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The Relationship Between Military Deployment and Spouses' Anxiety, Depression, and Stress

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This is to certify that the doctoral dissertation by

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Abstract

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MS, Walden University, 2015

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Military families experience increased levels of stress during times of deployment. Previous research has examined the effect of deployment on female spouses but not on male spouses. The purpose of this study was to examine the relationship between military deployment and male and female spouses' anxiety, depression, and perceived stress. The theoretical framework used for this study was the contextual model of family stress and coping. The research questions focused on whether military deployment, gender, communication ability, and coping skills were related to spouses' depression, anxiety, and stress. Multiple regression was used to examine the relationships among the variables. A cross sectional design was used. Six male and 123 female military spouses participated in the study. Results demonstrated a positive relationship between emotion coping and depression symptoms, anxiety symptoms, and stress levels. Results showed that as military spouses' emotion coping increased, their levels of depression, anxiety, and stress increased. Communication ability had a positive relationship with anxiety symptoms. The results showed that as military spouses' communication ability increased, their anxiety symptoms increased. Task coping had a negative relationship with stress levels. The results showed that as military spouses' task coping increased, their levels of stress decreased. This research could assist professionals working with military spouses during a deployment to develop skills to assist with coping with depression symptoms, anxiety symptoms, and stress levels.

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Dedication

This study is dedicated to my husband, Jonathan Bailey. He has continually supported, encouraged, and inspired me in whatever I pursue.

Acknowledgments

I would like to express my gratitude to Dr. Anthony Perry, the chairman of my committee, for the continuous support of my research and PhD study. I would also like to thank Dr. Hobson, the committee member, for assistance throughout the study.

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Chapter 1: Introduction to the Study

In 2015, the U.S. military consisted of 2,120,505 military personnel and 2,783,141 family members (Department of Defense [DoD], 2015). Among active duty service members, 54.3% were married (DoD, 2015). Of those service members who were married, 87.1% were male, and 12.9% were female (DoD, 2015).

The U.S. military has its own unique culture. Service members are exposed to this culture when they attend basic training or officer candidate school (Redmond et al., 2015). During basic training, individuals are transformed from civilians into service members. Through this process, service members develop a new identity and learn the military's norms, language, and codes (Redmond et al., 2015). As service members grow in their military identity, their knowledge of the military ethos, organization, structure, and culture grows (Redmond et al., 2015).

The Warrior Ethos is as follows: "I will always place the mission first; I will never accept defeat; I will never quit; and I will never leave a fallen comrade" (U.S. Army, n.d.). As service members are expected to embody the Warrior Ethos while living within the military culture, their spouses are expected to conform to and live within the military culture as well. As spouses develop new identities within this culture, they become isolated from civilian friends and family. Spouses find themselves within a class system in which they are distinguished by their service members' rank (Hall, 2011; Redmond et al., 2015). Military spouses also learn that their service members have two families: the military family and their personal family (Hall, 2011). Military spouses discover that their service members' mission and military family take priority, and this can cause stress in the family (Hall, 2011).

As spouses adjust to the military culture, they face frequent relocations, short dwell times, long distances from family and friends, long and irregular work schedules for their service members, absence of their service members for training or deployment, and concern for the safety of their service members, which can increase their stress levels (Blank, Adams, Kettleson, Conners, & Padden, 2012; Eaton et al., 2008; Everson, Darling, & Herzog, 2013; Fish, Bellin, Harrington, & Shaw, 2014; Green, Nurius, & Lester, 2013). When the military deploys to combat zones, military family members are exposed to increased levels of stress, which may contribute to anxiety and depression (Allen, Rhoades, Stanley, & Markman, 2011; Eaton et al., 2008; Villagran, Canzona, & Ledford, 2013). Results have shown that military spouses experience lower marital satisfaction and high rates of depression, anxiety, and posttraumatic stress disorder (PTSD; Southwell & Wadsworth, 2016; Warner, Appenxeller, Warner, & Grieger, 2009). Previous research has shown that deployment has a negative effect on female military spouses, but there has been limited research on the effects that deployment has on both male and female military spouses. This study fills this literature gap and provides information that health professionals may be able to use to assist military spouses during deployment.

In Chapter 1, I describe the background, problem statement, and purpose of the study. In addition, I discuss the research questions and hypotheses, theoretical framework, nature, definitions, assumptions, limitations, and delimitations of the study. Finally, the potential contributions and significance of this study are explored.

Background of the Study

During deployment, military spouses have managed instability, assumed androgynous roles, served as emotional caregivers, adjusted to changes in their marital relationships, recognized their own strengths, managed split loyalties, and experienced feelings of rejection (Aducci et al., 2011). While managing such changes during deployment, military spouses experience increased stress, which has a negative impact on their mental health (Villagran et al., 2013). Research has found that military spouses suffer from depression, anxiety, stress disorders, marital discord, and higher levels of perceived stress (Asbury & Martin, 2012; Blank et al., 2012; Green et al., 2013; Southwell & Wadsworth, 2016; Verdeli et al., 2011; Villagran et al., 2013).

As military spouses face various stressors, they develop coping skills to assist themselves. One area in which military spouses may develop or enhance their coping skills is communication. Communication between service members and family members during deployment has been found to buffer negative effects of deployment (Andres, 2014; Baptist et al., 2011; Houston, Pfefferbarum, Sherman, Melson, & Brand, 2013). If military spouses develop ineffective coping skills, research has shown that they may suffer from maladaptation, depression, anxiety, and somatization (Blank et al., 2011; Padden, Connors, & Agazio, 2011).

Previous research has examined how deployments affect female military spouses. Research has not examined how deployments affect both male and female military spouses. This study expanded on the literature by examining the effect that deployment has on male and female military spouses.

Problem Statement

Literature to date has not examined male and female military spouses' levels of anxiety, depression, and perceived stress related to deployment. A review of the literature suggests that the stress experienced by female military spouses during deployments has a significant negative effect on their psychological health (e.g. Allen et al., 2011). Female spouses may experience depression, anxiety, adjustment disorder, and PTSD (Southwell & Wadsworth, 2016; Villagran et al., 2013).

Purpose of the Study

Previous research has provided information on some effects that deployment has on female spouses. Currently, no quantitative studies have examined the effects that deployment has on male and female military spouses. The purpose of this study was to examine the relationship that deployment has with male and female spouses' anxiety, depression, perceived stress, coping, and communication.

Research Questions and Hypotheses

The research questions and hypotheses for this study were as follows:

RQ1 – To what extent does military deployment relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Deployment is not a significant predictor of depression.

H_1 - Deployment is a significant predictor of depression.

RQ2 – To what extent does military deployment relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Deployment is not a significant predictor of anxiety.

H_1 - Deployment is a significant predictor of anxiety.

RQ3 – To what extent does military deployment relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Deployment is not a significant predictor of stress.

H_1 - Deployment is a significant predictor of stress.

RQ4 – To what extent does spouse gender relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Gender is not a significant predictor of depression.

H_1 - Gender is a significant predictor of depression.

RQ5 – To what extent does spouse gender relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Gender is not a significant predictor of anxiety.

H_1 - Gender is a significant predictor of anxiety.

RQ6 – To what extent does spouse gender relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Gender is not a significant predictor of stress.

H_1 - Gender is a significant predictor of stress.

RQ7 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Communication is not a significant predictor of depression.

H_1 - Communication is a significant predictor of depression.

RQ8 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Communication is not a significant predictor of anxiety.

H_1 - Communication is a significant predictor of anxiety.

RQ9 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Communication is not a significant predictor of stress.

H_1 - Communication is a significant predictor of stress.

RQ10 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Coping is not a significant predictor of depression.

H_1 - Coping is a significant predictor of depression.

RQ11 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Coping is not a significant predictor of anxiety.

H_1 - Coping is a significant predictor of anxiety.

RQ12 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Coping is not a significant predictor of stress.

H_1 - Coping is a significant predictor of stress.

Theoretical Framework

The theoretical framework used in this study was the contextual model of family stress and coping (Boss, 2002). The theory originated from Hill's ABC-X model, which provided a heuristic model for scientific inquiry into family stress (Boss, 2002). Boss (2002) modified the ABC-X model and proposed the contextual model of family stress and coping (Sullivan, 2015). Boss's version consists of the following elements: A = the provoking event or stressor; B = the family's resources or strengths at the time of the event; C = perceptions and the meaning attached to the event by the family; and X = degrees of stress (low to high) and/or crisis. The contextual model displays the breaking point at which a family is in crisis (Boss, 2002).

The model was relevant to this study because I sought to examine multiple stressors experienced by military spouses and how their resources contributed to determining whether a stressor caused significant depression, anxiety, or increased stress. The contextual model takes into account the influences of genetics, culture, developmental lifestyle, familial structure, values, and beliefs on families (Sullivan, 2015).

Nature of the Study

Multiple regression analyses were used to examine the relationship between the predictor variable and criterion variables (Frankfort-Nachmias & Nachmias, 2008). The independent variables included deployment, gender, communication, and coping. The dependent variables included depression, anxiety, and perceived stress.

Data were collected from military spouses across the continental United States. Participants completed the Beck Anxiety Inventory (BAI), Beck Depression Inventory-II (BDI-II), Perceived Stress Scale (PSS), and Primary Communication Inventory (PCI). Data were collected from participants online using Survey Monkey. Data were analyzed using IBM SPSS.

Definitions

The definitions of the constructs used throughout this study are as follows:

Deployment: When soldiers and/or equipment are temporarily relocated to a theater of operations in a combat zone (Padden & Posey, 2013; Verdeli et al., 2011).

Communication: The ability to use words, sounds, signs, or behaviors to express information (Lazarus et al., 2015).

Coping: The cognitive, affective, and behavioral process an individual experiences in response to a stressor (Boss, 2002).

Depression: A sad, depressed, or irritable mood with somatic and cognitive difficulties (American Psychiatric Association, 2013).

Anxiety: A physiological or emotional reaction to a situation that increases an individual's fear or anxiety for a period of time (American Psychiatric Association, 2013).

Stress: An event that causes a change in an individual's current situation (Boss, 2002).

Assumptions

It was assumed that because they received instructions on how to answer the surveys, the participants understood how to complete the surveys. It was assumed that the data collected from the surveys were accurate and reliable. Each instrument was a self-report measure that relied on the participants to report symptoms that they had experienced in the period spanning from the past week up to a month. The participants' reports of symptoms could vary, depending upon their memory and evaluation of symptoms. A final assumption was that the sample was reflective of the military spouse population.

Scope and Delimitations

This study examined whether deployment predicted anxiety, depression, and stress among military spouses. Male and female military spouses were the target population, as there was a gap in research examining the impact of deployment on male and female spouses' anxiety, depression, and stress. Generalization of these data to other populations beyond military spouses is limited. The participants were limited to spouses of U.S. Armed Services personnel who were deployed at the time of the survey. These spouses of service members were married to as opposed to cohabiting with military

personnel. The survey was delimited to adult respondents because the age for enlistment in the U.S. Armed Services and marriage is 18 years. Previous research focused on female military spouses; this study incorporated both male and female spouses in order to add to the knowledge base.

This study examined military spouses' anxiety, depression, and stress but did not focus on their health. It has been found that due to spouses handling multiple stressors during a deployment, they experience somatic problems and sleep disturbances (Aducci et al., 2011). It is possible that participants' health may have influenced the results of this study; however, it cannot be assumed that all military spouses had health issues.

Limitations

A limitation of this study was the use of data collected online. This did not allow participants who were not comfortable with the use of a computer or the Internet to participate. This study was correlational, assessing participants' anxiety, depression, perceived stress, coping skills, and communication. Due to this being a correlational study, internal validity was weaker than if it were an experimental study. A final limitation of the study was that the spouses may have been reluctant to disclose accurate information.

Significance

Southwell and Wadsworth (2016) qualitatively examined the major challenges and benefits that male military spouses face. Results showed that male spouses reported lower marital satisfaction, less support from the community, and less satisfaction with the military lifestyle, as well as depression, anxiety, and PTSD. Warner, Appenzeller,

Warner, and Grieger (2009) examined the impact of demographics, prior deployments, number of potentially stressful experiences, and the handling of stressful events on the experience of depressive symptoms. High rates of depressive symptoms in female military spouses were found. This study was unique due to the examination of the relationship that deployment had with male and female spouses' anxiety, depression, perceived stress, coping, and communication. Insight from this study may aid mental health professionals and the military community in helping spouses with resources and assistance during deployment. The findings of this research may assist in increasing support for service members and their family members.

Summary

Service members continue to deploy to combat zones, and military spouses continue to stay behind to take care of the home front. Military spouses' mental health and ability to adjust are key to maintaining stability for these families, as well as for the successful completion of service members' deployment. It is important for professionals to understand the effects that deployment has on male and female military spouses to develop interventions to care for military spouses.

Chapter 2 contains a review of the literature. The contextual model of family stress and coping and how it relates to the military family are discussed. A review of the deployment cycle that military families experience is presented. The literature review includes studies on anxiety, depression, and deployments. It also covers military spouse stress and communication. Finally, military spouses' coping skills are discussed.

Chapter 2: Literature Review

When men and women serving in the military deploy to combat zones, their families experience higher levels of stress, which have effects on their physical and emotional well-being, role limitations due to emotional problems, perceptions of energy and fatigue, and social functioning (Blank et al., 2012; Padden et al., 2011; Padden & Posey, 2013). Military spouses have also been found to experience higher levels of stress compared to a civilian sample (Blank et al., 2012). Stress can result from sustaining a family during frequent relocations, short dwell times, long distances from family, adjusting to the military culture, long and irregular work schedules for the active duty member, absence of the active duty member for training or deployment, parenting stress, and concern for the well-being and safety of the active duty member (Blank et al., 2012; Eaton et al., 2008; Everson et al., 2013; Fish et al., 2014; Green et al., 2013).

Previous research has shown increased rates of depression, postpartum depression, and stress as well as decreased satisfaction in military spouses with deployed service members (De Burgh, White, Fear, & Iversen, 2011). One limitation of the literature is that although multiple studies have examined the effect that deployment has on female military spouses, previous research has not examined quantitative data on male and female spouses' levels of anxiety, depression, perceived stress, coping, and communication (Eaton et al., 2008; Green et al., 2013; Villagran et al., 2013). Currently, there have been no quantitative studies examining the effect that deployment has on both male and female military spouses. The purpose of this study was to examine the

relationship that deployment has with male and female spouses' anxiety, depression, perceived stress, coping, and communication.

This chapter begins with a discussion of the strategies that I used to research the literature, followed by a discussion of the contextual model of family stress and coping used for this study. The model's origins and assumptions are discussed, along with recent research related to the model. The second section contains a review of literature on military deployment and the demographics of active duty and reserve components. The next section contains a discussion of the literature on depression and anxiety related to military spouses during deployment. The effects that stress has on military spouses are also explored. Next, the effects of communication between service members and their military spouses and children are reviewed. The final section addresses military spouses' coping strategies and the effects of ineffective and effective coping skills.

Literature Search Strategy

A literature search strategy was implemented using Walden University Library's databases (PsycINFO, PsycARTICLES, PsycEXTRA, ERIC, Military and Government Collections, and SAGE Journals) and Google Scholar. The majority of the sources used for this literature review were found in the Military and Government Collections. The following search terms were applied: *military spouse, spouse, deployment, deployment separation, stress, coping, well-being, depression, anxiety, relationship, communication,* and *parenting*. The focus of the literature search was on works published from 2007 to the present.

Theoretical Framework

The theoretical framework that was used for this study was the contextual model of family stress and coping (Boss, 2002). The theory originated from Hill's ABC-X model, a heuristic model for scientific inquiry into family stress (Boss, 2002). Boss (2002) modified the ABC-X model and proposed the contextual model of family stress and coping (Sullivan, 2015). Boss's version consists of a provoking event or stressor (A); the family's resources or strengths at the time of the event (B); perceptions and the meaning attached to the event by the family (C); and degrees of stress (low to high) and/or crisis (X; Boss, 2002). The contextual model displays the breaking point at which a family is in crisis (Boss, 2002).

The contextual model allows one to examine a precipitating stressor event that interacts with a family's resources and the meaning that the family assigns to the event (Boss, 2002; Sullivan, 2015). The stressor event is an incident that is significant and provokes a change in the family system that could increase the family's level of stress (Boss, 2002). The model assists in examining multiple stressors experienced by military spouses and how their resources assist them in determining if a stressor causes significant depression, anxiety, or increased stress.

The family's resources and the meaning the family assigns to the stressor determine whether a stressor will lead to a crisis or whether the family will effectively cope with the stressor. The contextual model takes into account the influences of genetics, culture, developmental lifestyle, familial structure, values, and beliefs on a family (Boss, 2002; Sullivan, 2015). This model was selected due to its ability to address

the effects of culture for a diverse participant sample, and it explains why some families struggle or thrive in response to stressors (Sullivan, 2015). The contextual model was developed through research with World War II and Vietnam War families. Therefore, the contextual model was applied in this study.

Boss (2002) described three ideas underlying the model. First, there is no one type of normal American family. Second, the context surrounding families will influence their ability to manage stress or recover from a crisis (families have little or no control over external factors yet can alter internal context). Third, the model incorporates diversity. Boss's basic premises were that (a) not all families, even within one culture, are the same; (b) not all events that create stress for families should be viewed as the same; and (c) not all families or individuals in them have identical values and beliefs. The fundamental assumptions of the contextual model are the following:

- even strong families can be stressed to the point of crisis and thus be immobilized;
- there are different values and beliefs that influence how a particular family defines what is distressing and how members derive meaning from what is happening;
- the meaning people construct about an event or situation is often influenced by their gender, age, race, ethnicity, and class;
- mind and boy are connected, psychological stress can make people physically sick, and this process can affect whole family systems;

- some family members are constitutionally stronger or more resilient in withstanding stress than are others;
- it is not always bad for families to fall into crisis because some have to hit bottom to move on to recovery; those who fall apart often become strong again, even stronger than they were originally. (Boss, 2002)

In recent years, the contextual model has been applied to the study of military families and the impact of deployment. For example, Sullivan (2015) used the contextual model to examine the issues faced by a military family. Sullivan identified stressors that the family experienced (e.g., the return of the deployed husband to the family), identified the family's minimal resources (e.g., lack of support for the wife from the husband, family, and military community), and the meaning assigned to the service member's redeployment (e.g., concern due to the family routine being about to change; hesitance about relinquishing a sense of autonomy; and the son's feeling that he will have to compete for his mother's affection). Using the contextual model, interventions were implemented with the family and individual family members that assisted them in avoiding a crisis (Sullivan, 2015).

Lucier-Greer, Arnold, Mancini, Ford, and Bryant (2015) applied the contextual model to examine 1,036 youth participants (between the ages of 11 and 18) with at least one active-duty parent. Lucier-Greer et al. examined the normative risk factors (e.g., racial/ethnic minority status, family disruption, and social isolation) and context-specific risk factors (e.g., deployment, multiple school transitions, parental rank, dual military parents, and residential location) among adolescents and the role of relationships as

protective factors. Using the contextual model assisted Lucier-Greer et al. in examining protective factors at multiple levels (personal, familial, social, and structural) to guard against poorer mental health and developmental outcomes. Results demonstrated that structural influences and meaningful relationships have a positive impact on military youth and buffer against depressive symptoms, poor school performance, and lack of persistence (Lucier-Greer et al., 2015).

Military Deployment

In 2015, there were 1,301,443 U.S. military service members on active duty and 1,101,353 service members in the Reserves (DoD, 2015). Of the active-duty soldiers, 15.5% (201,413) were women (DoD, 2015). Since the American Revolutionary War, women have served in the military, but they have been limited in the positions that they may occupy. As of 2016, women held positions in direct combat units that were below the brigade level (Southwell & Wadsworth, 2016). Of 1,301,443 active-duty soldiers, 54.3% (707,233) are married (DoD, 2015).

As service members continue to deploy to hazardous duty stations, there is a deployment cycle with which service members and their families are confronted (Verdeli et al., 2011). The deployment cycle consists of four phases: predeployment, deployment, redeployment, and reintegration (Padden & Posey, 2013; Verdeli et al., 2011). The predeployment phase begins when the service member is notified of deployment and ends when the service member departs to the hazardous duty station. During this time, the service member and the family face unique challenges. Family members anticipate the loss of the service member, get their affairs in order, distance themselves mentally and

physically, argue frequently, adjust to longer and more irregular work hours for the service member, and may have to understand and even adjust to final training that may take the service member away for periods of time (Padden & Posey, 2013; Verdeli et al., 2011).

The deployment phase spans from when the service member departs to the hazardous duty station to 1 month prior to the return of the service member (Padden & Posey, 2013). During this phase, the family members experience emotional disorganization, destabilization, and security difficulties. Family members may adjust and develop new routines and roles, find sources of support, and grow in independence and confidence (Padden & Posey, 2013; Verdeli et al., 2011).

The redeployment phase begins 1 month prior to the service member returning home (Padden & Posey, 2013). During this phase, the service member's mission tempo decreases as the service member packs up personal belongings, cleans and turns in gear, and anticipates the return home. Family members, meanwhile, may experience anticipation, excitement, and apprehension, and they may engage in nesting behavior (Padden & Posey, 2013; Verdeli et al., 2011).

The postdeployment phase begins when the service member returns home and ends 3 to 6 months after deployment (Padden & Posey, 2013). During this time, service members and their family members may experience a "honeymoon period," loss of independence, and renegotiation of routines and roles (Padden & Posey, 2013; Verdeli et al., 2011).

The current rate and frequency at which tasks and job-related requirements are completed in the military is identified as operational tempo (OPTEMPO; Verdeli et al., 2011). The military's current OPTEMPO is high: Deployments to hazardous duty stations range from 6 to 18 months, units are undergoing multiple deployments, units are attending mandatory training away from their duty station and in the field, and dwell time at the service member's duty station is shorter (Fish et al., 2014; Verdeli et al., 2011). With a high OPTEMPO, military families may experience attachment disturbances, depression, anxiety, maltreatment, stress disorders, behavioral disorders, marital conflict, and increased divorce rates (Verdeli et al., 2011). An important buffer for the negative effects of a service member's deployment on the family is the psychological well-being of the military spouse (Green et al., 2013). Green et al. (2013) examined the effects of family stress and strain on military families. Factors that were identified to be significantly related to the military spouse's well-being included the spouse's level of functioning, the duration of the deployment, deployment extensions, economic strain, support, and the spouse's life circumstances (Green et al., 2013).

Anxiety, Depression, and Deployment

Research has found that deployment can result in depression, postnatal depression, sleep disorders, anxiety, acute stress reaction, and adjustment disorders among female spouses (Villagran et al., 2013). Seventeen percent of military spouses whose service member was deployed met criteria for generalized anxiety disorder (GAD), and 7.2% of those spouses experienced significant functional impairment (Eaton et al., 2008). Research has shown that compared to community norms, military spouses

have higher levels of anxiety and depression due to higher levels of perceived stress (Eaton et al., 2008; Green et al., 2013). Longer duration of absence of the service member has been associated with female spouses experiencing increased symptoms of anxiety and depression (Rodriguez & Margolin, 2015). Decreased anxiety symptoms in military spouses' children have been associated with increased contact with the deployed service member (Rodriguez & Margolin, 2015).

The high OPTEMPO with multiple and prolonged deployments has been associated with increased anxiety and depression in military spouses (Verdeli et al., 2011). Green et al. (2013) found that as spouses searched for resources and social supports, spouses with depression found multiple resources, whereas spouses with anxiety did not find as much assistance. A strong social support system has been found to assist spouses positively with adjustment to deployment separation (Green et al., 2013). Families with limited support and resources have been found to struggle in isolation and have been more vulnerable to increased strain and psychological distress (Green et al., 2013).

Eaton et al. (2008) conducted a study with 940 military spouses whose service members were deployed and examined mental health status, rates of care utilization, source of care, and barriers and stigma of mental health among military spouses who were seeking care. Results indicates that 114 (12.2%) spouses met criteria for depression and 63 (6.7%) of those spouses experienced significant functional impairment (Eaton et al., 2008). In another study by Warner, Appenzeller, Warner, and Grieger (2009), it was found that out of 207 female military spouses with deployed service members, nearly half

met criteria for depression, and another 24.4% of the spouses experienced mild depressive symptoms. One out of every 10 spouses experienced severe depression (Warner et al., 2009).

During the deployment phase, a spouse's social support can serve as a buffer against depression and assist him or her in managing stressors (Green et al., 2013). Social support has been found to have a negative relationship with depression (Green et al., 2013). The important events that a family celebrates (e.g., birthdays, anniversaries, graduating high school) can evoke a feeling of loss for family members (Rodriguez & Margolin, 2015). In children of deployed military members, the number of important life events missed by the service member was associated with increased depressive symptoms (Rodriguez & Margolin, 2015).

During deployment, depression is associated with the deterioration of military marriages and increased rates of divorce (Verdeli et al., 2011). It has been reported that military spouses continue to suffer from depression after redeployment (Verdeli et al., 2011). When military spouses suffer from depression upon redeployment of the service member, they have difficulty supporting the service member's reintegration into civilian life (Verdeli et al., 2011). This creates marital conflict, increased stress for the service member, and adjustment difficulties for the service member and the family (Verdeli et al., 2011).

Military Spouse Stress

Several studies have found that military spouses report a higher level of perceived stress and higher levels of marital discord compared to a nonmilitary sample (Asbury &

Martin, 2012; Blank et al., 2012; Green et al., 2013). Military spouses are left to tend to all the responsibilities of managing a household and taking care of children while they are experiencing increased stress and distance from family networks (Asbury & Martin, 2012; Green et al., 2013). Higher levels of stress are related to worrying over the safety of the deployed spouse, fear of the unknown, lack of control, loneliness, and balancing work and family responsibilities (Blank et al., 2012). Female spouses of field grade officers and females who grew up in the military had lower perceived stress than other military spouses (Padden et al., 2011). They reported lower perceived stress levels due to their knowledge and familiarity with the military culture (Padden et al., 2011). Their knowledge and familiarity assisted them in adapting. Male spouses of deployed female service members perceived a lack of support from other civilian husbands and female service members, as well as a lack of resources (Southwell & Wadsworth, 2016). Higher levels of stress and strain coupled with a lack of resources had a significant relationship with spouses' psychological and physical health (Green et al., 2013; Padden et al., 2011). Psychological stress in military spouses was associated with a higher body mass index (BMI; Fish et al., 2014). Social support was also found to have an inverse relationship with BMI in military spouses (Fish et al., 2014).

Military families face many stressors that include multiple geographic relocations, separation from family and friends, deployments, temporary duty assignments for the service member, long and irregular work hours, the risk of injury or death to the service member, and combat-related disorders (Southwell & Wadsworth, 2016). When military families are stationed in a foreign country and contend with frequent changes of duty

station, this disrupts the family's social network and support (Padden & Posey, 2013). Stress also has a negative impact upon marital functioning and children's externalizing and internalizing behaviors (Allen et al., 2011). Increased stress was experienced if the female spouse felt the U.S. Army was not concerned with families (Allen et al., 2011). Marital conflict was higher when couples experienced higher levels of negative communication and negative experiences from work or daily living that were redirected on to the other spouse (Allen et al., 2011). Although male stress levels were not related to their children's externalizing and internalizing behaviors, females stress levels were related to their children's externalizing and internalizing behaviors (Allen et al., 2011). Increased stress levels were found if the spouse had negative beliefs towards the mission in Iraq and Afghanistan (Allen et al., 2011). If the male and female spouses perceived the Army was concerned for military families' then lower stress levels were reported (Allen et al., 2011).

Allen et al. (2011) examined stress experienced by 300 couples with a male service member and a female spouse who experienced a deployment within the last year. Female spouses experienced higher levels of stress than their husbands (Allen et al., 2011). Female spouses experienced higher levels of stress regarding combat, reintegration, loneliness, staying in touch, fear of death, physical injury, psychological problems, and effect on their children (Allen et al., 2011). The number and the length of deployments influenced a pile-up of stressors experienced by the family (Everson, Herzog, Figley, & Whitworth, 2014). The stress pile-up was associated with maladaptive behaviors and dissolution of military families (Everson et al., 2014). Research has also

shown that during a deployment the spouse's relationship satisfaction declined significantly over 4 to 6 months (Andres, 2014). After the separation two out of ten spouses were less satisfied with their relationship than before the separation, although one out of ten spouses were more satisfied with their relationship (Andres, 2014).

Southwell and Wadsworth (2016) conducted a qualitative study to examine the perceived benefits and challenges male military spouses' face with their wife's career in the military. Male spouses perceived the female service member's long irregular work schedule, separations during training and deployments, unemployment, and changes in caregiver roles as stressful. The male spouses also experienced depression, anxiety, and posttraumatic stress disorder (PTSD) due to their wife's military service (Southwell & Wadsworth, 2016).

Rank has a significant effect on the experiences a family has during deployment (Everson et al., 2014). Compared to commissioned officer's (O1-O9) female spouses, female spouses of lower enlisted (E1-E4) soldiers and noncommissioned officers (NCO; E5-E9) experienced higher levels stress and strain related to parenting, family, and personal (Everson et al., 2014). Overall, lower enlisted soldier's families experienced higher levels of stress and strain (Everson et al., 2014). Officers spouses experienced less stress and strain due to the privileges that come with rank. Officers have higher salaries and a higher standard of living than enlisted and NCO's (Everson et al., 2014). Although parenting stress affected all the military families, enlisted and NCO's families were affected the most by parenting stress (Everson et al., 2014). Enlisted families were new to the military life and culture and generally were younger. Noncommissioned officer's

families had more children in the household. After nine months of deployment enlisted, NCO's, and officer's families all experienced significant parenting stress (Everson et al., 2014).

While military spouses balance the responsibilities placed on them when the service member is deployed, military spouses were found to be inconsistent with their childrearing, less affectionate to their children, less able to control their children's behavior, relaxed rules, and changed routines and expectations (Kelley, 1994). Spouses were overwhelmed, had less patience, and were emotionally withdrawn from their families (Kelley, 1994). Children of fathers who were deployed experienced defiance, fights, fear, depression, anxiety, and poor academic performance (Kelley, 1994). Early school age children appeared to be disturbed more by the separation than other children (Kelley, 1994). Children of service members who were deployed to a peace keeping mission showed a decline in their disruptive behaviors after the redeployment of the service member (Kelley, 1994). In contrast, children whose service member was deployed to a hazardous duty station had disruptive behaviors that continued to be elevated after the redeployment of the service member (Kelley, 1994). Parenting stress has also been associated with increased reports of child abuse, neglect, and maltreatment among military spouses during a deployment (Blank et al., 2012; Everson et al., 2014).

Protective buffering is a coping skill in which individuals hide their concerns, deny their worries, and conceal information to avoid a disagreement with someone or in an attempt to protect another individual from increased stress (Joseph & Afifi, 2010). During the deployment phase, some individuals choose to use protective buffering with

their spouse because they do not want the service member to worry, to contribute to the service members stress, or they believe their stress is not as important as the service members (Joseph & Afifi, 2010). Male service members acknowledged not sharing with their spouse due to maintaining confidentiality, personal privacy, for fear that their wives may not understand, and to prevent their wives from worrying (Baptist et al., 2011). Female spouses reported that when the service member used protective buffering it was hard for them to know how to support the service member (Baptist et al., 2011). Protective buffering resulted in higher stress levels and lower marital satisfaction for both the spouse and the service member (Joseph & Afifi, 2010).

Spouses reported that availability, accessibility, and acceptability as barriers to seeking mental health support (Verdeli et al., 2011). Spouses did not know where to get treatment, did not have child care, had difficulty getting time off from work, difficulty scheduling an appointment, and were hesitant due to the stigma attached to mental health care (Eaton et al., 2008; Warner et al., 2009). Spouses were furthermore deterred from seeking mental health care due to their belief that it would have a negative impact on their service members career (Warner et al., 2009).

Spousal Communication

Research has found communication between service members and their spouses is important to maintain intimacy, trust, and the opportunity to support each other (Andres, 2014). Male service members and female spouses all reported staying in contact with their spouse assisted them in feeling relief and support, helped build trust, and the opportunity to express their need for their spouse (Baptist et al., 2011). As technology

has advanced, there has been increased potential for communication between deployed service members and their families (Houston et al., 2013). Female spouses use electronic mail, telecommunication, instant messaging, or sending care packages to demonstrate their need to maintain a connection with their service member (Baptist et al., 2011).

Female spouses facing their service member's deployment reported experiencing an increase in their appreciation for their family and life, connection to their service member, and in their bond with the service member (Baptist et al., 2011). Male service members reported valuing the time they had with their spouse more, an increase in their commitment, more confidence in their future, and being more affectionate towards their spouse (Baptist et al., 2011).

Communication between a child, their mother, and the service member at the pre-deployment phase was related to the level of anger and stress (Houston et al., 2013). Sibling communication during pre-deployment was found to assist in buffering pre-deployment anger and stress for the child (Houston et al., 2013). During the deployment, the frequency of communication was related to the child's levels of anger and loneliness (Houston et al., 2013). Sibling communication was found to be a buffer against loneliness for the child (Houston et al., 2013). During the redeployment phase, levels of communication with the service member and the sibling were related to less anger and loneliness (Houston et al., 2013). Family communication was related to positive outcomes for the child (Houston et al., 2013). Communication between service members and their children has been found to assist in decreasing stress and anxiety levels for the children during a deployment (Houston et al., 2013; Rodriguez & Margolin, 2015).

During the deployment phase, the quality of communication between parent and child was negatively correlated with quality of communication between siblings (Houston et al., 2013). Children whose service member was deployed benefited from having a sibling or peer the same age going through a deployment (Houston et al., 2013). Communication with the deployed service member was associated with anger, loneliness, and emotional and behavioral problems for the child (Houston et al., 2013).

Research has found positive effects of communication between the service member and their family but communication also has negative effects on spouses (Houston et al., 2013). For spouses, frequent communication resulted in increased loneliness and feeling upset or stressed around their children (Houston et al., 2013). Furthermore, spouses experienced increased levels of anxiety when the service member was on a mission and when there were unexpected breaks in communication (Verdeli et al., 2011). When service members or spouses had gaps in communication the spouse reported feelings of jealousy and suspiciousness of infidelity (Verdeli et al., 2011).

Coping Behaviors

Coping is the cognitive and behavioral effort used to manage specific external and/or internal demands that are perceived as taxing or exceed the resources of the person (Lazarus, 1993). As military families are confronted with different stressors their type of coping skills can have an effect on their physical and mental well-being (Blank et al., 2012; Padden et al., 2011). Research with military spouses found that ineffective coping skills can result in maladaptation, depression, anxiety, and somatization (Blank et al., 2011; Padden et al., 2011). Physical symptoms can include sleep disturbances, fatigue,

headaches, menstrual problems, changes in appetite, and weight changes (Blank et al., 2011; Padden & Posey, 2013). When a military family is confronted with a stressor, the manner in which the stressor is appraised, and the resources used by the family can determine if the family will become overwhelmed and go into crisis or if they will triumph (Green et al., 2013). The psychological health of the non-deployed parent and his or her ability to adapt to stress is crucial to the family's coping ability (Green et al., 2013).

A supportant coping style is the use of personal, professional, and spiritual support systems (Blank et al., 2012). Supportant coping style has been found to be the most effective in confronting a stressor amongst military spouses yet it was on the second most used coping skill (Blank et al., 2012). A confrontive coping style is used when facing a problem or using constructive problem solving (Blank et al., 2012). Confrontive coping was the fourth most used coping style amongst military spouses but it was the second most effective (Blank et al., 2012). Optimistic coping is the use of positive attitudes and beliefs (Blank et al., 2012). Female military spouse's mental well-being was positively correlated with optimistic coping however it was the third most effective coping style (Blank et al., 2012; Padden et al., 2011). Increased perceived stress was associated with a military spouse using evasive and emotive coping skills. Evasive coping is the avoidance of a problem (Blank et al., 2012). Emotive coping is when an individual uses the expression and release of emotions to deal with a stressor (Blank et al., 2012). Evasive and emotive coping had a negative effect upon female military

spouse's mental and physical well-being and is the least effective coping skill (Blank et al., 2012; Padden et al., 2011).

Social support has been found to assist military spouses in decreasing symptoms of depression, posttraumatic stress disorder (PTSD), and in buffering the effects of stress (Skomorovsky, 2014). Social support in military spouses has been found to increase marriage quality, psychological outcomes for patients with PTSD, and psychological well-being (Skomorovsky, 2014). Military spouse's social support from family, civilian friends, and their partner were associated with improved psychological well-being and decrease symptoms of depression (Skomorovsky, 2014). Social support from the service member after redeployment increased the well-being of families (Skomorovsky, 2014).

Summary and Conclusions

A review of the literature suggests that the stress experienced by female military spouses during deployments have a significant negative effect upon their psychological health (Allen et al., 2011). Spouses experience depression, anxiety, adjustment disorder, and PTSD (Southwell & Wadsworth, 2016; Villagran et al., 2013). One limitation of literature is, although multiple studies examine the effect deployment has on female military spouses, previous research has not examined quantitative data on male and female spouse's levels of anxiety, depression, perceived stress, coping, and communication. This study will examine the relationship between deployment and male and female spouses' anxiety, depression, perceived stress, coping, and communication.

Chapter 3 provides a review of the research method. It begins by reviewing the research design and rationale which will explore the variables, research questions, and

constraints. Next a review of the methodology and instruments are discussed which includes reviewing the population, sampling procedures, recruitment, participation, and data collection. Finally, the ethical procedures and threats to validity are discussed.

Chapter 3: Research Method

Previous research has provided information on some of the effects that deployment has on female spouses. Currently, there are no quantitative studies examining the effect that deployment has on both male and female military spouses. The purpose of this study was to examine the relationship that deployment has with male and female spouses' anxiety, depression, perceived stress, coping, and communication.

This chapter begins with a discussion of the research design that was used to explore the variables, research questions, and constraints of the study. The population, sampling procedures, recruitment, participation, and data collection are also explained. Next, the instrumentation, operationalization of constructs, and reliability and validity are discussed. Finally, the ethical procedures of the study are addressed.

Research Design and Rationale

The study had a cross-sectional quantitative design. Military spouses completed an online survey using Survey Monkey. I examined the relationship between deployment, gender, communication, coping, depression, anxiety, and perceived stress through a nonexperimental correlational design. The independent variables included deployment, gender, communication, and coping. The dependent variables included depression, anxiety, and perceived stress.

The research questions and hypotheses were as follows:

RQ1 – To what extent does military deployment relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Deployment is not a significant predictor of depression.

H_1 - Deployment is a significant predictor of depression.

RQ2 – To what extent does military deployment relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Deployment is not a significant predictor of anxiety.

H_1 - Deployment is a significant predictor of anxiety.

RQ3 – To what extent does military deployment relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Deployment is not a significant predictor of stress.

H_1 - Deployment is a significant predictor of stress.

RQ4 – To what extent does spouse gender relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Gender is not a significant predictor of depression.

H_1 - Gender is a significant predictor of depression.

RQ5 – To what extent does spouse gender relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Gender is not a significant predictor of anxiety.

H_1 - Gender is a significant predictor of anxiety.

RQ6 – To what extent does spouse gender relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Gender is not a significant predictor of stress.

H_1 - Gender is a significant predictor of stress.

RQ7 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to depressive symptoms, as measured by Beck Depression Inventory-II, among spouses?

H_0 - Communication is not a significant predictor of depression.

H_1 - Communication is a significant predictor of depression.

RQ8 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Communication is not a significant predictor of anxiety.

H_1 - Communication is a significant predictor of anxiety.

RQ9 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Communication is not a significant predictor of stress.

H_1 - Communication is a significant predictor of stress.

RQ10 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Coping is not a significant predictor of depression.

H_1 - Coping is a significant predictor of depression.

RQ11 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Coping is not a significant predictor of anxiety.

H_1 - Coping is a significant predictor of anxiety.

RQ12 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Coping is not a significant predictor of stress.

H_1 - Coping is a significant predictor of stress.

Methodology

Population

As of 2015, there were 707,233 married service members serving in the military (DoD, 2015). The population sought after for this study was male and female military spouses who had a service member deployed to a combat zone. Participants were recruited from different geographical locations within the United States.

Sampling and Sampling Procedures

With the study having a finite population, a survey sampling was conducted. Survey sampling assisted in collecting information on particular characteristics of the finite population (Frankfort-Nachmias & Nachmias, 2008). A stratified sampling procedure was used. This ensured that the different groups (male and female) would be represented adequately in the sample (Frankfort-Nachmias & Nachmias, 2008). The

sample size was determined using G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007). The following values were used to calculate sample size: an effect size of .15, α level of .05, a power level of .95, and four predictors. This resulted in a recommended sample size of 129 (Faul et al., 2007). A moderate effect size was used due to no previous literature showing a strong relationship between variables.

Inclusion criteria (Appendix A) for the sample consisted of the participants being married to a military service member. The participants resided within the United States. The participants were 18 years old or older. It was not required for the participants to have children, and they were excluded if they had children. At the time of the survey, the service member needed to be deployed to a combat zone.

Exclusion criteria (Appendix A) for the sample consisted of the participants not being married to a service member. If the service member was deployed to a non-combat duty station (e.g. Korea, Africa) they were excluded. If the participant was in a protected population (e.g. under the age of 18, mentally disabled, pregnant, or resident of a facility) they were excluded from the study.

Procedures for Recruitment, Participation, and Data Collection

Spouses were recruited from multiple geographical locations within the United States. Advertisements were placed on Facebook, within multiple different groups. Data were collected using Survey Monkey.

Prior to completing the survey, participants read and signed an informed consent form (Appendix B). The informed consent form included identification of the researcher; identification of the sponsoring institution; identification of the purpose of the study;

identification of the benefits of participating; identification of the level and type of participant involvement; notation of risks to the participants; guarantee of confidentiality; assurance that the participant could withdraw at any time; and provision of names of persons to contact if questions arose. The participants had the option to print out the informed consent statement for their records. After participants agreed to the informed consent, they answered inclusion and exclusion criteria questions. Then they answered items pertaining to demographic information (Appendix B) and began the survey. During the survey, if the participants wanted to end their participation, there was an Exit button for them to click to end the survey. When the participants completed the survey, they clicked the Submit button, and then a statement was displayed that included contact information for participants to use to contact me and Walden University with questions or comments, or to request a summary of the results when the study was complete.

Instrumentation and Operationalization of Constructs

Beck Anxiety Inventory

The Beck Anxiety Inventory (BAI) was developed by Beck in 1987 (Beck & Steer, 1993). The BAI is a 21-item multiple choice self-report inventory that measures an individual's anxiety symptoms in the last week. It was designed for individuals from 17 through 80 years old. Participants rate their symptoms on a 4-point scale (0 = *not at all*; 1 = *mildly*; 2 = *moderately*; or 3 = *severely*), which provides a total possible score of 63. Sample items include "Frightened," "Heart feels like it is skipping a beat," and "Legs like jelly."

To ensure factorial validity, an iterated principal factor analysis was completed on the intercorrelations of the items. The results showed two factor patterns: the first comprised of somatic symptoms and the second comprised of subjective anxiety and panic symptoms (Beck, Epstein, Brown, & Steer, 1988). Upon further examination, a centroid cluster analysis was completed, and four clusters were found (Beck et al., 1988). The four clusters were neurophysiological, subjective, panic, and autonomic. The alpha coefficient between the four subscales ranged from .73 to .88. Beck et al. (1988) reported a significant correlation between the BAI and the Cognition Checklist—Anxiety (CCL-A) of $r = .5$. This demonstrated moderate construct validity with other assessments measuring anxiety.

To assess reliability, the 21-item BAI was administered to a subsample of outpatient patients (Beck et al., 1988). The BAI demonstrated high internal consistency (Cronbach's alpha = .92) and item-total correlations ranged from $r = .30$ to $r = .71$ (median = $r = .60$; Beck et al., 1988). The BAI was administered to a subsample of patients after a week, and the correlation between the intake BAI and Week 1 BAI was $r = .75$ (Beck et al., 1988). Permission was obtained to use the BAI in this study from William H. Schryver, Senior Legal Licensing Specialist at Pearson.

Beck Depression Inventory-II

The Beck Depression Inventory (BDI) was developed by Beck (1961; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Beck revised the original BDI, creating the Beck Depression Inventory-II (BDI-II), in 1996 (Beck, Steer, & Brown, 1996). The BDI-II is a 21-item multiple choice self-report inventory that measures the intensity of an

individual's depressive symptoms in the past 2 weeks. It was designed for individuals from 13 through 80 years old. Participants rate their symptoms on a 4-point scale ranging from *not present* (0) to *severe* (3), which provides a total possible score of 63. Sample items include "Unhappiness" and "Changes in activity level."

Reliability with the BDI-II had a coefficient alpha of .92 for outpatients and .93 for college students (Beck et al., 1996). Test-retest reliability was assessed with outpatients approximately 1 week apart and was significant with a correlation of $r = .93$ (Beck et al., 1996). Internal consistency was assessed with item-total correlations ($r = .39$ to .70 for outpatients; $r = .27$ to .74 for students; Beck et al., 1996). Convergent validity was assessed with the administration of the BDI-1A and the BDI-II, which resulted in a correlation of $r = .93$; the BDI-II had a mean score 2.96 points higher (Beck et al., 1996). An iterated principal factor analysis was completed on the intercorrelations of the items. The results showed two factor patterns. The first involved somatic-affective symptoms and the second involved cognitive symptoms of depression (Beck et al., 1996). The two dimensions were the somatic dimensions and the cognitive-affective dimensions of depression (Beck et al., 1996). The coefficient alphas between the two dimensions were $r = .98$ (Beck et al., 1996). Permission was obtained to use the BDI-II in this study from William H. Schryver, Senior Legal Licensing Specialist at Pearson.

Perceived Stress Scale-10

The Perceived Stress Scale-14 (PSS-14) was developed by Cohen (1983). Cohen (1988) modified the PSS-14, which resulted in the Perceived Stress Scale-10 (PSS-10; Appendix C; Cohen, Kamarck, & Mermelstien, 1983; Cohen & Williamson, 1988). The

PSS-10 is a 10-item multiple choice self-report inventory that measures an individual's perception of stress during the last month. It was designed for individuals with at least a junior high school education. Participants rate their symptoms on a 5-point scale (0 = *never*; 1 = *almost never*; 2 = *sometimes*; 3 = *fairly often*; and 4 = *very often*), which provides a total possible score of 40. Sample items include the following: "In the last month, how often have you been upset because of something that happened unexpectedly?" and "In the last month, how often have you felt that things were not going your way?"

Cronbach's alpha reliability for the PSS-10 were .84, .85, and .86 (Cohen et al., 1983). The test-retest reliability correlation at 2 days was $r = .85$, and at 6 weeks it was $r = .55$ (Cohen et al., 1983). Roberti, Harrington, and Storch (2006) also reported good internal consistency of the PSS-10 with a Cronbach's alpha coefficient of .89. In another study, a Cronbach's alpha coefficient of .78 was found, along with a moderate correlation with other measures (life satisfaction measure; measure of help-seeking behavior; College Student Life-Event Scale; Job Responsibilities Scale) appraising stress and potential sources of stress (experienced stress, life-events, work-related stress; health status), which displays construct validity (Cohen & Williamson, 1988). Roberti et al. (2006) provided convergent validity data for the PSS-10, with high correlation with the State-Trait Anxiety Inventory Total Score (STAI; $r = .22$ to $r = .96$), State-Trait Anxiety Inventory-Anxiety Factor (STAI-A; $r = .21$ to $r = .68$), and State-Trait Anxiety Inventory-Depression Factor (STAI-D; $r = .21$ to $r = .29$), and low to moderate correlations with the Multidimensional Health Locus of Control (MHLC; $r = -.21$ to $r = -$

.39) Chance subscale and MHLC Powerful Others subscale (r = -.21). Although the PSS-10 is within the public domain, permission to use the assessment in this study was obtained from Dr. Sheldon Cohen.

Primary Communications Inventory

The Primary Communications Inventory (PCI; Appendix D) was developed by Locke, Sabagh, and Thomas (1956) and modified by Navran (1967). The PCI is a 25-item multiple choice self-report inventory that measures communication in a marriage (Navran, 1967). Participants rate their symptoms on a 5-point scale (1 = *never*; 2 = *seldom*; 3 = *occasionally*; 4 = *frequently*; and 5 = *very frequently*), with a total possible score of 125. Sample items include the following: "How often do you and your partner talk over pleasant things that happen during the day?" and "How often do you and your partner talk over unpleasant things that happen during the day?" Navran reported that the PCI was significantly correlated with the Marital Relationship Inventory (r = .82), displaying construct validity. The PCI is within the public domain.

Coping Inventory for Stressful Situations

The Coping Inventory for Stressful Situations (CISS) was developed by Endler and Parker (1999). The CISS is a 48-item self-report instrument that examines three coping styles: task-oriented, emotion-oriented, and avoidance (Endler & Parker, 1999). There are two subscales for the Avoidance-Oriented scale: Distraction and Social Diversion. Participants rate their symptoms on a 5-point scale (1 = *not at all* to 5 = *very much*), for a total possible score of 80 on the three main coping scales (Endler & Parker, 1999). The range total possible score for the subscale Distraction is 40; for the subscale

Social Diversion, the total possible score is 25 (Endler & Parker, 1999). Sample items include the following: "Take time off and get away from the situation" and "Feel anxious about not being able to cope."

Cronbach's alpha reliability for the CISS was: Tasks = .87 to .92, Emotions = .82 to .90, Avoidance = .76 to .85, subscales Distraction = .69 to .79, and Social Diversion = .74 to .84 (Endler & Parker, 1999). These scores showed high internal reliabilities. The test-retest reliability correlation at 6 weeks was: Tasks r = .73 (males), r =.72 (females); Emotion r = .68 (males), r = .71 (females); and Avoidance r = .55 (males), r = .60 (females); subscales Distraction r = .51 (males, r = .59 (females); and Social Diversion r = .54 (males), r = .60 (females; Endler & Parker, 1999).

Construct validity was tested by examining the relationship between the CISS and social desirability, another measure of coping, psychopathology, depression, anxiety, somatic complaints, neuroticism, extraversion, and absorption. To examine if there was a relationship between CISS subscales and social desirability, participants completed the CISS and the Marlowe-Crowne Social Desirability Scale (M-C). Results found that the CISS is not influenced by social desirability (Endler & Parker, 1999). In another study, the construct validity was examined by comparing the CISS and the Ways of Coping Questionnaire (WCQ; Endler & Parker, 1999). Results showed the CISS Task scale correlated moderately (r = .42) with WCQ Problem Focused scale for males; a moderate correlation (r = .49) with Task vs. Problem-Focused; the Task scale had low to moderate correlations with the Social Support and Emphasizing the Positive scale of the WCQ (Endler & Parker, 1999). The CISS Emotion scale showed moderate to high correlations

with most of the WCQ emotion-focused scales (Endler & Parker, 1999). Some of the WCQ emotion-focused scales showed low to moderate correlations with the CISS Avoidance scale (Endler & Parker, 1999). The WCQ seeking social support scale strongly correlated with the Social Diversion subscale for the CISS (Endler & Parker, 1999).

To examine the relationship between psychopathology and the CISS, participants completed the CISS and the Basic Personality Inventory (BPI) and the Minnesota Multiphasic Personality Invetory-2 (MMPI-2; Endler & Parker, 1999). Results found Emotion-Orientated coping and Avoidance-Orientated coping are positively related to psychopathology and distress (Endler & Parker, 1999). The data showed individuals who are disturbed are prone to using Emotion-Oriented and Avoidance-Orientated coping skills. Task-Orientated coping is negatively correlated with psychopathology and distress (Endler & Parker, 1999). This shows non-disturbed or healthy persons use Task-Oriented coping.

To examine the relationship between depression and the CISS, participants completed the Beck Depression Inventory (BDI; Endler & Parker, 1999). A high positive correlation was found between the Emotion scale and the BDI for males and females (Endler & Parker, 1999). There was a negative correlation between the Task scale and the BDI for males and females (Endler & Parker, 1999). The results show individuals who use Emotion-Oriented coping experience depression symptoms.

To examine the relationship between anxiety and type A behavior, participants completed the state and trait anxiety subscales from the Endler Multidimensionl Anxiety

Scales (EMAS) and the Type A Behavior subscales from the Survey of Work Styles (SWS-A; Endler & Parker, 1999). Results showed Type A Behavior was positively correlated to the Emotion scale (Endler & Parker, 1999). In males, Type A Behavior was positively correlated to the Avoidance scale and Distraction subscale (Endler & Parker, 1999). The Emotion scale was positively correlated to different scales on the state and trait anxiety scales (Endler & Parker, 1999). In males, there was low to no correlation between the anxiety scales and the Avoidance scale and subscales (Endler & Parker, 1999). In females, low to moderate correlations were found between the Distraction subscale and state and trait anxiety subscales (Endler & Parker, 1999). Results show those who use Emotion-Oriented and Avoidance-Oriented coping skills can experience anxiety symptoms.

To examine the relationship between the CISS and somatic complaints and health problems, participants completed the SUNYA revision of the Psychomatic Symptom Checklist (PSC) and the somatization subscale of the Symptom Checklist (SCL-90R; Endler & Parker, 1999). The Task scale was not correlated with either of the somatization scales (Endler & Parker, 1999). The Emotion scale was positively correlated with both of the somatization scales (Endler & Parker, 1999). The Avoidance scale and Distraction subscale were positively correlated to the SCL-90R for males and females, for the PSC only males had a positive correlation (Endler & Parker, 1999). Results show Emotion- and Avoidance-Oriented coping skills can experience somatic and health complaints.

To examine the relationship between the CISS and neuroticism and extraversion, participants completed the Eysenck Personality Inventory (EPI; Endler & Parker, 1999). Results showed the Task scale had no correlations to neuroticism and extraversion (Endler & Parker, 1999). However, results did show for females the Avoidance scale and Social Diversion subscale was moderately correlated to neuroticism and extraversion (Endler & Parker, 1999).

To examine the relationship between the CISS and absorption, participants completed the Absorption scale from the Multidimensional Personality Questionnaire (MPQ; Endler & Parker, 1999). For males and females, there was a correlation on the Avoidance scale with absorption (Endler & Parker, 1999). For males, there was a correlation on the Emotion and Distraction subscale with absorption (Endler & Parker, 1999). For females, there was a correlation on the Social diversion subscale with absorption (Endler & Parker, 1999). These results show that individuals who use Emotion- and Avoidance-Oriented coping skills can be captured by stimuli and can be absorbed in vivid recollections and imaginings (Endler & Parker, 1999).

Permission was obtained to use the CISS in this study from Betty Mangos at Multi-Health Systems Inc.

Data Analysis Plan

A linear multiple regression was used in this study. One statistical assumption for a linear multiple regression is the relationship between the independent and dependent variables are linear (Field, 2013). This was tested with scatter plots. The second assumption was the data had a normal distribution (Field, 2013). This was tested by

examining a histogram. The third assumption is there is little or no multicollinearity in the data (Field, 2013). To examine for multicollinearity, a correlation matrix, tolerance, variance inflation factor (VIF), and the condition index were reviewed. The fourth assumption is there is little to no autocorrelation in the data (Field, 2013). This was tested using the Durbin-Watson test. The final assumption is homoscedasticity (Field, 2013). The Goldfeld-Quandt Test was used to test for heteroscedasticity. IBM's computer program SPSS was used to analyze the data and report the results.

Threats to Validity

One threat to validity is this survey was administered online. Using the internet can allow access to a large population but the population may not be representative of the national population (Ahern, 2005). Potential selection bias of participants is also a threat to online administration. Individuals who have access to the internet own a computer or have access to a computer, are better educated, and are knowledgeable regarding technology (Ahern, 2005). Collecting data online also limits control of the test setting (Ahern, 2005). The participant might have difficulties with equipment or network compatibility. Participants may make errors when entering in data.

Additional threats to the validity of this study consisted of only examining the effect of deployment on military spouses. The anxiety, depression, and stress a spouse is experiencing might not be related to the service member's deployment. The effects experienced by the spouse could be due to the service members return. The spouse might be concerned about the change in the family's routine or losing autonomy they

developed. The number of children the spouse has or how long the couple has been married could also impact spousal anxiety, depression, and stress levels.

Ethical Procedures

The recruitment of participants was non-coercive. Throughout the survey, the participant had the option to withdraw from the survey at any time. To ensure the least number of vulnerable individuals were included in the study, questions were asked prior to the participants starting the study (i.e., Are you under the age of 18?) that excluded the participant from the study. At the end of the survey, contact information for the researcher and the institution were displayed for the participant. There was also information provided to the participant for confidential non-medical counseling services with Military OneSource if they experience any negative effects from participating in the study. The data collected from participants was anonymous. To protect the data collected, the information will be stored on an external hard drive that requires a password to access the files. The data will be kept for a minimum of 5 years. Walden University's approval number for this study is 04-16-18-0424438 and it expires on April 15, 2019.

Summary

A multiple regression analyses was conducted to examine the relationship between deployment, gender, communication, and coping skills and depression, anxiety, and stress. The sample consisted of adult male and female spouses whose spousal military service member was deployed to a combat zone. A stratified sampling procedure

was used to ensure male and female spouses were represented. Survey monkey was used to collect data. In Chapter 4, the data analysis and results are described.

Chapter 4: Results

The purpose of the study was to determine whether deployment, gender, communication, and coping skills predicted depression, anxiety, and stress levels among military spouses. The research questions and hypotheses for the study were as follows:

RQ1 – To what extent does military deployment relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Deployment is not a significant predictor of depression.

H_1 - Deployment is a significant predictor of depression.

RQ2 – To what extent does military deployment relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Deployment is not a significant predictor of anxiety.

H_1 - Deployment is a significant predictor of anxiety.

RQ3 – To what extent does military deployment relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Deployment is not a significant predictor of stress.

H_1 - Deployment is a significant predictor of stress.

RQ4 – To what extent does spouse gender relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Gender is not a significant predictor of depression.

H_1 - Gender is a significant predictor of depression.

RQ5 – To what extent does spouse gender relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Gender is not a significant predictor of anxiety.

H_1 - Gender is a significant predictor of anxiety.

RQ6 – To what extent does spouse gender relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Gender is not a significant predictor of stress.

H_1 - Gender is a significant predictor of stress.

RQ7 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to depressive symptoms, as measured by Beck Depression Inventory-II, among spouses?

H_0 - Communication is not a significant predictor of depression.

H_1 - Communication is a significant predictor of depression.

RQ8 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Communication is not a significant predictor of anxiety.

H_1 - Communication is a significant predictor of anxiety.

RQ9 – To what extent does individuals' perception of their own communication ability, as measured by the Primary Communication Inventory, relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Communication is not a significant predictor of stress.

H_1 - Communication is a significant predictor of stress.

RQ10 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to depressive symptoms, as measured by the Beck Depression Inventory-II, among spouses?

H_0 - Coping is not a significant predictor of depression.

H_1 - Coping is a significant predictor of depression.

RQ11 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to anxiety symptoms, as measured by the Beck Anxiety Inventory, among spouses?

H_0 - Coping is not a significant predictor of anxiety.

H_1 - Coping is a significant predictor of anxiety.

RQ12 – To what extent does coping, as measured by the Coping Inventory for Stressful Situations, relate to stress, as measured by the Perceived Stress Scale, among spouses?

H_0 - Coping is not a significant predictor of stress.

H_1 - Coping is a significant predictor of stress.

Participants completed a survey that included inclusion and exclusion criteria, a demographic questionnaire, the BAI (Beck & Steer, 1993), the BDI-II (Beck et al., 1996), the CISS Second Edition (Endler & Parker, 1999), the PSS (Cohen, 1988), and the Primary Communication Inventory (PCI; Navran, 1967). The CISS Second Edition consists of five coping dimensions. Task coping is described as purposeful task-oriented efforts, conceptualizing, or minimizing effects to solve a problem (Endler & Parker,

1999). Emotion coping is described as being person oriented and using emotional responses, being self-preoccupied, and fantasizing when trying to reduce stress (Endler & Parker, 1999). Avoidance coping is described as engaging in activities and cognitive changes to avoid a stressful situation (Endler & Parker, 1999). Distraction coping is described as seeking out other people or engaging in substitute tasks to avoid stressful situations (Endler & Parker, 1999). The final dimension is social coping, which consists of seeking information and/or seeking social supports in stressful situations (Endler & Parker, 1999). A sample of 129 male and female military spouses with a service member deployed to a combat zone participated in the study. Data were analyzed using SPSS 24 for Mac.

In Chapter 4, I report the results of the study, examine the time frame in which the data were collected, and describe the recruitment procedures. In addition, the descriptive and demographics of the sample will be presented. Finally, the statistical assumptions and the results from the multiple regression analyses are reviewed.

Data Collection

The survey data were collected from April 29, 2018, to July 7, 2018. The surveys were administered online via a survey link. The survey link was administered via Survey Monkey and promoted through Facebook. A total of 147 surveys were completed. After removal of disqualified and incomplete responses, a final sample size of 129 was included in the final analyses. Survey Monkey displayed a completion rate of 86.6%, and the estimated time to complete the survey was 20 minutes.

Results

The descriptive statistics and results from the regression analyses are examined in this section. The means, standard deviations, frequencies, and percentages from the categorical variables are reviewed. The results from the standard (enter) multiple linear regression with deployment, gender, communications, and coping skills as potential predictors of depression, anxiety, and stress levels among military spouses are presented.

Descriptive Statistics

The participants answered inclusion criteria, exclusion criteria, and demographic questions prior to completing the assessments in the survey. Most (n = 146) participants reported that they were over 18 years old. The one participant who indicated being under the age of 18 was disqualified from the survey. Most (n = 146) participants reported that they were not a resident of a facility (i.e., prison, treatment facility, nursing home, assisted living, or group home). The one participant who indicated being a resident of a facility was disqualified from the survey. All participants reported that they were under 65 years old (N = 145). All participants reported that their spouse was deployed to a combat zone (N = 145). These questions indicated that the remaining participants met the inclusion criteria for the study. For unknown reasons, 16 participants did not complete the survey. The incomplete surveys were excluded from the data. After eliminating the participants who were disqualified and did not complete the surveys, a total of 129 participants who completed the survey remained.

Demographic characteristics of the participants are presented in Table 1.

Table 1

Participants' Demographic Characteristics

Variable	*n*	%
Gender		
Male	6	4.65
Female	123	95.35
Age		
18 to 24	41	31.78
25 to 34	54	41.86
35 to 44	29	22.48
45 to 54	4	3.10
55 to 64	1	0.78
Ethnicity		
White or Caucasian	103	79.84
Black or African American	1	0.78
Hispanic or Latino	18	13.95
Asian or Asian American	3	2.33
Native Hawaiian or other Pacific Islander	3	0.78
Employment		
Employed	72	55.81
Unemployed	36	27.91
Student	21	16.28
Years married		
0 to 5	73	56.59
6 to 10	24	18.60
11+	32	24.81
Number of children		
0	57	44.19
1	18	13.95
2	23	17.83
3	21	16.28
4+	10	7.75
Years service member had been in the military		
0 to 5	46	35.66
6 to 10	37	28.68
11 to 15	23	17.83
16+	23	17.83
Number of combat deployments the service member had		
1	46	35.66
2	30	23.26
3	22	17.05
4	11	8.53
5+	20	15.50
Number of deployments the participant had experienced		
1	63	48.84
2	30	23.26
3	17	13.18
4	8	6.20
5+	11	8.53

Participants were asked to provide demographic information regarding their age, gender, employment status, years married, and number of children, as well as the length of time that their service member had been in the military, the number of combat deployments the service member had, and the number of combat deployments they had experienced as the spouse of the service member. The participants' (N = 129, six males and 123 females) were in the following age groups: 18 to 24 years old (n = 41), 25 to 34 years old (n = 54), 35 to 44 years old (n = 29), 45 to 54 years old (n = 4), and 55 to 64 years old (n = 1). Of the participants, 103 identified as White or Caucasian, one identified as Black or African American, 18 identified as Hispanic or Latino, three identified as Asian or Asian American, and three identified as Native Hawaiian or other Pacific Islander. Most of the participants reported they were employed (n = 72); of the remaining participants, 36 were unemployed and 21 were students. Most of the participants (n = 73) identified as having been married for 0 to 5 years; of the remaining participants, 24 had been married from 6 to 10 years, and 32 had been married for 11+ years. Most of the participants (n = 57) reported that they did not have children; of the remaining participants, 18 had one child, 23 had two children, 21 had three children, and 10 had four or more children. In response to the question of how long their spouse had been in the military, 46 participants reported 1 to 5 years, 37 reported 6 to 10 years, 23 reported 11 to 15 years, and 23 reported 16 or more years. Forty-six of the participants reported that their service members had deployed one time during their military service, while 30 indicated that their service members had deployed two times, 22 indicated that their service members had deployed three times, 11 indicated that their service members

had deployed four times, and 20 indicated that their service members had deployed five or more times. The participants then identified how many deployments they had experienced with their service member: 63 identified that they had experienced one deployment, 30 identified that they had experienced two deployments, 17 identified that they had experienced three deployments, eight identified that they had experienced four deployments, and 11 identified that they had experienced five or more deployments.

The means and standard deviations for the dependent variables of depression, anxiety, and stress levels are shown in Table 2. Anxiety scores ranged from 0 to 50, with an average of 14.34 (*SD* = 10.212). Depression scores ranged from 0 to 51, with an average of 18.52 (*SD* = 11.559). Stress scores ranged from 0 to 37, with an average of 20.22 (*SD* = 7.052).

Table 2

Descriptive Statistics for Anxiety, Depression, and Stress

	N	Minimum	Maximum	Mean	Std. deviation
Anxiety	129	0	50	14.34	10.212
Depression	129	0	51	18.52	11.559
Stress	129	0	37	20.22	7.052

The means and standard deviations for the independent variables of deployments, communication skills, task coping, emotion coping, avoidance coping, distraction coping, and social coping are shown in Table 3. Deployments scores ranged from 1 to 5, with an average of 2.02 (*SD* = 1.284). Communication skills scores ranged from 40 to 75, with an average of 59.25 (*SD* = 7.763). Task coping scores ranged from 22 to 80, with an average of 51.35 (*SD* = 11.764). Emotion coping scores ranged from 16 to 70, with an

average of 42.62 (*SD* = 13.133). Avoidance coping scores ranged from 23 to 76, with an average of 42.56 (*SD* = 10.430). Distraction coping scores ranged from 9 to 40, with an average of 22.39 (*SD* = 5.910). Social coping scores ranged from 5 to 25, with an average of 12.83 (*SD* = 5.017).

Table 3

Descriptive Statistics for Independent Variables

	N	Minimum	Maximum	Mean	Std. deviation
Deployments	129	1	5	2.02	1.284
Communication	129	40	75	59.25	7.763
Task	129	22	80	51.35	11.764
Emotion	129	16	70	42.62	13.133
Avoidance	129	23	76	42.56	10.430
Distraction	129	9	40	22.39	5.910
Social	129	5	25	12.83	5.017

Statistical Assumptions

The assumptions of normality, homoscedasticity, and multicollinearity were assessed. To assess homoscedasticity, scatter plots were examined for depression, anxiety, and stress. There appeared to be no curvature in the scatterplots. This indicated the data were normally distributed (Field, 2013). Therefore, the assumption of homoscedasticity was met. Figure 1 presents the residual scatterplot for homoscedasticity for depression. Figure 2 presents the residual scatterplot for homoscedasticity for anxiety. Figure 3 presents the residual scatterplot for homoscedasticity for stress.

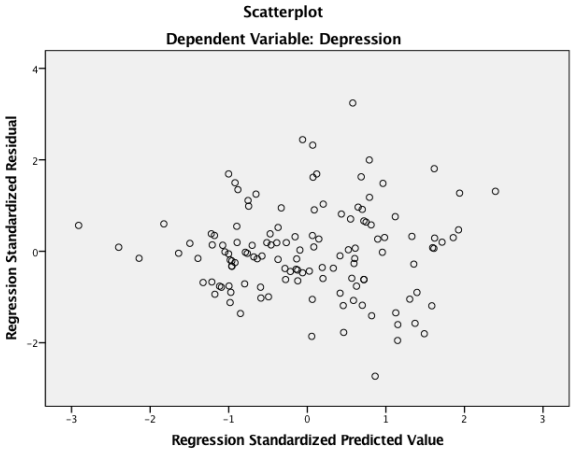

Figure 1. Residual scatterplot for homoscedasticity for depression.

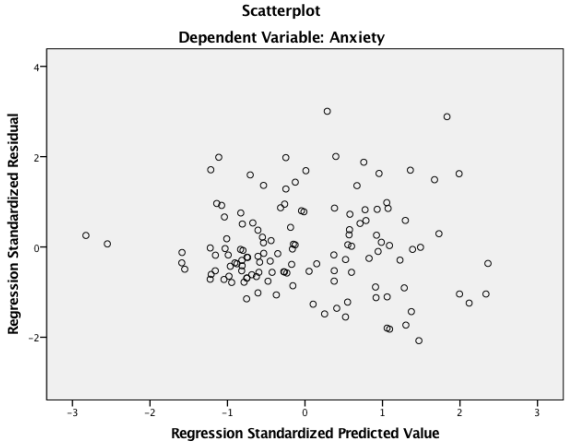

Figure 2. Residual scatterplot for homoscedasticity for anxiety.

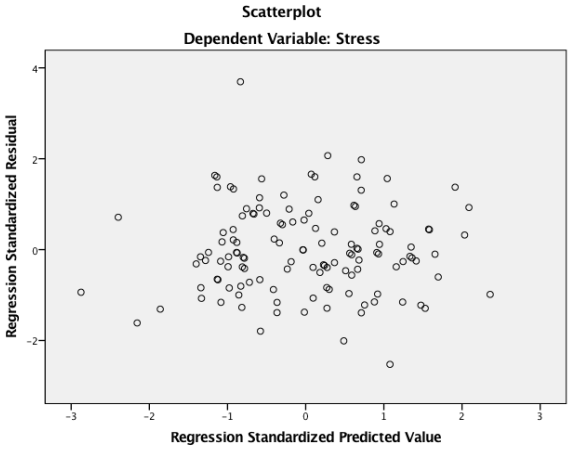

Figure 3. Residual scatterplot for homoscedasticity for stress.

To assess normality, histograms were examined for depression, anxiety, and stress. Each of the curves appear to be to be symmetrical and approximately bell-shaped. This indicates the data is normally distributed; therefore, the assumption of normality was met (Field, 2013). Figure 4 presents the histogram for normality of depression. Figure 5 presents the histogram for normality of anxiety. Figure 6 presents the histogram for normality of stress.

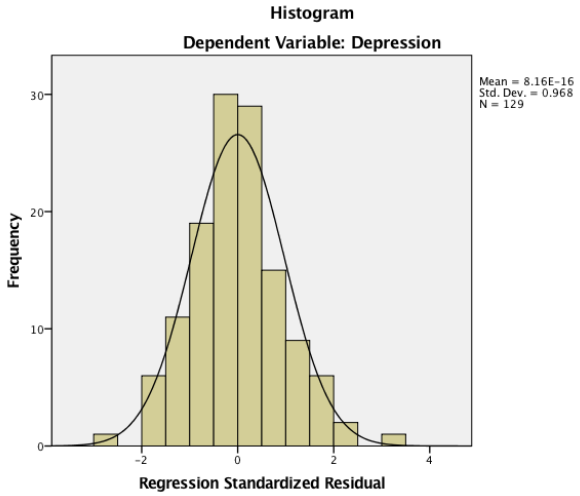

Figure 4. Histogram for depression.

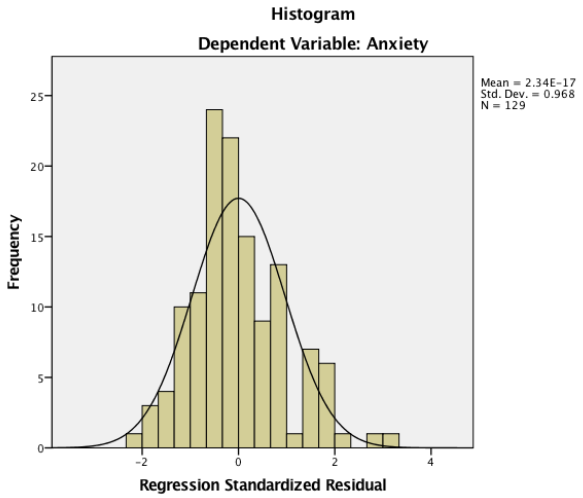

Figure 5. Histogram for anxiety.

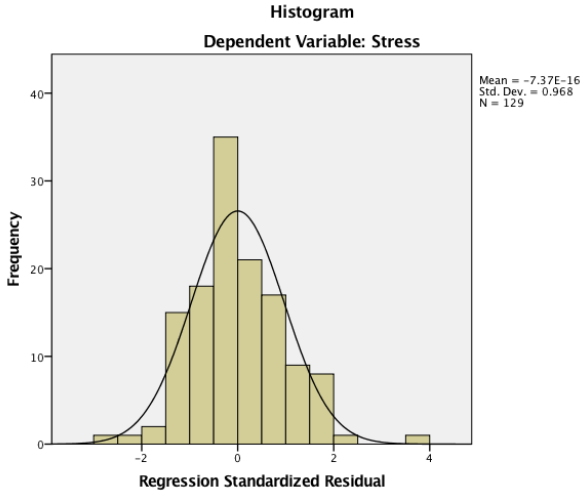

Figure 6. Histogram for stress.

To assess multicollinearity, tolerance, variance inflation factor (VIF), and the condition index were examined. Examining the collinearity statistics (Table 4), VIF values for avoidance, distraction and social coping were above 10 and had a tolerance value lower than .1 which indicated collinearity. The VIF values for deployments, gender, communication skills, task coping, and emotion coping were below 10. The

tolerance statistics were above 0.2. This indicates no collinearity with deployments, gender, communication skills, task coping, and emotion coping.

Table 4

Coefficients for Independent Variables

	Collinearity statistics	
Model	Tolerance	VIF
1 (Constant)		
Deployments	.915	1.093
Gender	.880	1.137
Communication	.930	1.075
Task	.682	1.466
Emotion	.784	1.276
Avoidance	.034	29.235
Distraction	.080	12.575
Social	.092	10.850

With increased values for avoidance coping, distraction coping, and social coping, the eigenvalues and condition index were examined (Table 5). A threshold value of 30 was used for the condition index; dimension 8 had a value of 31.680 and dimension 9 had a value of 76.119 which is above the threshold value (Field, 2013). A threshold value of .90 was used for the coefficients (Field, 2013). Examining dimension 8, constant was the only dimension that had a value over .9. This indicates there is no multicollinearity in dimension 8. Although, dimension 9 had a value over .90 for avoidance and distraction which indicates the dependency between the variables. This shows there was collinearity between avoidance and distraction.

Table 5

Collinearity Diagnostics

				Variance proportions								
Model	Dimension	Eigen-value	Condition Index	Constant	Deploy-ment	Gender	Commu-nication	Task	Emotion	Avoid-ance	Distraction	Social
1	1	7.477	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.975	2.769	.00	.00	.84	.00	.00	.00	.00	.00	.00
	3	.276	5.206	.00	.81	.04	.00	.00	.01	.00	.00	.00
	4	.140	7.319	.00	.01	.00	.04	.01	.20	.00	.00	.04
	5	.055	11.687	.01	.17	.08	.00	.25	.15	.00	.01	.02
	6	.047	12.635	.00	.00	.01	.25	.00	.26	.00	.06	.06
	7	.022	18.554	.05	.00	.02	.68	.68	.29	.00	.00	.00
	8	.007	31.680	.91	.01	.01	.01	.02	.07	.00	.01	.00
	9	.001	76.119	.03	.00	.00	.55	.04	.02	.99	.93	.88

Multiple Regression Analyses

To test the research questions in this study, I conducted a multiple linear regression analyses using the standard entry method. The standard method allowed for multiple predictor variables into the regression model at one time. The predictor variables from the research questions were deployment, gender, communication skills, task coping, emotion coping, avoidance coping, distraction coping, and social coping. The outcome variables were depression, anxiety, and stress. I conducted a total of three standard multiple linear regression analyses, one for each outcome variable.

Multiple Regression: Predicting Depression

I conducted a multiple linear regression analysis to assess the relationship between the predictor variables and depression. The predictor variables for the multiple linear regression were deployment, gender, communication skills, task coping, emotion

coping, avoidance coping, distraction coping, and social coping. The outcome variable was depression.

The result of the multiple linear regression was statistically significant, $F(8, 120) = 13.995$, $p < .000$, $R^2 = .483$ (Table 6). The results indicated that the model explained 48.3% of the variance in depression scores. Emotion coping was the only predictor variable that significantly predicted depression, $\beta = .525$, $p < .000$ (Table 7). The results indicated as emotion coping increased, symptoms of depression increased. For every one-unit increase in emotion coping, there was a .525 unit increase in depression. The remaining predictor variables (deployments, gender, communication skills, task coping, avoidance coping, distraction coping, and social coping) were not statistically significant predictors of depression scores.

Table 6

Model Summary[b] for Depression

				Std. error		Change statistics				
Model	*R*	*R* square	Adjusted *R* square	of the estimate	*R* square change	*F* change	df1	df2	Sig. *F* change	Durbin-Watson
1	.695[a]	.483	.448	.8.587	.483	13.995	8	120	.000	2.069

[a]Predictors: (Constant), social, gender, communication, deployments, emotion, distraction, task, avoidance.
[b]Dependent variable: Depression.

Table 7

Coefficients[a] *for Depression*

Model	Unstandardized coefficients		Standardized coefficients			95.0% confidence interval for *B*		Correlations		
	B	Std. error	Beta	*t*	Sig.	Lower bound	Upper bound	Zero-order	Partial	Part
1 (Constant)	3.199	7.427		.431	.667	-11.506	17.903			
Deployment	-.071	.618	-.008	-.114	.909	-1.294	1.153	-.160	-.010	-.008
Gender	.905	3.827	.017	.237	.813	-6.672	8.483	-.064	.022	.016
Commu-nication	.074	.101	.050	.733	.465	-.126	.275	.008	.067	.048
Task	-.090	.078	-.092	-1.157	.250	-.245	.064	-.343	-.105	-.076
Emotion	.525	.065	.597	-8.047	.000	-.396	.655	.650	.592	.528
Avoidance	-.232	.393	-.209	-.589	.557	-1.011	.547	-.184	-.054	-.039
Distraction	.220	.455	-.112	.483	.630	-.682	1.121	.047	.044	.032
Social	-.139	.498	-.060	-.279	.781	-1.125	.848	-.025	-.025	-.018

[a]Dependent variable: Depression.

Multiple Regression: Predicting Anxiety

I conducted a multiple linear regression analysis to assess the relationship between the predictor variables and anxiety. The predictor variables for the multiple linear regression were deployment, gender, communication skills, task coping, emotion coping, avoidance coping, distraction coping, and social coping. The outcome variable was anxiety.

The result of the multiple linear regression was statistically significant, $F(8, 120) = 7.337$, $p < .000$, $R^2 = .328$ (Table 8).

Table 8

Model Summary[b] *for Anxiety*

Model	*R*	*R* square	Adjusted *R* square	Std. error of the estimate	*R* square change	Change statistics *F* change	df1	df2	Sig. *F* change	Durbin-Watson
1	.573[a]	.328	.284	8.643	.328	7.337	8	120	.000	1.813

[a]Predictors: (Constant), social, gender, communication, deployments, emotion, distraction, task, avoidance.
[b]Dependent variable: Anxiety.

The results indicated that the model explained 32.8% of the variance in anxiety scores. Communication skills was a significant predictor of anxiety, $\beta = .207$, $p < .05$ (Table 9). The results indicated as communication skills increased, symptoms of anxiety increased. For every one-unit increase in communication skills, there was a .207 unit increase in anxiety. Emotion coping was a significant predictor of anxiety, $\beta = .407$, $p < .000$ (Table 9). As emotion coping increased, symptoms of anxiety increased. For every one-unit increase in emotion coping, there was a .407 unit increase in anxiety. The remaining predictor variables (deployments, gender, task coping, avoidance coping, distraction coping, and social coping) were not statistically significant predictors of anxiety scores.

Table 9

Coefficients[a] *for Anxiety*

Model	Unstandardized coefficients		Standardized coefficients			95.0% confidence interval for *B*				
	B	Std. error	Beta	*t*	Sig.	Lower bound	Upper bound	Zero-order	Partial	Part
1 (Constant)	-9.731	7.476		-1.302	.196	-24.532	5.070			
Deployments	-.051	.622	-.006	-.082	.934	-1.283	1.181	-.131	-.008	-.006
Gender	-.709	3.852	-.015	-.184	.854	-8.336	6.919	-.101	-.017	-.014
Commu-nication	.207	.102	.158	2.031	.044	.005	.409	.138	.182	.152
Task	-.091	.079	-.105	-1.159	.249	-.247	.065	-.214	-.105	-.087
Emotion	.407	.066	.524	6.197	.000	.277	.537	.545	.492	.464
Avoidance	-.113	.396	-.115	-.284	.777	-.897	.672	-.010	-.026	-.021
Distraction	.046	.458	.026	.099	.921	-.862	.953	.087	.009	.007
Social	.236	.502	.116	.471	.639	-.757	1.229	-.061	.043	.035

[a]Dependent variable: Anxiety.

Multiple Regression: Predicting Stress Levels

A multiple linear regression analysis was conducted to assess the relationship between the predictor variables and stress. The predictor variables for the multiple linear regression were deployment, gender, communication skills, task coping, emotion coping, avoidance coping, distraction coping, and social coping. The outcome variable was stress.

The result of the multiple linear regression was statistically significant, $F(8, 120) = 25.166$, $p < .000$, $R^2 = .627$. (Table 10). The results indicated that the model explained 62.7% of the variance in stress scores. Task coping was a significant predictor of stress,

$\beta = -.111$, $p < .01$ (Table 11). The results indicated as task coping increased, symptoms of stress decreased. For every one-unit increase in task coping, there was a .111 unit decrease in stress. Emotion coping was a significant predictor of stress, $\beta = .348$, $p < .000$ (Table 11). The results indicated as emotion coping increased, symptoms of stress increased. For every one-unit increase in emotion coping, there was a .348 unit increase in stress. The remaining predictor variables (deployments, gender, communication skills, avoidance coping, distraction coping, and social coping) were not statistically significant predictors of stress scores.

Table 10

Model Summary[b] for Stress

				Std. error		Change statistics				
		R	Adjusted	of the	*R* square	*F*			Sig. *F*	Durbin-
Model	*R*	square	*R* square	estimate	change	change	df1	df2	change	Watson
1	.792[a]	.627	.602	.468	.627	25.166	8	120	.000	2.389

[a]Predictors: (Constant), social, gender, communication, deployments, emotion, distraction, task, avoidance.
[b]Dependent variable: Stress.

Table 11

Coefficients[a] *for Stress*

Model	Unstandardized coefficients		Standardized coefficients			Collinearity statistics				
	B	Std. error	Beta	*t*	Sig.	Lower bound	Upper bound	Zero-order	Partial	Part
1(Constant)	11.109	3.850		2.885	.005	3.486	18.731			
Deployments	-.426	.320	-.078	-1.331	.186	-1.061	.208	-.260	-.121	-.074
Gender	-2.215	1.984	-.066	-1.116	.267	-6.142	1.713	-.164	-.101	-.062
Commu-nicaton	.071	.053	.079	1.359	.177	-.033	.175	.014	.123	.076
Task	-.111	.040	-.185	-2.739	.007	-.191	-.031	-.430	-.243	-.153
Emotion	.348	.034	.648	10.277	.000	.281	.415	.743	.684	.573
Avoidance	-.057	.204	-.084	-.279	.781	-.461	.347	-.150	-.025	-.016
Distraction	.019	.236	.016	.080	.936	-.448	.486	.082	.007	.004
Social	-.101	.258	-.072	-.390	.697	-.612	.411	-.281	-.036	-.022

[a]Dependent variable: Stress.

Summary

I examined the predictive relationship of deployment, gender, communication skills, task coping, emotion coping, avoidance coping, distraction coping, and social coping with depression, anxiety, and stress levels. I conducted multiple standard linear regression analyses to determine if there was a significant relationship between the predictor variables and the outcome variables.

Emotion coping was a significant predictor for all three outcome variables (depression, anxiety, and stress). Emotion coping had a positive relationship which each of the outcome variables; as emotion coping increased the outcome variable increased. Task coping was a significant predictor of stress levels. Task coping had a negative relationship with stress levels. Individuals who used task coping had lower levels of

stress levels. Communication skills were a significant predictor of anxiety level. Communication skills had a positive relationship with anxiety. Individuals who used more communication skills experienced higher levels of anxiety. Gender, deployment, avoidance coping, distraction coping, and social coping were not significant predictors of the outcome variables. In Chapter 5, an interpretation of the findings, the limitations, and recommendation for future research are presented.

Chapter 5: Discussion, Conclusion, and Recommendations

The purpose of this quantitative study was to determine whether deployment, gender, communication, and coping skills predicted depression, anxiety, and stress levels among military spouses. Research has shown that military spouses have higher levels of anxiety and depression due to a higher level of perceived stress (Eaton et al., 2008; Green et al., 2013). Female spouses have been found to experience higher levels of stress regarding combat, reintegration, loneliness, staying in touch, fear of death, physical injury, psychological problems, and effects on their children (Allen et al., 2011). When military spouses experience increased stress levels, research has found that ineffective coping skills can result in maladaptation, depression, anxiety, and somatization (Blank et al., 2011; Padden et al., 2011). Eaton et al. (2008) found that 17% of military spouses whose service member was deployed to a combat zone met criteria for generalized anxiety disorder, and 12.2% of military spouses met criteria for depression. Prior research focused on the effects that deployments had on female military spouses. This study examined male and female military spouses and the relationship that deployment, gender, coping skills, and communication had with anxiety, depression, and stress levels.

The results of the study identified emotion coping as a significant predictor of depression, anxiety, and stress levels. These results showed that as military spouses increased emotion coping, their depression symptoms, anxiety symptoms, and stress levels increased. It was also found that task coping was a significant predictor of stress levels. The results showed that as military spouses increased task coping, their stress levels decreased. Communication was a significant predictor of anxiety levels. The

results showed that as military spouses increased their communication abilities, their anxiety symptoms increased. Gender, deployment, avoidance coping, distraction coping, and social coping were not significant predictors of depression, anxiety, or stress levels.

In this chapter, I discuss the findings of this research. Next, the limitations of the study, recommendations for future research, and implications for social change are discussed. Finally, the conclusions are presented.

Interpretation of the Findings

Number of Deployments

The first set of research questions addressed the extent to which the number of deployments was related to depression symptoms, anxiety symptoms, and stress levels. Participants reported that the number of deployments that their service member had experienced and the number of deployments that they had experienced with the service member. The deployment cycle consists of four phases: predeployment, deployment, redeployment, and reintegration (Padden & Posey, 2013; Verdeli et al., 2011). Participants in this study were in the deployment phase. Deployment was defined as occurring when service members and/or equipment were temporarily relocated to a theater of operations in a combat zone (Padden & Posey, 2013; Verdeli et al., 2011). The length and the location of the current deployment was not reported. The nature of the deployment and its impact upon the service member were also not reported. The results showed that the number of deployments was not a significant predictor of depression symptoms, anxiety symptoms, or stress levels among military spouses. These results differ from previous research that found that deployment increased military spouses'

depression and anxiety levels (Eaton et al., 2008). Eaton et al. (2008) found that military spouses with a deployed service member met diagnostic criteria for generalized anxiety disorder (17.4%) and major depressive disorder (12.2%). The results are also inconsistent with those of Allen et al. (2011), who found that combat exposure during service members' deployment significantly correlated with stress levels of female spouses. Although the results from this study are inconsistent with previous research, the difference in experiences due to the nature and/or location of the service members' deployment could be an extraneous variable that had an impact on the results.

The service members' Military Occupational Specialty (MOS) and deployment location could have increased or decreased the impact of the deployment on the variables considered in this study. For example, if a service member's MOS is Health Care Specialist (medic), the service member could be assigned to a combat support hospital where he or she does not leave the Forward Operating Base (FOB) and does not experience combat. However, a medic could also be assigned to an infantry unit. In an infantry unit, the medic could be assigned to a squad and go off the FOB on missions, providing medical support and experiencing combat. Such experiences could have different impacts on the service member and his or her military spouse.

Gender

The research questions also addressed the extent to which gender was related to depression symptoms, anxiety symptoms, and stress levels. The results from this study showed that gender was not a significant predictor of depression symptoms, anxiety symptoms, or stress levels among military spouses. These results are inconsistent with

those of Eaton et al. (2008) and Green et al. (2013), who found that female military spouses experienced higher levels of anxiety and depression when their service members were deployed. However, in a qualitative study conducted by Southwell and Wadsworth (2016), it was found that male military spouses reported experiencing depression, anxiety, and PTSD when their service members were deployed.

Although this study consisted of 129 participants, only six males participated in the study. This certainly had an impact on this study and the ability to examine whether gender was a significant predictor of depression symptoms, anxiety symptoms, or stress levels among military spouses. In the future, another study should be conducted with more male participants to examine the effect of gender on depression, anxiety, and stress levels among military spouses.

Communication Ability

The research questions also addressed the extent to which communication ability related to depression symptoms, anxiety symptoms, and stress levels. Locke, Sabagh, and Thomes (1956) defined communication as the exchange of meaningful symbols, both words and gestures. The results showed that communication was a significant predictor of anxiety symptoms. The results showed that as military spouses' communication with their deployed service members increased, their anxiety levels increased. These results are consistent with those of Verdeli et al. (2011), who found that spouses experienced increased levels of anxiety when their service members informed them that they were going on a dangerous mission or during unexpected breaks in communication from their service members. When the service members were unable to contact their spouses,

military spouses expressed experiencing anxiety because they feared that their service members had been injured (Baptist et al., 2011). As service members and spouses communicated during the deployment, service members may have discussed the areas or towns they went out to on a mission. If a service member had a combat experience in those areas or the area was known to be an area that had combat activity, the service member may have discussed the events with the spouse. When the service members spoke to their military spouses and discussed an upcoming mission, their military spouses could have experienced increased anxiety due to knowing that their service members were out on missions and had experienced combat in that area previously. Thus, increased communication between spouses could result in sharing knowledge about details regarding a deployment that might increase levels of anxiety.

Coping Skills

The research questions addressed the extent to which coping skills related to depression symptoms, anxiety symptoms, and stress levels. The results showed that emotion coping was a significant predictor of depression symptoms, anxiety symptoms, and stress levels. Endler and Parker (1999) defined emotion coping as being person oriented and using emotional responses, being self-preoccupied, and fantasizing when trying to reduce stress. The results showed that as military spouses' emotion coping increased, their depression symptoms, anxiety symptoms, and stress levels increased. These results are consistent with those of Blank et al. (2012), who found that emotive coping (the expression and release of emotions to deal with stressors) was the least effective coping skill. Emotive coping was found to be the least effective coping skill as

it was associated with decreased perceived effectiveness, lower physical and mental health, and higher perceived stress (Blank et al., 2012). Padden et al. (2011) also found that emotive coping was negatively correlated with mental well-being and resulted in increased stress levels.

Results also indicated that task coping was a significant predictor of stress. The results showed that as military spouses increased task coping, their stress levels decreased. Endler and Parker defined task coping as purposeful task-oriented efforts, conceptualizing, or minimizing effects to solve a problem. These results are consistent with those of Blank et al. (2012), who found constructive problem solving and problem-focused coping (task coping) to be effective coping skills.

Results from this study also showed that avoidance coping, distraction coping, and social coping were not significant predictors of depression symptoms, anxiety symptoms, or stress levels. Avoidance coping was described as engaging in activities and cognitive changes to avoid stressful situation (Endler & Parker, 1999). Distraction coping was described as seeking out other people or engaging in substitute tasks to avoid stressful situations (Endler & Parker, 1999). Finally, social coping consisted of seeking information and/or seeking social supports in stressful situations (Endler & Parker, 1999). This is consistent with the Padden et al. (2011) study, which found that supportant coping was not a significant predictor of depression symptoms, anxiety symptoms, or stress levels. These results are also consistent with those of Blank et al. (2011), who found that evasive coping (behaviors that are avoidant activities) was not a significant predictor of lower levels of mental well-being.

Theoretical Framework and Research Findings

The theoretical framework for this study was the contextual model of family stress and coping (Boss, 2002). Boss's (2002) model consists of a provoking event or stressor (A); a family's resources or strengths at the time of the event (B); perceptions and the meaning attached to the event by the family (C); and degrees of stress (low to high) and/or crisis (X). The contextual model may be used to examine a precipitating stressor event that is interacting with the family's resources and the meaning that the family assigns to the event (Boss, 2002; Sullivan, 2015). The model assists in examining stressors experienced by military spouses and how their resources assist them in determining if a stressor causes significant depression, anxiety, or increased stress.

The results of this study support Boss's contextual model. The resources available (coping skills) to the military spouse determined whether a stressor increased depression symptoms, anxiety symptoms, or stress levels. If the military spouse had an emotion coping orientation, this increased the military spouse's stress levels. Emotion coping is defined as being emotional, self-preoccupied, and fantasizing (Elder & Parker, 1999). As the results of this study showed, if the military spouse used task coping, it predicted a decrease in stress levels. Task coping is described as problem solving, cognitively restructuring, or altering the situation to cope with the stressor (Elder & Parker, 1999). Consistent with Lucier-Greer et al. (2015), the results of this study also showed that if military spouses used task coping when facing multiple stressors, coping could buffer against depression symptoms, anxiety symptoms, and stress levels. The results showed that if military spouses used emotion coping when facing stressors, they

would experience increased levels of depression symptoms, anxiety symptoms, and stress.

Limitations of the Study

A limitation of this study was that it was not possible to determine if participants responded honestly or with bias due to reporting socially acceptable responses. The survey was administered online, which did not allow for military spouses who did not have access to the Internet to participate in the study. Although there were male and female participants in the study, more females participated in the study than males. With a small sample of males participating in the study, the impact of gender on depression symptoms, anxiety symptoms, and stress levels could not be evaluated.

Another limitation to the study was lack of information regarding the nature and impact of the deployment. The details regarding the location and MOS of the service members' deployment could have increased or decreased the impact of deployment on spouses' depression, anxiety, and stress levels. A final limitation to the study was the use of multiple regression to identify predictive relationships and not causality. In that this study was not an experimental study, it is difficult to establish causation due to the possibility of other variables affecting the data.

Recommendations

Incentives could be used in future research to increase the participation of male spouses. A possible reason for the lack of male participants in this study was the small number of male spouses of service members (7.8%) in the military (DoD, 2015). The survey may not have reached male spouses whose service members were deployed.

Collecting data on male military spouses could provide insight into the challenges they face and provide professionals with data to better support this minority population.

Another recommendation is to conduct a longitudinal study with military spouses. The current study assessed depression, anxiety, and stress at a single point in time. It is possible that those spousal reactions and symptoms related to deployment are cumulative and could increase over time depending on the nature of deployments. A longitudinal study could determine when those symptoms arise and how they change over time. A longitudinal study would provide data that could be used specifically to examine the nature and cumulative impact of deployment on military spouses.

A final recommendation is to conduct an intervention study that focuses on coping styles. This study found that emotive coping was a significant predictor of depression, anxiety, and stress among spouses. A future study could be completed on a sample of military spouses who use emotion coping and experience higher levels of depression symptoms, anxiety symptoms, and stress. The participants could be taught more effective coping methods that might reduce levels of depression, anxiety, and stress symptoms.

Implications

The results from this research may assist in positive social change within military families and for professionals. Professionals and organizations that work with military spouses could incorporate the findings of this study into their practice. Seminars and trainings for professionals could incorporate training on coping skills. This could assist professionals in identifying unhealthy coping skills and developing treatment plans to

develop healthy coping skills for spouses of deployed service members. Research has shown that military spouses' psychological well-being has an effect upon their physical health, their children's well-being, and their service members' psychological well-being upon redeployment (Skomorovsky, 2014; Verdeli et al., 2011). If military spouses develop healthy coping skills, the results might include improvements in marriage quality, psychological and physical well-being, and the well-being of their families.

Educating military spouses on coping skills could assist their families. As Verdeli et al. (2011) discussed, the high OPTEMPO of the military has had a negative effect on military children's well-being. Research has shown that rates of child maltreatment and children's mental and behavioral disorders increased when service members deployed (Blank et al., 2012; Everson et al., 2014). The development of new coping skills by military spouses could lead to improvements in their children's and service members' psychological well-being and quality of life.

Conclusion

This study was conducted to fill a gap in the literature on the relationship that number of deployments, gender, communication skills, and coping skills have with male and female military spouses' depression symptoms, anxiety symptoms, and stress levels. Increasing education on healthy coping skills for professionals, organizations, and military spouses may lead to improvement in military spouses' mental well-being when faced with stressors. Families may also experience better quality of life and greater well-being (Verdeli et al., 2011). If military spouses use emotion coping when facing stressors, teaching them to shift to a task-coping style might assist them when facing

stressors. Developing a task coping style may lead to lower levels of depression symptoms, anxiety symptoms, and stress.

This study provided insight into the impact that emotion coping had on military spouses' psychological well-being. Emotion coping was found to be a significant predictor of depression symptoms, anxiety symptoms, and stress. As emotion coping increased, military spouses' depression symptoms, anxiety symptoms, and stress increased. As communication abilities increased, military spouses' anxiety symptoms increased. Communication skills were found to be a significant predictor of anxiety symptoms. Task coping was a significant predictor of lower levels of stress. As task coping increased, military spouses' stress levels decreased. This study aimed to increase the knowledge of the unique challenges that military spouses face and provide information to professionals and organizations on how to better assist military spouses in the future. Findings from this study may assist in future research on working with military spouses and developing interventions to assist them with their unique challenges.

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Appendix A: Inclusion and Exclusion Criteria Questions

Are you under the age of 18?

Are you a resident of a facility (i.e., prison, treatment facility, nursing home, assisted living, or group home)?

Are you mentally disabled?

Are you emotionally disabled?

Are you pregnant?

Are you fluent in English?

Are you in crisis (i.e., natural disaster victim or person with an acute illness)?

Are you economically disadvantaged (i.e., low social economic status)?

Are you 65+ years old?

Appendix B: Demographic Information

Age:

Sex: Male or Female

What is your ethnicity?

Are you employed, unemployed, or a student?

How many years have you been married to the service member?

How many children do you have?

How many combat deployments have you experienced with the service member?

How long has the service member been in the military?

How many combat deployments has the service member had in their career?

Appendix C: Perceived Stress Scale-10

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?

2. In the last month, how often have you felt that you were unable to control the important things in your life?

3. In the last month, how often have you felt nervous and "stressed"?

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

5. In the last month, how often have you felt that things were going your way?

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

7. In the last month, how often have you been able to control irritations in your life?

8. In the last month, how often have you felt that you were on top of things?

9. In the last month, how often have you been angered because of things that were outside of your control?

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Appendix D: Primary Communications Inventory

1 = Never 2 = Seldom 3 = Occasionally 4 = Frequently 5 = Very Frequently

1. How often do you and your partner talk over pleasant things that happen during the day?

2. How often do you and your partner talk over unpleasant things that happen during the day?

3. Do you and your partner talk over things you disagree about or have difficulties over?

4. Do you and your partner talk about things in which you are both interested?

5. Does your partner adjust what he/she says and how he/she says it to the way you seem to feel at the moment?

6. When you start to ask a question, does your partner know what it is before you ask it?

7. Do you know the feelings of you partner from his/her facial and bodily gestures?

8. Do you and your partner avoid certain subjects in conversation?

9. Does your partner explain or express himself/herself to you through a glance or gesture?

10. Do you and your partner discuss things together before making an important decision?

11. Can your partner tell what kind of day you have had without asking?

12. Your partner wants to visit some close friends or relatives. You don't particularly enjoy their company. Would you tell him/her this?

13. Does your partner discuss matters of sex with you?

14. Do you and your partner use words which have a special meaning not understood by outsiders?

15. How often does your partner sulk or pout?

16. Can you and your partner discuss you most sacred beliefs without feelings of restraint or embarrassment?

17. Do you avoid telling your partner things that put you in a bad light?

18. You and your partner are visiting friends. Something is said by the friends which causes you to glance at each other. Would you understand each other?

19. How often ca you tell as much from the tone of voice of your partner as from what he/she actually says?

20. How often do you and your partner talk with each other about personal problems?

21. Do you feel in most matters your partner knows what you are trying to say?

22. Would you rather talk about intimate matters with your partner than with some other person?

23. Do you understand the meaning of your partner's facial expressions?

24. If you and your partner are visiting friends or relatives and one of you starts to say something, does the other take over the conversation without the feeling of interrupting?

25. During the relationship, have you and your partner, in general, talked most things over together?