuropsychological hypothesis explaining posttraumatic stress disorder. *American Journal of Psychiatry*. 8, 989-995.
- Kolb, L.C., Burris, B.C., & Griffiths, W. (1984). Propranolol and clonidine in treatment of chronic posttraumatic stress disorder of war, in posttraumatic stress disorder: Psychological and biological sequela. Edited by van der Kolk, B.A. Washington,

DC: APA 6, 49-68.

- Kormanik, M.B. & Rocco, T.S. (2009). Internal versus external control of reinforcement: A review of the locus of control construct. *Human Resource Development Review, 8*(4), 463-483.
- Kostka, T. & Jachimowicz, V. (2010). Relationship of quality of life to dispositional optimism, health locus of control and self-efficacy in older subjects living in different environments *Quality of Life Research 19*, 351–361.
- Kulka, R.A., Fairbank, J.A., Jordan, B.K., Weiss, D.S., Schelenger, W.E., Hough, R.L., & Marmar, C.R. (1990). *Trauma and the Vietnam War generation*. Research Triangle Park, NC: Research Triangle Institute.
- Lefcourt, H. (1980). Locus of control and coping with life's events. In E. Staub (Ed.), *Personality: Basic Issues and Current Research*. Englewood Cliffs, NJ: Prentice Hall.
- Lefcourt, H.M. (1976). *Locus of control: Current trends in theory & research*. Hoboken, NJ: John Wiley & Sons
- Levin, K.A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry, 7*, 24-25. Retrieved from <http://www.nature.com/ebd/journal/v7/n1/full/6400375a.html>
- Lloyd, T., & Hastings, R.P. (2009). Parental locus of control and psychological well-being in mothers of children with intellectual disability. *Journal of Intellectual and Developmental Disability, 34*(2), 104-115.
- Locus of Control. 2007. In *The American Heritage Medical Dictionary* Retrieved from

<http://dictionary.reference.com/medical/locus+of+control>

Lombardo, T.W., & Gray, M.J. (2005, January). Beyond exposure for posttraumatic stress disorder (PTSD) symptoms: Broad-spectrum PTSD treatment strategies.

*Behavior Modification, 29*(1), 3-9.

MacLean, A. (2010) The things they carry: Combat, disability, and unemployment among U.S. men. *American Sociological Review, 75*(4), 563-585.

Manning, W.D., Trella, D., Lyons, H., & DuToit, N.C. (2010). Marriageable Women: A

Focus on Participants in a Community Healthy Marriage Program. *Family*

*Relations, 59*(1), 87-102.

Marks, G., Richardson, J. L., & Graham, J. W. (1986). Role of health locus of control

beliefs and expectations of treatment efficacy in adjustment to cancer. *Journal of*

*Personality and Social Psychology, 51*(2), 443-450.

McManus, J.L. & Saucier, D.A. (2012). Helping natural disaster victims depends

on characteristics and perceptions of victims. A response to “who helps natural

disaster victims?” *Analyses of Social Issues and Public Policy, 12*(1), 272—275.

Meis, L.A., Erbes, C.R., Polusny, M.A., & Compton, J.S. (2010) Intimate relationships

among returning soldiers: The mediating and moderating roles of negative

emotionality, PTSD symptoms, and alcohol problems *Journal of Traumatic*

*Stress, 23*(5), 564–572.

Military.com. (2006). *The Vietnam War: The ten thousand day war.*

Retrieved from <http://military.com/Resources/HistorySubmitted>

FileView?file=historyvietnamwar.html



- Milliken, C.S., Auchterlonie, J.L., & Hoge, C.W. (2007). Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war. *Journal of the American Medical Association*, 298, 2141-2148.
- Mitchell, M. L. & Jolley, J. A. (2007). *Research design explained*. Belmont, CA: Wadsworth/Cengage Learning.
- Miu, A.S. (2010). *The effect of parents' locus of control beliefs and education on investment in their children's health*. Unpublished master's thesis, Stanford University.
- Mlott, S. R. & Lira, F. T. 1977. Dogmatism, locus of control, and life goals in stable and unstable marriages. *Journal of Clinical Psychology*, 33(1), 142-146.
- Moustakas, C.E. (1994). *Phenomenological research methods*. Thousand Oaks, CA: SAGE Publications.
- Muttukumar, G. (2011). *Make a marriage relationship last: A guide for intended or married couples in any culture*. Los Angeles, CA: Polimedia Publishing.
- Myers, D.G. (1993). *The pursuit of happiness*. New York, NY: William Morrow Paperbacks
- National Institute of Mental Health. (2013). *What is Post-traumatic Stress Disorder (PTSD)?* Retrieved from <http://www.nimh.nih.gov/health/topics/post-traumatic-stress-disorder-ptsd/index.shtml>
- Negrusa, B. & Negrusa, S. (2012, June) *Home front post deployment mental health and divorces* (No. WR-874-OSD) RAND Working Paper. Retrieved from

[http://www.rand.org/pubs/working\\_papers/WR874.html](http://www.rand.org/pubs/working_papers/WR874.html)

- Nelson Goff, B.S., Crow, J.R., Reisbig, A.M.J., & Hamilton, S. (2007). The impact of individual trauma symptoms of deployed soldiers on relationship satisfaction. *Journal of Family Psychology, 21*, 344–353.
- Ng, T.H.W., Sorensen, K.L., & Eby, L.T. (2006). Locus of control at work: a meta-go analysis. *Journal of organizational behavior, 27*. 1057-1087.
- Oberle, K. (1991). A decade of research and locus of control: what have we learned? *Journal of Advanced Nursing, 16*(7), 800-806.
- Owens, G.P., Chard, K.M., & Cox, T.A. (2008) The relationship between maladaptive cognitions, anger expression, and posttraumatic stress disorder among veterans in residential treatment. *Journal of Aggression, Maltreatment & Trauma, 17*(4), 439-452
- Papero, D.V. (1990) *Bowen family systems theory*. Boston, MA: Allyn and Bacon
- Peterson, C. (1979). Uncontrollability and self-blame in depression: investigation of the paradox in a college population. *Journal of Abnormal Psychology, 88*(6), 620–624.
- Phares, E. J. (1976). *Locus of control in personality*. New York, NY: General Learning Press.
- Pukay-Martin, N.D., Pontoski, K.E., Maxwell, M.A., Calhoun, P.S., Dutton, C.E., Clancy, C.P., Hertzberg, M.A., Collie, C.F., & Beckham, J.C. (2012). The influence of depressive symptoms on suicidal ideation among U.S. Vietnam-era and Afghanistan/Iraq-era veterans with posttraumatic stress disorder. *Journal of*

*Traumatic Stress*, 25, 578-582.

- Renshaw, K.D. & Campbell, S.B. (2011). Combat veterans' symptoms of PTSD and partners' distress: The role of partners' perceptions of veterans' deployment experiences. *Journal of Family Psychology*, 25(6), 953–962
- Renshaw, K.D., Allen, E.S., Rhoades, G.K., Blais, R.K., Markman, H.J., & Stanley, S.M. (2011). Distress in spouses of service members with symptoms of combat-related PTSD: Secondary traumatic stress or general psychological distress? *Journal of Family Psychology*, 25(4), 461–469. doi:10.1037/a0023994461
- Renshaw, K.D., Rodebaugh, T.L., & Rodrigues, C.S. (2010). Psychological and marital distress in spouses of Vietnam veterans: Importance of spouses' perceptions. *Journal of Anxiety Disorders*, 24, 743–750. doi:10.1016/j.janxdis.2010.05.007
- Roddenberry, A. & Renk, K. (2010). Locus of control and self-efficacy: Potential mediators of stress, illness, and utilization of health services in college students. *Child Psychiatry Human Development* 41, 353–370 doi 10.1007/s10578-010-0173-6
- Rose, S. (2012). *The prayers of Jonah: From the depths of Vietnam jungles*. Bloomington, IL: WestBowPress.
- Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), Whole No. 609).
- Sandler, I.N., & Lakey, B. (1982). Locus of control as a stress moderator: The role of control perceptions and social support. *American Journal of Community*

*Psychology, 10, 65-80.*

Sautter, F.J., Glynn, S.M., Thompson, K.E., Franklin, L., & Han, X. (2009). A couple-based approach to the reduction of PTSD avoidance systems: preliminary findings. *Journal of Marital and Family Therapy, 35*(3), 343-349.  
doi:10.1111/j.1752-0606.2009.00125.x

Schumm, WA., Nichols, CW., Schectman, KL., & Grigsby, CC. (1983). Characteristics of responses to the Kansas Marital Satisfaction Scale by a sample of 84 married mothers. *Psychological Reports, 53, 567-572.*

Sherman, M.D., Fischer, E.P., Sorocco, K., & McFarlane, W.R. (2011). Adapting the multifamily group model to the veterans affairs system: The REACH program. *Couple and Family Psychology: Research and Practice, 1*(S), 74-84.

Sherman, M.D., Zanotti, D.K., & Jones, D.E. (2005). Key elements in couple's therapy with veterans with combat related posttraumatic stress disorder. *Professional Psychology: Research and Practice, 36*(6). 626-633.

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

Solomon, Z., Mikulincer, M., & Avitzur, E. (1988). Coping, locus of control, social support, and combat related posttraumatic stress disorder: a prospective study. *Journal of personality and social psychology, 55*(2), 279-285.

Stevens, J.P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Mahwah, NJ: Routledge Academic.

- Tabachnick, B.G. & Fidell, L.S. (2012). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.
- Taft, C.T., Schumm, J.A., Panuzio, J., & Proctor, S.P. (2008) An examination of family adjustment among operation desert storm veterans. *Journal of Consulting and Clinical Psychology In the public domain*, 76(4), 648–656.
- Tanielian, T. and Jaycox, L.H. (2008). *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery*. Santa Monica, CA.: Rand.
- Tendall, M. & Fishler, J. (2006). Walking on Eggshells. *VietNow National Magazine* 16(1).
- Thomas, J.L., Britt, T.W., Odle-Dusseau, H., & Bliese, P.D. (2011). Dispositional optimism buffers combat veterans from the negative effects of warzone stress on mental health symptoms and work impairment. *Journal of Clinical Psychology*, 67(9), 866-880.
- Tsai, J., Harpaz-Rotem, I., Pietrzak, R.H., & Southwick, S.M. (2012). The role of coping, resilience, and social support in mediating the relation between PTSD and social functioning in veterans returning from Iraq and Afghanistan. *Psychiatry* 75(2), 135-149.
- USHistory.org (2013). *The Vietnam War: U.S. History Online Textbook* Retrieved. Retrieved from <http://www.ushistory.org/us/55.asp>
- Wolman, B.B. & Stricker, G. (1983). *Handbook of family and marital therapy*. New York, NY: Plenum.

Wright, A.G.C., Thomas, K.M., Hopwood, C.J., Markon, K.E., Pincus, A.L., & Krueger, R.F. (2012). The hierarchical structure of DSM-5 pathological personality traits. *Journal of Abnormal Psychology, 121*(4), 951-957.

## Appendix A: Demographics Questionnaire (Botello, 2014)

Question	Answer
1. Are you married?	Yes No
2. Years married?	(Select One) 1 – 40
3. Age?	(Select One) 18-70
4. Does your husband have PTSD?	Yes No
5. Number of children?	(Select One) 1-10
6. Education (In Years)	(Select One) 1-24
7. Household income	(Select One)
	Less than \$25,000
	\$25,000 to \$34,999
	\$35,000 to \$49,999
	\$50,000 to \$74,999
	\$75,000 to \$99,999
	\$100,000 to \$124,999
	\$125,000 to \$149,999
	\$150,000 or more

Appendix B: Kansas Marital Satisfaction Scale (Schumm et al., 1983)

Item	Extremely Dissatisfied	Very Dissatisfied	Somewhat Dissatisfied	Mixed	Somewhat Satisfied	Very Satisfied	Extremely Satisfied
	1	2	3	4	5	6	7
1. How satisfied are you with your husband (or wife) as a spouse?							
	1	2	3	4	5	6	7
2. How satisfied are you with your marriage?							
	1	2	3	4	5	6	7
3. How satisfied are you with your relationship with your husband (or wife)?							
	1	2	3	4	5	6	7



## Appendix C: Duttweiler Internal Control Index (Duttweiler, 1984)

Response choices: Rarely Occasionally Sometimes Frequently Usually

## Item Content

- 1 When faced with a problem I try to forget it.\*\*\*
- 2 I need frequent encouragement from others to keep working at a difficult task.\*\*\*
- 3 I like jobs where I can make decisions and be responsible for my own work.
- 4 I change my opinion when someone I admire disagrees with me.a
- 5 If I want something I work hard to get it.
- 6 I prefer to learn the facts about something from someone else rather than having to dig them out myself.\*\*\*
- 7 I will accept jobs that require me to supervise others.
- 8 I have a hard time saying “no” when someone tries to sell me something.\*\*\*
- 9 I like to have a say in any decisions made by any group I’m in.
- 10 I consider the different sides of an issue before making any decisions.
- 11 What other people think has a great influence on my behavior.\*\*\*
- 12 Whenever something good happens to me I feel it is because I earned it.
- 13 I enjoy being in a position of leadership.
- 14 I need someone else to praise my work before I am satisfied with what I’ve done.\*\*\*
- 15 I am sure enough of my opinions to try to influence others.
- 16 When something is going to affect me I learn as much about it as I can.
- 17 I decide to do things on the spur of the moment.\*\*\*

- 18 For me, knowing I've done something well is more important than being praised by someone else.
- 19 I let other peoples demands keep me from doing things I want to do.\*\*\*
- 20 I stick to my opinions when someone disagrees with me.
- 21 I do what I feel like doing, not what other people think I ought to do.
- 22 I get discouraged when doing something that takes a long time to achieve results.\*\*\*
- 23 When part of a group I prefer to let other people make all the decisions.\*\*\*
- 24 When I have a problem I follow the advice of friends or relatives. \*\*\*
- 25 I enjoy trying to do difficult tasks more than I enjoy doing easy tasks.
- 26 I prefer situations where I can depend on someone else's ability rather than my own.\*\*\*
- 27 Having someone important tell me I did a good job is more important to me than feeling I've done a good job.\*\*\*
- 28 When I'm involved in something I try to find out all I can about what is going on, even when someone else is in charge.

\*\*\* Item is reverse scored.

## Curriculum Vitae

Jesus Botello Jr.

**Academic Experience:**

03/09 – Present Clinical Psychology Ph.D. student  
Walden University, Minneapolis, Minnesota

Dissertation working title: Combat related PTSD: Locus of control and marital satisfaction

09/06 – 01/09 Master of Science in Psychology  
University of Phoenix, Phoenix, Arizona

09/02 – 05/06 The University of Texas at San Antonio, San Antonio, Texas  
Bachelor of Arts: Communication with concentration in Public Relations

**Relevant Professional Experience:**

10/12 – Present - Transitions Eldercare, San Antonio, TX – Doctoral Intern

- Geriatric Psychotherapy
- Generate Progress Notes
- Case conceptualization
- Assess, evaluate, and diagnose mental state
- Spanish speaking therapist

03/13 – Present – Spectrum SA, San Antonio, TX. – Doctorial Intern

- Administer standardized psychological assessments
- Score and interpret psychological assessments
- Perform clinical interviews
- Write clinical reports
- Provide recommendations regarding students' educational needs to school district, special education department staff
- Spanish speaking therapist

07/11 – 10/12 – Autumn View Alliance, Seguin, TX – Practicum Student  
Clinical psychological practicum site. Performed therapeutic and assessment services.

01/11 Academic Residency Miami, FL.  
Walden University

07/10 Academic Residency Minneapolis, MN.  
Walden University

01/10 Academic Residency Dallas, TX.  
Walden University

Organizations:

- American Psychological Association
- Psi Chi, The National Honor Society in Psychology
- Texas Psychological Association
- Bexar County Psychological Association

Conferences Attended:

Midwestern Psychological Association - 2010  
Southwestern Psychological Association - 2010  
American Psychological Association - 2010