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ABSTRACT

THE RELATIONSHIP BETWEEN COMBAT EXPERIENCE,
VETERAN PATHOLOGY AND THE PATHOLOGY OF
THEIR INTIMATE PARTNERS: WHAT FACTORS
PREDICT THE PATHOLOGY OF VETERANS
AND THEIR INTIMATE PARTNERS

by

Edwin A. Brennan

Chair: Nancy Carbonell

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: THE RELATIONSHIP BETWEEN COMBAT EXPERIENCE, VETERAN PATHOLOGY AND THE PATHOLOGY OF THEIR INTIMATE PARTNERS: WHAT FACTORS PREDICT THE PATHOLOGY OF VETERANS AND THEIR INTIMATE PARTNERS

Name of researcher: Edwin A. Brennan

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Date completed: November 2018

Problem Statement

Military members and their family members who are part of the Global War on Terrorism have experienced deployments and war for over sixteen years and with the resulting toll on both the veteran and their intimate partner. As a result, higher levels of pathology, such as PTSD, Anxiety, and Depression have been experienced by this population. While research has studied the effect of combat on military members, very little research has addressed the effects on family members. Further, no research that has been found by this researcher, has addressed the concept of resonating of pathology between the combat veteran and their intimate partner. Resonating of Pathology, or

resonating pathology, for the purposes of this study, is the combat veteran and the intimate partner demonstrating the same pathology at similar levels.

The Veteran's Healthcare Services have begun to treat couples together and may have also witnessed this phenomenon. Understanding the relationship between combat, veteran pathology, and intimate partner pathology will have implications for practitioners and researchers. Understanding the factors that related to this phenomenon will have implications for both clinicians and researchers.

Methods

Veterans and their intimate partners from across the United States, ($N = 398$), were asked to complete a survey through the internet. The couples were asked to complete the survey separately, however, within the same session so that their results could be tied together. The veterans were asked to complete the Combat Exposure Scale (CES), the PTSD Check List for the DSM 5 (PCL-5), the Patient Health Questionnaire 9 (PHQ - 9), and the Generalized Anxiety Disorder 7 (GAD - 7). The intimate partners were asked to complete the PCL - 5, the PHQ - 9, and the GAD - 7.

Results

Results suggest that there was a moderate relationship between combat experience and pathology for combat veterans. While other factors were examined to determine what was included to predict pathology within the veteran, combat experience seemed to be the primary factor for predicting PTSD, Anxiety, and Depression in the combat veteran.

Results also suggested that there was a relationship between the pathology of combat veterans and the pathology their intimate partners, as measured in this research. Not only was there resonating, or resonating of pathology, within the couples, but this tended to occur within categories of pathology such as moderate and severe levels of Anxiety and Depression. While multiple factors such as frequency of communications, number of children, and types of communication were examined, combat experiences tended to be the primary factor for predicting pathology in both the veteran and the intimate partner.

Conclusion

Combat veterans and their intimate partners appear to be experiencing the phenomenon of resonating, or resonating, of pathology. Couple-analysis demonstrates that this phenomenon is being experienced as a couple and suggests that could have implications for future research and clinical practice. Demographic factors did not seem to influence the pathology for either the veteran or their partner. Combat experience does, however, seem to be a predictor for pathology in not only the veteran but also for the intimate partner as well.

Andrews University

School of Education

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A Dissertation

Presented in Partial Fulfillment

of Requirements for the Degree

Doctor of Philosophy

by

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November 2018

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LIST OF ABBREVIATIONS

CATREG	Categorical Regression
CBCT	Cognitive-Behavioral Co-Joint Therapy
CBT	Cognitive Behavioral Theory
CES	Combat Exposure Scale
CIDI	Composite International Diagnostic Interview
DSM	Diagnostic and Statistical Manual for Psychiatric Disorders
EA	Experiential Avoidance
GAD	Generalized Anxiety Disorder
GAD – 7	Generalized Anxiety Disorder – 7
GWOT	Global War on Terrorism
HFS	HomeFront Strong
IPV	Intimate Partner Violence
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
PCL-5	PTSD Checklist – 5
PCL – 9	PTSD Checklist – 9
PCL-M	PTSD Checklist - Military
PHQ – 9	Patient Health Questionnaire – 9
POW	Prisoners of War
PTSD	Post-Traumatic Stress Disorder

ROC	Receiver Operating Characteristic Analysis
SAT	Structure Approach Therapy Model
SOFAR	Strategic Outreach to Families of All Reservists
SPSS	Statistical Program for Social Sciences
STS	Secondary Trauma Stress
VA	Veterans Administration

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CHAPTER 1

INTRODUCTION

General Introduction

The United States is a global power that utilizes its military to affect influence and change in other regions of the world. Professional service within the military means that one is part of a professional combat, fighting force that will be used to meet the political, foreign affairs requirements of the United States government. The fact that young military men - and today women - must go into harm's way in the service of the country is accepted as part of military service (Sherman, Larsen, & Borden, 2015). Due to the nature of combat and deployments for military service, increased levels of mental health pathology have been witnessed for all service components (Balderrama-Durbin et al., 2015). As a result of the need to send our young people into combat, the country has felt an obligation to support and care for these individual after they return from war. While the government has made conscientious efforts to ensure that most veterans are cared for, almost no effort is made to help the family members through veteran's agencies.

As the author and researcher of this dissertation, I think it pertinent to disclose that I myself am a twenty-year veteran of the United State Air Force. Working in aircraft maintenance I experienced multiple deployments to declared combat zones and many long-term deployments to other areas of the world. During the deployments I was married and had a child whom my spouse cared for during my many trips from home. I

was Individuals who join the military are subjected to multiple, and sometimes, long term deployments in which they are separated from spouses and family. In the beginning of their career, most military members are not aware of how the military will affect them and their families. The spouses of military members are not taught how this will affect them. The military member will often times be thousands of miles away, in a foreign country, in a different time zone, and experiencing the stress of combat. The member may have little resiliency left to help out with at home stress, leaving the spouse, and other family members, to resolve issues at home.

Due to the nature of these deployments in which combat may be a factor, service members and their spouses may also experience mental health challenges. The study of Post-Traumatic Stress Disorder (PTSD) has been thoroughly researched and we now understand the symptoms, modalities, and to some extent, the etiology of this disorder (Lambert, Engh, Hasbun, & Holzer, 2012). The impact of trauma on the relationships of intimate partners, children, and other family members, however, is less clear, but is beginning to take shape (Andres, 2014). Work that has begun in the last ten years is beginning to help us to understand how military families are facing disruption, trauma, and stress, and what this means to them (Lambert et al., 2012). Still, further research to develop greater understanding of the impact this phenomenon has on spouses and other family members is needed.

As just mentioned, the impact of trauma on intimate partners and other family members is less well known, although recent research is helping us to understand how this and other stress factors are affecting family members (Andres, 2014). Research by Gewirtz, Polusny, DeGarmo, Khaylis, and Erbes (2010), for example, suggests that there

is a strong correlation between PTSD and couple adjustment upon return from deployment. Interestingly enough, it is not just PTSD that is experienced, but even the stress of deployments, learning to be a single parent while the war fighter is away, and learning how to reintegrate the war fighter upon his/her return, which have demonstrated significant stress on the entire family (Gewirtz et al., 2010). Research like this is needed to help us understand how the impact on the veteran also affects the spouse and other family members. Intimate partners of combat veterans are an integral part of the relationship and, as such, may even share in the pathology.

Only recently pilot programs within the Veterans Affairs (VA) have started to address this impact on family members. One such research project investigated the utility of such programs, and reported considerable success (Sones, Madsen, Jakupcak, & Thorp, 2015). The study examined the utility of working with veterans and their spouses, to determine the efficacy of joint therapy for both the member and the spouse (Sones et al., 2015). The success of such programs may add a new layer of understanding, since the partnership dynamics appear to be effective in the treatment. Might this also indicate that there is a partnership dynamic in the formation of trauma symptoms for both parties in the relationship? While there has been little movement beyond the pilot stage of such programs as of yet, this and other work may prove to show the benefits of working on for both sides of the relationship.

Secondary trauma affecting the spouses of military members and veterans, has been significantly demonstrated in research, both in the United States and abroad (Renshaw et al., 2011). Although research on secondary trauma suggest that it is a real occurrence, there is disagreement concerning the etiology behind this phenomenon

(Brosseau, McDonald, & Stephen, 2011; Renshaw et al., 2011; Zerach, 2015). Some researchers suggest that this is more a result of previous trauma in the spouse and not necessarily a result of the veteran's trauma (Renshaw et al., 2011). Another researcher suggests that secondary trauma is, in fact, resonating the veteran's trauma, as well as a result of previous trauma that has been aggravated by the veteran's trauma (Larsen, Clauss-Ehlers, & Cosden, 2015). In other words, there may be episodes where the trauma of the veteran is triggering previous trauma of the partner. However, little is understood about this at this time. Research that distinguishes between when previous trauma is triggered, when the spouse is resonating the trauma of the combat veteran, and/or what creates secondary trauma, is needed.

To date, the author has found no research on partners resonating pathology. Secondary trauma, however, denotes there is a possible pathway for such pathology, such as Depression and Anxiety disorders, as a result of exposure to combat. The purpose of this research is to investigate the phenomenon of resonated pathology as a result of combat exposure of one of the members of the couple. With the shared experiences of the military couple, shared pathology may also follow. While trauma and secondary trauma have been investigated, there does not seem to be any research investigating resonating pathologies for Depression and Anxiety.

Statement of the Problem

Studies to date have not addressed the pathology of family members or spouses of military members/veterans, that go beyond trauma or possibly family disruption. This study will look beyond what is the primary experience of the military member, or

veteran, and attempt to understand the association of deployments and combat on the relationship of the couple and their shared experience and pathology.

Resonating pathology will be used to describe pathology that is shared by the spouse of the member, who is also experiencing the same pathology. The primary concerns of this study include an understanding of how Depression, Anxiety, and PTSD may be demonstrated within military spouses when it is also demonstrated by the military member/veteran, as a result of combat experience.

The Purpose of the Study

The primary purpose of this study will be to determine if couple pairs, in which one of the spouses served in combat, share the same pathology. I intend to investigate whether or not other pathology, such as Depression or Anxiety, can be shared the way secondary trauma is. One team attempted to understand whether secondary trauma is a phenomenon on its own, or, the result of previous trauma within the secondary person (Renshaw et al., 2011). Military deployment as a stressor was also investigated through attachment theory as a vector for secondary trauma, (Borelli et al., 2014). The roll of peacekeepers was also investigated to determine if this would provide insight into secondary trauma, (Fals-Stewart & Kelley, 2005). Another example of secondary trauma research was an investigation into Israeli prisoners of wars (POWs), (Ein-Dor, Doron, Solomon, Mikulincer, & Shaver, 2010). This begs the question, can pathology such as Depression or Anxiety, also be shared among combat veterans and their intimate partners? My hypothesis was that, due to shared experiences mediated by increased access with modern communications, couple-pairs would also share pathology such as PTSD, Depression, and Anxiety.

This study sought to quantify the relationship between resonated Depression, Anxiety, or PTSD, as experienced by the military member and their spouse, and the effects of the experience of combat. The phrase “resonated pathology” may also be expressed as “resonating pathology”. Understanding how this effect can impact the relationship of the couple, as well as the family, may lead to better insight into pathology within military couples and families, as well as treatment options.

The current practice of treatment for the member alone, has meant that many family members, such as the spouse, are not given the same level of care or support. Members of military families have shown levels of higher pathology, abuse, and parent-child relationship issues than has the general public (Thomsen et al., 2014). This all points to a level of impact within military families that is not seen in the general population. Add to this experience the stay-at-home spouse, or left behind spouse, who must then become the single parent they never wanted to be. The added pressure of the new role, the fear that is experienced by the spouse and the children due to their loved one fighting in a war abroad, and the need to support the other’s career, may over-tax the family’s resilience. Gaining an understanding of how the pathology may be reflected by both the member and the spouse, could direct future research into the pathology, the vectors of such, and even future treatment.

Research Question and Hypothesis

There were three research questions for this study:

- 1) Question 1: What is the relationship between combat exposure and pathology (PTSD, Depression and Anxiety) among veterans?

2) What is the relationship between veterans' pathology and their intimate partners' pathology?

3) What factors account for veteran and partner pathology?

Hypothesis: It is hypothesized that as the exposure to combat operations is increased, the veteran will begin to experience greater levels of pathology. It is further hypothesized that there is a positive correlation between veteran and partner pathology. That is, higher levels of pathology among intimate partners are associated with higher levels of veteran pathology. Finally, factors such as frequency of communication and pathology of the veteran will predict pathology in the intimate partner.

Limitations and Delimitations

Due to the purpose of this research, self-report measures will be used to allow the individuals to report their experiences as they perceived them. As with all such self-report measures, there may be inherent over- or under- reporting by both the member and the spouse.

Another limitation will be how long it has been since the member was deployed. There may be ten years or more for some members who have returned from deployment, and, this may degrade the memory of both the member and the spouse. This could also increase the possibility of some members and their spouses being separated, or divorced, which would mean both members are not available to complete the survey.

A further limitation lies in the fact that this is a convenience sample and not a random selection. The participants will be recruited on web sites (i.e., Vet Friend) and social media sites (i.e. Facebook) where groups, specific to veterans, are registered. Thus, generalizability to other populations is limited.

The final limitation of the study concerned the demographics of the sample. To be a strong enough study, it was recommended that at least three hundred pairs be included in the analysis. This study used invitations through websites to ask respondents to participate. This meant that there were no controls of the demographics of the respondents, and, as such, this was possibly not a true representation of the population. This also limits the generalizability of the results.

Theoretical Background

The study conducted for this dissertation was built on the work done in the areas of Family Systems Theory and my own observations. It has been noted that communication between couples today is vastly better and different than in previous wars (Riggs & Riggs, 2011). I would like to suggest that today's ease of communications between couples (i.e., social media) would be a contributing factor to spousal "resonating pathology" due to the up-close and personal way the partners' experience what is going on in their enlisted spouses' world, wherever they may find themselves. The research is built on the concept of undue outside influences, such as added communication and combat exposure, on the family system and veteran pathology, is creating a resonating, or resonating of pathology, in intimate partners.

Bowen's Family System Theory focused on the patterns of family behavior as a system that had to make adjusts to both external and internal influences. How well the family adjusted to these influences was determined by the closeness, or distance, in these relationships. The ability of the individual family members to diffuse, feel a responsibility towards the family system, and differentiate, the ability to become somewhat autonomous, can be a factor in how the family system functions. When family

members cannot achieve proper levels of diffusion and differentiation, then poor relationship functions affect the family system (Faber, Willerton, Clymer, MacDermid, & Weiss, 2008).

Military families must also adapt to two different family structures, one in which the military member is around and another when the family member is away (Eastman, Archer, & Ball, 1990). How well the family system, and the individual family members, adjust to the fluctuating stress, reunion, separations cycle, will determine their resiliency and ability to cope. Faber et al. (2008) describe a cycle known as ambiguous loss which involved the concepts of ambiguous presence and ambiguous absence. With ambiguous absence, structurally the member is away but perceptually the member is psychologically present. With ambiguous presence, the member is physically there but is felt by the family members as being psychologically away. In both of these situations, the family system is not coping well and will more likely experience pathology, and its influences, on the family system.

The other side of this equation is in how the military member perceives the family system, and, the support they receive from the family system. Gewirtz et al. (2010) reported that military members who experience PTSD often perceive lower levels of system support. It was also reported that perceived higher levels of support are associated with lower levels of PTSD. Military families who are experiencing family system dysfunction often report more relationship problems, intimacy problems, relationship distress, parental dysfunction, lower family cohesiveness, and less construction communication behaviors. These families also report higher levels of PTSD and other pathology (Taft, Schumm, Panuzio, & Proctor, 2008).

Finally, my own experiences, observations, and understanding of military life and deployments suggested to me that as technology has increased in the twenty-first century, so has family member involvement in the experiences of the military member during combat. This connection, I suspected, allowed for more of the stressors of home life to reach the military member, and vice versa, also allowing the combat experience of the military member to reach the at-home spouse. The near-instant communication of cell phones, video communications, and social media, have allowed real time experiences to be communicated on both sides (Loui & Cromer 2014). Through these modes of communications, the increased involvement between military members and their spouses was seen as possibly fostering development of pathways in which shared experiences and pathologies could come together.

Essentially, military members often deploy into high stress, dangerous areas as part of their duties with the military. Family systems who are able to make the necessary adjustments learn to cope with the outside stressors that are part of the military culture. Dysfunctional military family systems who are either enmeshed, or overly distant, may not be able to adjust as necessary to be resilient to pathology. As pathology, such as PTSD, Depression, or Anxiety, is introduced into the family system, others in the system, such as the Intimate Partner, begin to display similar symptoms, as a coping mechanism to try and maintain system equilibrium. Figure 1 below is used to illustrate this theory.

Definitions of Terms

The following terms are used throughout this study with the following meanings:

Figure 1. Theory of Resonated Pathology Development

ResonFated Pathology: For this study, resonated pathology is the phenomenon in which the intimate partner of the combat veteran is presenting with the same pathology such as PTSD, Depression, and Anxiety, as the veteran.

Secondary Trauma: For this study, secondary trauma is the phenomenon in which individuals begin to experience trauma due to their relationship with an individual who has experience a traumatic event. Examples can include intimate partners, first responders, or emergency department personnel.

Resonating Pathology: For this study, resonating pathology and resonated pathology are synonymous and is the phenomenon in which the intimate partner of the combat veteran is presenting with the same pathology such as PTSD, Depression, and Anxiety, as the veteran.

Couple-Pairs: Military members who are married will be represented as a unit of study. This term will apply to respondents to the survey who are married or in intimate partner relationships, that were together during their time in the military.

Depression: From a cognitive perspective, depressive disorders are characterized by people's dysfunctional negative views of themselves, their life experience, the world in general, and their future, Depressed people often view themselves as deficient, helpless and/or unlovable. They tend to attribute their unpleasant experiences to their presumed physical, mental, and/or moral deficits

Anxiety: An abnormal and overwhelming sense of apprehension and fear and/or sense of danger often marked by physiological signs (sweating, tension, and increased pulse), and by doubt concerning the reality and nature of the threat, and by self-doubt about one's capacity to cope with it.

Post-Traumatic Stress Disorder: This is a disorder that may develop after exposure to a terrifying event or ordeal in which severe physical harm or death has occurred, was witnessed, or threatened.

Combat: For this study, combat will be referred to as any deployment, temporary duty, or assignment by the military, given to an individual to a zone designated by the United States Department of Defense as a combat zone.

Summary

This research explores the phenomenon of resonating, or resonating, of pathology between military veterans who experience combat and their intimate partners. In this study I look at if military members who have experienced the mental health conditions of PTSD, Depression, or Anxiety, have also affected the mental health of their intimate partner's, causing a resonating of pathology. This study hypothesizes that, as military members experience combat, they may develop either PTSD, Depression, or Anxiety which is then also experienced by their intimate partners.

This study sought to ask members of the veteran community and their intimate partner who was with them during deployment, using a survey design, to answer questions about their mental health and experience as a couple. This method may have limited the generalizability to other veteran populations. The theoretical foundation of the study consists of Bowen's Family System Theory, as well as my own experiences as a combat veteran, in order to conceptualize the process that leads to the possible resonating of pathology. The theory suggests that, as a consequence of the combat veteran's experience in war, the intimate partner experiences the same symptoms as the combat veteran in order to cope with the internal and external stress due the members combat experience. A list of pertinent terms along with their definitions is also provided.

CHAPTER 2

REVIEW OF LITERATURE

This chapter presents a review of recent research literature on the life of and culture of military personnel, basic training and other experiences, the life of the spouse, effects on the family and relationships, and secondary trauma. The search for literature was conducted through data bases such as ProQuest, EBSCO, Sage Publications, and Google Scholar, using search terms such as, “Military Culture”, “Understanding Military Culture”, “Basic Training”, “Experiencing Basic Training”, “Combat Couples”, “Co-pathology in military couples”, “Couples in the Military”, “Families in the Military”, “Spouses who Mirror the Veteran’s Symptoms”, and “Spouses who Mirror Symptoms”. Articles that addressed the experiences of military members and their families were numerous. Empirical research articles that directly addressed the concept of spouses experiencing Resonating pathology, or resonating pathology, were not found, however.

I focused on peer reviewed journal articles that addressed pathology within the relationships of military members, and, the phenomena of secondary trauma. The investigation of secondary trauma was used to bridge the theoretical gap between secondary trauma and other shared pathology. To assist the reader in understanding military life, an exploration of concepts such as military culture, the role of basic military training, the challenges of the veteran reintegrating into the family and relationships after returning from deployment was undertaken. The reader is also introduced to current

treatment options to understand the current directions of veteran's care, and that of their family members. Definitions for Resonating pathology, or resonating pathology, could not be found in the current literature. For this dissertation, Resonating pathology, or resonating pathology, will refer to spouses of veterans who present with the same or similar pathology and symptoms as that of the veteran/military member. In other words, when the veteran is experiencing Depression, Anxiety, or PTSD, the spouse will demonstrate the same pathology.

The Life and Culture of Military Personnel

I am a twenty-year military veteran, with the United States Air Force, who understands that military personnel and their families will experience separations, deployments, and combat, as part of their military careers. For the general public, it can be difficult to comprehend the demands and expectations that military families will endure. Military culture, patriotism, and service to country are the hallmarks of military service. This is ingrained into the military member during basic training, and, when the member rejoins their family, they must also ingrain this culture within the family. From my own experience, I understand that learning the culture of the military is not a formal process for spouses and other family members. They instead must rely on the member, and friends within the community, to teach them these values.

Being a twenty-year veteran, I have experienced basic training, technical training, six permanent change-of-duty assignments and more deployments and temporary assignments than I care to count. My experiences during war time were limited, at least for declared wars. I have, however, experienced multiple combat zone deployments that were in support of the no-fly zones in northern and southern Iraq, as well as, the war in

the former Yugoslavia. I understand the demands of the military, the culture of the military, and the life of an active-duty service member.

Because of my experiences in the military, I understand how the effects of extended deployments and separations takes their toll on the member and his/her family. I also understand that the concept of career and job, while commonly used in the military, do not equate to the civilian construct of the same name. For the career military member, life with family and duty to the military are often at odds with each other. A common misconception is the idea of the end of the work day. For the civilian, hopefully they get to leave work, go home to their families, and keep the two worlds separated at all times. For the military member, they are never truly off duty and must be ready to respond in a moment's notice to the demands of their units. For this and many other reasons, the life of military members, and their families, can be seen as having their own culture. For many individuals, this culture follows them even after they leave the service. This can be especially true for individuals, such as myself, who remained on active service for twenty years or more and retired from military service.

Military Culture

Culture, as a human construct, can have many different definitions depending on the perspective of individuals, or researchers. For this project, culture will be seen as a way to describe how humans learn, interact, and function from one generation to another. Cultures are learned from one generation to another and are shared by members of the community, group, or members of a family. Cultures are also adaptive to how people live and are symbolic in nature (Dunivin, 1994). By understanding how cultures are

formed and sustained, we can apply this principle to the military, their members, and the families that live and work with them.

My own experience taught me that within the military, each component is generally organized around its combat role. This is part of how the military develops its own culture and symbolized by its distinctive mission to train for, and conduct, combat operations. This masculine/warrior culture is predominantly male-driven as it is only recently that females have been allowed to enter into the combat ranks. The military, across all components, maintains this warrior construct as a tool for motivation and change, and, as a tool for transforming civilian individuals into effective fighting personnel. This concept will be explored further, later in this chapter.

By my own experience, I could see that this military culture is a society that is built upon very conservative values, strict regulation, and well-defined structures for a reason. The military encourages this level of subordination, teamwork, and “leadership through followership” in an effort to command obedience that helps members survive the battle field (Dunivin, 1994). This is one of the primary functions of basic training. This doctrine requires the teaching of responses that are necessary for survival during high stress, fast moving operations, that offer very little time for thought or contemplation. Decisions must be made quickly, with the primary emphasis on survival and the defeat of the enemy combatant.

During my time in the military, I could see that the premise of team work and group cohesion is important not only within our own military, but in the militaries of other nations as well. While not distinctive in its own right, the military does present an interesting study of how group cohesion seems more prevalent within that organization,

than in other organizations. The concept of war buddies is often portrayed in popular media such as movies and television programs, but it can also be seen in large, extra-military organizations such as Veterans of Foreign Wars, The Foreign Legion, and national and local level clubs for Non-Commissioned Officers and Officers.

The concept of group cohesion can be seen as being very important to groups that operate in high stress environments. One study postulated that this group cohesion is formulated through social structures that are made up from four constructs (Kirke, 2009). The first is the formal command structure, represented and expressed in the hierarchy of rank and the formal arrangement of the unit into layer on layer of organizational elements. It contains the mechanisms for the enforcement of discipline, downward issue of orders, and upward rendering of reports, which provides the framework for official responsibility. The second is the informal structure, which consists in unwritten conventions of behavior in the absence of formal constraints, including behavior off-duty and in relaxed-duty contexts, and complementary conventions associated with the structure and exercise of informal personal relationships both vertically and horizontally. The next construct is the loyalty/identity structure, the structure of belonging. It is manifested most obviously in a nesting series of different sized groups in various organizational levels from the very small to the large, that are the structure of all military units. Finally, there is the functional structure, which consists of attitudes, feelings, and expectations connected with being soldierly and properly carrying out soldierly tasks and activities (Kirke, 2009). Part of the reason for such loyalty and cohesion may be developed through the intense level of training, the extreme experiences that are shared, and the shared language and communications that are exclusive to these groups.

Like other cultures, the military has its own communications, traditions, and structures that make it unique to other organizations. For the individual soldier, once they become a part of this culture and the community, outside influences to change is resisted. There tends to be a tiered process that addresses these concepts and cultural understanding (Hajjar, 2014). At the macro level, there appears to be an organizational integration perspective that views military culture as unified, consistent, and homogeneous. It is through this perspective that the military's orientation toward ambiguity includes attempts at exclusion. At the mesosystem level there is a process of organizational differentiation whereby various subgroups partake in subcultural consensus-building. The mesosystem is the point where more than one microsystem combine, such as at home and at school (Hajjar, 2014). Numerous military subordinate units form idiocultures that help to clarify and bring some understanding in to the chaos. Idiocultures are small groups that create highly specialized cultures. At the microsystem level (the home culture, for example), the individual soldiers are left to create and understand their own cultural identities that may help bring understanding to how they operate and create culture as they confront complexities, uncertainties, tensions, and exigent mission requirements (Hajjar, 2014). The individual military member must learn to assimilate into this culture as they attempt to find purpose and identity with the organization.

From my own experience, I could see that the learning process began on the day of entry into the military. The military, in an effort to create strong levels of group cohesion, recognized the fragmenting effect of biases long before the general public did. Taking steps to mitigate these influences, the military has led other sections of the greater

society to create an integrated organization, although with various disruptions along the way (Hajjar, 2014). While the individual member may be encouraged to celebrate their own culture, it must be understood that unit cohesion must come first, individual culture second. I was always taught that the needs of the Air Force always come first.

The military culture is such that, from my own experience, weakness is viewed as a character flaw that not only affects the individual, but, also the cohesiveness of the group. The concept must be understood within the understanding of what it means to be a part of a war-fighting unit. This is the cohesiveness that is usually expressed by such euphemisms as “no man left behind” and “all for one and one for all”. This is the collective notion in which the good of the unit is above that which is good for the individual (Bryan & Morrow, 2011). It is an interesting concept within the United States military considering it is primarily made up of individuals from an individualistic society.

The warrior culture of the United States military is one that values strength, resilience, courage, and personal sacrifice. The military inoculates an identity of elitism and superiority, perhaps best captured by the military’s various slogans: “Army Strong”; “The Few, The Proud”; “Do Something Amazing”; “A Global Force for Good.” Mental toughness and an expectation to master stress without difficulty are developed and reinforced as a cultural norm, with an emphasis on inner strength and self-reliance, in order to shake off injury and illness (Bryan & Morrow, 2011). This has created a construct within the culture that discourages members from seeking treatment for mental health challenges that may be experienced due to combat operations.

Popular culture often perceives military units, especially those that encounter combat, as encouraging mental and physical masculinity. The common expression was

that if you were weak, you would end up letting your team down. Military members may express concern that, if they are not there, that may be the reason others become injured or killed, and, if the individual is viewed as weak, others may have to take up the task of keeping them safe, thereby endangering others (Bryan & Morrow, 2011). These and other excuses are part of the culture that demands a masculine/warrior attitude that may not suffer weakness lightly, and, entrench a stigmatism towards mental health treatment as a whole. This could also set up behaviors in which the perceptions of others often dictated the decisions and actions of individual team members.

Military members that are part of combat units may perceive that career progress is based how team members and superiors perceive their masculinity. Studies that investigated this conducted a survey of soldiers within the United States Army. They reported concerns about how seeking help for mental illness might negatively impact their careers (Abraham, Cheney, & Curran, 2015). These results demonstrated that fifty-three percent of active-duty military personnel who perceived a need for mental health treatment, but did not seek it, reported concern that seeking help would damage their careers (Abraham et al., 2015). Unlike concerns related to social stigma, unease regarding how seeking treatment for mental illness might negatively impact service careers remains both salient and constant over time (Abraham et al., 2015). These concerns may become more important as researchers and clinicians seek to understand help-seeking behaviors, and, what may allow for better access to treatment. Understanding how this culture works within the military can be an important part of the treatment approach of both VA and civilian providers.

Some of the challenges that are faced by practitioners within the veteran's health administration, as well as civilian practitioners, surrounds the lack of understanding of the culture of the military. Many of the practitioners within veteran's systems have not served in the military and have very little understanding of the culture of the military (Strom et al., 2012). In fact, some do not realize that there is a subculture within the military and base most of their approaches on the individual culture that is presented to them. In some estimations, less than five percent of practitioners that work within the VA, have military experience (Strom et al., 2012). These factors play heavily in the effectiveness of treatment and give rise to complaints by participants in the system of practitioners who have no understanding of their experience. While understanding the experience of veterans may have little influence on the treatment, an understanding of the culture does.

Individuals seeking treatment may perceive a lack of understanding of their culture and experiences as a lack of empathy. Clinicians need to understand how military culture impacts the experiences of veterans. Understanding how those experiences led them to form these cohesive groups and to operate as one is important to any treatment approach. Understanding how combat team members learn to sacrifice self over the team may also help them to understand military culture (Strom et al., 2012). The fact that military membership offers a unique experience is not lost on most practitioners, however, a lack of understanding concerning the subculture of military life may create barriers to effective treatment.

Basic Training and Other Experiences

The United States military establishment has three primary components, the United States Air Force, the United States Army, and the United States Navy. Many people are not aware that the Marines is a subjugated organization within the Navy. All uniformed members of the military must first go through basic military training (Howell, 2016). In recent years, the name of this training has been changed to Basic Combat Training by some components. The Navy and the Air Force have similar time frames of approximately eight weeks for their training, while the Army is longer at ten weeks and the Marines have the longest at approximately fourteen weeks (Howell, 2016). While all three components have basic military training, the curriculum, location, and primary goals are often different.

It was my experience in the Air Force that basic training was mostly concerned with two primary constructs. Learning to follow orders instinctively, and, learning how to work as a team. Many of us believed that there was a goal of some military trainers to determine what your capacity to withstand stress, or more aptly, what was your stress tolerance level. Classroom instruction focused mostly on learning traditions, customs, regulations, and the history of our military branches. Field training consisted of physical education, marching, and weapons training. There was very little free time as it was also important for us to learn the structure of our new environment. We were told when to get up, when to make our beds, when to clean up the bay, when to shower, when to eat, what to wear, where to go, and what to say. Every aspect of our lives was structured and we were expected to respond to commands immediately, and, as a team. These last two concepts were very important to us, we were told, as they might very well save our lives.

While it is important to understand that each component's basic military training is unique, I believe, the concepts I have provided here are ubiquitous to all military basic training. While not unique to the United States military, basic training is unique to the country's culture. Other countries also face similar challenges in helping new military recruits assimilate into that culture and they have studied the phenomenon to a certain degree.

Depending on the service that one enters, most recruits experience a type of culture shock when they finally arrive at the training facility that they are assigned. This experience is usually meant to shock the individual into a state of compliance and obedience. The experience for myself was one of fear, stress, and at times, regret. While the decision to join the military is often fraught with indecisiveness, it can be surprising what attitudes were held prior to joining. One study looked at the attitudes of enlistees and asked them whether or not they had made early decision to make the military a career. The investigators were surprised to learn that only ten percent had considered a career in the military (Ford, Gibson, DeCesare, Marsh, & Griepentrog, 2013). While the reason for joining the military may be less understood given that most of the individuals did not plan to make this a career, this study did not address reasons for joining. It was my experience that most people joined due to economic hardship, plans for an education, or that they had little to no other options.

Basic Training and Attachments

For many, the decision to join the military involves a transition from adolescence to adulthood. This will most likely be the first time that these individuals live outside of the home of their parents. There will be some older recruits who have lived on their own

before, however, for most young enlistees, they will be in late adolescence or young adulthood. Transitioning from the home to this environment may bring about some anxieties due to attachments to home life, parents, and other relationships (Mayseless, 2004). Attachment theory recognizes this age as a time of transitioning from attachments to parents to attachments to others. The theory of attachment assumes a universal need to form an attachment with another person deemed stronger and wiser who can protect the child and increase the child's chances of survival. Attempts to increase proximity and maintain contact with an attachment figure are activated when the child feels distressed or alarmed or when the child perceives a threat as to the availability of the attachment figure. Three major attachment patterns reflecting differences in affect regulation have been identified: secure, avoidant, and ambivalent. From this theory it can be theorized that the highly-structured environment of the military, and basic training, may provide for the needs of this age group during this transition (Mayseless, 2004). Depending on at home attachments, some individuals will make this transition better than others.

How these individuals transition also depends on how they can move their attachments from parents to peers. It is this bonding of peers, and to the group, that may provide later group cohesion that is necessary within the military culture. Another study looked at how the new recruits managed coping skills to ensure the success of their basic training (Davis & Lockhart, 2007). This adds some insight into this transition period with some understanding of stress and coping skills. The theory was that some enlistees will use positive coping mechanisms like seeking social support, while others will use negative coping mechanisms like blaming others for the situation in which find themselves (Davis & Lockhart, 2007). The study was able to demonstrate that

individuals who were able to form bonds and utilize social support, were able to make smoother transitions, experience fewer disciplinary problems, and achieve higher performance levels. This also demonstrates how, with greater bonds and group cohesion, transitions become smoother and increase coping skills.

The stress of basic training, and military membership, will be new to the recruit. This may be the first time they have ever been required to work as a team. In one study, the investigators examined the development of unit cohesion among 1,939 soldiers over a ten-week period of Basic Combat Training and how cohesion relates to stress, resilience, and mental health issues (Williams, Brown, Bray, Anderson-Goodell, & Adler 2016). The researchers used the Kessler 6 to measure psychological distress, an adaptation of the sleep impairment scale to measure sleep problems, the Connor-David Resilience scale to measure resilience, the substitutes for leadership scale for unit resilience, a scale that was developed by the authors for this study to measure confidence in managing stress, and the Positive States of Mind Scale was used to measure positivity. The investigators found that increases in cohesion were significantly associated with decreases in psychological distress, sleep problems, and BCT stressors. Conversely, as cohesion increased, so did resilience, confidence in managing reactions to stress, and positive states of mind. (Williams et al., 2016). This study was conducted at one primary BCT facility, although the largest one in the Army, and may not reflect outcomes of other facilities. It must be understood, however, that all BCT is standardized. The results may be replicated at other facilities. The scope of the study was large and provided significant results in helping researchers understand the importance of unit cohesion.

Basic training provides a transition from civilian life into the culture of the military and the first steps in forming new bonds. The essence of peer bonding occurs through social relationships based on trust and teamwork. The role of cohesion, during basic training, is important not only in how cohesion develops in new service members, but also how it relates to positive support, resilience, and the stressors of training (Williams et al., 2016). The physical and psychological demands of basic training are substantial, and these demands may facilitate or hinder the development of cohesion, and perhaps, the successful completion of basic training. (Williams et al., 2016). The study by these authors was able to demonstrate that, even when strangers are put together, the rigors of basic training did facilitate trust and cohesiveness. This is in line with military goals of indoctrinating new recruits at the beginning of their training.

Considering the demands of the military, and, the length of the latest conflict, it is no wonder that military leadership is concerned with the attrition levels of personnel going through basic training. Military operations are spread out across the globe, and, have been so for the last fifteen years (Riggs & Riggs 2011). Since the attack on the World Trade Center on September 9, 2011, the United States has sent over four million young men and women into combat zones in support of Operation Iraqi Freedom (OIF), and Operation Enduring Freedom (OEF), in a war against terrorism. During the last decade, the demands of the military, which has become increasingly diverse, has meant that military members are deployed more frequently, for longer periods of time, and with shorter intervals between deployments. (Riggs & Riggs 2011). In this quest of career and political influence, military members, who often leave their families behind, are often left to find their own ways of understanding and coping with military deployments.

The Deployment Cycle

Ground operations have been decreased dramatically in most theaters of operations in the last few years. As these military members return home, it becomes more important to focus on the veterans themselves and how well they are integrating with their partners and families. One qualitative study (Sherman et al., 2015) embarked on a systematic review of literature from ninety-two articles that met the inclusion criteria for this project. The investigators focused on six key functional domains including mental health, social and role functioning, relationship functioning and family life, spirituality, physical health, and financial well-being. Out of this study, they indicated that there were seven areas on which clinicians, and policy makers, should focus. First, expand focus from the service member's mental health to a broader community focus. This would include support for individuals to expand their role within the community as participation reflects functioning across a range of roles such as social, professional, educational, parental, spousal, spiritual/religious, leisure, domestic life, civil, self-care, and economic. Second, build a provider care network that is sensitive to military culture. This would include educating and training providers about specific unique risks of military members. Third, coordinate a community response. Veterans have unique needs and experiences and need help integrating back into the community. Fourth, provide a range of supports and services and monitor their functioning over time. To meet the diverse needs of the population, efforts will continue to span a range of modalities, including face-to-face services, online programs, mobile-phone applications, social networking, and phone-based coaching. Fifth, dedicate resources to the evaluation of programs, services, and longitudinal research. While multiple programs exist, not all are

well funded or supported empirically. Sixth, attend to diverse populations. Clinicians should attempt to get training about distinct segments of the OEF/OIF population because of their unique experiences and subsequent needs. Seventh, family members should be included in these outreach and treatment programs. Recent research has demonstrated that couples and family members are being impacted by the reintegration (Sherman et al., 2015). As a literature review, this study does provide a broad, contextual focus to a severe problem with returning veterans. It does not appear that the intentions of the authors were to provide significant analysis of outcomes. This article does provide insight into the vast problems that are facing veterans and their families and suggests a larger community focus that could prove helpful.

The toll of war has had a devastating impact on many of our returning men and women from the Global War on Terrorism (GWOT). The impact of being in a constant state of vigilance, frequent and lengthy separations from family, and witnessing the products of war, has taken its toll on our military members (Mayseless, 2004). Since basic training, and for some further combat training, these individuals have been taught how to respond to combat situations so that they will have a higher rate of success for survival. These ingrained reactions are needed to ensure a quick response to combat situations. While these skills are necessary for survival in the field, they cannot then be turned off just because they are returned back to a non-combat area such as home (Bowling & Sherman, 2008). It was my experience that this learned response followed me home, and, may have increased my own critical stress response to stimuli. How this may influence PTSD is yet to be seen, however, some hypervigilance could be seen as a learned behavior.

The men and women serving in Iraq and Afghanistan have faced a range of stressful situations. A survey of 894 Army service members from Iraq found that ninety-five percent had observed dead bodies or human remains, ninety-three percent were shot at or received small-arms fire, eighty-nine percent were attacked or ambushed, sixty-five percent observed injured or dead Americans, and forty-eight percent were responsible for the death of an enemy combatant (Bowling & Sherman, 2008). In addition to the trauma of witnessing difficult events, approximately twenty-two percent of the wounded service members in Iraq and Afghanistan have experienced a traumatic brain injury. These traumatic brain injuries are often associated with changes in mood and behavior, including Depression, Anxiety, impulsiveness, and difficulty with concentration and memory (Bowling & Sherman, 2008). These types of exposure have impacted military members, leaving lasting impressions, and in some cases anxieties, that may not leave them for the rest of their lives. In Bowling and Sherman's (2008) article, *Welcoming Them Home: Supporting Service Members and Their Families in Navigating the Tasks of Reintegration*, they stated:

Recent research also suggests that many returning service members experience a range of mental health problems. A Veterans Affairs (VA) report stated that over 35,000 GWOT veterans had been seen for potential posttraumatic stress disorder (PTSD) at veteran's hospitals as of June, 2006. Many more are facing difficulties with Depression, substance abuse, and intimate relationships. A study of 1,700 Army and Marine personnel who had served in Iraq found that 15%–17% met criteria for major Depression, generalized Anxiety disorder, or PTSD, and that 24%–33% of service members admitted to using more alcohol than they intended. Most recently, a study of returning veterans who had received care at a VA facility between 2001 and 2005 found that almost one-third received a mental health or psychosocial diagnosis at their healthcare appointments. In addition to those service members who develop a mental illness following a deployment, many more service members and their families face adjustment reactions (p. 451).

While this research will continue to reveal new information as the war on terrorism continues, the undoubtable impact on veterans and their families will persist. One unfortunate consequence is that soldiers and their families are often reintegrated as strangers as the returning members find that families have adapted to a new way of relating and functioning (Bowling & Sherman, 2008). These changes, coupled with the returning soldiers' transition to a survival mode, create a new stress for them, as well as their families, that may exacerbate any pathology that they may have acquired. The at-home spouse was faced with the task of caring for the family, changing the routines of the children and themselves, and adapting the home to a new division of labor. The returning spouse must now integrate into a new system, one that had adapted to their absence and must now find new routines. Returning members may feel as if they have no roles within this new system. Some military members have reported feeling as if they do not belong, are not needed, and want to return to a place where they felt useful (Bowling & Sherman, 2008). These adaptations can complicate the reintegration back into the family, as, their new learned behaviors are not suited for the home environment.

Returning Home and Reintegration

Being on alert for long periods, responding to combat situations, and being part of a combat team, can make learning to relax, integrating into a civilian environment, and being a part of a family again challenging. Add to this such pathology as Depression, Anxiety, and PTSD, and the mix becomes even more of a challenge. Members may adopt risk-taking behaviors that will remind them of the war environment (Bowling & Sherman, 2008). They may also display hostile and angry affects, behaviors, and moods that are unfamiliar to the family. This may mean that members adopt various coping

mechanisms such as being numb, becoming reclusive, and shutting down instead of relating to the family, as a way to keep emotions in check (Bowling & Sherman, 2008). As members return home, it is imperative that they learn new coping skills, understand the changes that were made during their absence, and, to create new meanings for their experiences. This process of returning home is not only for the military member, but also for the spouse, their marriage, and for the children. This may also influence how the member may choose to seek help, or, treatment for their own pathology.

Treatment and Mental Health Stigma

A paradox concerning mental health and treatment within the ranks of the military and veterans is that there is resistance among this population to actually seek help for the condition with which they need help. A handful of studies have examined this phenomenon. Four of these studies are examined here. In a study of 163 National Guard members, the investigators examined if demographic, military, or help-seeking variables differed based on stigma type. The stigma types were self-stigma; the beliefs about mental health and treatment held by the individual, and, anticipated stigma, the beliefs about mental health and treatment held by others concerning the individual (Blais, 2016). The study used measures that included Self-Stigma of Seeing Health, Perceptions of Stigmatization by Others for Seeking Help, Perceived Stigma and Barriers to Care Scale, Stigma, General Help Seeking Questionnaire, the PTSD Checklist – Military (PCL-M), and the Depression Anxiety Stress Scale, Short Form, Depression and Anxiety Subscale (Blais, 2016). The results indicated that there were correlations between self-stigma and Depression/Anxiety with small to large effect sizes. Perceived stigma demonstrated a correlation to Depression/Anxiety with small effect sizes. For PTSD, the correlations

were positive, however, the effect size was small (Blais, 2016). This study does provide a promising insight into help seeking behavior, and, an understanding of perceived unit stigmas. There are some limitations however. The sample is small, from National Guard members only, and the effect sizes may leave some doubt about the ability to generalize this to the military population. More research should be conducted across a greater cross-section of the military to determine how stigma may affect treatment seeking.

Stigma, and its effect on treatment seeking, may also come from a concern about how this may affect the career of military members. In a study of 276 OEF and OIF soldiers, the researchers investigated the effect of self-stigma and public-stigma on treatment seeking. Self-stigma refers to the negative beliefs, attitudes, and conceptions that an individual personally links to mental illness. Public stigma refers to the negative beliefs, attitudes, and conceptions that an individual believes the general population links to mental illness (Brown & Bruce 2016). In the study the authors used the PCL-M to measure PTSD, the Beck Depression Inventory - II to measure Depression, the Substance Abuse Screener to measure substance use, and the Generalized Anxiety Stigma Scale to measure self-stigma and public-stigma. Results of the analysis show that there was a three-factor model with the greatest effect, self-stigma, public stigma, and career worry, the last having the highest factor at .053 with medium effect sizes (Brown & Bruce 2016). This study is important as it demonstrates that factors such as stigma and career worry affect treatment seeking and may preclude individuals from getting help. This was a small sample of soldiers, exclusively Army, and mostly female, and, as such, cannot be generalized across the military. While this research provides additional evidence for understanding treatment avoidance, more research is needed to confirm these findings.

Stigma of mental health treatment may have an overall effect on treatment seeking however, how an individual's attitude towards treatment may also determine these behaviors. In a study of one hundred twenty-six active-duty and retired military members, the researchers wanted to determine how public-stigma and self-stigma were related to an individual's attitude towards seeking mental health treatment (Held & Owens 2013). The authors used the Stigma Scale for Receiving Psychological Health to measure public-stigma, Self-Stigma of Seeking Help Scale to measure self-stigma, Attitudes Toward Seeking Professional Psychological Help Scale for measuring attitudes towards treatment. Results indicated that there was a significant relationship between public-stigma and self-stigma when it comes to seeking help. Public stigma was not significantly correlated to attitudes towards treatment, however, self-stigma was significantly correlated to attitudes towards treatment (Held & Owens 2013). This study appears to agree with previous studies in that public and self-stigma do mitigate treatment seeking. The study itself does have numerous limitations, such as, a small convenience sample that was recruited over the internet. This will preclude generalizing the study. The number of individuals who reported mental health illnesses was at a much higher rate than what is generally reported for military members. The participants came from multiple service eras and may not represent current military members. Overall, the study does provide further insight, however, more research is needed to apply this evidence across the military.

Understanding how stigma and attitudes affects treatment seeking may be important, however, treatment drop-out has also been a concern. In a study of 1,324 active-duty soldiers, the researchers sought to understand the relationship between

perceived stigma for career, perceived stigma for treatment from others, self-stigma from treatment seeking, stigmatizing perceptions of others (Britt, Jennings, Cheung, Pury, & Zinzow, 2015). The investigators used measures developed for their research that were not named in this study, to measure perceived stigma for career, perceived stigma of different treatment of others, self-stigma from seeking treatment, and stigmatizing perceptions of soldiers who seek treatment. Post-Traumatic Stress Disorder was measured using the PTSD-Check List and Depression was measured using the Patient Health Question. Result indicate that the correlations among the four-different measure of stigma were moderate to high, however, there were low correlations between stigma and mental health symptoms. The four measures of stigma were correlated at moderate to high levels for not seeking treatment. Finally, perceived stigma to career, perceived stigma of differential treatment, and self-stigma from treatment seeking were individually associated with treatment dropout, but only self-stigma from treatment seeking remained a unique correlate of treatment dropout (Britt et al., 2015). This study does provide a greater number for the sample, and thus, is much more generalizable across current military members. One weakness that does stand out is the lack of information for the measures. This leaves the question of how the measure compares to other measures that have been previously developed.

The status and relationship of the military member/veteran, may also provide some insight into how and when the individual will seek treatment. After following a team of 100 security-force airmen, a recent study that utilized self-report surveys indicated that neither the stigma of seeking help, the relationship status, or relationship quality, were significant in non-help seeking airmen. Anecdotal evidence seems to be

that it was a lack of providers who were trained in couple's therapy, and, the lack of education about the help that could be achieved was the reason for not getting help (Snyder, Balderrama-Durbin, & Fissette, 2012). The level of public education concerning how help might be provided may mitigate this problem within the military population.

Relationships and Treatment

Relationship concerns are, however, a significant factor for many individuals who are experiencing PTSD. In another study, the researchers wanted to study the rate of interest in couple's therapy or partner-involved therapy. The study involved 283 veterans who completed self-report surveys (Meis et al., 2013). The authors used the PCL to measure PTSD symptoms, a four-item version of the Couples Satisfaction Index to measure relationship satisfaction, and interests in couples were measured using a scale developed by the authors for this study. Family concerns were also analyzed by a scale developed by the authors. The results indicated that for those who scored significantly on the PTSD scale, over eighty-percent indicated that they or their partner were concerned with how PTSD affected their relationship. Also, seventy-eight to ninety- percent indicated that they or their partner would be interested in either couple's therapy or partner-involved therapy (Meis et al., 2013). While this study does provide significant insight into couples seeking joint therapy, it does have some limitations. This was a convenience sample from a mostly Caucasian demographic. Two of the scales have not been properly evaluated, leaving concerns about their effectiveness. Reflecting a desire for military couples that wanted to have co-joint therapy, this could be useful for clinicians treating veterans in intimate relationships.

The Life of the Spouse

The life and experiences of spouses of military members are quite unique as compared to that of the general population. I was able to witness how the expectations on behavior, the sacrifices of their careers for that of the military member, and the constant fear of the unknown took a toll on the spouses of the military person. The spouse must be relied on to be the single parent of children, even though they are married. They must become the banker, the parent- teacher association member, the manager of all home requirements, and most often still maintain a full-time job. This must all be done while living far from their family of origin or any other relatives that could normally be counted on to assist. They may also be required to do this while living in a foreign country without the language skills needed to make all this a little bit easier. It was my own experience that I needed my wife to do all of this or more as I relied on her to manage everything at home while I was deployed. While there were support organizations within the military, the effectiveness of these programs was erratic at best and she often stated that she learned more from me or from friends with more experience.

Unfortunately, there is very little research on the life experiences of the military spouse, and, even within the research that is available, the common complaint is the lack of research. While common themes such as resilience, coping skills, and social support are peppered into other research, how this is taught and who will teach it is not addressed. (Larsen et al., 2015). Larsen et al. (2015) examined the lives and insights of eighteen army wives, multiple themes were discovered. There were common perceptions about the stressors associated with constant moves, through different time zones, to different military bases. There were also stressors associated with the burdens placed on the

spouse whose work involved high threat levels. Another theme identified was how they would be uncertain about when their spouse would return home. And finally, when the soldiers returned home, how would they cope with the fact that their spouses had made significant changes in their personhood (Larsen et al., 2015)? Family stress associated with frequent military transitions across different bases and time zones was commonly reported. Participants talked about the difficulties of increased training just before deployment separations. As deployment drew closer, participants reported a lack of ability to control major decisions related to family life. There was a sense of not knowing when the military spouse would leave. This fear of being alone was coupled with the struggle to experience closeness during this difficult time, while also needing distance to cope with the emotional difficulty of an impending departure (Larsen et al., 2015). These insights into the lives of military spouses help us to understand the tolls that the deployment takes on the lives of this population. The uncertainty, the expectations, and the ambiguity of the situation can have a significant impact.

A search of various research data bases revealed a vast depth of research into the pathology of the war fighter. Unfortunately, there has been little attention given to the spouse, or other family member, until the more recent conflict known as the GWOT. One recent study looked at the wives of 257 army soldiers who were experiencing Depression after the return of their husbands who were deployed. The researchers wanted to know if the presence of positive emotions during deployment would predict adaptive coping skills after reintegration (Dolphin, Steinhardt, & Cance, 2015). The researchers created a scale for measuring marital satisfaction. The positive and negative affect scale was

used to measure positive emotion, the Brief Copings Orientations to Problems Scale was used to measure coping strategies, and the Conner-Davidson Resilience Scale was used to measure resilience, the Center for Epidemiological Studies-Depression Scale was used to measure Depression.

Analysis showed that positive emotions were positively correlated with adaptive coping skills, and negative correlated with maladaptive coping skills. Wives with higher marital satisfaction were also correlated with higher coping skills. As hypothesized, adaptive coping, maladaptive coping, and resilience mediated the relationship between positive emotions and depressive symptoms (Dolphin et al., 2015). The authors attempted to understand how the Broaden and Build Theory of Positive Psychology could mediate the symptoms of Depression which does provide insight into the reunion phase of the deployment. The research was limited by the convenience sample of Army wives from one military installation. The authors were able to demonstrate how positive emotions and marital satisfaction does mitigate Depression as related to combat deployments.

The duty, life, and experiences of military members and their spouses, in my observation, have proven to impact the family, couple, and performance of the military member. While the effects have been evident, it has not been clear what the mediating factors are. During my efforts to understand this, three constructs were determined: personal meaning in work, making meaning through work, and the idea that one can find life meaning through work (Bergmann, Renshaw, Allen, Markman, & Stanley, 2014). In a study that examined 606 army couples, the investigators wanted to determine if shared meaningfulness of work between the military member and the spouse would predict

marital satisfaction (Bergmann et al., 2014). The authors used the Kansas Marital Satisfaction scale to measure marital satisfaction, PTSD-Civilian scale to measure PTSD, and Work Readiness/Effectiveness Scale to measure meaningfulness of service. The results showed that service member PTSD symptom severity was associated with lower marital satisfaction for both service members and spouses. The results, however, suggest that reported meaningfulness of service adds to the understanding of marital satisfaction, albeit in different ways for service members and spouses (Bergmann et al., 2014). This study supports previous work that has indicated that there is a correlation between meaningfulness of work, duty, or service, is associated with higher levels of marital satisfaction. It should be noted that there was a small effect size, and, given the large sample size, this could be significant. The study does, however, provide insight into variables that may affect relationship patterns with combat veterans and their spouses.

Understanding the nature of living with and supporting someone with PTSD is an area of study that is somewhat new. In one study (Mansfield, Schaper, Yanagida, & Rosen, 2014). that was qualitative in design, the authors wanted to understand the nature of the lives of caregivers of individuals who were diagnosed with PTSD. The researchers examined the write-in portion of the surveys that were used in other studies. There were 455 responses examined to understand how caring for their spouses affected their day to day living (Mansfield et al., 2014). The results of the study revealed six themes that seemed to be the focus of the respondents: mental health service encounters and requests for help, relationships, partner or family reactions to living with someone with PTSD, protective factors, responses to the study, and miscellaneous comments (Mansfield et al., 2014). Generally, the responses were in line with other research. They described how

living with someone diagnosed with PTSD meant dealing with someone who was unresponsive to conversation, tended to self-isolate and withdraw from the relationship and the family, and someone who did not like to share their experiences. The participants also described a deteriorating relationship that created sadness, loneliness, and a sense of failure within the spouse. The spouses also expressed frustration at not being involved in the treatment, or, not having input into the process (Mansfield et al., 2014). These descriptions indicated a level of frustration and sense of abandonment that was common in other research that show the helplessness felt by the caregivers. This study was a review of other qualitative studies and does not reveal new material. It does, however, provide insight by presenting the common themes that were discovered in the other studies.

Communications Within Military Relationships

The difficulty with communication for couples during deployment goes beyond the simple logistics of making a phone call. Current technology has surpassed these limitations and, today, military couples are able to communicate almost instantaneously. This has, however, created its own difficulties. Part of the problem comes into play with the idea that distraction can play havoc with the soldier in the field. The saying, “A distracted soldier is a dead soldier,” has been around for a long time. This may increase stress on both sides and possibly create pressure on the relationship (Carter et al., 2015). A recent study the researchers drew data on 161 participants of a clinical trial of marital education for army couples. The authors wanted to examine how communication frequency and negative spillover during deployment will be found in the context of lower marital satisfaction, higher conflictual communication, and a higher proportion of

conversation focused on problems (Carter et al., 2015). The authors used the Spill Over subscale of the Work Readiness/Effectiveness Scale to measure negative spill over, the Relationship Dynamics Scale was used to measure conflictual communication, The Kansas Marital Satisfaction scale was used to measure marital satisfaction. Results from the study showed that communication frequency was negatively correlated with negative spillover, such that more frequent communication was associated with less negative spillover. Negative spillover was inversely correlated with marital satisfaction and was positively correlated with conflictual communication and proportion of the conversation focused on problems (Carter et al., 2015). This study does show that communication can be a two-edged sword, depending on the communication. Other studies have supported the idea of more supportive intimate partner relationships as being the factor in dealing with stress, improved problem solving, and help in dealing with pathology. This study was limited by the size of the sample, and, the limited data from smaller measurements. As a self-report measure, there could be some bias as the individuals were part of a marital education study.

Communication and support from the spouse on both sides can be thought of as important in any relationship. Lambert, Hasbun, Engh, and Holzer (2015) looked at a group of fifty-six female spouses of combat veterans to examine the association between the veterans' PTSD and their female spouses' relationship quality reports. The study examined if these reports would be moderated by the spouses' subjective evaluation of their husbands' supportive behaviors and their perceptions of the couples' common dyadic coping strategies. The authors used the Posttraumatic Diagnostic Scale to measure PTSD, the Dyadic Coping Inventory was used to measure partner supportive

coping, and the Dyadic Adjustment Scale was used to measure intimate relationship adjustment. The results of the study showed that overall, partner support was positively associated with relationship quality. It also indicated that as partner support fell below the average, PTSD was negatively associated with relationship quality. The results were similar for common dyadic coping, as the coping increased, relationship quality increased and was negatively associated as common dyadic coping fell below the mean (Lambert et al., 2015). This study supported earlier research concerning relationship coping skills and relationship quality among couples where one member was diagnosed with PTSD. This study used a small homogenic sample of spouses of combat veterans, and, as such, may not be generalizable to other spouses. The self-report measure may also limit the integrity of the data since the individuals may have been biased in their reporting.

During deployments, it is considered critical that communication be frequent and meaningful, as this helps both the deployed member and the family at home stay in touch. There are some negative effects behind this as well. The near instant level of communications does present problems as it brings the member into a state of being there psychologically but not physically. For the member, as well, there can be problems when dealing with at home crisis, while also trying to cope within a high stress and high threat environment (Johnson et al., 2007). While the easy answer of withholding information on any family crisis back home sounds good on paper, the member can begin to sense these problems even when they are not addressed. Strong extended family support during these times can mitigate these problems for the at home family which, in turn, can relieve the deployed member of these crisis (Johnson et al., 2007). The problem is that, when one member is handling the crisis while relieving the other of the responsibility, the other

member will sense the reduced partnership within the relationship. This also creates the reduced role perceptions of the military member upon their return from deployment.

Military Spouses and Coping

The concept of how military personnel and their families understand and cope with stress should begin with an understanding of who this population is. It must be understood that military members come from a cross-section of the United States. That is, what you would normally find in the population in the country is generally represented within the military (Department of Veterans Affairs, 2014). This also means that the life stressors that are associated with living in the United States is also present in the military. The same financial concerns that the general population are experiencing can be found in the families and members of the military. The same pathology such as Depression, Anxiety, mood disorders, and personality disorders, can also be found in this population (Department of Defense Task Force on Mental Health, 2007). The added pressure of living in the military community, meeting the work demands of being a war fighter, or the family member of the war fighter, is also piled on top. The members, and their families, are expected to live up to these higher demands and expectations as well. The added caveat of the needs of the military come first is also a stressor. All of these stressors can add to the impact of being a military family.

Understanding how the family members of the military are affected by the day-to-day activities of their serving relatives may add to our current understandings of these stressors. In one qualitative research study, Jennings-Kelsall, Aloia, Solomon, Marshall, and Leifker, (2012) examined the lives of spouses and significant others of Marine Corp members. The investigators wanted to understand how socioemotional factors and

stressors impacted their relationships. The researchers set up a discussion board online that was focused on this population and examined the most recent 625 threads. An analysis of the messages revealed six themes or categories that were common: stuck in a state of flux, going through changes, relational uncertainty, loneliness, alienation, and Anxiety related to deployment. The analysis helps researcher understand that categories and labels are not sufficient to understand the demands of military life. It also provides insight into more than just the logistics of moving, deploying, reintegrating, and care giving. The emotional bonds, support, and understanding of the culture and life of the military are also factors that must be understood (Jennings-Kelsall et al., 2012). These insights provide greater impetus into the need to understand how the military family must be viewed as a unit, or whole system, and not just the veteran when addressing the impact of military deployment and combat.

It can be understood that military life can create stress and conflict for military members and their families, however, treatment options are still being explored. There remains an important need for scientifically supported interventions for this population, adapted to meet the unique challenges posed by current OIF and OEF deployments (Verdeli et al, 2011). While the VA is taking steps to include spouses into the treatment of veterans, programs designed specifically for the spouses and other family members are rare, as had been addressed earlier. The unfortunate aspect of a lack of trained personnel within the military medical establishments, lack of civilian providers who understand the needs of this population, and the lack of education for the population, has left these individuals behind (Verdeli et al., 2011). This is an area that remains a critical concern for the support of military and veteran family members.

One area of influence that may need more insight is how infidelity in the marriage affects relationship coping among military couples. While little effort has been put forth in examining the prevalence of infidelity in military couples as compared to the general population, anecdotal evidence has indicated that the rates may be higher. The authors of one article provided some theoretical background on the subject as a treatment approach to recovery from infidelity (Snyder et al., 2012). One reason for higher rates of infidelity in the military may be due to the young age of military couples. The benefits of being married while in the military outweigh the benefits of cohabitation. Supplemental allowances for housing and food, coupled with travel, medical, and other benefits motivate younger enlisted members to get married sooner (Snyder et al., 2012). Disclosure or discovery of infidelity triggers a broad range of adverse relationship consequences. Effective treatment requires an integrative approach that recognizes the traumatic impact of an affair. Focus needs to be on building relationship skills essential to initial containment of trauma and effective decision making. Further steps include promoting the partners' greater understanding of factors within and outside themselves that increased their vulnerability to an affair, influence their recovery, and addresses emotional, cognitive, and behavioral processes essential to forgiveness (Snyder et al., 2012). This article was a theoretical approach for treatment and does not provide empirical data. It does, however, provide some insight into the significance of infidelity on military couples.

The Effects on Families

It can be commonly understood that most families deal with separations in one way or another due to the occupations of the parents. Generally, one or another parent

ends up traveling for work as part of the requirements of the job, or, because of career opportunities and/or training. There are even common occurrences of moves, sometimes frequent, within occupations that have nothing to do with the military. In my experience the differences for military members is that, family moves may involve foreign countries, much rarer within the general population, and, most professional travel does not involve going into combat zones. While my own moves for permanent assignments were on average for military members, my deployment rates were higher than on average as I was tied to aircraft movements. From my own experiences, as I watched the effects on my family, it was not hard for me to see that my frequent deployments created significant stress.

I could usually see a pattern with my child as my deployment time grew closer. Common themes when my child was very young, was a period of avoidance followed by an intense dependence, followed by crying and bargaining. This usually started about one week prior to deployment. During the beginning stages I would notice a withdrawal of attention and affections as I would begin preparations such as packing. I knew she would sense the upcoming departure and she would respond much less to my overtures of affection or playtime. Approximately one day prior to my departure, she would suddenly become clingy, never letting me from her sight. The day of my departure was usually the hardest as she would have strong outbursts of anger, sadness, and bargaining for me to find a way to stay.

For my wife, I would usually notice higher stress levels in which she would become more irritable, harder to console, and more reactive to outside stressors. While there was usually a time of calm as we always made time to spend together prior to my

deployment, it was obvious she knew she would be the one to console our daughter after I was gone. Reintegration usually followed a reverse pattern, although the period of adjustment was much longer.

Family Systems in the Military

The influences that individuals and their dynamics have on the system can often be far reaching on other members of the system. Even over distances, these influences can have an effect that involves both reactions and long-term changes that influence behaviors. One theory that attempts to explain how this happens is the Developmental-Ecological framework (Gewirtz et al., 2010). This theory seeks to explain the cumulative and reciprocal influences of person and context on adjustment and development at multiple levels of influence. This framework, discussed further below, is particularly relevant for understanding the impact of traumatic events; for example, several authors have noted the profound ways in which trauma affects the individual's social/family context (Gewirtz et al., 2010). Trauma is especially prevalent in its influence over other family members and even others within this social context.

The understanding of how the effects of military trauma on family members, parenting, and relationships, affects the family system can be an important part of developing treatments. In a recent study, researchers looked at 468 Army National Guard fathers from a brigade combat team. Participants completed an in-theater survey one month before returning home from OIF deployment, and again one-year post-deployment. The primary focus of the study was to determine how these influences affected two key relating functions; parenting and partner (Gewirtz et al., 2010). The authors used the PCL-M to measure PTSD symptoms, The Alabama Parenting

Questionnaire to measure perceived parenting behaviors, the Social Adjustment Scale – Short Form was used to measure positive parent – child involvement, the Dyadic Adjustment Scale – 7 was used to measure couple adjustment, and the Alcohol Use Disorders Identification Test was used to measure problem alcohol use. The study demonstrated that increases in PTSD symptoms indicated a correlation of lower levels of couple adjustment after the return. There was also a correlation of lower levels of effective parenting after the return. Interestingly enough, PTSD was able to predict a negative impact on effective couple relationships, and, this in turn predicted poor parenting. There was no mediating factor between PTSD and parenting. The structural path modeling did, however, demonstrate the relationship to parenting path (Gewirtz et al., 2010). This study was able to provide insight into the family dynamics that result after a soldier's return from combat operations. Problems with this study include the fact that the sample was taken from one unit at one post, limiting generalizability to other combat veterans. Also, the low response rate and several low effect sizes leads to questions of external validity.

Several organizations have attempted to help military families navigate the deployment cycle as a way to bridge the gap between military and veteran medical and mental health care strategies. Strategic Outreach to Families of All Reservists (SOFAR), is a pro bono project with the potential to make psychology a household word for the families of 2,000,000 military personnel who are have been deployed in Iraq and Afghanistan (Darwin & Reich, 2006). The work is designed to provide support, treatment, and education to members of the family as well as to mitigate the secondary

trauma that has been observed within these families. The goal is to provide a positive impact on the families of these reservist, and the member, through the use of volunteer therapist, psychologists, and psychiatrists (Darwin & Reich, 2006). These non-governmental organizations are attempting to provide essential services for these families that are not being supported by governmental agencies.

While the idea of family support and readiness has been under more frequent research as of late, it was not a new phenomenon to be studied. Family readiness and its effect on the member has been a part of military culture for some time. One area of study is investigating how families are affected by a lack of information concerning deployments and their effects on the family (Eastman et al., 1990). The frequent deployments with little to no prior notification, can leave family members feeling as if they are not in control of their life. This may leave military families with the idea that they need to operate in two modes, one in which the military member bears responsibility while at home, and the second, in which the at home spouse bears the responsibility while the member is deployed (Eastman et al., 1990). This changing of the guard mentality provides little stability for children, or, even the stay at home spouse.

Learning how to make the transitions during deployment cycles is difficult, however, research into the effects of such transitions is important. In a study in which the investigators looked at Navy deployments and how military members are torn between to obligations, the Navy and the family. Eastman et al. (1990) conducted a study using self-report surveys of 785 Navy families to measure life stress and perceived life stress within family system characteristics. The researchers used Form R of the Family Environment Scale to measure family member's perception of their family climate. They used the Life

Events Scales was used to measure individual difference in experiences. The results indicated that when it comes to adaptability, the Navy families did have coping skills that were either at or above the general populations. However, when it came to life stress and feelings of control, most Navy families fell into levels that were closer to distressed families in the general population (Eastman et al., 1990). This research provides insight into the levels of stress that are experienced in families experiencing frequent deployments and adjustments. This was a larger scale study that provided significant insight into family dynamics during this period. The study was limited by the self-report nature of data collection and the sample being only from the Navy. Further research could include other military components as well as data collected prior to and after deployment.

Deployments and Support for the Military Family

The lack of military family support has not gone unnoticed by the Department of Defense and the VA. One policy that attempts to mitigate the effects of reintegration is a program provided through a United States Army publication. This is a directive that governs the formal reintegration process as part of the Deployment Cycle Support process. This reintegration policy is designed to facilitate the transition of personnel from deployment back to their families and communities at home (Sipos et al., 2014). In a study of 277 soldiers who participated in this and other front-loaded reintegration strategies, researchers examined behavioral health outcomes, risk behaviors, aggression, alcohol misuse, marital satisfaction, and attitudes toward reintegration. This data would be used to help senior leadership to make decisions to improve reintegration (Sipos et al.,

2014). The authors used the Perceived Organizational Support Scale to measure unit climate, the combat experiences scale was used to measure combat exposure, the PCL-5 was used to measure PTSD, an internally developed scale was used to measure both risk and aggressive behaviors, the Two-Item Co-Joint Screen for Alcohol was used to measure problem alcohol use, an abbreviated version of the Norton's Quality of Marriage Index was used to measure relationship satisfaction, and an internally developed scale was used to measure attitudes towards reintegration. The type of reintegration strategy used did not predict differences in PTSD symptoms, alcohol misuse, aggression, nor marital satisfaction. There was, however, slightly higher reports of risk behaviors in the unit using the standard reintegration approach even after controlling for demographic covariates and combat exposure (Sipos et al., 2014). In this study, while significant results did not indicate that front loading measures mitigate issues any better than normal reintegration, it is notable that the reintegration issues are being better understood. Several internally developed scales were used in this study, with limited validity and reliability information. The sample was from two different posts; however, this would be hard to generalize across the military. A larger study comprising samples from many different locations across the military may yield stronger results.

The effects of deployments, combat, or military member pathology, on the family tends to have far reaching impacts. With the modernization of the military and with the advent of women in combat, the push towards a more professional military service has created an evolution within the military. This evolution has also changed the constituency within the military ranks (Department of Veterans Affairs, 2016). No longer is the emphasis on single young men going into combat. As more career minded

individuals pursue the services as a career, more and more families are becoming part of the military community. With these changes comes the higher likelihood that the effects of war are not just on the young man returning from combat, but, a young soldier coming back to join the family (Department of Veterans Affairs, 2016). This means that a greater emphasis on the effects of the family must be understood.

My experience as an active-duty member allowed me to have closer access to services. This has not always been the case for reservist, and their family members, who may not live close to a military installation. The reservist is part time military and usually works fulltime in a civilian job in a mostly civilian community. In a qualitative study conducted by Faber et al. (2008) of thirty-four reservist families, the roles of reservist families and how the psychological impact affected them were examined. The reservist family may have very little indoctrination from the military as contrasted with active-duty military members, whose families often live on, or close to, military installations (Faber et al., 2008). In this study, the researchers examined the construct of Ambiguous Absence Ambiguous Presence. Ambiguous absence occurs with the family members perceive the member as being gone, but, psychologically the family feels the presence. This may result in the family members having some role confusion since the member is not there to perform the roles, but, they are unclear who is to perform the role of the absent member. Ambiguous Presence occurs when the member is physically there but psychologically absent because of numbing, avoidance, or other trauma related symptoms (Faber et al., 2008). The qualitative study provided significant insight into boundary issues, and, how families attempt to make adjustments during the deployment cycle. One

observation noted, however, is that it may have benefitted from a better cross-section of the military instead of taking samples from one military installation.

The study (Faber et al., 2008) looked at nineteen reservist members and their family who had a recent deployment. The researchers observed two phases of loss with the deployment. During deployment, family members had experienced ambiguous absence, which lasted throughout deployment. The major themes uncovered revealed boundary ambiguity around safety, redistribution of roles and responsibilities, and rejoining the family. The second phase of ambiguous loss occurred at reunion, during which both reservists and family members were looking forward to returning to the life they knew together before the deployment. Reservists described feeling disconnected psychologically, and many families experienced boundary ambiguity in the form of ambiguous presence (Faber et al., 2008). This study may help clinical interventions by providing insight into the adjustment patterns of families during the deployment cycle. Future studies would do well to also include external factors that influence adjustments the families make such as school and work.

The need to understand how combat and deployments affect family members may be found in understanding how attachments, adjustments, and cohesion affect family adjustments. In a recent study, the researchers used a sample of 1,512 Army soldiers were part of an investigation of the impacts of combat exposure and PTSD symptoms on family adjustment (Taft et al., 2008). The Laufer Combat Scale was used to measure combat exposure, The Mississippi Scale for Combat Related PTSD was used to measure PTSD symptoms, and the Family Adaptability and Cohesion Evaluation Scale was used to measure family adjustment. For male and female soldier, combat exposure was

significantly associated with PTSD symptoms, and, with family adjustment problems. Indirect effects of combat exposure were not significantly associated with poorer family adjustment. (Taft et al., 2008). This research supports the idea that psychopathological effects from combat does have a negative impact on family functioning. This study did not examine family functioning prior to deployment which means that changes in family function could not be adequately measured. Non-military stressors were not measured which could have influenced the level of family functioning as well.

As the military member, or the veteran, returns to the home, this theoretically happy time can also turn stressful for them and their families. The difficulties of reintegrating with the family can often lead to the member feeling unneeded, unnecessary, or even a stranger in their own home. Current prevention and intervention strategies aimed at buffering the negative impact of combat may help ease the transition from deployment to family reintegration (Balderrama-Durbin et al., 2015). For example, pre-deployment couple and family preparations related to common deployment challenges might help the family feel connected, united, and prepared for the deployment and post-deployment reintegration periods. One idea is that plans to stay connected during deployment may have a significant impact on easing family reintegration (Balderrama-Durbin et al., 2015).

In a research project investigating challenges specific to partnered military members of the Air Force, both intra- and interpersonal factors were considered to be influences on family reintegration challenges. Seventy-six members and their intimate partners were included in the study. The authors wanted to examine both intra- and interpersonal factors across the deployment cycle to understand reintegration challenges

(Balderrama-Durbin et al., 2015). The investigators used the Post-Deployment Reintegration scale to measure family reintegration, the Marital Satisfaction Inventory-Brief Form was used to measure intimate relationship distress, an internally developed scale was used to measure challenges in preparation for deployment, an internally developed scale was used to measure shared commitment, the combat disclosure scale was used to measure combat disclosure. The Multidimensional Scale of Social support was used to measure perceived partner support, the PCL-M was used to measure PTSD symptoms, and the Patient Health Questionnaire – 9 (PHQ – 9) was used to measure Depression. A twenty-two-item measure was adapted from the Peacekeeping experiences scale to measure combat experiences, and the Alcohol Use Disorder Identification Test was used to measure alcohol use. Results indicated that both pre- and post-deployment relationship distress were positively correlated to post-deployment reintegration problems. Greater preparation as a couple and a greater sense of commitment to the military by both were positively correlated to not having post-deployment reintegration problems. Concurrent partner support and willingness to disclose deployment- and combat-related experiences were also negatively related to post-deployment family-reintegration difficulties (Balderrama-Durbin et al., 2015). This is significant support for core family social support and preparation as a preventive measure for family reintegration. The study was limited by not having information from the intimate partner, which could have significantly added to the study. The study used a sample that was from only one service component which limits its generalizability to other military members.

Studies that look at social support and family integration may help provide the necessary insight into understanding the family dynamics, and, how this relates to military families. One study looked at the role of social support for emotional wellbeing of the spouse as a mitigation factor against the stress of deployment. In this study, a sample of 692 spouses of Canadian military members completed self-report surveys (Skomorovsky, 2014). The authors used the General Health Questionnaire to measure psychological health, a shortened version of the Center for Epidemiological Studies Depression Scale to measure Depression, the Social Provisions Scale was used to measure social support, and one item from the Family Provisions Scale was used to measure deployment stress. The study indicated that higher levels of deployment-related stress was significantly correlated to poorer emotional and physical health. Stress was also significantly correlated to Depression with a moderate correlation factor of over forty percent. Post-deployment, when the member recently returned, also was significantly correlated to poorer health and Depression. In all of the factors, social support, specifically from the family, significantly improved scores on health and Depression scales (Skomorovsky, 2014). This study supports the hypothesis that the role of social support can be shown as a mitigating effect against deployment stress prior to, during, and after deployment. This study is limited by the convenience sample that responded to the survey and may not reflect other family members. The study also used a sample that included only Air Force members and may not reflect other military families from other components.

Military members often work within high stress environments that can be demanding, competitive, and at times boring. The interplay between contrasting periods

of high stress and inactivity, can have a significant impact on the individual. The unfortunate side of this equation is that the stress and Anxiety is often transmitted through the spouse and onto other family members (Delahaij, Kamphuis, & van den Berg, 2016). In a recent study, the researchers examined how both family support and self-efficacy may have both a buffering effect and an aggravating effect on the stressor-strain relationship common to deployed military members and their families (Delahaij et al., 2016). The theory is that with consistent threat levels for the military deployed environment, there often comes a burn-out phase with reduced work concentration and reduced levels of work engagement. Utilizing resources such as self-efficacy and family support, it is thought, could be a buffering agent against the stressor-strain of these factors (Delahaij et al., 2016). This may mean that self-efficacy could have a significant impact on how well family support may mitigate stress.

Self-efficacy and family support within the deployment fact may hold the key to transitions during the deployment cycle. In a study involving 123 service members of the Netherlands Armed Forces, the team looked at self-efficacy levels and family support before and later during the deployment cycle (Delahaij et al., 2016). The authors used a scale developed specifically for the Netherland Air Force to measure self-efficacy and family support, the Deployment Stressors Questionnaire was used to measure levels of exposure to threats, an adapted version of the Utrecht Work Engagement Scale was used to measure work engagement, and the Maslach Burnout Inventory was used to measure burn-out. The results of the analysis demonstrated that there was as significant correlation between self-efficacy, family support, and threat exposure (Delahaij et al., 2016). This analysis demonstrated an interesting effect in which, when there was low

family support yet high self-efficacy, there would be high work engagement during high threat exposure, however, there would be low work engagement during low threat exposure. This study was based on a limited sample of the military and may not be generalizable to the rest of the military. Also, these members were in a low threat environment, and, as such, may not represent other members who had higher levels of threat.

While family readiness programs that are designed to help families make the necessary adjustments during deployments have been a catch phrase on military installations for some time. Finding research on how well the programs work has been difficult and may indicate that very little research has been conducted. One thought is that spouses who function most effectively during this time are those who use active coping, that is, they use positive problem-solving skills and take positive steps to actively resolve difficult situations. Other resiliency skills involve those who make meaning of the situation, those who receive community and social support, those who accept the military life style, are optimistic and self-reliant, and those who adopt flexible gender roles tend to demonstrate the resilience factors that provide appropriate coping styles (Johnson et al., 2007). Those who tend to become at risk during deployments are those whose coping styles are not as well adapted. They may demonstrate the following tendencies: rigid coping styles; a history of family dysfunction and being young families; those who experience a first military separation for the first time; families having recently moved to a new duty station; foreign born spouses; families with young children; those with lower pay grades; families without a unit affiliation; and National Guard and Reserve families (Johnson et al., 2007). It should be understood that, while active duty members of the

military will return to a military installation after deployment, National Guard and Reserve members may return to their communities. This may mean that they do not have the support systems in place to help them cope with their experiences during deployments. This may also mean that, without the comradery of fellow military members, they have fewer people to discuss their experiences with.

With recent research demonstrating the effects of deployments and trauma on family members, prevention programs have been proposed to mitigate some of these effects. One program is called HomeFront Strong (HFS) and it is designed to work with spouses as a group intervention that will improve positive psychological health, augment individual resiliency, and support family adjustments for military transitions, deployments, and military life (Kees & Rosenblum, 2015). A pilot study was designed to examine the efficacy of the program that looked at ten military spouses examining the following: What is the feasibility of delivering HFS with military spouses? Do HFS participants report perceived knowledge change in the core curriculum areas? Can HFS improve psychological adjustment? and Can HFS enhance characteristics of resilience (Kees & Rosenblum, 2015)? The results indicated that the program was feasible and described as positive by the military spouses who participated. The program was also associated with decreased levels of stress and Anxiety by the participants (Kees & Rosenblum, 2015). Further study will be needed to determine the generalizability of the program and its long-term efficacy. These and other programs may provide the preventive measures that are necessary to help military families in the future.

Deployments and Parenting

There has been significant research that has examined the role of military life as a risk factor for childhood development and performance. Often times, stereotypes of the military family revolve around an authoritative father, a depressed mother, and children who are either out of control or reclusive. Various research has since disputed this stereotype, and, one researcher has examined how it is other risk factors, not the military life itself, that has this impact on military children (Palmer, 2008). One pathway that may be an indirect influence on childhood development may be the frequent relocation that is often associated with the military. Other pathways include PTSD, which has been shown to have negative effects on the family, and, deployments, or more specifically, frequent deployments. Even when the military member returns home, after the initial honeymoon period wears off, the family may have more stress as roles are relearned, and, adjustments are being made (Palmer, 2008). These factors may influence or even replace the idea that military involvement in itself is the factor that influences childhood developmental challenges.

The challenges of parenting and family relationships can be made more difficult by the constant adjustments that deployments bring. One study looked at the family advocacy records of 2,187 children who had confirmed maltreatment records. The data was extracted from multiple data bases from bases within the Air Force (Thomsen et al., 2014). The children all had one parent who had been deployed to either OIF or OEF and had been abused either before or just after the return of the parent from deployment. While significant abuse was found both pre-deployment and post-deployment, the only significant difference was for emotional abuse post-deployment. It is also significant that

abuse of children is significantly higher within military families when measured for deployments as a whole (Thomsen et al., 2014). While this data can seem misleading in that it can be believed that children of military families are not abused more with deploying families, it should be understood that pre-deployment periods can be as stressful as post-deployment. This is significant in that it shows that the family as a whole can be significantly impacted when changes are anticipated, and, when they actually happen.

One important aspect of family systems and military families is on how parenting styles can be affected by deployments, trauma, and dysfunction in the family. Traditionally, most young couples with children live within the same community, or at least close to the communities, that their parents and extended family live in. This provides the opportunity for advice, assistance, and modeling of parenting behaviors that military couples do not enjoy (Cohen, Zerach, & Solomon, 2011). Military families are sometimes thousands of miles away, living in other countries, and relying on friends and other unit members as role models. Now add to this strain the added demands of the military, such as, deployments to unsafe war zones and the younger age of the couples, and family dysfunction can lead to poor parenting skills. Another risk factor that should be considered is how the early relationship patterns of the young parents, as described in attachment theory, influences the parenting patterns of the young couple. This in turn can influence how the parent may react as trauma from combat, is introduced into the family system (Cohen et al., 2011).

A recent study that used attachment theory studied parental function and parental satisfaction in a group of 477 veterans in which two hundred and sixty-seven had PTSD

(Cohen et al., 2011). The authors used the PTSD Inventory to measure PTSD, the Experiences in Close Relationships Scale was used to measure attachment styles, the Kansas Parental Satisfaction Scale was used to measure satisfaction in the parental role, and the Parental Functioning Scale was used to measure interpersonal and social functions. The results indicated a significant lowering of parental function among veterans with PTSD. The study also indicated a significant lowering of parental satisfaction among those with PTSD (Cohen et al., 2011). This study is in line with and supports previous research on the effect of trauma in the relationship and in the family system. This was a cross-sectional design and did not allow for an examination of changes in attachment for the participants. Also, a lack of pre-combat measurement of family functioning did not allow for the examination of changes. As further research is done, the pathways of how deployments influence parenting patterns will provide important information that can affect clinical work and prevention measures.

Depending on the child's age, longer periods during the separation can increase detachment of the child, causing a loss of attention and belonging during the reintegration period. In the transition period from detachment to reattachment, contradictory emotions and behaviors that shift from anger and bitterness to fretfulness and excessive clinginess may be observed. Children who have bonded well with the member prior to deployment, will more than likely reattach with the returning parent during a normal period, if the parent demonstrated a healthy attachment prior (Riggs & Riggs, 2011). Compounding these attachment issues will be pathology that is developed during the deployment period. Healthy attachments prior to deployment will assist in this transition. However, adaptive constructs developed as survival adaptations may complicate reintegration and this must

be addressed with not only the member, but the couple and the family as well (Riggs & Riggs, 2011). While as much as twenty- percent of families demonstrate some level of distress due to separations, others may experience even worse (Riggs & Riggs, 2011). This has been indicated not just in United States military families, but in others as well.

Understanding how families in the military are affected by combat and deployments is not just an interest of the United States, but, in other countries as well. In a study of 123 Dutch military spouses, investigators hypothesized that higher levels of work related conflicts and work-related stress were related to lower levels of relationship satisfaction (Andres, 2014). The authors used the Evaluation and Nurturing Relationship Issues, Communication, and Happiness Marital Satisfaction Scale to measure relationship satisfaction, a self-constructed scale was used to measure levels of spousal interaction during and after deployment separation, and seven items adapted from the Social Provisions Scale was used to measure social support available to partners. A Dutch version of the General Health Questionnaire was used to measure psychological distress, and the Work Family Conflict Scale was used to measure work family conflict. This study demonstrated that higher levels of work–family conflict, life stress, and psychological distress were associated with lower levels of relationship satisfaction, whereas higher levels of social support and spousal interaction were associated with higher levels of relationship satisfaction (Andres, 2014). This study provides significant insight into the understanding of how separation due to deployments adds to the family stress/conflict that creates family dysfunction. This study was limited by the small sample size that may not allow for generalizability across other military members. The self-

report scales that were internally developed have not be vigorously vetted to determine viability. More research is needed to support this line of investigation.

Depending on the theoretical approach of the research, understanding the effects of deployment of families, especially the pathways to disruption, may be difficult to explain. More recent research has focused on attachments within family systems to understand the dynamics that are related to roles, resilience, and coping strategies in managing stress and disruption (Riggs & Riggs, 2011). The research describes attachment as a biological strategy to help manage stress. One part of the stress management is a mechanism that is called the Internal Working Model (IWM), that uses a dynamic representation of self and other, which is formed in the early attachment relationships. These relationships, and the accompanying attachment, is carried forward as a mechanism for managing stress (Riggs & Riggs, 2011). Riggs and Riggs (2011) go on to say that,

Secure individuals have positive IWMs of both self and other that are associated with adaptive coping, high self-efficacy, and psychological wellbeing. Secure adults are more likely to have secure relationships with their spouses and generally provide sensitive and responsive parenting, which contributes to secure attachment in their children” (p. 676).

For people without these secure attachments, they may experience attachment Anxiety or avoidance.

For the military member and their family who receive deployment orders, these attachment systems are activated, and, stress can be heightened when this involves deployment into combat zones. As the deployment time nears, all family member experience increased stress and Anxiety. This can invoke emotions and behaviors that include anger, denial, sadness, and grief (Riggs & Riggs, 2011). Once the member has

departed, disorientation, numbness, sleep challenges, and feelings of abandonment can overwhelm many of the family members. Consistent with previous research, the proposed network model predicts that the relationship between parental deployment and the emotional well-being of children at all developmental levels, is at least partially mediated by the non-deploying parent's psychological adjustment, parenting practices and stress, and the degree of family disruption (Riggs & Riggs, 2011). Upon the return of the military member, the ability of the member, and the family, to successfully reintegrate is dependent upon the levels of change and adaptation during the deployment. Significant change is expected as the family system must adapt to the changes that were instigated during the deployment. Attachment styles, attention, and closeness have all changed during the deployment. Vietnam veterans and their families often reported resentment, loss of intimacy, and anger from both the member and the spouse upon reintegration (Riggs & Riggs, 2011). In these cases, the children have learned to rely more on the mother while the father was gone and this focus of attention was resented by the member.

The effects of deployments on family members can be an important area of study, especially as this relates to children in military families. In a meta-analysis of multiple studies, the investigators studied the effects of deployments on children, their reaction to deployment, and how parenting skills are affected by deployment. Children of military members who are deployed have often demonstrated higher levels of both behavioral problems and pathology (Creech, Hadley, & Borsari, 2014). The authors included forty-three studies that included child functioning in relationships. These studies spanned the years 2001 to 2013. There have even been correlations between parental

deployment and physical health concerns, such as more frequent emergency room intakes. Furthermore, girls with a currently deployed parent had significantly higher externalizing scores than girls with a recently returned parent. Anxiety and Depression symptoms in caregivers were also predictive of internalizing and externalizing symptoms, whereas, for the active-duty parents, Depression symptoms significantly predicted internalizing and externalizing symptoms but Anxiety only predicted internalizing symptoms (Creech et al., 2014). These findings demonstrate a significant finding concerning the effects on children of military families where deployment is a factor. This study was limited by literature that used retrospective reporting, cross-sectional study design, and variations in the deployment measurement period. Another limitation to the generalizability of this literature is an overreliance on sampling almost exclusively male service members and female spouses/partners.

How often, or even how long a parent is deployed may also be a factor for military children. A similar trend was found in an analysis of forty-two journal articles that focused on military families with children. The researchers wanted to understand the impact that deployments had on children's outcomes, mental health challenges, and treatment (Creech et al., 2014). The researchers discovered that across all age groups, deployment of a parent may be related to increased emotional and behavioral difficulties for children, including higher rates of health-care visits for psychological problems during deployment. Second, symptoms of PTSD and Depression may be related to increased symptomatology in children and problems with parenting during and well after reintegration. Third, although several treatments have been developed to address the needs of military families, most are untested or in the early stages of implementation and

evaluation (Creech et al., 2014). This study does add insight into specific challenges faced by families during deployment. While the study was limited by literature that used retrospective reporting, cross-sectional study design, and variations in the deployment measurement period, the contribution of the study is significant.

Family Functioning and Attachments

When one of the members of a family has some type of mental health pathology, family functioning can often times be at risk. The difficulty here is learning how to support these family members when the entire family is at a loss to explain the condition, to understand the condition, and/or to function around the individual. Family members who are care givers of someone with mental health pathology are often themselves experiencing Anxiety or Depression (Evans, Cowlshaw, Forbes, Parslow, & Lewis, 2010). In the study the researchers wanted to examine how the three primary PTSD clusters, hypervigilance, reliving, and avoidance, were affecting family functioning as reported by the veteran and their spouse. Data from 702 and their family members from Australia were investigated to determine levels of family functioning through questionnaires that were distributed during their PTSD clinical intakes (Evans et al., 2010). The authors used the PCL-M to measure PTSD, the McMaster Family Assessment Device to measure family functioning, the Hospital Anxiety and Depression Scale to measure Depression, and the Alcohol Use Disorders Identification Test to measure alcohol use problems. Results from the study indicated that with all three clusters of symptoms correlated with a rise in family distress symptoms. Reports from family members and the veterans themselves also indicated that as a result of symptoms, avoidance and withdrawing were common among the veterans with PTSD (Evans et al.,

2010). This study does provide some insight into how PTSD correlates with family dysfunction; however, it does not give specific empirical support to anyone of the clusters. This study was hampered by a higher dropout for members with higher levels of family dysfunction and PTSD. The family functioning scale also was noted for having some problems with higher numbers of children.

An understanding of how one family member affects others can be considered from different theories in an attempt to determine mediating factors. Attachment theory has proposed an approach that may describe this path to pathology. The theory of secondary traumatic stress contends that being in close contact with and emotionally connected to a traumatized person becomes a chronic stressor, and family members often experience symptoms of traumatization (Goff et al., 2006). In a qualitative study, the researchers interviewed nine couples in which at least one of them experienced a traumatic event. The researchers wanted to understand how intimate partners would be affected by their partner's exposure to traumatic events (Goff et al., 2006). Through interviews they discovered several themes that included, increased communication, decreased communication, increased cohesion/connection, decreased cohesion/connection, increased understanding, decreased understanding, sexual intimacy problems, symptoms of relationship distress, support from partner, and relationship resources (Goff et al., 2006). While the study did confirm several variables that work within the theory, such as communication, cohesion, understanding, and support, not all of the themes were reflected within the theory. Some limitations included the possibility of overlapping data due to couples being interviewed separately and the possibility that some of these themes may exist in couples without traumatic exposure.

Further research into family functioning, and, how the impact of trauma on the parent can introduce trauma to the family, is necessary to understanding the dynamics of family functioning. Determining how the effect of trauma on the parent will, in turn, be passed on to the child in some fashion is also important. This may come from the disruption of family functioning, or, as a result of changed or neglected care giving from the affecting parent (Zerach, 2015). While attachment theory focuses on how past relationships induce risk factors, Cognitive Behavioral Theory (CBT), looks at overlapping behavioral, cognition, and emotional mechanisms that affect PTSD and relationship adjustment. These factors in each individual also interact at the dyadic level and affect each participant and the relationship they experience (Zerach, 2015).

In a recent study, the examiners looked at ninety-eight children of ex-prisoners of war, along with ninety controls whose fathers were not POWs. The researchers wanted to determine if exposure to their father's PTSD symptoms would cause them to experience stress or trauma like symptoms (Zerach, 2015). The authors used the PTSD Inventory to measure PTSD symptoms, the Differentiation of Self Inventory – Revised to measure relationships between the children and their fathers, the Exposure to Stress Questionnaire to measure stress that originates from the father's behavior, and the Life Events Questionnaire to measure negative life events.

The results indicated that the experimental group had significantly higher levels of intrusion avoidance and stress. The group also had a significant variation for differentiation in explaining stress trauma symptoms. The main findings of this study indicated that ex-POWs children reported more stress/trauma symptoms and higher levels of emotional cutoff differentiation than controls' children. In addition, among ex-POW's

children, results revealed significant positive relations between general exposure and stress/trauma symptoms (Zerach, 2015). This study supports the idea that PTSD symptoms may transfer to members of the family, in this case the children. The participant's responses for differentiation of self may well be biased based on current emotional states. There was no data collected prior to the fathers being captured which means there can be no comparison between the two-time frames.

Trauma in the Relationship

One area of interest for the author, and this study, is the effect of trauma on the relationship. An examination of the current research on the effects of trauma on the relationship will provide insight into shared pathology, and, provide a springboard for understanding the same. One particular article investigated the impact and difference between what was called single trauma couples, in which only one partner experienced trauma, and dual trauma couples, in which both partners had experienced some type of trauma (Goff et al., 2014). Within the single trauma couples, it has been documented that they will experience dynamics such as, polarized emotional roles, extreme pursuer-distancer patterns, secrecy surrounding the trauma, individual trauma symptoms and in both partners, parentification of the non-traumatized partner, and impacts on other subsystems (Goff et al., 2014). There are also issues of control that became evident, such as, competition between partners. This can manifest as external boundary ambiguity, trauma-related symptoms, survivor guilt, preoccupied-dismissing patterns, and minimizing the effects of past trauma experiences on current behaviors (Goff et al., 2014). How this plays out within the dynamics of a relationship can provide insight into how couples cope.

I have witnessed the fact that military couples face many challenges in their relationship as they cope with deployments, long hours, and isolation. How this translates into mental health pathology has been the subject of research. One research study looked at 220 service members from twenty-seven states and across all military components. Researchers wanted to examine how Depression would affect the relationship of the couple through doubts about the relationship, relationship disruption, relationship uncertainties, and in relationship dissatisfaction (Knobloch & Theiss, 2011). The authors used the Centers for Epidemiological Studies Depression Scale to measure Depression, the Knobloch and Solomon's Scales were used to measure relational uncertainty, and a brief version of Knobloch and Solomon's Scales operationalized to measure interference from partners. The results indicated that depressive symptoms were negatively associated with relationship satisfaction and were positively associated with relationship uncertainty and interference from partners. The research also supported the hypothesis that relationship interference and uncertainty mediated the negative association between depressive symptoms and relationship satisfaction (Knobloch & Theiss, 2011). This study was a strong study that utilized a larger cross-section of military service members to help generalize the data to a greater share of the population. This provided significant insight into how pathology within the relationship provided a greater effect than was understood before. This study was limited by the cross-sectional design and the convenience sampling; however, it does have a broader sweep of the military.

One way of understanding how trauma affects the relationship dynamics is through qualitative research. In a qualitative study of single and dual trauma couples within the military, researchers investigated the effects of trauma on eleven couples

through interviews and observation (Goff et al., 2014). They based their work within the Couples Adaptation to Traumatic Stress theory. It is within this model that we understood how mechanisms within the primary trauma victim are set into motion. We can observe, through their own levels of functioning and symptoms, how secondary trauma can manifest (Goff et al., 2014). Interestingly enough, the couple's response may intensify the trauma effect on the other partner, both primary and secondary. This theory goes on to say that adaptation to traumatic stress in the couple dyad involves three primary components: individual level of functioning of both partners, redispersing factors and resources, and couple functioning (Goff et al., 2014). The models suggest that individual symptoms in primary and secondary partners affect couple relationship functioning.

The concept of the required adjustment for returning military and veteran members is not a new concept, however, it is a construct that requires not only new research, but, greater understanding. The spouse is not always well informed about the struggles of the returning member, nor, are they aware of all the impacts on the family itself. While various programs within the military speak of these things, and have for some time, it is still a concept that may be beyond the grasp of all but the most experienced military couples (Balderrama-Durbin et al., 2013). The abilities to make these adjustments are dependent upon the resiliency of the military member, the spouse, and even the bond the member has with other unit members.

Relationships and Disclosure

One area of research that is helping in this area of understanding is an investigation of the willingness of military members, and their spouses, in disclosing their

own experiences. The importance of disclosure, social support, and engagement of avoided stimuli, all appear to have some level of impact on how well the member adjusts to and accommodates their experiences. In a study of seventy-six United States Air Force Members the investigators wanted to examine to assess the impact of disclosure of deployment- and combat-related experiences in the relation between partner support and PTSD symptoms (Balderrama-Durbin et al., 2013). The authors used the PCL-M to measure PTSD, the Multidimensional Scale of Social Support to measure social support, the Combat Disclosure Scale to measure the combat member's willingness to disclose, Marital Satisfaction Inventory – Brief, to measure relationship distress, and the Exposure to Combat Scale to measure combat exposure. The results indicated that military members who experience good partner support and were willing to disclose of their combat experiences with their intimate partner, had a negative correlation to levels of PTSD. It was also discovered that PTSD and relationship distress had a positive correlation. It was further determined, as relationship distress increases, the level of disclosure of the combat experiences decreases, which is associated with increased PTSD symptoms and decreases perceived social support (Balderrama-Durbin et al. 2015). While the preceding research did demonstrate that higher levels of perceived social support does decrease levels of PTSD symptoms, specific mediators of social support were not revealed. The study was limited by the limited number of service members sampled, and, the limitation of only using one service component.

Social support can be an important factor, however, mediators of the effects of deployments still need to be understood. In one study, an examination of how deployment affected the relationship of Vietnam Veterans and their partners was

conducted. This study looked specifically at how the veteran communicated their experiences with their partners and how this may have moderated partner distress as associated with the level of PTSD symptoms in the member. This study looked at 465 veterans and their spouses and their communication of specific deployment details to examine the levels of distress with the spouse (Campbell & Renshaw, 2012). The authors used the Mississippi Scale for Combat Related Stress to measure PTSD, the Marital Problems Index to measure marital problems, The Psychological Stress index to measure psychological stress, and the Communication Composite to measure communication content. The results indicated that with open communication, relationship distress and partner distress decrease, but not necessarily with deployment experiences. In other words, good communications will help not only partner distress but also relationship distress. However, disclosure of deployment or combat specific details were not statistically significant. Further, it was shown that as PTSD symptoms increase in the member, communication about the deployment specific details was associated with increase partner distress (Campbell & Renshaw, 2012). This interesting phenomenon sheds some light on the effects of PTSD within the relationship, however, further research is needed. A limitation of this study was the time factor of measuring communication from such a long time before. This required a broad definition of the communication, limiting detailed examination.

The effects of PTSD on the relationship, as it is associated with combat deployments, is still being investigated as new insights are revealed. In still another study, the investigators looked at whether trauma disclosure moderated the association between trauma symptoms and relationship quality in a sample of fifty Army couples

(Monk & Nelson Goff, 2014). The authors used the Trauma Symptoms Checklist to measure trauma, qualitative interview questions to gather data on trauma disclosure, and the Dyadic Adjustment Scale was used to measure relationship quality. The results indicated that while trauma was negatively associated with partner relationship satisfaction, the disclosure of this trauma was not significantly associated for moderating this affect. The interesting aspect of this study was that family members often note that veterans do not commonly open up about their experiences. Isolation and withdrawing are often noted features of PTSD (Monk & Nelson Goff, 2014). This research does provide significant insight as it shows that while general disclosure is helpful, disclosing specific combat details are not. As further investigations warrant, this may prove to be significant within the treatment arena. With the limited number in the sample, and, the mixed design using qualitative and quantitative measures, the analysis may not be generalizable.

Disclosure of trauma, and, communication within the relationship, may be dependent upon the individuals within the relationship and their concept of positive emotions. In a study that involved eighty-one National Guard members and their spouses, the researchers investigated the role of positive emotions on integration adjustment after deployment (Hoyt & Renshaw, 2014). The authors used the Deployment Risk and Resilience Inventory to measure combat exposure, the PCL-M to measure PTSD symptoms, the Multidimensional Scale of Perceived Social Support to measure social support, and the Likelihood of Disclosure Scale to measure disclosure. Results indicated that emotional disclosure of positive emotions significantly reduced reintegration adjustment and had a positive impact on PTSD symptoms. However,

negative emotional disclosure did not have a significant impact on adjustment (Hoyt & Renshaw, 2014). This is an important insight as practitioners attempt to develop treatment and preventive measures aimed at helping military couples adjust after deployment. A limitation of this study is that the sample came from volunteers for a marital enrichment seminar which was mostly white male soldiers and their spouses, limiting generalizability. Another limitation was the high intercorrelations of the various components of the disclosure data, suggesting overlapping data.

Trauma and Interpersonal Relationships

This impact on relationships and families may also prove to be a barrier to levels of intimacy within the relationship, creating even more barriers. In a study with a sample of fifty Vietnam soldiers and their female intimate partners, the researchers examined how these factors would affect the partners (Riggs, 2014). The authors used the Dyadic Adjustment Scale to measure couple adjustment, the Fear of Intimacy Scale to measure a person's Anxiety about intimate relationships, The PCL-5 to measure PTSD symptoms, and the Traumatic Stress Survey to measure traumatic exposure. The results suggest that the relationship between trauma and relationship quality is more complex than described previously. In particular, it appears important to remain mindful of the trauma histories of both individuals within a couple (Riggs, 2014). This research seems to support the premise that traumatic events and symptoms has a distinct effect on intimate relationships. This study utilized a convenience sample that included partners in the relationship of at least a year. This may preclude generalizing to other populations.

More recent investigations have revealed that for combat veterans with PTSD, relationship and interpersonal difficulties are linked with poorer prognosis, lower

treatment engagement and elevated suicide risk (Renshaw & Campbell, 2011). In this study, 206 guard members were investigated using self-reports for relationship distress and their combat experiences. The hypothesis was that perceptions of potentially traumatic deployment experiences would moderate the association of overall PTSD symptoms with partners' relationship distress. It was theorized that moderation would be obtained primarily with regard to symptoms of numbing/withdrawal and possibly trauma specific avoidance, but not re-experiencing or hyperarousal (Renshaw & Campbell, 2011). The study was able to replicate previous research that indicated that partner's relationship distress was positively correlated with the combat veteran's PTSD. This was particularly true with the symptoms of avoidance and numbing/withdraw. One insight from this study was that the partner's perceptions of the deployment experiences were correlated with the combat member's PTSD symptoms. The study did not find that these symptoms were correlated with the member's symptoms of relationship distress, Depression, or Anxiety (Renshaw & Campbell, 2011). This could add significant insight into our understanding of how disclosure within the relationship affects the relationship itself is becoming an area of study that is getting more attention.

The impact of PTSD on the relationship may have various factors that come into play when it comes to couple's communication and disclosure. Such factors as emotional numbing, isolation, and anhedonia could also be important areas of consideration. While there are several theoretical constructs associated with the symptoms of PTSD, one in particular highlights the area of emotional numbing along with dysphoria, as having a significant impact on relationship distress in which one of the couples has PTSD (Erbes, Meis, Polusny, & Compton, 2011). In a longitudinal study of 522 National Guard

soldiers, one study investigated the association between the unique contributions of symptom clusters from the dysphoria model of PTSD to the prediction of relationship adjustment among OIF National Guard veterans (Erbes et al., 2011). The authors used the Abbreviated Dyadic Adjustment Scale to measure couple adjustment, two indices from the Navy Quality of Life Survey to measure relationship satisfaction, and the PCL-M to measure PTSD symptoms. The study replicated previous research indicating the relationship adjustment challenges for returning soldiers with PTSD. However, the study showed significant adjustment challenges associated with dysphoria and numbing at the six-month mark (Erbes et al., 2011). This is significant as it associates specific avenues of mediations in the form of dysphoria and numbing as vectors for relationship distress. Limitations in this study were the homogenous nature of the sample, with them all coming from one installation. There was also a limited number of women included in the study since this sample had few women assigned. The longitudinal design of the study does add strength to the results however.

The interplay of the relationship may be dependent upon how one individual affects the system, and, how the system responds to this influence. In a study looked at how actor affect and partner effect influenced the relationship within the couple, and by association the family system using the Dyadic Analysis approach. An actor affect is when the person's score on a predictor affects the outcome, whereas, if one person's score affects another person's outcome, that is the partner effect (Whisman, 2014). The study looked at 2,161 community dwelling couples who had experienced trauma. The authors used two internally developed instruments to measure trauma exposure and marital quality. The results of the study significantly demonstrated that there were no

differences among genders when it comes to the effects of trauma on the relationship. It is significant that poorer marital quality was reported by people with a history of serious physical attack or assault, physical abuse as a child, life threatening illness, and any trauma (Whisman, 2014). Specifically, compared with people who did not report a history of the trauma, people with a history of serious physical attack or assault and physical abuse as a child reported less frequent positive exchanges and more frequent negative exchange. The more frequent negative exchanges were also reported by people with a life-threatening illness or accident and with any history of trauma (Whisman, 2014). The significance of this study is in how previous trauma, whether from male or female individuals, has long term effects on partnering in a relationship. This study was limited by examining a sample from specific events and may not be generalizable to other traumatic events or exposure.

There appears to be a growing body of literature that supports the impact of trauma on intimate relationships, and, how this trauma can be shared within the relationship. In one meta-analytic review, certain moderators and patterns were seen across much of the literature. Emotional numbing seems to interfere with the intimacy of the relationship, whereas, actions such as agitation and anger portrayal tend to interfere with feelings of safety in the relationship (Lambert et al., 2012). In a study of eighteen peer-reviewed articles and four dissertations, three moderators were investigated based on previous research and theories of trauma; anger was more associated with military couples, gender differences existed due to the way symptoms are expressed, and the amount of time since the trauma also moderates intimate partner distress (Lambert et al., 2012). All the studies were focused on partner relationships that involved PTSD in one

member of the couple. The results indicated that PTSD was associated with detrimental outcomes for partners of PTSD affected individuals, and, that this was truer for military couples. The effect size was small to moderate; however, it was higher for military couples (Lambert et al., 2012). This study was able to demonstrate that military status was a moderator of the association between PTSD and partners' relationship quality as well as the association between PTSD and partners' psychological distress.

Post-traumatic Stress Disorder and the effects of those symptoms have become an ongoing area of study as more researcher examine the roles and influences of the disorder. In a meta-analysis examining PTSD with combat veterans and intimate partner relationship discord, several moderators were examined. These moderators included those focusing on the nature of the sample; civilian vs. military, female vs. male, clinical vs. community, United States vs. other country, the measurement of PTSD. The study also examined the disorder itself; symptom severity vs. diagnosis, and intimate relationship problems and the type of study; self-report vs. collateral report, and other measures of aggression (Taft, Watkins, Stafford, Street, & Monson, 2011). The final analysis included thirty-one studies with results that indicated that PTSD was associated with all three relationship problem variables that included relationship discord, intimate relationship physical aggression, and intimate relationship psychological aggression. For the moderating variables, only twenty-three percent of the variance among the intimate relationship discord and PTSD correlations was accounted for by artifacts, suggesting that there may be moderating variables that are influencing effect (Taft et al., 2011). This is significant in the understanding that PTSD does influence several areas of the

relationship. This helps researchers as they try and narrow the scope of research into specific areas and vectors for relationship distress that is mediated through PTSD.

The focus on individual symptoms and manifestations of PTSD and their effects on relationships has revealed significant details about their effects. One study examined the link between avoidance/numbing and hyper arousal symptoms of PTSD with relationship distress and family adjustment problems demonstrated correlation. The study focused on a recent history of deployment and PTSD as it relates to several aspects of marital function such as marital satisfaction, negative communication, positive bonding, parenting alliance, confidence, dedication, and satisfaction with sacrifice (Allen, Rhoades, Stanley, & Markman, 2010). In a study of 434 active-duty soldiers and their wives, the study compared those who had recent deployments and those that did not. The authors used the Kansas Marital Satisfaction Scale to measure marital satisfaction, five items from the Confidence scale to measure individual confidence, and the Positive Bonding Scale, as adapted from the Couples Activity Scale, was used to measure positive bonding. The authors also used the Parenting Alliance Inventory to measure parenting alliance, the Dedication Scale from the Multidimensional Commitment Inventory to measure dedication, the Satisfaction with Sacrifice Scale from the Multidimensional Commitment Inventory to measure satisfaction with sacrifice, and the Communication Danger Signs Scale to measure negative communication. For all couples, there were no differences between those who had recent deployments and those who did not. All measures of the different aspects had no significant variation. For couples in which the soldier had PTSD, there were significant negative correlations with PTSD symptoms and all aspects of measured marriage satisfaction (Allen et al., 2010). The interesting aspect

of this study was that most couples seemed to find ways of coping with deployments and military life, however, PTSD was the significant variable when it comes to effects on marital satisfaction. This study used a convenience sample that consisted of couples in a marriage improvement study and may have been biased to improve their marriage which may not represent other military couples. The study also did not have female soldiers as part of the research which may limit generalizability.

As the military has opened up more dangerous jobs to female military members, there may be differences with how gender could affect the symptomology and relationship effect of PTSD. It has been theorized that women may seek more social support for periods of distress and that men often cope with more negative behaviors (Nelson, Wangsgaard, Yorgason, Kessler, & Carter-Vassol, 2002). One area in which current literature does not adequately exist is related to single-trauma couples and dual-trauma couples. In comparison, dual trauma couples are described as couples in which both partners have experienced a trauma (Nelson et al., 2002). Understanding how the impact of one or both individuals experiencing trauma is a new area of study. Previously this focus was mostly on the husband, or man, who was in the military.

Now that the military is incorporating more women into combat, or combat zones, women are more likely to experience combat trauma. How this affects couples is the focus of newer studies. In one study of sixty-four married or co-habituating couples, the investigators measured intimacy responses in which either the male or the female partner had PTSD (Hanley, Leifker, Blandon, & Marshall, 2013). Consistent with other research, there were gender differences when it comes to seeking social support and intimacy support between male and female partners. Female partners were more likely to express

emotional support whereas male partners were more likely to withdraw (Hanley et al., 2013). This demonstrates how social support may facilitate the adjustments needed when pathology such as PTSD is part of the relationship system.

The Effects of Trauma and Alcohol

Another factor that may affect the way couples interact, especially intimately, is the introduction of substance abuse such as alcohol. There have been little investigations of the impact of alcohol misuse within the relationship of military couples. When one or both individuals abuse alcohol, it can be expected to have a significant detrimental effect (Blow et al., 2013). In a study of 1,143 military members and 674 spouses, with 661 of them being linked couples, the others were not linked together, the investigators examined the relationship between alcohol misuse among recently returned soldiers and their spouses and family outcomes. Specifically, the study looked at three facets that may affect relationships. The rates of problem drinking in service members and their spouses shortly after return from deployment, the effects of both service member and spouse hazardous alcohol use on relationship satisfaction, and parenting stress and family chaos within the relationship to examine congruent and discrepant partner drinking and how different drinking configurations among couples are associated with relationship satisfaction, parenting stress, and family chaos (Blow et al., 2013). The authors used the Alcohol Use Disorders Identification Test to measure alcohol use, the Revised Dyadic Adjustment Scale to measure relationship satisfaction, and the Parental Stress scale to measure parenting stress. The authors also used the Confusion, Hubbub, and Order Scale to measure household routines, the Beck Depression Inventory scale and the PHQ – 9 to measure Depression, and the PCL-M to measure PTSD symptoms. Results indicated that

the National Guard soldier had a higher rate of risk drinking compared to both the general population and active-duty military members. It also indicated a higher rate among the spouses of National Guard military members. Interestingly, alcohol misuse was not significantly correlated to negative family outcomes (Blow et al., 2013). This may be due to the recent return and attributed to the “honey moon” period. The study also demonstrated that PTSD and other pathology such as Depression and Anxiety were correlated to negative family outcomes. When both couples were drinking, however, service members were more likely to be distressed with parenting roles and to consider their homes to be more chaotic. This discrepant drinking pattern was also associated with relationship distress (Blow et al., 2013). This was an interesting outcome that again indicates that pathology such as PTSD, Depression, and Anxiety, may have a greater impact on service member relationships than may have been previously thought. This study is limited by the sample only coming from one geographic location and may not represent military members across the country. The study also only took data from soldiers that had recently returned from deployment and may not represent family conditions that may improve or worsen over time.

Trauma and Intimate Partner Violence

There has been considerable attention recently concerning Intimate Partner Violence (IPV) and military couples. One aspect of concern is how does trauma, PTSD, and other pathology with the returning military member, influence IPV. While IPV within the general population is at an unfortunate level, this does seem to concentrate around populations that are among younger adults, individuals with a history of childhood physical abuse members of ethnic minority groups, and those with lower

income (Stappenbeck, Hellmuth, Simpson, & Jakupcak, 2014). For military members, and veterans, early research specific to this population suggested that combat exposure was predictive of subsequent aggression even after accounting for posttraumatic stress disorder. Stappenbeck et al. (2014) investigated a sample of 337, mostly male and mostly Army Iraqi and Afghanistan soldiers, that had reported to veteran's mental health clinic and were seeking support for PTSD to see whether greater PTSD symptoms would be associated with higher levels of aggression, both physical and psychological. They also wanted to see how the use of alcohol would mediate the effects. They looked to see if those reporting a problem with alcohol would be associated with higher levels of aggression and if alcohol would moderate higher levels of PTSD symptoms and higher levels of aggression. The researchers used the Combat Exposure Scale (CES) to measure combat exposure, the PHQ – 9 to measure alcohol use, PCL-M was used to measure PTSD symptoms, and four items from the National Vietnam Adjustment Study to measure aggression. Results indicated that, of the eighteen-percent that endorsed aggression, they were also more likely to report having problems with alcohol (Stappenbeck et al., 2014). While alcohol is a primary mediate for aggression among PTSD diagnosis, there does remain the question of how PTSD influences this outcome. This study was limited to a sample of veterans that were seeking help at one treatment facility and may not be generalizable to the population. Also, there were data that was collected using selected questions from instruments that may not represent the validity or reliability of the entire instrument.

With IPV becoming a frequent subject of media attention, some researchers wanted to investigate this further. A research project looked at abuse rates among military

personnel. The differences were that instead of relying on self-reports, this research team looked at official records within the Air Force (Rabenhorst et al., 2012). The purpose was to look at the number of abuse reports, both physical and emotional, before and after deployments in an effort to determine if deployments for OEF and OIF, would increase abuse rates. The sample included 4,874 couples from the Air Force that had at least one abuse report and at least one deployment (Rabenhorst et al., 2012). Results indicated that in most cases, where alcohol was a factor, spouse abuse was as much as twenty-four percent higher post-deployment as compared to pre-deployment (Rabenhorst et al., 2012). Again, alcohol does seem to be a factor among spousal abuse. The common denominator in these investigations was PTSD and alcohol, which has been seen in previous research.

Understanding how high levels of deployments, constant separation, and IPV is affecting relationship satisfaction and pathology can provide clinicians with treatment options. From my experience, for some military couples, it can become a constant source of problems when one of them is regularly deployed, leaving the remaining spouse to manage the household and family alone. Rates of IPV among veterans and active-duty service members range from thirteen-point five percent to fifty-eight percent and are higher in samples with high rates of psychological distress (Kelley, Stambaugh, Milletich, Veprinsky, & Snell, 2015). In general, studies report higher IPV in military couples than in civilian couples. For instance, representative studies of veterans and active-duty servicemen show rates of physical IPV that are up to three times higher than that found in civilians. Other research has indicated that when adjusting for age, ethnicity, and severity of IPV, the rates were only two to three percent higher (Kelley et

al., 2015). In the study, the authors looked at the number of deployments of Navy personnel, relationship satisfaction, and the rates of perpetration of physical partner violence. The sample included 295 personnel who were asked to participate in a survey two months prior to deployment. Results of the study indicated that, as expected, there were higher rates of IPV with higher rates of deployment. It should also be noted that with higher levels of relationship satisfaction, there were lower levels of IPV (Kelley et al., 2015). This being a correlational study, it cannot be determined if greater levels of relationship satisfaction were due to lower levels of IPV, or, if lower levels of IPV created higher levels of relationship satisfaction.

The impact of PTSD may also be a factor in the rates of IPV among military members. In another study, researchers sought to distinguish between partner violence in couples where one individual was diagnosed with PTSD and those who were not diagnosed. They were also attempting to determine if fixed factors such as family of origin and war zone factors could provide clues to this phenomenon. Variable factors included psychiatric diagnosis and family problems (Taft et al., 2011). With a sample of 109 soldiers who had combat experience in Vietnam, data was collected using interviews and self-report forms. The results indicated that PTSD-positive men who had reported IPV were elevated on several variables that have been identified as risk factors for partner violence among civilian s (Taft et al., 2011). Other than childhood abuse in the family of origin, PTSD-positive men who also endorsed partner violence evidenced the highest levels of every risk factor. In contrasts, comparing the two PTSD groups, the IPV group reported significantly higher rates of major depressive episode and drug abuse/dependence, poorer marital adjustment, and higher levels of atrocities exposure

than the Non - Violent group (Taft et al., 2011). These results suggest that the trauma-related experiences, significant comorbid psychopathology, and relationship problems typically associated with PTSD serve as risk factors for partner violence perpetration in this population.

One area of interest is how the perpetration of violence within the dyad is associated with PTSD and how this may be reflected by both members. Specifically, there has been evidence of an increase in aggression and IPV that is perpetrated by the spouse and not just the military member, or veteran (LaMotte, Taft, Weatherill, Scott, & Eckhardt, 2014). There are also suggestions of abuse on both sides of the dyad. In a recent study, researchers examined how this may be occurring within OEF and OIF military members and veterans. The aim of the research was to compare the overall levels of physical and psychological Intimate Partner Aggression perpetrated by OIF/OEF combat veterans and their partners, report rates of inter-partner concordance on veteran and partner-perpetrated intimate partner aggression and examine relationship satisfaction and PTSD symptoms as correlates of inter-partner concordance (LaMotte et al., 2014). The investigation examined data on sixty-five male combat veterans that were part of a larger study on social information processing deficits. The investigators used the Revised Conflict Tactics Scale to measure intimate partner aggression, the Quality of Marriage Index was used to measure relationship quality, and the PCL-5 was used to measure PTSD symptoms. The results of the study concluded that twenty-percent of veterans and thirty-percent of their female spouses had perpetrated physical aggression in the previous six months. The report went on to say that ninety-percent of veterans and eighty-eight percent of spouses had perpetrated psychological aggression in the previous

six months (LaMotte et al., 2014). This information is helping to shed new light on a problem that has not been investigated as much in the more recent conflicts. It is important to understand that intimate partner aggression is usually measured in perpetration programs and may not represent the population. This sample also came from male only representatives and may not reflect similar outcomes from female populations.

While some studies are focused on active-duty soldiers, it may be just as important to understand how this phenomenon is manifested within the ranks of reserve component members. In a study by Schmaling, Blume, and Russell (2011), higher rates of violence were examined in reserve members and their partners, and their findings suggest own that rates of violence were also associated with higher levels of relationship dissolution. The study intended to conduct a longitudinal examination of demographic and military characteristics and psychosocial variables as predictors of IPV and relationship dissolution among mostly reservist military personnel.

In a sample of 546 mostly reserve soldiers, questionnaires were distributed to collect data for the study. Consistent with other studies, the rate of IPV was higher among the military reservists. The study also demonstrated that relationship dissolution was higher in this cohort than in the general population. These results may be due to the inclusion of non-married members in committed relationships as opposed to only married members in previous studies (Schmaling et al., 2011). Intimate partner violence and relationship dissolution appear to be at a higher prevalence for military members. This study is in line with other research on the subject of IPV, however, the correlations between IPV and PTSD are still not shown.

Understanding how IPV affects the relationship and the families of military members is a concern that is focused on creating the appropriate approach for treatment. The factors that may or may not be involved is important within a clinical perspective, but, it is also important in any attempts at prevention. One approach is to understand individual factors such as Experiential Avoidance (EA; Reddy, Meis, Erbes, Polusny, & Compton, 2011). Experiential Avoidance is an attempt by the individual to avoid painful emotions, feelings, or reactions that may or may not be related to a stimulus. Experiential Avoidance is often used as a coping skill that allows individuals, such as those with PTSD, to avoid painful memories or emotions (Reddy et al., 2011). In a study examining twenty-nine National Guard soldiers and their partners, the researchers wanted to examine the role of EA in relationship adjustment, psychological aggression, and physical aggression among male soldiers recently returned from Iraq and their female partners. The authors used the Acceptance and Action Questionnaire to measure EA. Results indicated that EA was correlated with lower relationship adjustment for men, but not significantly for women. For women, the higher the EA within them indicated that the men had a lower relationship adjustment (Reddy et al., 2011). Experiential Avoidance was not correlated with higher levels of psychological aggression. Men with higher levels of EA were correlated with higher levels of physical aggression, but not for women (Reddy et al. 2011). While EA does seem to impact the relationship, the significance does not seem to reach the same levels as other factors. The small sample size may have affected the significance of parts of the study. Also, for the women, there was a small effect size which may also affect the significance of the effect.

Treatment Within the Dyad

It may also be important to understand how treatment affects relationship factors when PTSD is an influence. In one study, the researchers looked at how PTSD and relationship adjustment affect predicted individual treatment utilization. In a longitudinal study the researchers examined data on 522 National Guard soldiers as part of a larger longitudinal study (Meis, Barry, Kehle, Erbes, & Polusny, 2010). The researchers used the Abbreviated Dyadic Adjustment scale and the Navy Quality of Life Scale to measure relationship quality, the PCL-5 was used to measure PTSD symptoms, and an internally adapted scale was used to measure mental health service utilization. The study was able to confirm that higher rates of PTSD symptoms and lower rates of relationship adjustment were correlated with higher utilization of treatment services. This shows that as PTSD symptoms increase, the individual is likely to seek services. It also demonstrates that increased partner support also demonstrates an increased likelihood of seeking services (Meis et al., 2010). These and other studies demonstrate that the effects of PTSD on partner relationships is both significant and long lasting. This study was limited to mostly white male service members and may not be generalizable to other members of the military. The study did not address the reasons for non-utilization of mental health services which could be a result of services not being available instead of a lack of interest.

The impact that deployments and the accompanying pathology that may be present within the relationship of military couples is starting to get some attention. The VA, in an effort to treat members, is beginning to study the effects of co-joint therapy (Sautter, Armelie, Glynn, & Wielt, 2011). One of the symptom clusters that is being

targeted for treating PTSD in couple's therapy is numbing and avoidance. One such model for doing this is the Structure Approach Therapy Model (SAT), that uses a stress inoculation training framework (Sautter et al., 2011). Results so far have shown that in one of the VA programs that have used it, clinicians and couples have supported it. Structure Approach Therapy Model was designed to help meet the needs of military couples who are experiencing PTSD. When this article was written, SAT was being evaluated in a randomized clinical trial funded by the Department of Veterans Affairs (Sautter et al., 2011). These and other programs need to be evaluated to ensure that, as couples are coming out of the military, that there will be programs available to help them make the transition. Further work is also needed to ensure that these and other co-joint programs can demonstrate effectiveness.

As the development of SAT has progressed, the researchers created a pilot program to measure the effectiveness of the program so far. In a pilot study for SAT, the researches included seven OIF male veterans who had been diagnosed with PTSD from combat, along with their spouses (Sautter, Glynn, Arseneau, Cretu, & Yufik, 2014). The primary hypothesis of the study was that SAT would be associated with reductions in PTSD in the veteran and increases in dyadic adjustment in veterans and their spouses. The secondary hypothesis was that SAT would be associated with reductions in spousal Anxiety and Depression (Sautter et al., 2014). Results indicated that the hypothesis that there would be a significant reduction in PTSD symptoms was supported as significant reductions were shown. The second hypothesis, that the couples would show an increase in relationship satisfaction and a decrease in relationship distress, had smaller success but was able to demonstrate that a majority of the couples had benefits. The final hypothesis,

that partners would show a decrease in Anxiety levels, was also supported. (Sautter et al., 2014). While not all the results were consistent, it did demonstrate that this approach can be useful in working with couples co-jointly in reducing PTSD symptoms and to improve the relationship.

The challenge associated with the need for involving both members of the couple in the therapy for PTSD is intriguing, however, research is needed to support the idea. Previously, the VA was focused primarily on the veteran as their policies prohibited working with spouses or family members. As this mode of treatment is being investigated, the VA has chosen to open up more sites to the spouses and intimate partners (Shnaider et al, 2015). The aim here is to improve the treatment of the veteran as research is demonstrating that the relationship has an impact on treatment efficacy, and, the disorder, has an impact on the relationship. In a recent investigation, the researchers attempted to determine if relationship distress prior to treatment would predict early treatment termination, PTSD symptom outcomes, and relationship improvements (Shnaider et al, 2015).

In a study that involved thirty-seven veterans and their spouses, the investigators used self-report measures prior to treatment and after treatment concluded. Results indicated that pre-treatment relationship distress did not predict treatment dropout. The model did predict pre-treatment relationship satisfaction as an indicator for PTSD outcomes. This research was successful in demonstrating that pre-treatment relationship distress or satisfaction does not predict early drop out, nor does it predict treatment outcomes (Shnaider et al., 2015). This is significant considering that, according to this research, Cognitive–Behavioral Co-Joint Therapy (CBCT), can be successful with

couples across relationship spectrums. By demonstrating that relationship satisfaction does not affect the outcomes of treatment, we can be confident in utilizing this treatment for couples even if their relationship is in distress due to PTSD.

Even in the early stages, co-joint therapy may prove to be essential to working with PTSD clients who are in significant relationships. In other research on co-joint therapy, a pilot study examined the efficacy of CBCT for PTSD and in conjunction with their intimate partner. Researchers followed six OEF/OIF veterans and their spouses as they completed the fifteen-week manualized treatment (Schumm, Fredman, Monson, & Chard, 2013). Results showed that, although all of the veterans met the criteria for PTSD pretreatment, five of the six did not meet criteria for the disorder post-treatment. The sixth individual did not report back to the study for post-treatment assessment. Of those couples who rated their relationship in the distressed range, none of them rated their relationship in the distress range post-treatment (Schumm et al., 2013). This is another indication of the efficacy of co-joint therapy for couples experiencing PTSD. The effects of PTSD on the relationship tends to lead to the conclusion that, since it is part of the relationship, treating it within the relationship appears to be an effective approach.

Working with couples who are experiencing IPV can be challenging in most therapeutic settings. Understanding how the pathology behind PTSD, the culture of the military, and the lack of social support can also aggravate these their symptoms, may be useful in understanding treatment needs, and help steer future research. A recent study sought to understand how the coexisting challenges of pathology and violence would affect therapy in veterans and their partners. The study involved 187 veterans and their partners who sought treatment at VA clinics (Rowe, Doss, Hsueh, Libet, & Mitchell,

2011). The results concerning symptoms of psychopathology confirmed expectations that couples with coexisting Depression or Anxiety would be likely to suffer from greater relationship distress. This was consistent with evidence that symptoms of Depression may have more far-reaching effects on relationship satisfaction than symptoms of Anxiety. The results also indicated that the severity of pathology prior to treatment affects treatment outcomes (Rowe et al., 2011). Other research may be needed to hone in on an approach that may show greater efficacy. This may also indicate that PTSD and IPV as mitigating factors can prove to be a challenging treatment problem.

One area of study that has not shown a great deal of investigation is the incidence of violence perpetrated by female soldiers upon civilian male spouses. While recent studies in the general population has shown comparable levels of aggression with female perpetrators, the military population has not been a part of similar research. This was examined in a survey study of 1,185 female soldiers and their male civilian husbands. The purpose was to examine the difference in violence patterns towards the husband depending on whether he was employed or not (Newby et al., 2003). This study was able to show that, for female soldiers with unemployed spouses, the soldier endorsed higher levels of violence and aggression across all categories. While there were still levels of violence and aggression on the part of female soldiers whose husbands was employed, the higher levels for the unemployed husband was still significant (Newby et al., 2003). How this research correlates with the general population research is not yet understood. Since financial status is a risk factor, and, the employment status of the husband could play a part in this, more research is needed to instill greater understanding.

Secondary Trauma

Primary to this study is the understanding of how military spouses, or veteran's spouses, respond to the military member's experiences and pathology during their time in combat. It can be seen that the effect on the spouse is significant, we need to learn more about how the military member is a conduit to secondary pathology. One aspect that may be able to provide some insight is how the family, or the couple, learn to problem solve together. A look at research that underscores the importance of role, identity, and social support as factors that promote the ability to overcome adversity may provide significant insight.

Understanding secondary trauma may help us to understand how other pathology may have similar manifestations. Secondary trauma itself may be a controversial construct however, a look at current research should prove to be enlightening. One researcher attempted to understand whether secondary trauma is a phenomenon on its own, or, the result of previous trauma within the secondary person (Renshaw et al., 2011). The researchers attempted to examine if the distress that was indicated in the spouse was a function of PTSD or traumatic stress; or if this was an indication of general psychological stress. The research was conducted on a sample of 190 wives of military members who had a diagnosis of PTSD (Renshaw et al., 2011). The authors used the PCL-5 to measure PTSD symptoms and the Mood and Anxiety Symptoms scale to measure psychological distress. An examination of the self-reports showed that between twenty-one-point six percent and forty-one-point six percent of spouses had responses on the PCL-5 that were suggestive of a diagnosis of PTSD, depending on how the checklist was reviewed (Renshaw et al., 2011). Of the 170 wives who reported at least some

symptoms on the PCL-5, 106 indicated that their responses on this measure were completely unrelated to their husbands' military experience, forty-two indicated that their responses on this measure were due to their husbands' military experience as well as experiences in their own lives, and twenty-two reported that their symptoms were due solely to their husbands' military experiences (Renshaw et al., 2011). It can be seen that, while there is distress from the wives, there may be other mitigating factors that influence how these symptoms are being reported. This study in no way indicates that secondary stress is not an issue, although there may be a larger section of the population that is experiencing these symptoms due to other vectors.

A look at the dynamics within the relationship can provide useful data on how pathology may be shared. One article looked at how the evidence in support of secondary trauma and the transmission of such, may be rooted to a certain degree in reciprocal causality that might exist among the variables that underlie the relationships observed. The researchers examined the roll of PTSD as a stressor among peacekeepers and their spouses (Fals-Stewart & Kelley, 2005). The results indicated that such stress on their relationships led to isolation from other possible support networks such as family members and friends. In turn, the peacekeepers and partners may not be able to draw sufficiently on the strength of their relationship or from others in their social network to address the PTSD or secondary trauma, resulting in worsening of the partners' respective stress symptoms (Fals-Stewart & Kelley, 2005). This type of exploration may help future researcher understand the nature of these relationships and may help direct other studies. It also demonstrates that vector transmission of trauma like symptoms to spouses may

either directly or indirectly originate from the military member, or veteran. This does not rule out, however, primary trauma that was previously experienced by the spouse.

Investigations into secondary trauma may help us to understand how other pathology could follow a similar pattern. One of the early concepts looked at how attachment theory in adults could be applied to couples enduring long term separations, such as military couples (Vormbrock, 1993). In this theory, the spouse's experiences as a child would be sought by the spouse during times of stress; there is a certain level of comfort and security associated with the spouse; and as separation occurs, Anxiety is produced (Vormbrock, 1993). In one research approach examining this, researchers attempted to apply Bowlby's attachment theory to military couples. It was suggested that research on wartime and routine marital separation can be integrated within a single conceptual framework. Second, the comparison between separation reactions of adults and children revealed that homebased spouses react to separation with essentially the same distress responses as do children (Vormbrock, 1993). This indicates that the marital relationship, like the mother-child relationship, constitutes an attachment bond. Third, the comparison of home-based and traveling spouses revealed differences in emotional reactions to marital separation (Vormbrock, 1993). This research validates the idea of attachment theory as a guide to understanding the stress associated with marital separation.

The correlation between pathology within one partner and the relationship quality may be an important area of concern for clinicians and researchers. One study that looked at relationship styles and PTSD in one of the partners. The investigators examined the effects of cancer as a diagnosis in couples when one of them experienced

PTSD. The sample included ninety couples in the analysis who completed self-report instruments (Brosseau et al., 2011). The results indicated that both PTSD and secondary trauma were positively correlated while relationship quality was negatively correlated. PTSD and secondary trauma were significantly moderated with relationship quality (Brosseau et al., 2011). As with other research, the correlation between the relationship quality and pathology in the one of the partners demonstrate a significant effect.

Examining the experiences of the war veterans and their spouses has demonstrated a complex pattern of pathology and relationship dynamics. One specific aspect of the war experience that has seen more attention in the Middle East, specifically Israel, is the PTSD vector of POW detainees. While it has come to light that spouses of military members, and veterans, with PTSD, may develop similar symptoms, in what has come to be known as secondary trauma, there have also been indications of Anxiety, Depression, and low self-esteem (Ein-Dor et al., 2010).

Recent research investigated this phenomenon with veterans of the 1973 Yom Kippur War. In the study, they utilized eighty-five couples in which the husband was held captive as POW's and seventy-two couples as controls, who were in combat but were not POW's. The study wanted to examine if the wife's attachment Anxiety will be associated with higher levels of PTSD in her husband. Also, would the higher levels of PTSD in the veteran be associated with higher levels of secondary trauma stress (STS) in the spouse (Ein-Dor et al., 2010). The investigators used the Adult Attachment Styles Scales to measure attachment insecurities and the PTSDs Inventory to measure PTSD symptoms.

The results indicated that the severity of PTSD symptoms for intrusion, avoidance, and hyperarousal, were significant in the ex-POW group but not in the control group. This study also was able to confirm that higher levels of PTSD in the veteran was associated with higher levels of STS in the spouse. Higher levels of STS may show higher levels of attachment Anxiety, but, not by itself. In the ex-POW group, higher levels of avoidant attachment were associated the higher levels of PTSD, in the control group, this was not associated. This phenomenon was also found in the wives of the ex-POW but not in the control group (Ein-Dor et al., 2010). This study, as well as others supporting the transfer of trauma symptoms, support the premise of the transfer of pathology from one partner to the other. This study is limited by the length of time from the war and the data collection. It is possible that other factors may have influence the nature of PTSD symptoms and the attachment styles.

Understanding the avenues that increase distress and dysfunction in the relationship of military couples, has not been an area of adequate study. While more recent research has looked into relationship dissatisfaction among spouses, there is also data supporting the pathology that may accompany that in both the member and the spouse (Renshaw, Rodrigues, & Jones, 2008). In a recent study involving a sample of forty-nine soldiers from the National Guard, the investigators wanted to examine how the spouse's cognitions may affect their perceptions of experiences during combat deployments. Further, they wanted to examine how their perceptions of the member's pathology impact their levels of marital distress (Renshaw et al., 2008). The authors used the PCL-5 to measure PTSD symptoms, the Center for Epidemiological Studies – Depression Scale to measure Depression, the Relationship Assessment Scale to measure

relationship satisfaction, the CES to measure Combat experience, the Spouse Perception Questionnaire to measure the spouse's perceptions of the soldier's symptoms and experiences.

The results showed that spouses' perceptions of soldiers' combat exposure, PTSD symptoms, and depressive symptoms were related to combat exposure and psychological symptoms as reported by the soldiers themselves. Furthermore, their perceptions of soldiers' symptoms were more strongly related to spouses' own psychological and marital functioning than were soldiers' symptoms, despite the high correlations between the two (Renshaw et al., 2008). This study added significant insight into the spouse's perceptions of the experiences and the pathology of the service member. This study was limited by the low sample size indicating an inability to detect significant interactions.

Secondary Trauma and Attachment Theory

As couples deal with separations, displaced family roles, and the threat of loss or injury to the deployed member, it can be understood that this effect encompasses both partners. One theory that may explain this is Attachment theory. With attachment theory, those high in attachment avoidance may be particularly vulnerable to destabilization because of separations. Research suggests that when a relationship stressor exceeds avoidant adults' ability to cope via deactivation of the attachment system, such individuals are at heightened risk for negative outcomes. Military deployment may be one such stressor that exceeds the coping capacity of the at home spouse, especially those who are high in attachment avoidance (Borelli et al., 2014). In a recent study, (Borelli et al., 2014) used a sample of forty-five spouses of deployment military members to look at how attachment avoidance would be associated with negative

emotion. The investigators hypothesized that attachment anxieties within the non-deploying partner would be associated with higher levels of relationship distress. The researchers used the Experience of Close Relationships – Revised to measure attachment style, the Self-Assessment Manikin was used to measure pre-post savoring emotion, and the Dyadic Adjustment Scale – Short Form was used to measure relationship satisfaction. The results indicated that attachment avoidance was correlated to negative emotional response in relationship tasks during deployments (Borelli et al., 2014). This research demonstrates how the relationship itself may provide some insight into the dynamics within the couple. The spouse's response to these demands may depend largely on how well their own attachments were formed. This study was limited by the small sample size that was from one group of couples limiting its generalizability.

Attachment, as a function of the relationship, may also be a pathway for shared experiences and pathology. Another study looked at the levels of attachment related avoidance as a function of higher levels of distress in a relationship with partners with PTSD. The researchers also investigated how post-traumatic stress may also provide growth opportunity through the experience (Dekel, 2007). The findings show that in a sample of 240 wives or cohabitating girlfriends of veterans of the Yom Kipur War, the wives of former POWs reported greater distress than did the wives of non-POW combat soldiers (Dekel, 2007). This study provides an understanding of how attachment quality could determine the levels of distress and pathology for spouses of combat veterans.

The fact that deployments and military careers are a strain on relationships and families is not a surprise. The mitigating factors that provide the pathways for these relationships struggles, and how this works within the family system, still requires more

research. One particular theory involves the Couple Adaptation to Traumatic Stress model (Goff, Crow, Reisbig, & Hamilton, 2007). In this theory, it is thought that a primary trauma survivor's level of functioning or trauma symptoms, will set in motion a systemic response with the potential for secondary traumatic stress symptoms to develop in the other partner. It was hypothesized that a greater history of trauma and a higher level of symptoms would predict lower relationship functioning. Because the model is circular, symptoms of secondary trauma in the partner may intensify symptoms of primary trauma in the spouse. The study included forty-five soldiers from the army and their spouses or partners (Goff et al., 2007). The authors used the traumatic events questionnaire to confirm trauma history, the Purdue PTSD Scale – Revised, to measure PTSD, the Trauma Symptom Checklist to measure trauma symptoms, and the Dyadic Adjustment Scale to measure relationship functioning.

The results indicated that, as expected, both a greater history of trauma and higher levels of symptoms would predict lower levels of relationship satisfaction from their spouses or partners (Goff et al., 2007). This investigation adds significant insight into secondary trauma, and, the impact of such on the relationship. The small sample size and limited scope of the sample from only two military installations limits the generalizability of this study.

Secondary Trauma and Other Family Members

The concept of secondary traumatization has little understanding from an empirical stand point, as the research is eclectic across this spectrum. To understand this phenomenon a little better, it may be necessary to look at other family members. In one recent study, the researchers looked at Dutch peacekeeping soldiers to examine how

PTSD levels would affect the relationship of their spouses and their parents. They hypothesized that the partners of peacekeepers with higher levels of posttraumatic stress will themselves report more PTSD symptoms, and more sleeping and somatic problems, than partners of peacekeepers with lower levels of posttraumatic stress. Further, they hypothesized that the partners would report lower levels of marital quality with few social contacts. Finally, they hypothesized that the parents would themselves report more PTSD symptoms, more sleeping and somatic problems, and more problems in social contacts (Dirkzwager, Bramsen, Adèr, & van der Ploeg, 2005). In a study of 2,884 Dutch soldiers involved in peace keeping operations, the researches asked them to complete self-report questionnaires in an effort to understand the manifestation of secondary traumatization. The study demonstrated that partners of peacekeepers who did not report PTSD had significantly lower levels of symptoms than did partners of peacekeepers with PTSD. The results for the parents demonstrated no significant results for peacekeepers with or without PTSD (Dirkzwager et al., 2005). Again, the understanding that other factors may influence secondary traumatization is supported, however, the study does support the construct that secondary trauma may be a product of associative trauma from the spouse.

Understanding the path of secondary pathology, or even the construct of the phenomenon, has proven to be challenging. One investigated how combat veterans of Vietnam would score on number of scales used to assess the emotional consequences of combat, including PTSD. These same scales would be given to fifty-three of their adult children. It was hypothesized that the veterans who had higher levels of combat experience would show significantly higher levels of distress on the scales. It was further

hypothesized that, the children of veterans with higher scores would demonstrate higher scores as well (Suoizzi & Motta, 2004). The researchers used the Mississippi Scale for Combat - Related to measure PTSD symptoms, the CES to measure combat experience, the Minnesota Multiphasic Personality Inventory – 2 PK scale, the scale on the measure used to measure trauma symptoms. The researchers also used the Impact of Events Scale – Revised to measure intrusive thoughts and avoidance, and the Beck Depression Inventory to measure Depression. The researchers also used the State-Trait Anxiety Inventory: Form Y to measure of both transient and enduring feelings of apprehension, tension, nervousness, and worry. This study suggested that the children of veterans who scored higher on the scales for PTSD also scored higher on the same scales. While the adult children did not show levels that would be clinical, it was significant that they scored higher with group differences on the Stroop test (Suoizzi & Motta, 2004). The study demonstrates that the effect on the family members exists, however, it does not alleviate the controversy surrounding secondary trauma. This study is limited by the small sample size which may affect power and generalizability.

Other Theories for Secondary Trauma

Developing a clear understanding of secondary trauma so far has not been successful to date, however, other theories have been presented for this phenomenon. A more recent study looked at how the role of ambiguity that could be a pathway that transferred PTSD symptoms onto the partner. The concept here is how does the role of boundaries, and, ambiguity concerning these roles, mediate the transference of symptoms. The researchers hypothesized that there would be an indirect contribution of the member's PTSD to the spouse's PTSD via the spouse's ambiguity of loss (Dekel,

Levinstein, Siegel, Fridkin, & Svetlitzky, 2016). The study involved a sample of 300 male Israeli Defense Force soldiers and their wives. The results showed that there was a high positive, significant correlation between the males' PTSD and the females' PTSD, mental health, and functioning. In addition, the females' ambiguous loss was associated with males' PTSD and females' secondary traumatization. Finally, females' earlier traumatic events were associated with females' secondary traumatization (Dekel et al., 2016). This study does support the construct of secondary trauma, even within the scope of prior traumatization of the spouse or partner. The suggestion here is the possibly that the member's trauma may trigger or aggravate previous trauma.

Secondary trauma as seen in other research, can be seen as having a role in the relationship functioning, socialization, and marital satisfaction in the wives of combat veterans. Beyond the burdens of the care giver role, there may be aggression, secondary pathology such as Depression or Anxiety, and the added stress of working to save a marriage. One aspect that was studied was how the veteran's PTSD symptom trajectory could affect the spouse's on secondary trauma (Greene, Lahav, Bronstein, & Solomon, 2014). This study hypothesized that the wives of ex-POWs with PTSD would report higher secondary trauma and general distress than wives of ex-POWs without PTSD and non-POW combat veterans; the wives of ex-POWs with chronic PTSD would report higher secondary trauma and general distress than wives of ex-POWS with delayed, recovered, and resilient trajectories, and the husbands' PTSD symptoms would mediate the relationship between husbands' war captivity status and wives' secondary trauma (Greene et al., 2014). The study looked at a sample of 291 veteran Israeli Defense Force soldiers, of which 106 were control groups who had not experienced captivity. The

results indicated that the wives of ex-POW's had significantly greater functional disability than the control group, and significantly more psychiatric pathology. There were also higher instances of physical health reports. These reports also indicate that there were higher levels of secondary trauma among the wives of ex-POWs (Greene et al., 2014). This study also supports the construct of secondary trauma among the wives of combat veterans, although with the caveat of the spouses of veterans who were POW's.

It can be theorized that PTSD has a significant impact on certain relationship functions, such as when marital intimacy is concerned. It can also be theorized that the higher levels of symptoms may be a factor in the level of impact on those functions. In one study the investigators recruited 125 married ex-POW's from the Israeli Army, and 108 controls, non-POW's. They wanted to examine the relationship between intrusion, avoidance, and arousal and the mediating role of self-disclosure and verbal violence in the relationships (Soloman, Dekel, & Zerach, 2008). The researchers used the PTSD Inventory to measure PTSD symptoms, the Conflicts Tactics Scale to measure relationship aggression, the Capacity for Intimacy Scale to measure intimacy, and the Self-Disclosure Index to measure the extent and content of self-disclosure. The results show that ex-POW's had higher levels of PTSD symptoms than did controls. The ex-POW's also had lower levels of self-disclosure. The study did show that there was a positive association between PTSD levels and verbal violence. The results also demonstrated a negative relationship between PTSD avoidance and marital intimacy in the ex-POW group (Solomon et al., 2008). While the study did not demonstrate a great difference between PTSD and difficulties in intimacy between groups, it was able to

demonstrate that higher levels of PTSD symptom reporting had a negative relationship to intimacy in the relationship. This study was limited by the time difference between the events and the data collection using self-report measures which may have been biased in the reporting.

Secondary Trauma and Treatment

While considerable research has recently demonstrated the impact of PTSD, deployments, and trauma can have on the spouses and other family members, little research has been devoted to the treatment of the family members. There has been some other research that supports treating the primary trauma survivor for PTSD in conjunction with the spouse or intimate partner as well as the family. Currently, however, there are only pilot programs within the VA for doing such treatment as policy so far only supports treating the veteran (Sones et al., 2015). There have been several research projects that have investigated the utility of such programs, which has seen considerable success. In a recent pilot study, researchers wanted to study a ten-week psychoeducational group for female partners of veterans diagnosed with PTSD. In the study, the researchers measured pre and post group psychological distress to determine the efficacy of the group treatment of nine treatment partners and nine waitlist partners (Sones et al., 2015). The results of the study indicated that there were significant differences between the reduction of psychological distress in the treatment group compared to the waitlist group. The study did not demonstrate a significant distinction for relationship satisfaction, although they did indicate a significant increase in confidence (Sones et al., 2015). The study indicated that there was a significant reduction in distress over time for the female partners participating in the intervention. This implies that the facets of the intervention content

that were designed to improve the female partners' psychological health, helped to buffer against the negative effects of PTSD on their own mental health. One interesting aspect of this research is the co-joint effect on PTSD when both of the parties are participants in the treatment.

Conclusion

Working, living, and combat for members of the military, as my experience has shown me, goes beyond the normal day to day living for the general population. As members of a professional military fighting force, the change in perception and attitude for individuals in the military requires a specific, regimented training program, often referred to as basic training. This is also true of the family members who are subjected to similar demands and expectations, as many live either on the installation in family housing, or very near to the base, to be able to access shopping or other functions on post. This level of indoctrination to the military life-style promotes the idea of shared experiences between the military member and the family members.

Summary

This review of current research focused on concepts such as the return and reintegration of military/combat veterans after deployment, the effects of trauma on the relationship, the effects of trauma on military families, the spousal response to secondary trauma. The research presented does support the concept of secondary trauma as related to one member experiencing traumatic events, which in turn, correlates to the other member experiencing similar symptoms. How this relates to other pathology having similar correlations is the focus of this study since the available research does not reflect

the concept of co-joint, or resonated, pathology. Because of this, concepts such as the effects on family and couples, as it relates to the relationship, were the focus of the review.

CHAPTER 3

METHODOLOGY

Introduction

This study used a survey design to examine if there was a significant association between war time experience and shared pathology between the combatant and partner. The survey gathered data within a population of military veterans and their spouses. Couple pairs formed the basis of this design. It was understood that both military veterans and their spouses were subjected to trauma, situational Depression, and even Anxiety due to the veteran's combat experience (Eastman et al., 1990). Since this had been documented, as seen in the literature review, I wanted to further explore what happens within the relationship dynamic, going beyond secondary trauma, and examine if shared pathology within the couple dynamic existed.

Research Questions

Research Question 1: What is the relationship between combat exposure and pathology (PTSD, Depression and Anxiety) among veterans?

Research Question 2: What is the relationship between veterans' pathology and their intimate partners' pathology?

Research Question 3: What factors account for veteran and partner pathology?

Hypothesis: It was hypothesized that as the exposure to combat operations increased, the veteran would begin to experience greater levels of pathology. It was

further hypothesized that there would be a positive correlation between veteran and partner pathology. That is, higher levels of pathology among intimate partners would be associated with higher levels of veteran pathology. Finally, factors such as frequency of communication and pathology of the veteran would predict pathology in the intimate partner.

Research Design

This study was a cross-sectional, non-experimental, survey design that used a quantitative analysis to examine the correlation between levels of combat experience in military veterans, and, shared pathology within couple pairs. Its focus was to explore if there was a significant association between wartime experience and shared pathology between the soldier and his/her spouse/intimate partner. Data was gathered using a survey method obtained from invited participants who were military veterans that experienced combat, and their spouses who also had lived through this experience with them.

Research suggests that both military veterans and their spouses are subjected to trauma, situational Depression, and Anxiety (Sherman et al., 2015). In this study I wanted to go beyond secondary trauma and examine shared pathology within the couple dynamic. By studying the couple-pair, I hoped to better understand and explore what happens within the relationship dynamic due to the combat experience lived by the veteran.

The statistical approach used for this quantitative study was a regression analysis examining the levels of combat exposure and the levels of shared pathology. The use of regression analysis allows for the examination of linear scores to determine the

relationship between them (Warner, 2013). For this study, the linear design was beneficial since it allowed for an examination of the dynamics of the couple-pairs, and, the levels of combat exposure. By using a survey design presented online, we benefited from lower cost, ease of use, and the ability to examine a larger cross-section of the population thanks to the use of the internet (Grajales, 2013).

Sample

The population for this study consisted of pair-couples that served in the United States Military during the GWOT, from 2001 to the present. For the purpose of this study, we looked at couples who demonstrated levels of pathology, as measured by the questionnaires the couples answered. Once pathology was determined, statistical analysis was conducted to determine if there was a relationship between levels of combat exposure and levels of resonating pathology within the couple-pairs.

These couples consisted of any two people that were intimate partners during the time of service in the military. In other words, for those who participated in this study, it was important that the veteran had experienced deployment to a combat zone, and that their partner had lived through this experience with them.

By sampling couples from the internet, I hoped to gather a convenience sample of military couples in this country, although it would not be a random sample. Subjects were recruited through websites and Facebook postings. Participating couples were assigned sequential numbers that uniquely identified them. A power analysis using G-Power indicated that a sample size of approximately 400 was needed.

Instruments

Four different instruments were used to measure the pathology of the couple-pairs. They were: 1) The PHQ – 9; 2) the Generalized Anxiety Disorder – 7 (GAD – 7); the PCL-5, and the CES. Based on the scores of these instruments, an analysis was made to determine the relationship between combat intensity and resonating pathology by the couple pairs. The couple-pairs were treated as a single unit of study so that shared pathology could be examined to determine the relationship between combat intensity and shared pathology. The objective was to determine if the couples did indeed share pathology, and, if this pathology was correlated to combat and the intensity of that combat. In this way, an analysis was performed to determine if there was a significant association between serving in a combat zone and the couple experiencing shared pathology or not. The couples were asked to complete these instruments about their time during and after the deployment.

Patient Health Questionnaire - 9

In this study, Depression of the participants was measured by the PHQ – 9 scales as defined in the atheoretical model of the Diagnostic and Statistical Manual for Psychiatric Disorders (DSM)-5 published by the American Psychiatric Association (2013). “The common features of Depression are the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual’s capacity to function” (p. 155). This was measured using a ten-item, self-report scale, that uses statements such as “Little interest and pleasure in doing things”, “Trouble falling or staying asleep, or, sleeping too much”, and, “Feeling bad about yourself, or, that you are a failure or have yourself or your family down”. The

respondents were asked how often they felt this way and would rate their responses by checking the appropriate number, from 0 – 3, on the four-point Likert scale with the following values; 0 = Not at all, 1 = several days, two equals more than half the days, and three equals nearly every day. The scores were summed up for all ten items. Scores of up to fourteen were considered as not having pathology. Scores of fifteen to nineteen placed respondents in the mild Depression category. Scores of twenty to twenty-four rated respondents with moderate Depression, and, scores of twenty-five and above rated participants with severe Depression (Kroenke, Spitzer, & Williams, 2001). If both couples met the criteria for either severe, moderate or mild depression, then they would be considered as resonating their depression.

The PHQ – 9 has been subjected to several reliability studies to determine its suitability for measuring Depression. In one of the studies, the researchers used the form with 580 patients within a primary care setting (Kroenke et al., 2001). The researchers compared the PHQ – 9 to interviews from professional mental health providers. In this process a score of ten or higher showed a sensitivity and a specificity for Depression of eighty-eight percent. The internal reliability of the measure was excellent, with a Cronbach's alpha of eighty-nine percent and a test retest of eighty-four percent (Kroenke et al., 2001).

The PHQ – 9 has been studied under other circumstances to determine criterion validity for major Depression. A Receiver Operating Characteristic analysis (ROC), showed that the instrument was able to distinguish patients with major Depression at a rate of .95, demonstrating excellent criterion validity. Construct validity scores of between .75 to .84 were seen when measured against

mental health interviews (Kroenke et al., 2001). These results provide sufficient support for the measure as a brief instrument that can diagnose Depression. This also supports the decision to use a score of ten or higher as a cut-off for a diagnosis of Depression.

A group of researchers wanted to determine if the PHQ – 9 could be used in other settings involving different cultures that used Spanish language. The participants were given a choice to complete the PHQ – 9 in their preferred language of English or Spanish. Cronbach's alphas suggested that there was good internal consistency for both the English- and Spanish-language versions with scores of the internal consistency for English of .84 and Spanish .85 (Merz, Malcarne, Roesch, Riley, & Sadler, 2011). Structural validity was investigated using multigroup confirmatory factor analysis and the instrument demonstrated a factor variance of .94 (Merz et al., 2011). Results supported a similar one-factor structure with equivalent response patterns and variances among English and Spanish-speaking Latinas. These results suggested that the PHQ – 9 could be used with confidence in both English and Spanish versions to screen women for Depression.

A third investigation compared the PHQ – 9 against the lifetime mood disorder diagnoses established by the Structured Clinical Interview for DSM–IV. Patient Health Questionnaire – 9 dichotomous scores corresponded highly with major depressive episode, Criterion A, and major depressive disorder, with an odds ratio 9.5, and area under the ROC curve 0.84 (Cannon et al., 2007). These studies supported the use of the PHQ – 9 in diagnosing major Depression. Using this brief report form as a criterion for determining Depression in couples through the survey was sufficiently supported.

Generalized Anxiety Disorder – 7

In this study, the concept of Anxiety was measured using the GAD – 7 scale. The definition comes from the atheoretical model of the DSM-5. Anxiety disorders that share features of excessive fear and Anxiety as well as related behavioral disturbances such as muscle tension and vigilance in preparation for future danger and cautious or avoidant behaviors. This fear is often in anticipation of a future threat (American Psychiatric Association, 2013). This is a seven item self-report scale that uses statements such as “Feeling Nervous, Anxious, or on Edge”, “Worrying too much about different things ‘, and “Becoming easily annoyed or irritable”. The respondents were asked how often they felt this way and responded by checking the appropriate number on the five-point Likert scale. The scores were summed up for all nine items. Scores up to eleven were considered as not having Anxiety. Scores of twelve to sixteen were considered rated the respondents as having mild Anxiety. Scores of seventeen to twenty-one rated participants as having moderate Anxiety and respondents with scores of twenty-two or above were considered as having severe Anxiety (Spitzer, Kroenke, Williams, & Löwe. 2006). If both couples met the criteria for severe Anxiety, moderate Anxiety, or mild Anxiety, then they were considered to be resonating pathology.

The GAD – 7 was investigated to determine if the reliability and validity of the form could be supported as a brief questionnaire to diagnose Generalized Anxiety Disorder. A criterion-standard study was performed in fifteen primary care clinics in the United States (Spitzer et al., 2006). A total of 2,740 adult patients completed a study questionnaire; 965 patients had a telephone interview with a mental

health professional within one week. For criterion and construct validity, Generalized Anxiety Disorder (GAD) self-report scale diagnoses were compared with independent diagnoses made by mental health professionals. A ROC analysis with this set of items showed an area under the curve, 0.906, as good as scales with as much as the full thirteen-item set. These seven items also had the highest rank correlations in the developmental sample ($N = 1184$) and the two replication samples ($N = 965$ and $N = 591$) completed in earlier prior to this one (Spitzer et al., 2006). The core criteria of the DSM-IV definition of GAD are captured by the first three items of the scale. Of note, six of the seven items had the greatest divergent validity from Depression, meaning that this scale distinguishes GAD from major Depression (Spitzer et al., 2006). This provides sufficient criteria for the instrument to measure and diagnose GAD.

Further analysis from another study also supported the brief report form as a tool to diagnose GAD. In this study, 2,978 women who attended their first perinatal care visit was also asked to participate in GAD screening using the brief report form and a Composite International Diagnostic Interview (CIDI; Zhong et al., 2015). The Cronbach's alpha was calculated to examine the reliability. An assessment of the criterion validity was completed by calculating operating characteristics. The construct validity was evaluated using factor analysis and association with health status on the CIDI. The reliability of the GAD – 7 was good with a Cronbach's alpha of 0.89. A cutoff score of seven or higher, maximizing the Youden Index, yielded a sensitivity of 73.3% and a specificity of 67.3%, demonstrating adequate screening. Women with GAD were 2.2 times more likely than women without GAD to have a GAD – 7 score of at or above seven, demonstrating the cut-off of ten for this study to be sufficient. Concurrent

validity was supported by the evidence that higher GAD – 7 scores were associated with poor self-rated physical and mental health (Zhong, et al., 2015). This shows that the instrument should be a good measure for use in the survey to support a diagnosis of GAD.

PTSD Check List for the DSM-5

In this study, the concept of PTSD followed the definition provided by the National Center for PTSD. This is a disorder that may develop after exposure to a terrifying event or ordeal in which severe physical harm or death has occurred, was witnessed, or was threatened (Blevin et al., 2015). This was measured by the PCL-5 scale. The scale consists of a twenty item self-report scale that asked questions such as “Blaming yourself or someone else for the stressful experience or what happened after it?” and “Having strong negative feelings such as fear, horror, anger, guilt, or shame?” The checklist used a five-point Lickert scale that ranges from either (0) Not at All, to (4). Extremely. The items were summed to receive an overall score. Participants who received a score of fifty-three or above were considered to have met the criteria of PTSD. If both couples met all criteria for the DSM-5 diagnosis, then they could be considered positive for PTSD. This would also mean that they were resonating pathology.

Researchers were able to perform an investigation to determine if the instruments validity and reliability could support its use as a diagnostic self-report form. In a recent study, a sample of one hundred forty-five participants from a veteran’s medical center were recruited to participate in the research (Bovin et al., 2016). The study was used to determine if the self-report form, as compared to the Clinician Administered PTSD

Scale-5, would demonstrate sufficient validity and reliability. This study was able to demonstrate, through confirmatory factor analysis, the instrument is best explained by a six-factor anhedonia model and a seven-factor hybrid model. Signal detection analyses using the Clinician Administered PTSD Scale-5 revealed that PCL-5 scores of thirty-one to thirty-three were optimally efficient for diagnosing PTSD. Test-retest analysis showed a Cronbach's alpha of .84. Consistent with hypotheses, the PCL-5 scores demonstrated excellent convergent validity with PTSD Check List - Civilian scores at .87 (Bovin et al., 2016). This demonstrates a high correlation to other PTSD measures and supports its use in this study.

The PCL-5 has been investigated by other researchers to determine if the validity and reliability of the instrument could support its use as a diagnostic measure. The team analyzed the psychometric properties of PCL-5 scores in a large cohort ($N = 912$) of military service members seeking PTSD treatment while stationed in garrison (Wortmann et al., 2016). They examined the internal consistency, convergent and discriminant validity, and DSM-5 factor structure of PCL-5 scores, their sensitivity to clinical change relative to PTSD Symptom Scale – Interview. The PCL-5's overall severity and subscale scores demonstrated high internal consistency at baseline and follow-up, with Cronbach's alpha values ranging from .75 for the arousal subscale at baseline to .95 for the overall scale at follow-up. The values of the effect size were .94 and .92, respectively, which indicate that the observed correlations strongly matched the predicted pattern of correlations. Results show agreement between the PCL-5 and PTSD Symptom Scale-Interview in identifying pre-post changes of various magnitudes. Kappas ranged from .28 to .55, and the percentage of cases in agreement ranged from 72% to 82%. The

Pearson correlation coefficient between the PCL-5 and post-traumatic stress syndrome - inventory pre-post change scores was .72, and the concordance correlation coefficient was .68, indicating that the change scores were highly correlated and of nearly equal magnitude (Wortmann et al., 2016). This investigation demonstrated that the instrument is a sound diagnostic measure that fits well with the survey intention.

Combat Exposure Scale

In this study, the concept of combat exposure was an attempt to understand the experiences of combat by military members in conjunction with their duties as members of the United States Military. In particular, this scale looked at how often the individual was exposed to particular combat experiences, and, how long they endured certain experiences (Keane et al., 1989). This was measured by the CES. The scale consists of a seven item self-report scale that asked questions such as “Did you even go out on combat patrols or have other dangerous duties?” and “Were you ever surrounded by the enemy?” The checklist uses a five-point Likert scale that ranges from either (1) No (4). 51+ times, or (1) Never to 7+ months. The items were summed, following a formula from the manual, to receive an overall score. For participants that received a score of zero to eight, then they were considered to have been exposed to light combat exposure. For individuals who received a score of nine to sixteen, then they were considered to have been exposed to light to moderate combat exposure. For individuals that received a score of 17-24, then they were considered to have been exposed to moderate combat exposure. For individuals that received a score of 25-32, then they were considered to have been exposed to moderate to heavy combat exposure. For individuals that received a score of 33-41, then they were considered to have been

exposed to heavy combat exposure. This particular scale was only administered to the military veteran who was exposed to combat.

Researchers were able to perform an investigation to determine if the instrument's validity and reliability could support its use as a clinical and research instrument to measure combat exposure and intensity (Keane et al., 1989). The psychometric properties were examined in three separate studies involving a distinct patient sample. The study utilized a sample of 362 male Vietnam Veterans seeking treatment from six different VA medical centers. The sample had a mean age of 37.7 years of age, a mean education level of 13.26, fifty-seven percent of whom were married and fifty-two percent were Caucasian. This study was able to demonstrate a coefficient alpha of .85 for internal consistency on an average score of 25.57. As a second measure of internal consistency, the researchers calculated an item remainder total score with an average correlation of .75. Test-retest analysis showed a reliability of .97 for a one-week retest interval. Consistent with hypotheses, members who were diagnosed with PTSD showed a higher rate of combat exposure on the CES than did members without a diagnosis of PTSD with scores of 29.37 for members with PTSD and 22.84 for those without (Keane et al., 1989). This demonstrates a significant reliability and validity for the use of this instrument in clinical research.

Procedure

The data collection for this research used a survey design incorporating a convenience sample of military veterans, as well as their intimate partners. Andrews University's Institutional Review Board was contacted for approval prior to recruitment of subjects for the survey. Subjects were recruited through websites and Facebook

postings. The participants were instructed that it was important that both the member and the partner complete the survey at the same time since the couple's data was tied together. The couples were provided with a link that would take them to the survey that was set up on Question Pro. The couples were also instructed that they should complete the survey separately, but they were to use the same computer, in order to not contaminate each other's samples by seeing each other's responses. The couple's scores were tied together using their computer's IP address.

Question Pro, an online data collection system, hosted the survey and provided a specific link for it. When participants clicked on the link, they were taken to the initial page that had the title of the study and the informed consent form. The informed consent included a brief description of the purpose of the study, the potential of minimal distress related to participating in the study, its voluntary nature, and the option to discontinue the survey if they wanted. It also included my contact information and how to reach the dissertation chair and the Andrews University Institutional Review Board.

When participants reached the web page hosting the survey, they were able to read and review the informed consent. If they did not indicate agreement, or if they did not meet participation criteria, they were taken to a disqualification page. This page explained that they had not met criteria for participation, thanked them for their interest in the study, and instructed the individual on how he or she could exit the survey.

If the participants agreed with the informed consent, and met the inclusion criteria, they were taken to a page with instructions on how to complete the survey. This page described the length of the survey, the nature of the information that was collected, and asked participants to answer all of the questions to the best of their ability and in an

honest way. Once this section was completed, the next link took them to the beginning of the survey. For the military member, they completed the survey that had the CES, for the spouse/intimate partner, they were asked to complete the section of the survey that did not have the CES. The target number of completed surveys was 400 couples.

Treatment of the Data

Data collection was sourced through Question Pro once the required number of survey completion was reached. Question Pro provided secure data sourcing for all surveys according to their website. The sight used Secure Sockets Layer (SSL), which is a protocol developed for transmitting private documents or information via the Internet. SSL creates a secure connection between a client and a server, encrypting sensitive information being transmitted through the web page. Many websites, like banking or e-commerce sites, use SSL to obtain confidential user information. According to their website, SSL encryption is automatically turned on for all surveys.

The secured data was downloaded by the author, using both an Excel format and a data base that was formatted for use by Statistical Program for Social Sciences (SPSS) integration compliant. The data was then secured using password protection on the document, and, password protection on the storage device. All data was held by the author until it was determined that the data was no longer needed. The survey form did not ask for any identifying information, such as names, addresses, or units of assignment, beyond basic demographics.

Before uploading the data into SPSS, the author was responsible for ensuring the integrity of the data. This was accomplished through an examination of the data in the Excel spread sheet. This process ensured that missing data was noted, incomplete

surveys deleted, and that both the member and the intimate partner had completed the surveys. Surveys that were not completed by both the member and the spouse were rejected. Data integrity was also tested during the analysis process through SPSS.

Data Analysis

This research analyzed data that came from couple pairs. Because each couple's data needed to be kept together, without intermixing with other couples, unique identifiers were used to identify couple pairs and to maintain their integrity. In this plan, pathology meant pathology of both individuals in the couple pair. Combat experience was measured using the CES to determine the level of combat experience in the military member/veteran. Data analysis was completed using regression analysis, crosstab analysis, correlation analysis, and category regression. These tests allowed for an examination the variables in the data and the association of factors that contributed to these associations

The first step in this procedure was to ensure that the data was clean, which involved screening of the raw data through both a hands-on approach and through SPSS procedures. This process was used to ensure that the data was an accurate representation of what was measured, and, that the data was able to meet the underlying assumptions of the analysis procedure of the variables; pathology shared by couples, war time experience, and the associations between (Meyers, Gamst, & Guarino, 2013). Since the surveys were continuous scores from test instruments, it was necessary to ensure that every question was answered. An arbitrary value of eighty percent was used as a baseline for the number of questions being answered and to ensure the integrity of the test instrument was met. Cases in which the baseline was not met were excluded from the

analysis. Once the determination of pathology was made, the decision was made to include the couple pair into the analysis.

The next step for the analysis was to upload the variable data into SPSS so that the data could also be screened using the software. The data was hand checked against the verified Excel sheet to ensure the accuracy of the data that was loaded into SPSS. A second procedure using the SPSS descriptive statistics function was used to ensure that all cases had data loaded for each participant. The descriptive statistics allowed the user to see at a glance if the data for each variable was the same as the total number of participants, or *N* (Meyers et al., 2013). This also allowed for an examination of the means and standard deviations of the variables. The final step was to ensure that the data meets the criteria of assumptions.

The research hypothesis was: as the exposure to combat operations is increased, the veteran would begin to experience greater levels of pathology. It was further hypothesized that there would be a positive correlation between veteran and partner pathology. That is, higher levels of pathology among intimate partners were likely associated with higher levels of veteran pathology. Finally, factors such as frequency of communication and pathology of the veteran would predict pathology in the intimate partner.

Summary

This research sought to understand the relationship between combat experience and the incidence of shared pathology between military couples. By using a convenience sample of military couples in the United States, it was possible to analyze the relationship between combat experience and pathology within their relationships. This was done by

recruiting couples through websites that were frequented by veterans who were exploring common interests with other veterans, such as Vet Friends. By using a regression analysis on values for both pathology and combat experience, we examined this relationship between levels of combat exposure and pathology within couple pairs.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

This study was designed to examine the relationship between combat exposure in the veteran and shared pathology between the veteran and their partner. It was hypothesized that as the exposure to combat operations is increased, the veteran will begin to experience greater levels of pathology. It was further hypothesized that as these experiences are shared, such as through increased communications during deployments, or, after the veteran returns home, they will begin to resonate the pathology that is experienced by the veteran. It is the relationship between the combat exposure of the veteran and the shared, or, resonated pathology of the couples that was being analyzed.

For the purposes of this study, data was gathered through a survey that included demographic information for the veteran and intimate partner. Other characteristics that was deemed useful included their use of communications with each other, number of years married, time in service, branch of service, and number of children during deployment. Descriptive statistics of the participants are reported as well as reliability analysis of the responses that were given. The responses were then analyzed to determine if the hypothesis and research questions were supported using correlational and regression statistical analysis. The software used to test these assumptions was the SPSS, version 25.

Description of the Sample

Descriptive Statistics (Demographics)

This sample was made up of military veterans from across the United States and their intimate partners. The design was intended for them to take the survey together, but not at the same time. Each couple matched together by a case number so that their responses could be analyzed together. The sample was screened for individuals who had combat experience, and, that the couple was in a relationship during the times of the veteran's deployments. A total of 1,905 couples viewed the survey, 1,671 started the survey and 398 were matched couples were able to complete the survey. Since the design of the survey within the Question Pro software required answering each question of the instruments used to measure pathology, no responses had any blanks except for demographic data.

The majority of the combat veterans were males ($N = 250$, 62.8%). Five (1.3%) identified themselves as gender neutral. Approximately two-thirds (66.9%) of the veterans were between the ages of 18-40 years old. Of the intimate partners that participated in the survey, again, approximately two-thirds were female, ($N = 266$, 67.8%), although four of them identified as gender neutral. Approximately two thirds of the partners (66.9%), fell within the age ranges of 18-40. An illustration of these demographics can be seen in Table 1.

The veterans came from all branches of the service. Most of the respondents came from the Army (50.0%). The rest of them came from the Air Force (14.8%), Navy (18.3%), and Marines (16.8%). This data is also reported in Table 1. Approximately two-thirds of the responding couples indicated that they had been married for between zero

Table 1

Descriptive and Frequencies of the Sample

	<i>N</i>	Percent of Sample
Gender Veteran:		
Male	250	62.8
Female	143	35.9
Gender Neutral	5	1.2
Age		
18 – 30	93	23.4
31 – 40	173	43.5
41 – 50	97	24.4
51 - 60	35	8.8
Branch of Service		
Army	199	50.0
Navy	73	18.3
Air Force	59	14.8
Marines	67	16.8
Number of Years Married		
0-2	132	33.2
3-5	139	34.9
5-10	75	18.8
11 or More	51	12.8
Did You Have Children During Your Deployment		
Yes	238	59.8
No	159	39.9

and five years. One responding couple did not answer this question. 288, 72.4%, of the veterans stated that they had children during the time of their deployment. This is also illustrated in Table 1.

One aspect of the modern military at war is that communications with family members while deployed is more common in today's armed services, which may be both a boon and a stress factor for those who are left at home. The participants were asked to indicate by what means and how often they communicated back home. More than two

thirds of the couples, (66.8%) used digital video communications to communicate with each other during their time of deployments. The veterans were also asked how many times per week they communicated back home. The highest response received was two times per week, answered by almost one third, 28.1% of the participants. One couple did not respond to this question. This is illustrated in Table 2.

Table 2

Communication

	<i>N</i>	Percent of Sample
Mode of Communication:		
Cell	190	47.7
Video	266	66.8
Land Line	255	28.6
Email	114	64.1
Snail Mail	130	32.7
Frequency of Communication:		
1X per week	105	26.4
2X per week	112	28.1
3X per week	79	19.8
4X per week	43	10.8
5X per week	58	14.6

As reported earlier, there were 143 female veterans (35.9%) and 250 male veterans (62.8%) in this study. Among female veterans, 82 (57.3%) reported that their intimate partners are males. Among male veterans, 206 (82.4%) reported that their intimate partners are females. These results are reported in Table 3.

Table 3

Cross Tab of Gender Profile

Veteran	Intimate Partner		
	Female	Male	Gender Neutral
Female (<i>N</i> = 143)	60 (42%)	82 (57.3%)	1 (.7%)
Male (<i>N</i> = 250)	206 (82.4%)	44 (17.6%)	
Gender Neutral (<i>N</i> = 5)	2 (40%)		3 (60%)

Reliability Analysis

The reliability estimates for each of the pathology subscales are reported in Table 4. The reliability estimates range from .88 for combat exposure to .97 for the PCL-5 for the partner. These reliability estimates are well above .7 recommended Meyers et al. (2013) and Warner (2013).

Examination of the Pathology

An examination of the levels of pathology was undertaken to answer the research question, does higher levels of pathology in the combat member increase the likelihood of higher levels of pathology in the intimate partner of the combat veteran as measured in 2017?

An examination of the pathology scores for the veterans and their partners was conducted using SPSS to determine mean and standard deviation. For the combat exposure, which was completed by the veteran only, there was a mean of 17.83 which is within the moderate exposure rating of 17-24. For individuals scoring above 24, it would be considered heavy combat (Keane et al., 1989). For PTSD, scores of 53 or higher are

Table 4

Reliability Analysis

Instrument Used	Mean	Std. Deviation	# Items	Cronbach's Alpha
CES Veteran	17.83	6.15	7	.884
PCL-5 Veteran	65.59	20.84	20	.966
PHQ Veteran	26.03	8.15	10	.926
GAD Veteran	19.01	6.22	7	.934
PCL-5 Partner	46.93	17.42	20	.970
PHQ Partner	23.26	8.82	10	.942
GAD Partner	16.11	.934	7	.934

considered a moderate to severe endorsement of having PTSD. In addition to an aggregate score 53 or higher, there is a requirement to endorse each symptom cluster in order to receive a diagnosis of PTSD. For Cluster B, a score of ten or higher is considered an endorsement. For Cluster C, any score of four or higher is considered an endorsement. For Cluster D any score above 16 is considered an endorsement, and, for Cluster E, any score above ten is considered an endorsement. (Bovin et al., 2016). For Depression, participants with scores of up to 14 were considered as not having pathology. Scores of 15 to 19 were considered as participants in the mild Depression level. Participants scoring 20-24 were considered as experiencing moderate Depression, and, participants receiving scores of 25 and above were considered to be experiencing severe Depression (Kroenke et al., 2001). For Anxiety, participants scoring up to 11 were considered to not have Anxiety. Scores of 12-16

were considered scores of those having mild Anxiety. Those with scores 17-21 were considered as having moderate Anxiety and participants with scores of 22 or above were considered as having severe Anxiety (Spitzer et al., 2006). This is illustrated in Table 5.

Table 5

Descriptive for Pathology

Pathology	Veteran			Partner		
	<i>M</i>	<i>SD</i>	Classification	<i>M</i>	<i>SD</i>	Classification
Combat Exposure	17.83	65.15	Moderate			
Depression	26.03	8.15	Severe	23.26	8.82	Moderate
Anxiety	19.01	6.22	Moderate	16.11	6.63	Mild
PTSD	65.70	20.81		46.93	17.43	
Cluster B	16.94	5.68		11.75	4.53	
Cluster C	6.84	2.41		4.87	2.0	
Cluster D	22.25	7.94		16.21	6.46	
Cluster E	19.63	6.41		14.11	5.58	

Analysis of the Combat Experience and Veteran's Pathology

To answer the first research question, an analysis of the data was conducted to examine the relationship between combat experience and veteran's pathology. The analysis conducted was a Bivariate Correlation analysis and is reported in Table 6. With a sample of 398 veterans, the results came back as significant with a p value of less than .001. For combat experience, the correlation between CES and PCL-5 was .496 which would be deemed moderately positive, suggesting that higher PCL-5 scores are

Table 6

Correlation Between Combat Exposure and Veteran Pathology

	PCL	PHQ	GAD
CES	.496	.381	.380
PCL		.865	.827
PHQ			.875

associated with a higher CES scores. This also suggests that about 25% of the variance in PCL can be associated with combat experience.

For Depression, the correlation between PHQ and CES is .381 which would be deemed low to moderately positive. This suggests that the PHQ score is associated with a higher CES score. This would suggest that about 19% of the variance in PHQ can be explained by combat exposure. For Anxiety, the correlation between GAD and CES is .380 which is deemed to be low to moderately positive. This suggests that the GAD score is associated with a higher CES score. This would suggest that about 19% of the variance in GAD can be explained by combat exposure.

Analysis of Pathology Between the Combat Veteran and Their Intimate Partners

To answer the second research question, an analysis of the data was conducted to examine the relationship between the combat veteran's pathology and the intimate partner's pathology using two statistical tests. The first analysis conducted was a cross-tabulation of the classification of pathology between veterans and their partners is reported in Table 7. As shown, of the veterans who were identified to have PTSD ($N = 305$), 158 (51.8%) of their partners also had PTSD. Of the veterans who had severe Depression ($N = 245$), 169 (69.0%) of their partners also had severe Depression. For the

Table 7

Pathology Cross Tab Between the Veteran and Their Partners

Veteran Pathology	Intimate Partner Pathology									
	PTS D	NO PTS D	Depression				Anxiety			
			None	Mi	Mod	Sev	None	Mi	Mod	Sev
PTSD (305)	158 51.8 %	147 48.2 %								
No PTSD (93)	2 2.2%	91 97.8 %								
No Depression (45)			38 84.4 %	2 4.4%	4 8.9 %	1 2.2%				
Mild Depression (44)			22 50.0 %	1 29.5 %	5 14.4 %	4 9.1%				
Moderate Depression (64)			11 17.2 %	19 29.7 %	22 34.4 %	12 18.8 %				
Severe Depression (245)			19 7.8%	19 7.8%	38 15.5 %	169 69.0 %				
No Anxiety (66)							59 89.4 %	4 6.1%	3 4.5%	0 0.0%
Mild Anxiety (61)							30 49.2 %	19 31.1 %	8 13.1 %	4 6.6%
Moderate Anxiety (116)							17 14.7 %	38 32.8 %	50 43.1 %	11 9.5%
Severe Anxiety (155)							23 14.8 %	14 9.0%	43 27.7 %	75 48.4 %

veterans who had moderate Depression ($N = 64$), 22 (34.4% had of their partners had moderate Depression. For veterans who had mild Depression ($N = 44$), 1 (29.5%), partner had Depression. For the veterans who had severe Anxiety ($N = 155$), 75 (48.4%) of the partners had severe Anxiety. For the veterans who had moderate Anxiety ($N =$

116), 50 (43.1%), of the partners had moderate Anxiety. For the veterans who had mild Anxiety, 19, (31.1%), of the partners had mild Anxiety. Two patterns can be seen in Table 7. The first is that for each pathology that is demonstrated in the veteran is resonated by a significant portion of the partners. The other pattern that can be is that as the severity of the pathology, for Depression and Anxiety, changes in the veteran, there are changes in the partners' pathology as well. This suggests that resonating of pathology is a phenomenon between combat veterans and their partners.

The relationship between veteran and partner pathology is further examined using correlated (paired) t-tests. The results are shown on Table 8 along with descriptive statistics. The correlation between veteran and partner pathology is moderate at .68 for Anxiety, .69 for PTSD and .72 for Depression. Pathology for veterans are significantly higher than their partners for all PTSD, Depression and Anxiety ($p < .001$). Effect sizes are moderate for Anxiety (.57) and Depression (.44) but is large for PTSD (1.21). This suggests that there is a definitive pattern between the pathology of the veteran, and, the pathology of the partner. This can be interpreted as meaning that the pathology between the partner and the veteran is paired, and thus, there is resonating of pathology in the partner.

Analysis of the Factors That Account for Veteran and Partner Pathology

To answer the third research question, an analysis of the data was conducted to examine the predictive relationship between multiple factors that could account for the veterans' and intimate partners' pathology. These factors were chosen because of their commonality between the veteran and the partner, and, the cultural influence of these

Table 8

Paired Samples T-test Result

Pathology	Group	<i>M</i>	<i>r</i>	<i>t</i>	df	<i>p</i>	ES(d)
PTSD	Veteran	65.70	.69	24.23	397	<.001	1.21
	Partner	49.93					
Depression	Veteran	26.03	.72	8.73	397	<.001	0.44
	Partner	23.26					
Anxiety	Veteran	19.01	.68	11.31	397	<.001	0.57
	Partner	16.11					

items. Combat experience is a known factor for pathology of the veteran and was included to determine the level of influence it may predict, (Balderrama-Durbin et al., 2015). Demographic factors were included to determine if these could be used to predict pathology as part of family systems theory (Larsen et al., 2015). Finally, communication factors were included to determine if shared experiences through different communications modes and frequency would predict pathology due to the quality of attachments (Riggs & Riggs 2011). Predictive factors used in the analysis was the age range, gender, branch of service, length of time the couples were married at the time of deployment, did they have children, frequency of communication, if the couple was in a same sex relationship, combat experience of the veteran, if the couple used a cell phone to communication, if the couple used email to communicate, if the couple used skype to communicate, if the couple used a landline to communicate, and if the couple used snail mail to communicate.

Categorical Analysis of the Factors That Account for Veteran Pathology

Analysis Strategies for Explaining Veteran and Partner Pathology

For this analysis, we used a procedure known as Categorical Regression (CATREG). For this procedure we take category data, or nominal data, that is not quantified and assign numerical values to the categories. This will allow for an optimal linear regression equation for the transformed variables. For this study the variables, age range, gender, branch of service, length of marriage, children, frequency of communication, same sex relationship, CES, cell phone, email, skype, landline, and snail mail, were quantified to allow for the analysis. According to IBM Knowledge center (2018), These procedures are accomplished in SPSS, which minimizes the sum of squared differences between the dependent variables, such as PTSD, Depression, and Anxiety PCLV, PHQV, GADV, and a weighted combination of the categorical variables mentioned above as predictive, independent, variables. The nominal data is recorded to binary, or contrast variables. The result is that the categorical variables serve to separate groups of cases and the technique estimates separate sets of parameters for each group. The CATREG standard approach is done by simultaneously scaling nominal, ordinal, and numerical variables. The procedure quantifies categorical variables so that the quantifications reflect characteristics of the original categories. The procedure treats quantified categorical variables in the same way as numerical variables. Using nonlinear transformations allow variables to be analyzed at a variety of levels to find the best-fitting model.

The CATREG analysis was run using 383 cases; 15 cases were omitted due to missing data and were eliminated list wise. Six CATREG equations were completed, three for the veteran and three for the partner, using PTSD, Depression and Anxiety as dependent variables each group. This ensured that most accurate predictions were made for each group. Both the full model and restricted models were ran for each group. In the full model, all factors were included to determine which factors were significant.

Explaining Veteran Pathology

The first full model for the CATREG was run using PTSD as measured by the PCL-5 as the dependent variable and age range, gender, branch of service, length of marriage, children, frequency of communication, same sex relationship, CES, cell phone, email, skype, landline, and snail mail as independent variables. The results are reported in Table 9. A significant equation was reported, ($F(20, 383) = 6.38; p < .000$) with an R^2 of .261 and an adjusted R^2 of .220. That is, approximately 26% of the variance in PTSD as measured by the PCL-5 may be accounted for by the set of independent variables (age range, gender, branch of service, etc.).

Pratt's measure of relative importance indicated that combat exposure (Importance = .887, $p = <.001$) contributes the most to the variance in PTSD for combat veterans (Thomas, Zhu, Zumbo, & Dutta, 2008). Branch of service was the only other variable that accounted for PTSD in combat veterans at (Importance = .023, $p = .014$). Because of their statistical significance, and relative importance a second CATREG, restricted model was ran using CES and Branch of Service.

A second CATREG equation was run using the two independent variables of CES and Branch of Service from the first run. A significant regression equation was found (F

Table 9

CATREG Analysis Results for Explaining PTSD

Model	Variable	<i>B</i>	SE	df	<i>F</i>	<i>p</i>	<i>r</i>	Importance
Full	Age	.080	.084	2	.92	.400	.10	.030
	Gender	.007	.029	1	.06	.813	.05	.001
	Branch	.069	.036	3	3.58	.014	.09	.023
	Years	-.039	.083	1	.22	.638	.02	-.003
	Married							
	Children	.070	.049	1	2.00	.158	-.03	-.007
	Freq of Com	-.068	.092	2	.54	.582	-.07	-.076
	Same Sex	.042	.038	1	1.24	.267	.07	.011
	CES	.480	.045	1	114.55	.000	.48	.887
	Cell Phone	.001	.029	1	.00	.963	.02	.000
	Email	.026	.030	1	.76	.383	.00	.000
	Skype	.055	.038	1	2.04	.154	.07	.015
	Landline	.017	.034	1	.23	.629	.03	.002
Restricted	Snail Mail	.012	.031	1	.15	.697	.05	.002
	Branch	.078	.035	3	4.91	.002	.106	.033
	CES	.492	.041	1	.22	<.001	.496	.967

Full: $R^2 = .26$, $F(20,383) = 6.38$, $p < .001$

Restricted: $R^2 = .25$, $F(4,398) = 33.17$, $p < .001$

(4, 398) = 33.171; $p < .001$) with an R^2 of .252 and an adjusted R^2 of .245. Together, CES and Branch of Service explains approximately 25% of PTSD. Pratt's measure of relative importance indicated that CES (Importance = .967), contributes the most to the variance of PTSD. While important, Branch of service, (Importance = .033), did not contribute as much in predicting PTSD.

These results indicate that for combat veterans, higher levels of combat exposure, or experience, is related to the higher levels of PTSD. Higher levels of combat exposure tend to predict that there will be PTSD in combat veterans. Both models did well in moderately predicting PTSD, with the full model, having thirteen predictors, having a slightly higher percentage of 26% compared to the restricted model, with only two

predicting 25%. While branch of service does have some importance in predicting PTSD, this is minor compared to combat exposure, which is the more important variable. Marines ($M = 70.80$, $SD = 18.73$) appears to have higher levels of PTSD than the Army ($M = 66.19$, $SD = 20.88$), Navy ($M = 62.29$, $SD = 21.95$) or Air Force ($M = 62.42$, $SD = 20.52$). The other variables, age range, gender, length of marriage, children, frequency of communication, same sex relationship, cell phone, email, skype, landline, and snail mail, had no significance in explaining PTSD. The results are illustrated in Table 9.

The second full model for the CATREG was run using Depression as measured by the PHQ - 9 as the dependent variable and age range, gender, branch of service, length of marriage, children, frequency of communication, same sex relationship, CES, cell phone, email, skype, landline, and snail mail as independent variables. The results are reported in Table 10. A significant equation was reported, ($F(21, 383) = 3.36$; $p < .000$) with an R^2 of .164 and an adjusted R^2 of .115. That is, approximately 16% of the variance in Depression as measured by the PHQ-9 may be accounted for by the set of independent variables (age range, gender, branch of service, etc.).

Pratt's measure of relative importance and statistical significance indicated that combat exposure (Importance = .811, $p = <.001$) contributes the most to the variance in Depression for combat veterans. Branch of service was the only other variable that accounted for Depression in combat veterans at (Importance = .035, $p = .021$). These findings prompted a second CATREG, restricted model, using the variables that were statistically significant and of the most importance; CES and Branch of Service.

A second CATREG equation was run using the two independent variables of CES and Branch of Service from the first run. A significant regression equation was found (F

Table 10

CATREG Analysis Results for Explaining Depression

Model	Variable	<i>B</i>	SE	df	<i>F</i>	<i>p</i>	<i>R</i>	Importance
Full	Age	.041	.107	2	.15	.864	.09	.022
	Gender	.021	.033	1	.41	.525	-	-.004
							.029	
	Branch	.068	.037	3	3.29	.021	.09	.035
	Years	.056	.095	2	.35	.706	.10	.035
	Married							
	Children	.057	.053	1	1.17	.280	-.04	-.015
	Freq of	-.065	.095	2	.48	.619	-.05	.021
	Com							
	Same Sex	.007	.032	1	.05	.823	-.03	-.001
	CES	.359	.051	1	49.69	<.001	.37	.811
	Cell Phone	.020	.032	1	.38	.541	.04	.005
	Email	.017	.031	1	.31	.580	-.01	-.001
	Skype	.054	.040	1	1.85	.174	.05	.017
	Landline	.083	.048	1	3.04	.082	.09	.045
Restricted	Snail Mail	.026	.032	1	.64	.424	-.03	-.005
	Branch	.068	.034	3	3.87	.009	.10	.046
	CES	.375	.045	1	69.48	<.001	.38	.954

Full: $R^2 = .16$, $F(21,383) = 3.36$, $p < .001$ Restricted: $R^2 = .15$, $F(4,398) = 17.34$, $p < .001$

(4, 398) = 17.344; $p < .001$) with an R^2 of .150 and an adjusted R^2 of .141. Together, CES and Branch of Service explains approximately 15% of Depression. Pratt's measure of relative importance indicated that CES (Importance = .954), contributes the most to the variance of Depression. While important, Branch of service, (Importance = .046), did not contribute as much in predicting Depression. The correlation between Depression and branch of service is negligible, though statistically significant ($r = .10$, $p < .05$) suggesting that Marines ($M = 27.77$, $SD = 6.81$) may have higher levels of Depression than the Army ($M = 26.19$, $SD = 8.33$), Navy ($M = 24.77$, $SD = 8.89$) or Air Force ($M = 25.10$, $SD = 7.78$). The other variables, age range, gender, length of marriage, children,

frequency of communication, same sex relationship, cell phone, email, skype, landline, and snail mail, had no significance in explaining Depression.

These results indicate that for combat veterans, higher levels of combat exposure, or experience, is associated to higher levels of Depression. Both did well in moderately predicting Depression, with the full model, having thirteen predictors, having a slightly higher percentage of 16% compared to the restricted model, with only two predicting 15%. The results are illustrated in Table 10.

The third full model for the CATREG was run using Anxiety as measured by the GAD - 7 as the dependent variable and age range, gender, branch of service, length of marriage, children, frequency of communication, same sex relationship, CES, cell phone, email, skype, landline, and snail mail as independent variables. The results are reported in Table 11. A significant equation was reported, ($F(19, 383) = 3.31; p < .000$) with an R^2 of .164 and an adjusted R^2 of .120. That is, approximately 16% of the variance in Anxiety as measured by the GAD - 7 may be accounted for by the set of independent variables (age range, gender, branch of service, etc.).

Pratt's measure of relative importance indicates that combat exposure (Importance = .792, $p = <.001$) contributes the most to the variance in Anxiety for combat veterans. Since CES was the only significant variable, and having the highest importance, a second CATREG, restricted model, using the variable of most importance, CES was run.

A second CATREG equation was run using the independent variable of CES. A significant regression equation was found ($F(1, 398) = 17.344; p < .001$) with an R^2 of .145 and an adjusted R^2 of .142. Combat Exposure Scale explains approximately 15% of

Table 11

CATREG Analysis Results for Explaining Anxiety

Model	Variable	β	SE	df	F	p	R	Importance
Full	Age	.104	.096	2	1.19	.305	.11	.071
	Gender	.011	.033	1	.11	.744	-.05	-.003
	Branch	.053	.037	3	2.05	.107	.09	.028
	Years	-.065	.088	1	.054	.464	.00	.000
	Married							
	Children	.036	.048	1	.58	.448	-.05	-.010
	Freq of	-.042	.093	2	.20	.819	-.03	.009
	Com							
	Same Sex	.043	.039	1	1.21	.272	.03	.008
	CES	.358	.052	1	46.96	<.001	.36	.792
	Cell Phone	.028	.035	1	.06	.433	.01	.002
	Email	.016	.029	1	.30	.583	.00	-.001
	Skype	.076	.046	1	2.74	.099	.08	.038
Restricted	Landline	.039	.039	1	1.02	.313	.05	.013
	Snail Mail	.043	.039	1	1.18	.278	.09	.024
	CES	.380	.46	1	69.21	<.001	.38	1.000

Full: $R^2 = .16$, $F(19,383) = 3.31$, $p < .001$

Restricted: $R^2 = .15$, $F(1,398) = 17.34$, $p < .001$

Anxiety. Pratt's measure of relative importance indicated that CES (Importance = .954), contributes the most to the variance of Anxiety.

These results indicate that for combat veterans, higher levels of combat exposure, or experience, is associated to higher levels of Anxiety. Both models did well in moderately predicting Anxiety, with the full model, having thirteen predictors, having a slightly higher percentage of 16% compared to the restricted model, with only one variable, predicting 15%. Higher levels of combat exposure tend to predict that there will be higher levels of Anxiety in combat veterans. The other variables, age range, gender, length of marriage, branch of service, children, frequency of communication, same sex relation Anxiety. The results are illustrated in Table 11.

Explaining Partner Pathology

The first full model for the CATREG was run using PTSD as measured by the PCL-5 as the dependent variable and age range, gender, branch of service, length of marriage, children, frequency of communication, same sex relationship, CES, cell phone, email, skype, landline, and snail mail as independent variables. The results are reported in Table 12. A significant equation was reported, ($F(18, 388) = 5.92; p < .001$) with an R^2 of .224 and an adjusted R^2 of .186. That is, approximately 22% of the variance in PTSD as measured by the PCL-5 may be accounted for by the set of independent variables (age range, gender, branch of service, etc.).

Pratt's measure of relative importance indicated that combat exposure (Importance = .694, $p = <.001$) contributes the most to the variance in PTSD for partners. Gender was the second highest variable that accounted for PTSD in combat veterans at (Importance = .101, $p = .001$), followed by Same Sex Couple, (Importance = .068, $p = .032$), and Branch of Service (Importance = .033, $p = .001$). These findings prompted a second CATREG, restricted model, using the variables that were statistically significant and of most importance; CES, Gender, Same Sex Couple, and Branch of Service.

A second CATREG equation was run using the four independent variables of CES, Gender, Same Sex Couple, and Branch of Service from the first run. A significant regression equation was found ($F(7, 398) = 15.046; p < .001$) with an R^2 of .213 and an adjusted R^2 of .199. Together, the four variables explain approximately 21% of PTSD. Pratt's measure of relative importance indicated that CES (Importance = .783), contributes the most to the variance of PTSD. While important, Gender (Importance =

Table 12

PTSD Results from Analysis

Model	Variable	β	SE	df	F	p	R	Importance
Full	Age	.054	.076	2	.51	.600	.11	.026
	Gender	.156	.045	2	11.92	<.001	.15	.101
	Branch	.099	.041	3	5.85	.001	.07	.033
	Years	.082	.104	1	.62	.432	.15	.054
	Married							
	Children	.041	.052	1	.62	.431	-.06	-.011
	Freq of Com	.061	.081	2	.57	.566	.07	.019
	Same Sex	.098	.045	1	4.66	.032	.16	.068
	CES	.395	.046	1	72.20	<.001	.39	.694
	Cell Phone	.025	.034	1.53	.53	.437	.07	.008
	Email	.021	.032	1	.43	.511	-.01	-.001
	Skype	.032	.035	.001	.84	.361	.04	.006
	Landline	.018	.033	1	.28	.594	.04	.003
	Snail Mail	.013	.031	1	.18	.675	.02	.001
Restricted	Branch	0.97	.040	3	5.74	.001	.07	.030
	Same Sex Couple	.110	.045	1	6.03	.014	.15	.078
	Gender	.162	.043	2	14.12	<.001	.14	.109
	CES	.416	.042	1	99.63	<.001	.40	.783

Full: $R^2 = .22$, $F(18,388) = 5.92$, $p < .001$

Restricted: $R^2 = .21$, $F(7,398) = 15.05$, $p < .001$

.109), Same Sex Couple (Importance = .078), and Branch of service, (Importance = .030), did not contribute as much in predicting PTSD.

These results indicate that for the partners of combat veterans, higher levels of combat exposure, or experience, is related to the pathology of PTSD. Both models did well in moderately predicting PTSD, with the full model, having thirteen predictors, having a slightly higher percentage of 22% compared to the restricted model, with only four variables, predicting 21%. Higher levels of combat exposure tend to predict that

there will be PTSD in combat veterans. While gender, same sex couple, and branch of service do have some importance in predicting PTSD, this is minor compared to combat exposure, which is the more important variable. Gender neutral partners ($M = 61.75$, $SD = 12.39$) appears to have higher levels of PTSD than Male partners ($M = 49.69$, $SD = 17.96$) or female partners ($M = 45.41$, $SD = 17.02$). Same sex partners ($M = 51.48$, $SD = 16.08$) seems to have higher levels of PTSD than heterosexual partners ($M = 45.41$, $SD = 17.61$). And, partners of veterans of the Marines ($M = 48.68$, $SD = 17.13$), Army ($M = 46.89$, $SD = 17.22$) and Navy ($M = 48.05$, $SD = 18.58$) appears to have higher levels PTSD than those of the Air Force ($M = 43.64$, $SD = 16.9$). The other variables, age range, length of marriage, children, frequency of communication, cell phone, email, skype, landline, and snail mail, had no significance in explaining PTSD. The results are illustrated in Table 12

The second full model for the CATREG was run using Depression as measured by the PHQ - 9 as the dependent variable and age range, gender, branch of service, length of marriage, children, frequency of communication, same sex relationship, CES, cell phone, email, skype, landline, and snail mail as independent variables. The results are reported in Table 13. A significant equation was reported, ($F(18, 388) = 4.46$; $p < .000$) with an R^2 of .182 and an adjusted R^2 of .142. That is, approximately 18% of the variance in Depression as measured by the PHQ-9 may be accounted for by the set of independent variables (age range, gender, branch of service, etc.).

Pratt's measure of relative importance indicated that combat exposure (Importance = .639 $p = <.001$) contributes the most to the variance in Depression for

Table 13

Analysis of Results for Explaining Depression

Model	Variable	β	SE	df	F	p	R	Importance
Full	Age	.058	.077	2	.58	.560	.09	.029
	Gender	.131	.045	2	8.58	<.001	.13	.092
	Branch	.098	.041	3	5.75	.001	.7	.036
	Years	.088	.116	1	.57	.453	.14	.069
	Married							
	Children	.052	.053	1	.95	.331	-.05	-.015
	Freq of Com	.097	.070	2	1.88	.154	.10	.055
	Same Sex	.073	.046	1	.251	.114	.13	.053
	CES	.343	.045	1	57.39	<.001	.34	.639
	Cell Phone	.039	.038	1	1.04	.309	.09	.018
	Email	.029	.033	1	.76	.384	-.01	-.002
	Skype	.038	.038	1	1.04	.308	.04	.008
	Landline	.044	.039	1	1.30	.255	.06	.015
	Snail Mail	.027	.034	1	.66	.417	.02	.003
Restricted	Branch	.109	.042	3	6.82	<.001	.06	.041
	Gender	.147	.042	2	12.05	<.001	.13	.119
	CES	.375	.042	1	78.89	<.001	.35	.841

Full: $R^2 = .18$, $F(18,388) = 4.46$, $p < .001$

Restricted: $R^2 = .16$, $F(6,398) = 12.05$, $p < .001$

partners of combat veterans. The other two significant variables that accounted for PHQ – 9 included: Branch of Service (Importance = .036, $p = .001$), and Gender (Importance = .092, $p = <.001$). These findings prompted a second CATREG, restricted model, using the variables that were statistically significant and of most importance; CES, Gender, and Branch of Service.

A second CATREG equation was run using the three independent variables of CES, Gender, and Branch of Service from the first run. A significant regression equation was found ($F(6, 398) = 12.046$; $p < .001$) with an R^2 of .156 and an adjusted R^2 of .143.

Together, CES and Branch of Service explains approximately 15% of Depression. Pratt's measure of relative importance indicated that CES (Importance = .841), contributes the most to the variance of Depression. While important, Branch of service, (Importance = .041), and Gender, (Importance = .119), did not contribute as much in predicting Depression.

These results indicate that for partners, higher levels of combat exposure, or experience, is associated to higher levels of Depression. Both models did well in moderately predicting Depression, with the full model, having thirteen predictors, having a slightly higher percentage of 18% compared to the restricted model, with only three variables, predicting 15%. Higher levels of combat exposure tend to predict that there will be higher levels of Depression in combat veterans. While Branch of Service and Gender does have some importance in predicting Depression, this is minor compared to combat exposure, which is the more important variable. Partners of veterans of the Marines ($M = 23.63$, $SD = 8.77$), Army ($M = 23.22$, $SD = 8.96$) and Navy ($M = 24.09$, $SD = 9.09$) appears to have higher levels Depression than those of the Air Force ($M = 21.89$, $SD = 8.05$). Gender neutral partners ($M = 30.50$, $SD = 6.61$) appears to have higher levels of Depression than Male partners ($M = 24.41$, $SD = 9.18$) or female partners ($M = 22.60$, $SD = 8.59$). The other variables, age range, length of marriage, children, frequency of communication, same sex relationship, cell phone, email, skype, landline, and snail mail, had no significance in explaining Depression. The Results are illustrated in Table 13.

The third full model for the CATREG was run using Anxiety as measured by the GAD - 7 as the dependent variable and age range, gender, branch of service, length of

marriage, children, frequency of communication, same sex relationship, CES, cell phone, email, skype, landline, and snail mail as independent variables. The results are reported in Table 14. A significant equation was reported, ($F(19, 388) = 3.11; p < .000$) with an R^2 of .152 and an adjusted R^2 of .109. That is, approximately 15% of the variance in Anxiety as measured by the GAD - 7 may be accounted for by the set of independent variables (age range, gender, branch of service, etc.).

Table 14

Results of the Analysis Explaining Anxiety

Model	Variable	β	SE	df	F	p	R	Importance
Full	Age	.107	.065	3	2.75	.043	.08	.055
	Gender	.103	.048	2	4.54	.011	.08	.052
	Branch	.107	.042	3	6.55	<.001	.11	.075
	Years	-.108	.073	2	2.20	.112	-.03	.024
	Married							
	Children	.059	.051	1	1.38	.241	.01	.003
	Freq of	.061	.092	1	.43	.910	.05	.021
	Com							
	Same Sex	.098	.049	1	4.11	.043	.13	.084
	CES	.304	.049	1	38.37	<.001	.31	.618
	Cell Phone	.015	.032	1	.22	.641	.05	.005
	Email	.026	.032	1	.69	.405	.00	.000
	Skype	.067	.046	1	2.16	.143	.07	.029
	Landline	.068	.044	1	2.34	.127	.07	.029
	Snail Mail	.026	.034	1	.58	.447	.04	.007
Restricted	Gender	.093	.045	2	4.16	.016	.08	.056
	Branch of	.088	.040	3	4.86	.002	.09	.064
	Service							
	Same Sex	.105	.048	1	4.82	.029	.13	.103
	Couple							
	CES	.318	.048	1	44.18	<.001	.32	.778

Full: $R^2 = .15$, $F(19,388) = 3.11$, $p < .001$

Restricted: $R^2 = .13$, $F(7,398) = 8.35$, $p < .001$

Pratt's measure of relative importance indicated that combat exposure (Importance = .618, $p < .001$) contributes the most to the variance in Anxiety for Partners. This is followed by Same Sex Couples, (Importance = .084, $p = .043$), Branch of Service, (Importance = .075, $p < .001$), and Gender, (Importance = .052, $p = .011$). These findings prompted a second CATREG, restricted model, using the variables that were statistically significant and of most importance, CES, Same Sex Couples, Branch of Service, and Gender.

A second CATREG equation was run using the independent variables of CES, Same Sex Couples, Branch of Service, and Gender. A significant regression equation was found ($F(7, 398) = 8.348$; $p < .001$) with an R^2 of .130 and an adjusted R^2 of .115. Together the variables explain approximately 13% of Anxiety. Pratt's measure of relative importance indicated that CES (Importance = .778), contributes the most to the variance of Anxiety. This is followed by Same Sex Couple, (Importance = .103), Branch of Service, (Importance = .064), and Gender, (Importance = .056)

These results indicate that for partners of combat veterans, higher levels of combat exposure, or experience, is associated to higher levels of Anxiety. Both models did well in moderately predicting Anxiety, with the full model, having thirteen predictors, having a slightly higher percentage of 15% compared to the restricted model, with only four variables, predicting 13%. Higher levels of combat exposure tend to predict that there will be higher levels of Anxiety in combat veterans' partners. Same Sex couples, Branch of Service, and Gender, while important, have a minor association with Anxiety in partners of combat veterans. Gender neutral partners ($M = 20.75$, $SD = 7.71$) appears to have higher levels of Anxiety than Male partners ($M = 16.40$, $SD = 6.86$) or female

partners ($M = 15.89$, $SD = 6.49$). Same sex partners ($M = 17.58$, $SD = 6.39$) seems to have higher levels of Anxiety than heterosexual partners ($M = 15.61$, $SD = 6.64$). And, partners of veterans of the Marines ($M = 17.13$, $SD = 6.06$) seems to have higher levels of Anxiety than those of the Army ($M = 16.17$, $SD = 6.79$), Navy ($M = 16.15$, $SD = 6.92$) and Air Force ($M = 14.66$, $SD = 6.18$). The other variables, age range, length of marriage, children, frequency of communication, cell phone, email, skype, landline, and snail mail, had no significance in explaining Anxiety. The results are illustrated in Table 14.

Summary

The analysis of the data that was collected for this dissertation has provided significant insight into the effects of combat and relationships on pathology among combat veterans and their intimate partners. To ensure that the scales and their results were viable, reliability analysis was performed on the results for all responses. Each of the scales indicated a strong Cronbach's alpha which demonstrates a high internal reliability for the responses on each of the instruments. These reliability estimates are well above the point seven that is recommended, (Meyers et al., 2013; Warner, 2013).

The three research questions were tested using separate analysis to determine if the data supported the research hypothesis. This research demonstrates that shared pathology of either Depression, Anxiety, or PTSD in couple pairs is the result of multiple factors. Significant among these factors is the correlation between increased combat exposure and pathology among combat veterans. There is some influence from branch of service, but, this is very small. For the partners, there does seem to be other factors, branch of service, gender identity and same sex couple, but these are very small in their

influence. These predicting factors demonstrates that higher combat exposure leads to pathology for the veteran, which, in turn leads to pathology of the intimate partner.

The first research question was tested using a bivariate correlation analysis. This analysis demonstrates a positive correlation between combat exposure and levels of PTSD, Depression, and Anxiety in the combat veteran. For the 398 of the veterans who completed the survey, 305, or about 77%, reported having PTSD. The analysis showed that combat exposure explained approximately 25% of the PTSD. Two hundred and forty-five of the same veterans, or about 62%, reported having severe Depression. The analysis showed that combat exposure explained approximately 19% of the Depression. 155 of the same veterans, or approximately 39%, reported severe Anxiety, or which, 19% is explained by combat exposure according to the analysis.

The second research question utilized two different analysis, a cross-tabulation of the classification of pathology between veterans and their partners and a Paired Samples T-test analyzing the results of the pathology scales for both the veteran and the intimate partner. The cross-tab analysis supports the hypothesis that pathology is shared among combat veterans and their intimate partners. Of the veterans who reported PTSD, 158, or approximately 51.8% of their partners also reported having PTSD. For the veterans who reported severe Depression, 169, or about 69%, or their partners also reported having severe Depression. For the veterans who reported severe Anxiety, 75, or about 48%, of their partners also reported having severe Anxiety. The data showed a general trend in which pathology followed the same patterns for both the veteran and the intimate partner. The paired samples t-test demonstrated that there was a moderate, positive, relationship for pathology that was shared between the veterans and their partners. The analysis

showed correlations of .69 for PTSD, .72 for Depression, and .68 for Anxiety. This provides support that as the pathology of the veteran got higher, so did the pathology of their partner. This provides evidence that the pathology of combat veterans and their intimate partners are strongly related.

The third research question was tested using CATREG analysis using predictive factors such as combat exposure, branch of service, gender identity, and same sex couples to predict pathology in the veteran and the partner. The most important predictor of veteran pathology appears to be combat exposure. This was shown to be true for the veterans' partners where the veteran's combat exposure was also the most important factor in predicting partner pathology. Additionally, gender and same sex marriage were important predictors of partner pathology. From this data we can determine that combat experience in the veteran is the mostly likely factor associated with pathology in both the combat veteran and their intimate partners. The other factors that were analyzed to determine if they would predict pathology, age, number of years married, number of children, and frequency and types of communication, were not significant in predicting pathology. This may have been because of the time difference between the veteran's combat deployments, and, when the couples answered the survey. The survey design may have also affected the weight of these factors in the analysis.

The hypothesis of this research: That as the exposure to combat is increased, the veteran will begin to experience greater levels of pathology; there are positive correlations between veteran and partner pathology; and that this has been linked to combat experience in the veteran, has been supported.

While the correlations of combat exposure to pathology were lower than expected, the correlations between pathology of the veteran and their intimate partner was strongly supported by the data. This relationship between the pathology of the veteran and their intimate partner may prove to be significant in both research and clinical applications.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The United States is a global power that utilizes its military to affect influence and change in other regions of the world. Due to the nature of combat and deployments for military service, increased levels of mental health pathology have been witnessed for all service components (Balderrama-Durbin et al., 2015). As a result of the need to send our young people into combat, the country has felt an obligation to support and care for these individuals after they return from war. While the government has made conscientious efforts to provide care for most veterans, almost no effort is made to help the family members of these combat veterans through veteran's agencies.

A significant amount of research has been conducted to investigate the pathology that exists for combat veterans that include PTSD, Depression, and Anxiety. Studies have also highlighted the culture that exists within the military that may hinder the acceptance of and the treatment for, pathology affecting combat veterans (Bryan & Morrow, 2011; Held & Owens 2013). While some research was found that examined the experiences of the pathology of the intimate partners of veterans (Larsen et al., 2015), or their involvement with couple's therapy (Meis et al., 2013), a definite gap in research was found concerning the pathology that is shared between combat veterans and their intimate partners. While this type of research would provide for a better understanding of the individual needs of the veteran and the partner, no research was found in this area. This

study sought to explore this phenomenon and discover the factors, if any, that contribute to this type of interactive pathology.

Summary of Methodology

Description and Methodology

This investigation utilized the survey research method and online surveys to gather data. The target population included combat veterans and their intimate partners. Exclusion criteria included the need for the veteran to have been assigned to a combat zone during deployment. The second requirement was that their intimate partner who was answering the survey must have been in the relationship with them during that deployment.

Four self-report instruments were used in the survey. The CES, which was answered by the veteran only, was used to measure the intensity of combat experience. The PCL-5 was used to measure PTSD pathology for both the veteran and the partner. The PHQ – 9 was used to measure levels of Depression in both the veteran and their partner and the GAD – 7 was used to measure Anxiety in both the veteran and their partner. All Pathology, as indicated by the instruments, was based on the criteria set forth in the DSM-5. The data was then analyzed using SPSS in order to understand the correlations between combat experience, pathology of the veteran, and the relationship between the veterans' pathology and their intimate partners. Finally, regression analysis was performed to determine factors that appeared to contribute the most to the pathology in both the veteran and the partner.

The online survey required that both the veteran and their partner answer the survey separately, but, on the same device in order to match response identifications used

by the survey web site. This ensured the integrity of the survey, and, allowed for the responses to be matched between the veteran and their intimate partner.

Description of the Participants

This sample of 398 couples was made up of military veterans from across the United States and their intimate partners. The majority of the combat veterans were male ($N = 250$, 62.8%), with ($N = 143$, 35.9%) being female. Approximately two-thirds (66.9%) of the veterans were between the ages of 18-40 years old, with approximately 25% being between the ages of 41-50 years of age, and approximately 9% being between the ages of 51-60 years of age. Of the intimate partners that participated in the survey, approximately two-thirds were female, ($N = 266$, 67.8%) and ($N = 126$ 31.6%) were male. Approximately two thirds of the partners (66.9%), fell within the age ranges of 18-40, approximately 24% were between the ages of 41-50, and 7% were between the ages of 51-60.

The veterans came from all branches of the service. Most of the respondents came from the Army (50.0%) followed by Navy (18.3%), Marines (16.8%), and Air Force (14.8%). Approximately two-thirds of the responding couples indicated that, at the time of deployment, they had been married for between zero and five years, and approximately 1/3 had been married for five to 10 years or more at the time of the deployment. One responding couple did not answer this question. Of the participants in this study, 288 (72.4%) of the veterans stated that they had children during the time of their deployment.

Discussion of Results

Summarization of Main Results

The first research question investigated the relationship between combat exposure and the pathology of the veterans who had this experience. I had hypothesized that there would be a significant relationship between combat experience and the veteran's pathology. The role of combat exposure and how it relates to combat veteran pathology has been investigated before. Balderrama-Durbin et al. (2015), demonstrated that there was a significant relationship between combat experience and pathology for combat veterans. For this study, it was important to demonstrate this relationship again in order to understand how this could be related to the second research question; the relationship between the combat veteran's pathology and their intimate partners' pathology. The role of combat exposure and how it relates to pathology in both the veteran and the intimate partner was a key relationship at the center of this study.

The statistical analysis for the first research question found that combat experience was moderately correlated to veteran's pathology. For PTSD, the analysis showed that CES and PCL-5 scores had a correlation of .496. This moderately-positive correlation suggested that higher levels of combat experience were associated with higher levels of PTSD. This also suggested that about 25% of the variance in PCL-5 could be explained by combat exposure. The CES and PHQ-9 scores indicated a correlation of .381. This moderately-positive correlation suggested that higher levels of combat experience were associated with higher levels of Depression. This also suggested that about 15% of the variance in PHQ-9 could be explained by combat exposure. The CES and GAD - 7 scores indicated a correlation of .380. This moderately-positive correlation

suggests that higher levels of combat experience were associated with higher levels of Anxiety. This also suggests that about 15% of the variance in GAD - 7 could be explained by combat exposure. For the veterans who answered this survey, this analysis suggests, thus, that there is a positive relationship between combat experience and the pathology of PTSD, Depression, and Anxiety among the veterans in this study.

Establishing a relationship between the veteran's experience in combat and pathology was important as it would be the foundation to the pattern of pathology for the second research question. By demonstrating a positive, albeit a moderate, relationship between the trauma of combat and PTSD, Depression, and Anxiety in the combat veteran, might also help understand the influence on the family system as well. Research by Renshaw et al. (2011), demonstrated a significant increase in distress among spouses of combat veterans who reported symptoms of PTSD. This could indicate that increased distress in the veteran, and an empathetic response from the intimate partner, may be a key factor in the relationship between the combat veteran's pathology and their intimate partners' pathology, led to my second research question.

The second research question which stated "What is the relationship between veterans' pathology and their intimate partners' pathology," was investigated to understand the extent that the couples' pathology was tied together. I had hypothesized that there would be a significant relationship between the pathology of the combat veteran and the intimate partner. I wanted to explore whether the stress of the combat veteran would be such as to introduce pathology into the family system in a significant way, leading to the intimate partner also demonstrating similar symptoms of pathology. In particular, I wanted to investigate the relationship between the combat veteran's

pathology of PTSD, Depression, and Anxiety, and the same pathology in their intimate partners. I wanted to explore if there was a resonating of the pathology. Research by Erbes et al. (2011), suggested a significant relationship between disturbance and adjustment problems for returning veterans with symptoms and PTSD and their spouses. This disruption to the family system, and the resulting adjustment problems after reintegration, was something I thought might be significant in the relationship between pathology among veterans and their intimate partners.

Indeed, the analysis for the second research question found a significant relationship between the veterans' pathology and their intimate partner's pathology. Within-couple's analysis showed that 51.8% of the intimate partners' PTSD followed, or resonated, the combat veterans' pathology. This was also true for major Depression at 69%, moderate Depression at 69%, and mild Depression at 34.4%. Anxiety followed a similar pattern with a within-couple's analysis showing that 48.4% of the partners also had major Anxiety, 43.1% had moderate Anxiety, and 31.1% had minor Anxiety. These results suggested that not only did the partners have Anxiety, but an increase in the veteran's pathology showed an increase in the partner's pathology as well.

The significance of this finding is that for the couples in this study, when we looked at PTSD, Depression, and Anxiety, the pathology appeared to follow the same pattern for the veteran and their partner. The results suggested that as combat veterans experienced trauma through combat exposure, approximately 15% to 25% of their partners also experienced pathology as measured by the instruments in this survey. We found that not only did the intimate partner experience pathology, but when measured by the same instruments, a significant percentage of them also appeared to be experiencing

the same PTSD, and similar levels Depression, and Anxiety as their veteran-partner. The cross-tab analysis confirmed this pattern, showing that when the veteran obtained scores indicating a higher level of severity for Depression or Anxiety, their partners followed suit, also attaining higher scores for Depression or Anxiety. Unlike the diagnosis of Depression and Anxiety, it is important to note that PTSD does not have categories for mild, moderate, or severe so this pattern could not be examined for PTSD. In summary, results in this study suggest that there is a pattern to the relationship between the pathology of the combat veteran and the intimate partner, as shown in the participants who responded to this survey.

The analysis of the second research question analysis seems to indicate that, for some couples, the disruption to the family system, and stress on the relationship is such that a significant number of the couples in this study appeared to demonstrate similar symptoms. In research by Renshaw et al. (2011), one theory posited was that the partners may be demonstrating an empathetic or other emotional response to the knowledge of the veteran's pathology. This theory may explain this pattern in which the severity of the symptoms of Depression and Anxiety by the partners tracked along with the severity of the same pathology in the veteran. Future research might want to tease this out even further.

The third research question explored factors that might contribute to the pathology in the couples. This question sought to explore various aspects of the couples lives that may have added internal or external stress to the family system. Factors explored were the couples' age range, gender, branch of service, length of marriage, children, frequency of communication, same sex relationship, combat exposure, and the

use of cell phones, email, skype, landline, and snail mail. It was hypothesized that these factors would exacerbate the symptoms of PTSD, Depression, or Anxiety in both the veteran and the intimate partner. To date, I have not been able to find any research articles that discuss factors that predict pathology in couples with at least one member having combat experience. A review of literature came up empty handed. This research may be the first attempt to explore these factors and how they affect PTSD, Depression, and Anxiety in couples.

The analysis for the third research question used CATREG. With regards to PTSD, findings suggest that combat experience appeared to be the most important factor for predicting PTSD for both veterans and their partners. This study supported the findings of Riggs and Riggs (2011), that indicated that the intensity and frequency of deployments was a factor for distress in military couples. While these researchers did not specifically look at combat experience as a factor that would predict pathology, the present study appears to support their findings.

The analysis also suggested, to a much lesser degree, that branch of service also appeared to predict PTSD for the combat veteran. Results indicated that those serving in the Marines, experienced higher levels of PTSD, followed by those serving in the Army, Navy, and Air Force respectively. The analysis also indicated that partners of members who had been enlisted in the Marines, Army, and Navy also reported higher occurrences of their own PTSD. From my own experience and observations of what differences there are between the different branches of military service, this makes sense. Marines are most likely to see the most intense combat service, followed by the Army, followed by the Navy and then the Air Force, who are more likely to be farther behind the lines of

combat. Post-Traumatic Stress Disorder among combat veterans who served in the Air Force, as well as their partners, showed no significant relationship between levels of PTSD and branch of service.

A third less important predictor for PTSD was found among partners who identified as gender neutral and/or same sex partners. While I could not find any research that had investigated connections between same sex couples or gender-neutral partners and predictors of pathology in military partners, I would hypothesize that the continuing difficulties posed to this population to fit in well with the military culture, may impose further disruptions within the family system. Further research is needed in this area.

The analysis indicated that when it came to Depression, combat experience again was the most important factor for predicting this pathology for both the veterans and their partners and seem to follow the same pattern as PTSD. The analysis again showed that a much smaller factor, contributing to Depression, was the branch of service the combat veteran was a member of, and showed the same pattern for the couples as did PTSD. Service in the Marines was the most likely predictor, followed by the Army, Navy, and the Air Force. From my own experience, deployments and combat experience are stressors for the whole family. Branches of service, such as the Marines, are more likely to see the higher intensities of combat, contributing to higher levels of Depression for both the veteran and their partner.

A third, less important predictor of Depression was noted for partners in gender-neutral partnerships. In this study, it appears that being a gender-neutral partner was more a factor contributing to Depression than those who reported to be in a relationship with a male, female, or for those who were in same sex relationships.

The factors for predicting Anxiety again seemed to follow the same patterns as Depression and PTSD, with small differences, when it came to predicting Anxiety in veterans. As with PTSD and Depression, the analysis showed that combat experience for the veteran was the most important factor for predicting Anxiety. Anxiety departed from the pattern of Depression and PTSD in that for the combat veteran, the branch of service was not a significant factor in predicting this pathology. For the partners of the veterans, branch of service was significant in that it was more likely to predict Anxiety in the partners of Marines Army, Navy, than for the Air Force. For those partners suffering from Anxiety, gender neutral and same sex partners were significantly more likely to experience Anxiety than those with male and female partners.

I had hypothesized that types of communication, such as cell phone, land line, email, snail mail, and video communication, and frequency of communication would be important predictors of PTSD, Depression, and Anxiety in both the veterans and their partners based on Loui and Cromer's (2014) study where they theorized that with modern communication, families could be more at risk of being exposed to combat experience. They hypothesized that video communication would transmit this experience to the family members either through the reactions of the combat member, or, by chance witnessing of attacks on the deployed installation. While their research focused on the children of combat veterans, they also expounded on the effects this form of communication had towards the family as well. This did not prove to be true for the research conducted here.

Due to my own experience of communicating back home to my family, I had expected these factors to be added stressors for the partners of combat veterans and the family system. My study, however, seemed to support the research Campbell and

Renshaw (2012), that indicated that while deployment related communication is associated with relationship distress, it may depend on the information communicated. They went on to say that the overall effect was negligible except for Vietnam Specific communications. Another study conducted by Carter et al., (2015) suggested that the content of communication was more important than frequency of communication when it came to deployment spill-over. Perhaps my findings are due to the fact that I only measured the types and frequency of communications as opposed to the quality or content of communication. This may explain why these factors were not significant in predicting pathology in either the veteran or the partner. Further studies including the quality and content of communication would be helpful to explore these factors further.

I had also hypothesized that age, length of marriage, and the number of children would be internal factors that would have significant influence on the family systems. The analysis in this study did not show them to be significant factors for predicting the pathology as measured in this research. I could not find other research that investigated these factors as stressors on family systems or predictors of pathology in the relationships of military couples. I observed from my own experience that age and maturity seemed to be indicators of stronger relationships within military couples. I also observed that for those couples who were married longer, they seemed to be able to handle the stress of deployments better, and that children often appear to experience the stress of military deployments based on how the parent who had to remain at home was affected. While I hypothesized that having more children would mean more stress for the family, this too did not prove to be a significant factor in predicting pathology on the relationship of the veteran and the intimate partner.

I suspect that the way that age, length of marriage, and the number of children were measured in the survey, designed more for demographics and descriptive statistics, may have affected the results. This is where I theorize that a means to measure shared experience would prove to be more useful in research. This may allow for a better understanding in how these, or other factors, may provide for a better insight into the family systems of military and veteran members.

Significance of the Study's Results

The many difficulties that couples face due to deployments and combat can seem daunting. The research of Balderram-Durbin et al., (2015) showed that for most couples, they are able to make the transition back from deployments without too much disruption to the relationship. However, for those who seek mental health service, about 75% report some problems within the family. This research conducted here suggests that for some of these families, the resulting pathology of the veteran is having a significant effect on the intimate partner. Understanding the foundation of the veteran's pathology is a step towards understand the effect on the intimate partner.

The research indicates that there is a positive correlation between combat experience and pathology for veterans. This research goes on to say that with higher levels of combat intensity, the more likely the veteran will experience symptoms for Depression and Anxiety. This is significant in that, as clinical work is conducted, measuring the veteran's exposure to combat with the CES will provide some insight into their experience and pathology. It is also useful to understand how the branch of service is also a factor in predicting the pathology, as measured in this research, when working

with these veterans. This also makes it important to understand how trauma as an experience, can be translated into pathology.

It can be understood that as people experience the trauma of war, it may be difficult for them to reconcile this experience into an accommodating experience. For most people, when they experience trauma, they are able to relate the stress and Anxiety that they are experiencing to the trauma experience alone. This is understood as accommodating the trauma which will eventually resolve with time. When someone generalizes this experience to other aspects of their life, this can be considered over accommodation. When someone internalizes the experience, to include self-blame, then this is considered assimilation (Resick & Schnicke, 1992). The first example generally means that the individual will make the necessary adjustments needed to continue their day to day functions. Over accommodation and assimilation are what evolves into the disorder referred to as PTSD. The chaos of war, as seen in the death and destruction of communities and people, cannot be normalized as an experience (Monson et al., 2006). People can be trained to perform the actions of combat, however, training someone to accept the trauma of war is not yet understood. This can be seen in the results of the study showing higher levels of PTSD than Depression and Anxiety.

The relationship between combat exposure and PTSD was found to be more strongly correlated than with Depression or Anxiety. This suggests that the trauma of war was more likely to manifest as traumatic pathology than Depression or Anxiety. Further studies in this area might shed some light into this matter. The Balderrama-Durbin et al. (2015) study might explain this by noting that military personnel in combat regions spend up to a year in high-alert areas where combat, or the threat of combat, can be a constant

factor in their experience. Spending long periods of time in a hyper-alert state follows the DSM-5 cluster for hyper-alertness. This type of exposure may not be prevalently seen in civilian cases of PTSD, as they are more likely to experience a single episode of a traumatic event. Moving from this foundation of the veteran's pathology and how it correlates to the partners pathology should have further clinical and research significance.

The significance here is that this data is not just correlated as a group but is tied to each couple as a pair. Using a Paired Sample T-test, I was able to examine the veteran and the partner as a couple and demonstrate a relationship between the veterans' pathology and the partners' pathology. Using the Cross-Tabulation analysis, I was able to examine the levels of Depression and Anxiety, and the relationship between moderate and severe levels of that pathology and the correlated levels of the same pathology in their partners. Through these two analyses, the data seemed to show that there is not only a relationship between PTSD, Anxiety, and Depression of the veteran and the partner, but, that there was also a relationship between the categories, or levels, of Anxiety and Depression. The significance of these findings should prove useful in clinical settings. Clinicians may now have a better understanding of relationship distress and the effects on the couple as a whole. There is some literature that may help explain this.

First, the disruption of family systems, as well as the chaotic impact of multiple deployments, may be taking a higher toll on military families than was seen in previous conflicts (Lambert et al., 2012). Second, the research by Renshaw et al. (2011), indicated that the partner may be experiencing a form of secondary trauma. This could be an experience that the partner is having as they are witnessing the effects of the trauma on the veteran. Even though the partner did not experience combat, the experience of caring

for and living with the veteran may be enough for some individuals to feel the effects. Larsen et al. (2015), suggested that military spouses represent a specific cultural group. This group would then demonstrate protective processes specific to their sociocultural context. They go on to say that when the military partner experiences PTSD, more mental health problems were associated within the spousal group. Following through with the family systems theory, the partner may be reflecting the pathology as a way of balancing the family system, as a coping mechanism, to maintain a form of stasis. This demonstrates support for the hypothesis in this study that as combat veterans' experience intensifies, veterans will experience higher levels of pathology, which is then resonated in their intimate partners. This was not true at all levels of pathology though. Translating this to clinical work may prove useful while working with military couples and even families. Utilizing this research to facilitate future research into family systems of the military and veteran population could provide better insight into the effects of combat on the family.

While the overall trend in the data supports the hypothesis, there were some minor inconsistencies in the data that needs further discussion. The cross-tabulation showed that for minor Depression and Anxiety, there were lower levels of correlation. At the moderate or severe levels for both pathologies, the partners levels tended to follow, or resonate, that of the veteran. There is no research, or literature, to explain this. I hypothesize that this could be the result of lower levels of impact on the partners because of lower levels of pathology. This may mean that the veteran is not putting as much stress on the family systems as compared to someone with higher levels of pathology. The partner may not be experiencing as much distress through the veteran, and thus, there

is less influence on the family system. This could also be that the veteran is not sharing as much of their experience, due to military culture, and is keeping the distress to themselves. The results are less disruption to the family system and less coping needed by the partner. Further research in this area would be warranted. There were other factors in the study, which were the couples' age range, length of marriage, the number of children, frequency of communication, the use of cell phones, email, skype, landline, and snail mail, however, that did not prove significant for either the veteran or the spouse. Suggestions as to why were discussed above.

The factors that contribute to pathology in the couples can be seen as both insightful and surprising in the results. The literature certainly supported the idea of combat experience, or exposure, as a factor for pathology in the combat veteran and the results here replicate their findings (Balderrama-Durbin et al., 2015). Communication, though thought to be, through literature and my own experiences, a factor that would be significant in transmitting the experiences of the veteran to the partner, it did not prove to be so. Faber et al. (2008) described the ambiguous absence of the veteran as having an internal influence on the system. I had theorized that this Influence, through more advanced communication, could have been disruptive to the family system. This may, however, have provided a more stabilizing affect, or no affect at all, due to the age of the children, or, through more effective communication techniques of the couple. These concepts need to be more completely explored.

Other reasons that communication was not a significant factor could be due to: 1) the survey did not properly capture the shared experience of the couple; or, 2) only the

frequency and type of communication was measured and not the quality of the communication. Further research further could explore this factor.

The other factors, such as age, length of marriage, and number of children, did not provide the influences to the family system as theorized. Speculation leads me to wonder if the time between the deployment experience and the data collection had something to do with this. It may also be possible that the data collection focused more on the couple's pathology, and, the impact of such factors was not properly measured.

Limitations

There were several limitations to my study. The first was that this was an online survey that looked for volunteers to participate, and, as such there was no controls on who decided to respond and who did not. While there were elimination factors for individuals who did not deploy for combat, and, for couples who were not together during the time of deployment, this did not provide for other controls. This would limit the cross-section of the sample to those who volunteer and may not represent a true cross-section of the population in regards to pathological prevalence.

The second limitation of the study is through the use of self-report measures. Self-report measures have been criticized for activating a social desirability bias; the respondent provides an answer that will be viewed favorably by the researcher. The respondents may have rated themselves at higher or lower levels depending on their own biases towards the research, and, their own perceptions of themselves.

A final limitation may be in the rating of pathology as a best practice in the field. While the instruments used all have strong validity and reliability, the assignment of

pathology is usually not done through self-report measures themselves, but, upon examination by a licensed professional in conjunction with the instrument results.

Recommendations for Further Research

Areas of further research that might further highlight and expand upon these findings could be conducted to increase the efficacy of the understanding and treatment of pathology for the veteran and their intimate partners. Specifically, one area that could be of great help would be to control the sample population to ensure a better cross-section of the veteran population for generalization of the data. Researchers with connections to the Veteran's Health Service might be able to examine larger numbers of veterans and their partners, using controls, to ensure better generalizability. The results of the self-report measures could also be cross matched with diagnostic records to ensure the validity of the pathology reported.

Additional areas of investigation could be in further examinations of factors that contribute to pathology. Questions can be added to measure areas such as the number of deployments the veteran had experienced along with the CES data. The location of the deployment, along with the location of the intimate partner during deployment, could be added to determine if the partner living overseas is a factor. Added demographics such as sexual orientation and ethnicity would enable investigations for different populations or groups. Another question for the partner might be if they were able to work within the field they trained in as frequent moves often limit this for dependents. Research that compares how a civilian population with similar diagnosis and military/veteran couples could be conducted to see if there are similar patterns.

Several of the factors that were examined in this study were not significant. It may be important to examine these and other factors to see if there are contributing factors for the pathology that is being resonated. Other factors that could be examined include the prevalence of separation and divorce and family stressors such as illness in the partner or children. During the literature review there was little to no examinations of the pathology in the intimate partner and this may be a factor in treatment compliance in the veteran, as well as the efficacy of the treatment.

The development of an instrument that could examine and measure the concept of shared experience might shed light on this factor. The development of such a measure could be used to determine what, if any, variables are significant in their shared experiences, and which variables contribute to the pathology of both the veteran and the intimate partner.

Finally, further research could use this data to examine the efficacy of co-joint therapy on couples with resonated pathology. Considering the factors that contributed to the outcomes of this data, a logical next step would be to see how effective it would be to treat the pathology together. The factors that contribute to the pathology may also be the factors that would provide insight into greater treatment compliance and improved outcomes.

Conclusion

In summary, the purpose of this study was to examine the pathology of veteran's in a relationship to combat exposure, the relationship of pathology between veterans and their intimate partner, and the factors that may contribute to this pathology. Findings suggest that there was a relationship between combat exposure and veteran pathology.

The data suggests a resonating of veteran pathology by the intimate partners. There were low to moderate correlations between combat exposure and pathology in both veterans and their partners supporting the idea that combat experience in the veteran predicts pathology not only in the veteran but also the intimate partner. These findings suggest that there was a within subject's pattern for the pathology that followed the levels of pathology in the veteran with Depression and Anxiety. This means that as the veterans' Depression, and Anxiety became more severe, the same pathology in the partners would follow a similar pattern. This would suggest that the couple's pathology was tied together in a pattern that seems to be resonating.

Likewise, combat exposure correlated as the most important predictive factor in pathology for both the veteran and the partner. This supported the hypothesis that combat exposure is a factor in the pathology for both the veteran and partner. This study contributed to data in the field as it relates to veteran pathology, their relationships, and factors that account for this phenomenon. By demonstrated that there is a correlation between combat exposure and pathology within the couples' relationship, future research can be guided to help understand this phenomenon. Agencies of the Department of Defense and the Veteran's Administration would be able to develop policies and plans that address this in military families. Clinicians can use this data to develop treatment plans that address the phenomenon as they work with both individuals and couples in session.

This study also provides a foundation for research on the influences of pathology between intimate partners, specifically military veterans and their partners. The relationship between combat exposure for the veteran, their pathology, and, the pathology

of their intimate partners has been shown to have a positive correlation. The relationship between veterans' pathology and the resonating of that pathology in the intimate partner is significant and shows a moderate correlation. More research to determine specific factors, and, how the couples' experience leading to resonated pathology is needed.

These findings may help military leadership understand the relationship between the members and their dependents when it comes to mental health factors affecting this population. This could lead to the development of programs that address the influence of combat exposure on the family system, and thus, create awareness and maybe even prevention measures. This research may also help both government and non-government clinicians in the planning and efficacy of the treatment of both the veteran and intimate partner. Researchers and clinicians could also develop interventions that work with both the military member and the partner to address pathology in the relationship. This data could also help policy planners to ensure adequate resources are planned for.

APPENDIX A

SURVEY INSTRUMENTS

Resonating Pathology Survey

The following survey is being used to conduct research into the effects of Combat Experiences in the transference of Anxiety, Depression, and PTSD in couple pairs when one them had combat deployments. Please answer these questions as thoroughly and truthfully as you can. The information gathered here will not be used for any other purpose than to gather data that can be used to further treatment of military and veteran couples. No names are being used and no identifying information will be collected. All information will be held confidentially, and only the results of the trial will be published.

For the following questions, please use your experiences as a military or veteran couple. Participants in this survey should be married or intimate partner couples that were together during the military or veteran's deployment into a combat zone that was designated as such by the department of defense. Both individuals in the couple will participate in the survey. While both individuals will complete the survey, they should be completed separately, but, on the same computer. The military or veteran member will complete the first part of the survey, part A, and the spouse or intimate partner should complete the second part, part B. Do not watch your partner complete their portion of the survey as this could contaminate the results. If you can answer yes for the first two questions, you will be instructed to complete the survey. If you answer no to either question 1 or 2, you will be asked to terminate the survey, which will be discontinued.

1. Were you part of the armed forces of the United States during the recent Global War on Terrorism with dates served between September 2001 and January 2017?
Yes or No.

2. Were you and your spouse or intimate partner who is answering this survey with you together during any deployments? Yes or No.
3. Please indicate your age range: 18-30 31-40 41-50 51-60
4. Please indicate your gender identity: Male Female Gender Neutral
5. Please indicate which branch of the armed services that you served: Army ___ Air Force ___ Navy ___ Marines ___
6. Did you have Children during the time of your deployment? Yes or No
7. Please indicate the length of time you were married during your time of deployment:
0-2 years 3-5 years 5-10 years 10 years or more
8. During your time of deployment, please indicate the technology you used to communicate with your spouse or intimate partner: Cell Phone ___ Skype or other video conversations ___ Email ___ Land Line ___ Snail Mail ___
9. Please Indicate the number of times you communicated per week: 1 ___ 2 ___ 3 ___ 4 ___ 5 or more times ___

Part A. to be completed by the military or veteran member

Combat Exposure Scale

Please circle the number above the answer that best describes your experience.

1) Did you ever go on combat patrols or have other dangerous duty?

1	2	3	4	5
No	1-3 times	4-12 times	13-50 times	51+ times

2) Were you ever under enemy fire?

1	2	3	4	5
Never	<1 month	1-3 months	4-6 months	7+ months

3) Were you ever surrounded by the enemy?

1	2	3	4	5
No	1-2 times	3-12 times	13-25 times	26+ times

4) What percentage of the soldiers in your unit were killed (KIA), wounded or missing in action (MIA)?

1	2	3	4	5
None	1-25%	26-50%	51-75%	76% or more

5) How often did you fire rounds at the enemy?

1	2	3	4	5
Never	1-2 times	3-12 times	13-50 times	51+ times

6) How often did you see someone hit by incoming or outgoing rounds?

1 2 3 4 5
Never 1-2 times 3-12 times 13-50 times 51+ times

7) How often were you in danger of being injured or killed (i.e., being pinned down, overrun, ambushed, near miss, etc.)?

1 2 3 4 5
Never 1-2 times 3-12 times 13-50 times 51+ times

PCL-5

Read each of the problems on the next page and then circle one of the numbers to the right to indicate how much you have been bothered by that problem.

How Much have you be bothered by:	Not At All	A Little Bit	Moderately	Quite a Bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (<i>as if you were actually back there reliving it</i>)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (<i>for example, heart pounding, trouble breathing, sweating</i>)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (<i>for example, people, places, conversations, activities, objects, or situations</i>)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (<i>for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous</i>)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (<i>for example, being unable to feel happiness or have loving feelings for people close to you</i>)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4

16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being “superalert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

Patient Health Questionnaire 9

How often have you been bothered by the following problems?

	Not at All	Several Days	More than Half the Days	Nearly Every Day
Little Interests or Pleasure doing things	0	1	2	3
Feeling Down, Depressed, or Hopeless	0	1	2	3
Trouble falling or Staying Asleep or Sleeping too much	0	1	2	3
Feeling Tired or Having Little Energy	0	1	2	3
Poor Appetite or Overeating	0	1	2	3
Feeling Bad About Yourself – or that you are a Failure Have Let Yourself Down or Your Family Down	0	1	2	3
Trouble Concentrating on Things Like Reading a Newspaper or Watching Television	0	1	2	3
Moving or Speaking so Slowly That Other People Could Have Noticed. Or the Opposite – Being so Fidgety or Restless That You Have Been Moving Around a Lot More Lately	0	1	2	3
Thoughts That You Would be better Off dead, or of Hurting Yourself	0	1	2	3
If You Have Checked Off any Problems, How Difficulty Have These Problems Made it for You to do Your Work, Take Care of Things at Home, or Get Along with Other People	Not at All	Somewhat Difficult	Very Difficult	Extremely Difficult

Generalized Anxiety Disorder 7-item (GAD - 7) scale

Over the last 2 weeks, how often have you been bothered by the following problems?

	Not at all sure	Several days	Over half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3

Part B: To be completed by the spouse or intimate partner

1. Please indicate your age range: 18-30 31-40 41-50 51-60
2. Please indicate your gender identity: Male Female Gender Neutral

PCL-5

Read each of the problems on the next page and then circle one of the numbers to the right to indicate how much you have been bothered by that problem. For each of the following questions please indicate whether this happened before, during, or after your partners deployment.

How Much have you be bothered by:	Not At All	A Little Bit	Moderately	Quite a Bit	Extremely	Before	During	After
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4			
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4			
3. Suddenly feeling or acting as if the stressful experience were actually happening again (<i>as if you were actually back there reliving it</i>)?	0	1	2	3	4			
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4			
5. Having strong physical reactions when something reminded you of the stressful experience (<i>for example, heart pounding, trouble breathing, sweating</i>)?	0	1	2	3	4			
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4			
7. Avoiding external reminders of the stressful experience (<i>for example, people, places, conversations, activities, objects, or situations</i>)?	0	1	2	3	4			
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4			
9. Having strong negative beliefs about yourself, other people, or the world (<i>for example, having thoughts such as: I am bad, there is something</i>	0	1	2	3	4			

<i>seriously wrong with me, no one can be trusted, the world is completely dangerous)?</i>								
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4			
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4			
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4			
13. Feeling distant or cut off from other people?	0	1	2	3	4			
14. Trouble experiencing positive feelings (<i>for example, being unable to feel happiness or have loving feelings for people close to you</i>)?	0	1	2	3	4			
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4			
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4			
17. Being “superalert” or watchful or on guard?	0	1	2	3	4			
18. Feeling jumpy or easily startled?	0	1	2	3	4			
19. Having difficulty concentrating?	0	1	2	3	4			
20. Trouble falling or staying asleep?	0	1	2	3	4			

Patient Health Questionnaire 9

How often have you been bothered by the following problems? For each of the following questions please indicate whether this happened before, during, or after your partners deployment.

	Not at All	Several Days	More than Half the Days	Nearly Every Day	Before	During	After
Little Interests or Pleasure doing things	0	1	2	3			
Feeling Down, Depressed, or Hopeless	0	1	2	3			
Trouble falling or Staying Asleep or Sleeping too much	0	1	2	3			
Feeling Tired or Having Little Energy	0	1	2	3			
Poor Appetite or Overeating	0	1	2	3			
Feeling Bad About Yourself – or that you are a Failure Have Let Yourself Down or Your Family Down	0	1	2	3			
Trouble Concentrating on Things Like Reading a Newspaper or Watching Television	0	1	2	3			
Moving or Speaking so Slowly That Other People Could Have Noticed. Or the Opposite – Being so Fidgety or Restless That You Have Been Moving Around a Lot More Lately	0	1	2	3			
Thoughts That You Would be better Off dead, or of Hurting Yourself	0	1	2	3			
If You Have Checked Off any Problems, How Difficulty Have These Problems Made it for You to do Your Work, Take Care of Things at Home, or Get Along with Other People	Not at All	Somewhat Difficult	Very Difficult	Extremely Difficult			

Generalized Anxiety Disorder 7-item (GAD - 7) scale

**Over the last 2 weeks, how often have you been bothered by the following problems?
For each of the following questions please indicate whether this happened before,
during, or after your partners deployment.**

	Not at all sure	Several days	Over half the days	Nearly every day	Before	During	After
1. Feeling nervous, anxious, or on edge	0	1	2	3			
2. Not being able to stop or control worrying	0	1	2	3			
3. Worrying too much about different things	0	1	2	3			
4. Trouble relaxing	0	1	2	3			
5. Being so restless that it's hard to sit still	0	1	2	3			
6. Becoming easily annoyed or irritable	0	1	2	3			

APPENDIX B

PERMISSION LETTERS FOR THE INSTRUMENTS

PCL – 5

Edwin Brennan

From: Barry, Sheila L. <Sheila.Barry@va.gov> on behalf of PTSDConsult
<PTSDConsult@va.gov>

Sent: Monday, October 17, 2016 11:18 AM

To: Edwin Brennan

Subject: RE: [EXTERNAL] Dissertation Research

Good morning, Ed.

Thank you for reaching out the National Center for PTSD's Consultation Program.

The PCL-5 was authored by personnel from the Veterans Affairs National Center for PTSD and so resides within the

public domain. The PCL-5 is free to use without copyright permissions. We only ask that items not be modified. I hope

this is helpful.

If you require any further statement on this, please let me know and we can help you with that.

Best of luck with your
research!

Sheila

Sheila L. Barry, Triage Consultant/PTSD Mentoring Program Manager

National Center for PTSD

White River Junction, VT 05009

866-948-7880 or PTSDconsult@va.gov

IMPORTANT INFORMATION about the scope of our program: The VA PTSD Consultation Program for Community Providers offers education, training, information, consultation and other resources to non-VA health professionals who treat Veterans with PTSD outside of the VA system. These services provided are consistent with evidence-based practices for PTSD and VA consensus statements such as the VA/DoD Clinical Practice

Guidelines for PTSD. Our goal is to improve the care available to all Veterans with PTSD regardless of where they access services. We offer expert

guidance on general issues that come up in the course of caring for Veterans with PTSD. We cannot, however, provide direct guidance or

consultation regarding or assume clinical responsibility for specific patients; any potential liability would be only in accordance with the Federal

Tort Claims Act.

The Public Health Questionnaire 9 and Generalized Anxiety Disorder 7

Screening Overview

Recognizing signs of mental health disorders is not always easy. The Patient Health Questionnaire (PHQ) is a diagnostic tool for mental health disorders used by health care professionals that is quick and easy for patients to complete. In the mid 1990s, Robert L. Spitzer, MD, Janet B.W. Williams, DSW, and Kurt Kroenke, MD, and colleagues at Columbia University developed the Primary Care Evaluation of Mental Disorders (PRIME MD),

a diagnostic tool containing modules on 12 different mental health disorders. They worked in collaboration with researchers at the Regenstrief Institute at Indiana University and with the support of an educational grant from Pfizer Inc. During the development of PRIME MD,

Drs. Spitzer, Williams and Kroenke, created the PHQ and GAD7 screeners.

The PHQ, a self-administered version of the PRIME MD, contains the mood (PHQ9), Anxiety, alcohol, eating, and somatoform modules as covered in the original PRIME MD. The GAD7 was subsequently developed as a brief scale for Anxiety. The PHQ9, a tool specific to Depression, simply scores each of the 9 DSMIV criteria based on the mood module from the original PRIME MD.

The GAD7 scores 7 common Anxiety symptoms. Various versions of the PHQ scales are discussed in the Instruction Manual. All PHQ, GAD7 screeners and translations are downloadable from this website and no permission is required to reproduce, translate, display or distribute them.

APPENDIX C

CONSENT FORM

Consent Form

You are invited to take part in a research survey about the effects of Combat Experience and co-occurring pathology among couples when one of them was part of a combat zone deployment for the military. Your participation will require approximately 60 minutes. There may be minor risks or discomforts associated with this survey due to thinking about any trauma that was experienced. In the procedures section, there are instructions on finding help if you experience any distress or discomfort by participating in this research.

This research may provide a greater knowledge about how couples who experience co-occurring pathology as a result of one of them being deployed to a combat zone for the military. With such knowledge, clinicians may be able to design better treatments to help these individuals. Taking part in this study is completely voluntary. If you choose to be in the study you can withdraw at any time without repercussions.

This project requires no identifying information about you and your responses to the survey will be anonymous. All of the data will be kept strictly confidential, and digital data will be stored in secure computer files after it is entered. The results of this survey will be presented in aggregate form only.

You are being invited to participate in a survey-based measurement system. As a couple who were part of the military, your participation will provide helpful information for this research project. Those asked to participate will have together while one of them served in a combat zone in the military. Couples will be defined as two people who were either married or part of an intimate partner relationship. Being assigned to a combat zone for the military will be defined as those members of active, reserve, or national guard

members who were assigned to a combat zone as part of a military deployment. We are inviting couples to participate in the survey if they within these categories.

Survey Procedures

Completing this survey indicates that I am 18 years of age or older and indicates I consent to participate in the research. After reading the aforementioned information, and verifying that I am eligible to participate, I understand that by clicking the NEXT/Continue button, I agree to participate in this study. I understand that my participation is completely voluntary, and that I am free to stop my participation or withdraw at any time without adverse reactions by the researcher.

You will first be asked two questions that will determine if you will be selected to participate in the survey. These questions will determine if meet the criteria of the survey. If you answer, “no” to these questions, then the survey will be terminated and you will be done. If you answer, “yes,” to either question 1 or 2, then the questionnaire will continue with questions related to the types of incidents to which you have experienced. You will first be asked about demographics such as age, sex, occupation, and if you have children. After those questions, you will be asked to continue the survey with question about your response to these events. For this survey, couples should complete the survey on the same device, but, separately without watching the other one complete the survey. The military member should answer the survey questions labeled Part A and the partner/spouse, should answer the survey questions labeled part B.

If you have questions or want a copy or summary of this study’s results, you can contact the researcher at the email address above. If you have any questions about your rights or treatment as a research participant, then you may contact the Andrews University Institutional Research Board at 269 471-3042 or email at research@andrews.edu.

As part of this study, we asked you to examine your experiences as either a military member or the partner/spouse of a military member. We understand that by asking you to remember these events, you may experience distressing feelings and may wish to discuss such trauma with a licensed professional who is trained to assist people with this process. A resource that you may wish to use is the Psychology Today “find a therapist” website.

The URL for this is as follows <https://therapists.psychologytoday.com/rms/>. By using your city/state information, or just the zip code, you can locate a licensed therapist who may assist you.

You may print out this screen for informed consent if you would like a copy of it, or, you may email the principle researcher, Edwin Brennan, at brennane@andrews.edu, to receive a copy.

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Curriculum Vita

Edwin Alton Brennan

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Professional License Held:

Limited Licensed Professional Counselor #6401014593 Michigan

Professional Association

American Psychological Association, Student Associate
American Counseling Association

Education:

PhD Counseling Psychology (projected graduation August 2019)

Andrews University, Berrien Springs, MI

Team Leader, Peer Crisis Support Team

Member, MIRROR Diversity Training Team

Dissertation: The Prevalence of Co-Joint Pathology Among Combat Veterans and Their Spouse: Do The Spouses of Military Veterans Mirror the Pathology of the Combat Veteran?

Committee: Nancy Carbonell (chair), Dennis Waite, Jimmy Kijai

M.A. Clinical Mental Health Counseling (2014)

Andrews University, Berrien Springs, MI

B.S. Professional Aeronautics

Embry-Riddle Aeronautical University, Daytona Beach, Florida

Employment Experience:

Light of Day Counseling Services LLC, Berrien Springs, MI. January 2015 –

Present

Title: Owner/Counselor. Primary responsibilities include providing individual and couples therapy to clients from the local community. Provide diagnostic provisions as needed for insurance or client needs. Development of relationships

with other therapist and providers in the area to provide mutual referrals. Develop and provide group therapy and experiences for men's and veterans groups.

Andrews Community Counseling Center, Berrien Springs, MI. January 2016 – May 2016. Title: Supervisor of MA Practicum Counselors. Primary responsibilities included providing supervision to MA Practicum counselors. This would include providing feedback on video recorded sessions, supervision of records maintenance, and guidance for client scheduling and maintenance. Supervision was also provided to help the students develop counseling skills, diagnostic development, and therapeutic relationships

Andrews Community Counseling Center, Berrien Springs, MI. September 2014 – August 2015. Title: Doctoral Practicum Counselor. Primary responsibilities included providing individual and couples therapy to clients from the local community. Provide testing and psychological reporting as needed for both practicum experience and diagnostic facilitation.

Andrews Counseling and Testing Center, Berrien Springs, MI, September 2013 – May 2014, Title: Masters Internship Counselor. Primary responsibilities included providing individual therapy to clients from the campus community. Other duties were to provide outreach services to student groups through such programs as Depression Awareness Week, Eating Disorders Awareness week, and providing presentations on such subjects as suicide and career counseling services.

Andrews Community Counseling Center, Berrien Springs, MI. January 2013 – August 2014. Title: Desk Monitor. Primary responsibilities included scheduling of clients for counselors, coordinating therapy room assignments, and opening and closing of the center for service. This also included managing, ordering, and distributing testing material, brochures for clients, and room materials.

Philippine Adventist World Aviation, Palawan, Philippines. July 2007 – March 2012. Title: Project Manager/Primary Pilot. Primary responsibilities included managing project materials, personnel, and operations for a mission aviation transportation and logistical operation. This included ensuring personnel support for moving materials from a primary location into remote mission operations around the Philippine islands. Receiving and distributing goods as necessary for operations, and, moving mission personnel, medical personnel, and patients as needed to ensure proper operations. Duties also including flying aircraft as necessary to ensure operational integrity.

Lockheed Martin Logistical Services, Oklahoma City, OK. July 2006 – July 2007. Title: Kitting Manager. Primary responsibilities included managing the kitting operations that provided kits for overhaul and depot level maintenance on USAF aircraft as part of a contract with the USAF. This included managing personnel in two geographically separate locations who would build up kits and distribute them to the maintenance operations around Tinker AFB. This also included managing and analyzing logistical data to ensure parts availability.

ARINC Engineering Services, Oklahoma City, OK. April 2002 – June 2006. Title: Logistics Analyst. Primary responsibilities included extracting and analyzing logistical data from military drawings, data bases, and technical manuals. This project was part of a defense contract with the USAF to manage parts obsolescence for assigned aircraft in the maintenance depot at Tinker AFB.

United States Air Force, World Wide, January 1982 – March 2002. Title: Airman, Avionics Technician – Technical Sargent/Supervisor of Production. Responsibilities included: As part of a twenty year career in the United States Airforce, duties were from apprenticeship as an avionics technician, to, production supervisor for the support flight ensuring logistical and maintenance support for a wing of aircraft. As an aircraft technician duties would include both scheduled and unscheduled aircraft maintenance, and, aircraft components. This may include trouble shooting maintenance discrepancies, removal and replacement of parts, and troubleshooting and repairing wiring and circuitry. Supervisory duties included training and supervising other technicians and ensuring both personnel and resources were available for daily duties and deployed operations. Duty locations included Columbus AFB, Mississippi, Clark AB, Republic of the Philippines, Grand Forks Air Force Base, North Dakota, Osan AB, Korea, Royal Air Force, Mildenhall, United Kingdom, and Tinker Air Force Base, Oklahoma.

Additional Workshops and Training

“American Psychological Association Conference”, (August 2015)

“Midwestern Psychological Association Conference”, (May 2015)

“Core 1 Basics, Cognitive Behavioral Therapy”, Beck Institute, Philadelphia, PA (August 2014)

“Acceptance and Commitment Therapy Seminar”, Andrews Counseling and Testing Center (March 2014)

“Substance Abuse Awareness for Beginning Therapist” Southwest Michigan Addiction Council (April 2013)

“Solution Focused Therapy Seminar”, Andrews Graduate Psychology and Counseling Department (February 2013)

“Michigan Counselors Association Conference” (November 2012)

Current Research

- The role of avoidance in precluding emergency first responders from seeking treatment: the efficacy of using avoidance scores in predicting who will seek treatment

This research is focused on first responders who experience traumatic events on a frequent basis and yet do not seek treatment. A theory that may explain this is the avoidance criterion within the PTSD symptomology. It is believed that as PTSD develops, avoidance creates a barrier in seeking treatment due to the anxiety of facing the trauma again. The research design is such that responders will be asked to take a survey instrument that measures avoidance. The score of individuals who do not seek treatment will be correlated against those who have sought treatment. (Currently in Data Collection).

- The prevalence of co-joint pathology among combat veterans and their spouse: do the spouses of military veterans mirror the pathology of the combat veteran?

This research is my dissertation topic and is focused on combat veterans and their spouses who experience combat and mental health pathology. It is believed that the shared experience of combat veterans and their spouses may be a vector for shared pathology such as PTSD, Depression, and Anxiety. There has already been research that has demonstrated secondary trauma, this research would try to extend that to anxiety and depression. The research design pairs couples together and has them complete a survey instrument to measure this type of pathology. This will then compare couples with combat experience and without combat experience to determine if there is a correlation. Currently awaiting dissertation defense.