

2022

Attachment Styles, Deployments, and Perceived Stress of African American Military Spouses

Jasmine Willis
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [African American Studies Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Social and Behavioral Health

This is to certify that the doctoral dissertation by

Jasmine Willis

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Christian Dean, Committee Chairperson, Counselor Education and Supervision
Faculty

Dr. Cynthia Briggs, Committee Member, Counselor Education and Supervision Faculty

Dr. Victoria Sepulveda, University Reviewer, Counselor Education and Supervision
Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Attachment Styles, Deployments, and Perceived Stress of African American Military

Spouses

by

Jasmine Willis

MS, Troy University, 2015

BS, Troy University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Counselor Education and Supervision

Walden University

April 2022

Abstract

Previous research studies have not focused on African American military spouses and the association of attachment styles, perceived stress, and psychological well-being. Due to this, the inclusion of male and female African American military spouses in previous research was very limited. The purpose of this quantitative study was to determine if a relationship exists between the predictor variables of attachment scores (close, anxious, dependent) as measured by the Adult Attachment Scale, the number of deployments, types of deployments, and gender, on the criterion variables of perceived stress as measured by the Perceived Stress Scale and psychological well-being as measured by the Psychological Well-Being Scale in African American military spouses. Bowlby's attachment theory was the theoretical framework for this study. One hundred thirty-two African American military spouses made up the sample size for this study. A linear multiple regression was used in this study to examine the relationship between predictor and criterion variables. A statistically significant relationship was identified ($F(6,125)=8.292, p<.000$), with adjusted R^2 of .25 for the relationship between the predictor variables and perceived stress. The second analysis was not statistically significant ($F(6,125) = 1.852, p=.094$), with adjusted R^2 of .038 for the relationship between the predictor variables and psychological well-being. This study can assist mental health professionals by developing new seminars to enhance counseling skills and effect the need for further social change for African American military spouses within the military population.

Relationships of Attachment Styles, Deployments, and Perceived Stress of African
American Military Spouses

by

Jasmine Willis

MS, Troy University, 2015

BS, Troy University, 2012

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Counselor Education and Supervision

Walden University

April 2022

Dedication

This dissertation is dedicated to my husband, who has proudly served this country in the United States Army. I also dedicate this dissertation to my children, Kerrington and Kendalyn. You both are my reason and purpose for doing what I do. Lastly, this dissertation is dedicated to all my fellow, current, and past African American military spouses near and far. Your hard work, dedication, endless support, and resilience is very appreciated.

Acknowledgements

I would like to thank God for his grace and mercy throughout this journey. Without God's grace and strength, this would not have been possible. I would like to acknowledge my mother for all you have done over the years in supporting my dreams and being able to see them come to a reality. I would like to give my gratitude and appreciation to my chair, Dr. Christian Dean, for all his expertise, dedicated support, and wisdom. This would not have been possible with the support that you provided throughout my dissertation journey. To my second committee member, Dr. Cyndi Briggs, thank you so much for connecting me to Dr. Dean in my search for a chair but also for your dedicated support and words of wisdom. To my PhD sister circle, peers, family, and friends, thank you for providing a safe place for sharing ideas, motivation, and endless support in completing this study. Lastly, I want to acknowledge my husband for your love, endless support, pep talks, prayers, and most of all, taking care of our sweet babies during this journey.

Table of Contents

List of Tables	v
List of Figures	vi
Chapter 1: Introduction to the Study.....	1
Background of the Study	2
Military Deployment Overview.....	2
Attachment Styles.....	4
Perceived Stress and Psychological Well-Being	5
Gender.....	6
African American Culture.....	8
Problem Statement.....	9
Purpose of the Study.....	10
Research Questions and Hypotheses	11
Theoretical Foundation.....	12
Nature of the Study.....	13
Definitions.....	15
Assumptions.....	16
Scope and Delimitations	17
Limitations	18
Significance of the Study	19
Significance to Theory.....	20
Significance to Social Change	21

Summary and Transition.....	22
Chapter 2: Literature Review.....	24
Literature Search Strategy.....	25
Theoretical Foundation.....	27
Attachment Theory.....	27
Literature Review.....	31
Military Deployment.....	31
Perceived Stress and Psychological Well-Being.....	35
Culture Versus Subculture.....	37
Sociological Understandings of Gender.....	38
Gender and Military.....	41
Attachment Security.....	42
Summary and Conclusions.....	44
Chapter 3: Research Method.....	46
Research Design and Rationale.....	46
Methodology.....	47
Population.....	47
Sampling and Sampling Procedures.....	48
Procedures for Recruitment, Participation, and Data Collection (Primary Data).....	49
Instrumentation and Operationalization of Constructs.....	51
Data Analysis Plan.....	54

Linear Multiple Regression Data Analysis	56
Data Assumptions	56
Threats to Validity	57
External Validity.....	57
Internal Validity	57
Construct Validity	58
Ethical Procedures	59
Summary	60
Chapter 4: Results	61
Introduction.....	61
Data Collection	62
Baseline Descriptive and Demographic Characteristics	63
Descriptive Statistics of Variables	66
Results.....	67
Assumption Testing	67
Testing Assumptions of Homoscedasticity.....	68
Results of Multiple Regression.....	70
Summary	75
Chapter 5: Discussion, Conclusions, and Recommendations.....	76
Introduction.....	76
Interpretation of Findings	77
Theoretical Framework and Research Findings	81

Limitations of the Study.....	84
Recommendations.....	85
Implications for Social Change.....	87
Conclusion	89
References.....	92
Appendix A: Demographic Questionnaire.....	105
Appendix B: Permission to Use the Adult Attachment Scale.....	107
Appendix C: Adult Attachment Scale.....	108
Appendix D: Permission to Use the Perceived Stress Scale.....	110
Appendix E: Perceived Stress Scale-10.....	111
Appendix F: Permission to use Psychological Well-Being scale	112
Appendix G: Psychological Well-Being Scale.....	113

List of Tables

Table 1. Descriptive Statistics of Military Spouses65

Table 2. Coefficients for Independent Variables67

Table 3. Model^b Summary for Perceived Stress72

Table 4. Coefficients for Perceived Stress72

Table 5. Model^b Summary for Psychological Well-Being74

Table 6. Coefficients for Psychological Well-Being74

List of Figures

Figure 1. Scatterplots Testing for Homoscedasticity	68
Figure 2. Histogram for Psychological Well-Being	69
Figure 3. Histogram for Perceived Stress	70

Chapter 1: Introduction to the Study

Military spouses are often impacted by ongoing permanent change of duty stations (PCS moves), deployments, and being away from immediate family. Military deployments have significant and prominent effects on military personnel, spouses, and children (Blank et al., 2012; Warner et al., 2009; Wiens & Boss, 2006). For example, they may lead to increased risk of poor psychological well-being, a higher risk of substance use, a higher risk of self-medicating, behavioral problems in children, a higher risk of infidelity, poor intimate partner communication, higher stress levels, unsuccessful reintegration of the military service members after homecoming and/or return from combat war zones, and a higher risk of marital separation and divorce during deployment cycles (Borelli et al., 2019). Findings from a few studies suggest that non-deploying military spouses with greater attachment insecurity report higher rates of distress before, during, and following deployment (Allen et al., 2011; Bommarito et al., 2017; Woodhouse et al., 2015).

The continuous global conflict and unrest have resulted in countless deployment separations among the United States Military Service members and families since the start of the War on Terror in 2001 (Borelli et al., 2019; DeBurgh et al., 2011). According to existing research, there is innumerable research on the effects of deployments and attachment among female military spouses and families (Borelli et al., 2013; Green et al., 2013; Padden et al., 2011). Within those existing studies, many researchers have focused on emotional attachment among female military spouses within traditional family homes and excluded male spouses from the research.

Little is known of quantitative research of attachment styles, deployments, perceived stress, and psychological well-being among both male and female African American military spouses. African Americans represents 13% of the military population (Sheehan & Hayward, 2019). African Americans are underrepresented in research studies to include military research. Previous research studies have not focused on African American families and their association, attachment, perceived stress, and psychological well-being. Due to this, African Americans get less value from important research that could address the effects of military deployment outcomes they face.

In Chapter 1, I provide an overview of military deployment and its influential factors among military spouses. I identify the problem and purpose of the study. Additionally, I discuss the targeted research questions and hypotheses, provide a brief description of the theoretical framework, and identify the nature, definitions, assumptions, limitations, and delimitations of the study. Lastly, I discuss the significance and potential contributions of the study.

Background of the Study

Military Deployment Overview

Military spouses are frequently faced with the uncertainty of military deployment and its effects. According to the Department of Veteran Affairs (VA, 2019), *deployment* is defined as a “form of military movement among armed forces to another location” (p. 3). There are various types of deployment within the armed forces that often separate the military service member from his or her family and spouse. There are various types and lengths of deployment that differ between each military branch due to several factors,

including regional threats and the needs of the specific military branch when there is a possible threat to the nation (Rizzo et al., 2015). For instance, military service members are deployed frequently outside of the United States to combat and non-combat geographical locations for different lengths of time to include periods ranging from 90 days to 15 months (DOD, 2017). Active-duty, reserve, and National Guard members are often placed on deployment rotations, and military spouses are left with multiple roles and responsibilities of being the sole parent during the absence of the military service member, which has often led to additional stressors (Borelli et al., 2013; Riggs & Cusimano, 2014). Multiple roles may include balancing what a two-parent household would as a sole parent, being the only caregiver to one or more children, and balancing a career.

According to previous research studies, military spouses and families experience androgynous roles and adjustment to changes within their unique familial roles (Borelli et al., 2013; Joseph et al., 2010). Additionally, previous research studies found that military spouses experience feelings of loneliness, guilt, rejection, and disconnect during deployment cycles (Borelli et al., 2013; Joseph et al., 2010). Military spouses may experience additional stressors including inadequate and limited supports. Furthermore, military spouses may experience lack of financial support and limited communication with partner or spouse, which may lead to detachment or infidelity (Gewirtz et al., 2011; Lowe et al., 2012; Pincus et al., 2001).

Attachment Styles

Attachment problems have been associated in previous research with military deployments, marital conflict, emotional well-being, and perceived stress (Balderrama-Durbin et al., 2018; Giff et al., 2019; Vincenzes et al., 2014). Previous research has also shown that deployment impacts female military spouses' attachment styles and attachment within their marital relationships and well-being (Balderrama-Durbin et al., 2018). Results of studies conducted by Cafferky and Shi (2015) as well as Vincenzes et al. (2014) indicated that coping mechanisms of military wives during deployment were enlightened by secure and avoidant attachment styles. Cafferky and Shi measured how coping mechanisms of military wives are related to their emotional connection with their deployed husbands. These researchers found that the impact of the deployment time and length impacted their well-being. The significance of the findings was as deployments increased in time and/or length, specifically to longer than 6 months, the levels of psychological and emotional distress of female military spouses significantly increased (Cafferky & Shi, 2015; Vincenzes et al., 2014).

Based on the findings of previous research, attachment styles are vital in understanding how individuals cope and experience separations from their partner in their unique personal ways from different perspectives. Borelli et al. (2013) found that attachment, attachment security, attachment avoidance, and anxiety of non-deployed female spouses were associated with deployment. Previous research studies have not focused on African American families and the association of attachment, attachment styles, and impact of military deployments. It is vital to understand attachment,

attachment styles, and the relationship with deployment among African American mothers and fathers in their daily routines, especially during potentially high-stress periods to include separations.

Borelli et al. (2019) found that deployment has a psychological impact on the spouses of service members, even those who have experienced multiple past deployments. They later found that it was imperative to maintain family readiness while engaging in family-focused support groups (Borelli et al., 2019). Family readiness is a system that offers numerous programs to military spouses and families to enhance resilience and promote military family well-being (Borelli et al., 2019). Additionally, Borelli et al. highlighted the need for resources to equip spouses to handle the emotional challenges of deployment. Similarly, Creech et al. (2014) suggested that the impact of military deployment, reintegration on children and parenting of non-deployed military spouses, and additional stressors may lead military spouses to increased detachment, psychological distress, marital distress, and decreased levels of functioning.

Perceived Stress and Psychological Well-Being

Perceived stress of deployment among military spouses and families can be conceptualized in many ways. Previous research involving attachment and military spouses has focused on how attachment, attachment styles, communication, and coping styles can influence relationships among female military spouses exclusively (Vincenzen et al., 2014). For example, Vincenzen et al. (2014) found that military spouses' level of stress increased due to the length of deployments. Padden et al. (2011) examined the impact of deployment separation among active-duty military spouses (e.g. wives). The

findings concluded that stress was related to the women's age as well as the psychological well-being of spouses during active-duty military service members' deployment (Padden et al., 2011).

Borelli et al. (2013) examined the attachment security of military spouses during deployment. The results of Borelli et al.'s research proposed that indicators of behavioral reactions of wives during a military deployment cycle are related to attachment security, psychological, and relational adjustment. Furthermore, researchers such as Borelli et al. indicated that attachment of non-deployed female spouses was associated with deployment as a significant predictor of spouses' well-being. As highlighted throughout this chapter, researchers have not examined the perceived stress of deployment among male military spouses, which supports the importance of the study.

Gender

The gender of military spouses is a relevant component to explore during deployment cycles and everyday experiences for military service members and spouses. Lufkin (2017) suggested that gender assumptions play a large role in the experience of male military spouses. Male military spouses make up about 5% of active-duty military spouses and are considered a minority within the military population (Lufkin, 2017). According to the U.S. Defense Department (2019), women now make up 14% of active duty and 17.9% of reserve/guard service members. Previous research has not examined the effects of deployment among other genders to include male military spouses (Borelli et al., 2013; Borelli et al., 2019; Kees & Rosenblum, 2015; Lara-Cinisomo et al., 2013).

Gupta et al. (2019) found that in gender relations, there are inequalities, not just between groups of men and women, but also between different types of masculinity and gender norms. Gupta et al.'s article provided an overview of gender inequality and gender norms as it related to improving overall health. Gupta et al.'s aimed to reduce gender inequality and shift gender norms for improved health outcomes in global health institutions, civil society organizations, and academic settings. Results from the Gupta et al. study highlighted that implemented laws, policies, and programs can transform norms for improved health. Gupta et al. also found that it is vital to improve health by addressing gender equality and restrictive social norms. This study examined gender as one of several predictable variables in a multiple regression. Within previous research studies, there has been inequality in including male military spouses when examining the effects of deployments among military spouses. In this study, I sought to reduce inequality and shift gender among military spouses.

Creech et al. (2014) found that military deployment has a significant impact on military spouses and their children before, during, and following deployment. Deployment plays a major factor in the aspect of military life among military service members and their spouses to include behavioral problems in children, a higher risk of divorce, and higher rates of suicide for military spouses and children (Creech et al., 2014). Military service members and their spouses experience multiple deployments throughout the service member's career. It is vital to understand the effects of deployment among African American military spouses, as there has been a lack of

research examining the effects of deployments among African American female and male spouses.

African American Culture

African Americans have a lengthy history of being descendants of slavery dated back to 1619 (Jones et al., 2012). African Americans were brought from their native homelands by force to work on plantations in the new world. For many years, African Americans' rights were severely limited to include denial of their rightful share in the economic, social, and political progress of the United States (Jones et al., 2012). African American culture continues to make lasting contributions to American history and culture (Jones et al., 2012). African American men and women have served for many years in the United States Armed Forces. After President Abraham Lincoln's Emancipation Proclamation on January 1, 1863, Black soldiers were officially allowed to participate in war (Sheehan & Hayward, 2019). Black soldiers distinguished themselves in battle on numerous occasions with and without recognition. According to the U.S. Department of Defense (2019), there are 63,380 African American/Black military service members in the United States Armed Forces.

Although researchers have investigated this issue, there is very little literature on understanding the relationship of military deployments, attachment styles, and perceived stress and/or psychological wellbeing among male and female African American military spouses. Previous research studies have focused primarily on the effects of deployment among female spouses and have not focused on both male and female military spouses. Furthermore, the inclusion of male and female African American military spouses in

previous research was very limited as researchers examined the effects of deployment. This study focused on both male and female spouses of deployed service members by examining a relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress of African American military service member spouses.

Problem Statement

There is no current research examining the relationships of military deployments, attachment styles, perceived stress, and psychological well-being among both male and female African American military spouses. The continuum of military deployments, attachment, marital distress, and psychological well-being is a problematic recurring issue for military spouses, gender of military spouses, and military members (Borelli et al., 2019; Laser & Stephens, 2011). Research has not examined how deployments affect both male and female military spouses nor male and female African American military spouses as it relates to the impact of gender of the military spouse on perceived stress and psychological well-being.

Previous research studies have examined the effects of deployment among White/Caucasian female military spouses (Borelli et al., 2013; Lara-Cinisomo et al., 2012; Pincus et al., 2001). Exploring both male and female military spouses can add to the body of knowledge in a more diverse sample by exploring deployments, attachment styles, and perceived stress among both male and female African American spouses of service members. This study was designed to contribute to understanding the relationship between military deployment, attachment styles, perceived stress, and/or psychological

wellbeing among African American male and female spouses. By researching this information, I sought to assist military mental health professionals by providing more targeted tools to enhance mental health services and bring forth social change and gender equality for both male and female African American military spouses.

Purpose of the Study

The purpose of this quantitative study was to determine if a relationship exists between the predictor variables (PV) of attachment scores (close, anxious dependent), the number of deployments, types of deployments, and gender, on the criterion variables (CVs) of perceived stress and psychological well-being. Currently, no quantitative studies have examined the effects that deployment has on male and female African American military spouses. Understanding how these systems can impact the emotional connection of both male and female African American military spouses and family dynamics can further inform counseling professionals of the current dilemma experienced in military African American families. Through an understanding of relationships of attachment styles, perceived stress, and psychological well-being among African American military families, researchers can begin creating interventions and strength-based support to improve the services that are associated with and offered to military spouses and families during deployment of African American military members. It is imperative to foster critical consciousness of how the impact of attachment styles and number deployment may lead to perceived stress or psychological well-being among military spouses (e.g., male and female) of deployed African American military members.

Research Questions and Hypotheses

RQ1: Is there a relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress within African American military service member spouses?

H₀₁: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the Adult Attachment Scale (AAS), and gender on perceived stress as measured by the Perceived Stress Scale (PSS) within African American military service member spouses.

H_{a1}: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on perceived stress as measured by the PSS within African American military service member spouses.

RQ2: Is there a relationship between the number of deployments, types of deployments, attachment styles, and gender on the psychological well-being of African American military service member spouses?

H₀₂: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on psychological well-being as measured by the Psychological Well-Being Scale (PWB) within African American military service member spouses.

H_{a2}: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on

psychological well-being as measured by the PWB within African American military service member spouses.

Theoretical Foundation

The theoretical base for this study was Bowlby's attachment theory. Attachment theory is defined as "a concept in developmental psychology that concerns the importance of attachment regarding personal development" (Bowlby, 1969, p. 3). Because this theory addresses attachment in all ages, Bowlby's theoretical work has been used largely in various aspects of military research, more frequently with deployment separation and attachment of military children and families. The approach provides details on attachment as it is grounded in nature versus nurture assumptions of the overall developmental stages of attachment as it describes the dynamics of interpersonal relationships between children and adults (Bowlby, 1969).

Attachment theory highlights the connection experiences and societal interactions among individuals from birth to adulthood (Borelli et al., 2013; Bowlby, 1969). The primary focus of attachment theory is on the connections, relationships, and attachment behaviors of individuals and others (Tudge & Rosa, 2019). Attachment theory is grounded in the developmental stages of attachment, as it describes the dynamics of interpersonal relationships from birth to adulthood (Bowlby, 1969). The theoretical foundation of attachment theory provides specific details on attachment beginning at infancy. For example, Bowlby (1969) indicated that infants begin to secure attachment from the attention and responses from their caregivers. Attachment theory was used in this study to examine the relationship of attachment styles among military spouses.

Attachment and attachment styles play a major role among military spouses as they often find themselves in androgynous roles before, during, and following deployment (Lufkin, 2017). For example, military spouses are engaged in both maternal and parental roles during the physical absence of the service member during deployment. The paternal or maternal roles are indifferent due to their attachment styles and attachment type.

Attachment theory was used to assist this study with understanding the impact of deployment among military spouses and their attachment styles. Attachment theory was used as a guide in understanding the attachment styles of female and male military spouses. Furthermore, attachment theory relates to this study by examining the relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress and psychological well-being of African American military service member spouses. There are several propositions of attachment theory that will be discussed in further detail in Chapter 2 that are relatable to this study.

Nature of the Study

In this study, I used a quantitative research design using multiple regression data analysis procedures to determine the relationship between the PVs of attachment scores (close, anxious, dependent), the number of deployments, types of deployments, and gender, on the CVs of perceived stress and/or psychological well-being. Multiple regression is often used in research studies as a universal statistical method for exploring relationships between two or more independent variables and a single dependent variable (Frankfort-Nachmias & Leon-Guerrero, 2018). Multiple regression is defined as a statistical predictive analysis that is used in quantitative research to explain the

relationship between two selected variables (Frankfort-Nachmias & Leon-Guerrero, 2018).

The primary purpose of a multiple regression in research is to recognize the association between variables. I used multiple regression data analysis to examine the relationships of attachment styles, deployments, and perceived stress among African American military spouses. The PVs include attachment styles, number of deployments, types of deployment, and gender. CVs include perceived stress and psychological well-being. The relationship of the PVs of attachment scores (close, anxious, dependent), the number of deployments, types of deployments, and gender, on the CVs of perceived stress and/or psychological well-being was examined through a multiple regression.

Convenience sampling was used to ensure that the appropriate sample size is reached. Male and female African American military spouses were recruited through online recruitment platforms. A demographic questionnaire was provided to all participants to obtain the following: identification of Black/African American heritage, gender types, types of deployment, duration/length of deployment, number of deployments, active-duty service members, reserve service members, family support, spousal support, participation in support groups, attachment styles, and stress and psychological well-being. The CVs were assessed using the PWB and PSS. The attachment PV was assessed by using the AAS.

Definitions

Attachment: Attachment is defined as a “lasting psychological connectedness between human beings” (Bowlby, 1969, p. 194) and may be considered interchangeable with concepts such as “affectional bond” and “emotional bond.”

Attachment styles: Attachment styles refer to the particular way in which an individual relates to other people (Ainsworth, 1978; Bowlby, 1969).

Autonomous/Secure attachment style: Autonomous or secure attachment style is defined as an individual who experiences low avoidance and is not worried about rejection (Ainsworth, 1978; Bowlby, 1969).

Anxious attachment style: Anxious attachment style is defined as an individual who experiences low avoidance and craves closeness of intimacy with others (Ainsworth, 1978; Bowlby, 1969).

Avoidant attachment style: Avoidant attachment style is defined as an individual who experiences high avoidance with closeness to others (Ainsworth, 1978; Bowlby, 1969).

Disorganized attachment style: Disorganized attachment style is defined as an individual who experiences an unresolved mindset and emotions due to past experiences with others (Ainsworth, 1978; Bowlby, 1969).

Deployment: Deployment is defined as a form of military movement among armed forces to another location (Veteran Affairs, 2019).

Military spouses: Military spouses are male, female, transgendered, and gender nonbinary individuals who are legally married to a service member who serves in the United States Armed Forces (Hayes, 2011).

Perceived stress: Perceived stress is the reactions or thoughts that an individual has about the amount of stress they are experiencing at a given point in time (Phillips, 2013).

Psychological well-being: Psychological well-being is defined as the personal level of positive functioning (Ryff, 1989).

Assumptions

There are several assumptions within the study. One assumption was that all participants understood the survey and answered the survey truthfully after receiving the informed consent for participation. It was assumed that the participants did not answer the survey with bias. It was assumed that participants' answers would vary based on their individual experiences of before, during, and after deployment cycles. It was also assumed that the spouses who identify as male would identify as male participants within the study and did not deliberately bias the results. Another assumption was that the results from the data collection of this study are reliable and accurate. The final assumption was that the relationships of attachment styles, deployments, and perceived stress influence African American military spouses' overall psychological well-being and perceived stress.

Scope and Delimitations

In the current study, the relationships of attachment styles, deployments, and perceived stress of African American military spouses were examined by using the AAS, PSS, and PWB. African American male and female spouses were the targeted participants for the study due to the gap in the literature examining attachment styles, deployments, and perceived stress among male and female African American military spouses. Researchers have not examined how deployments affect both male and female military spouses nor male and female African American military spouses as it relates to the impact of gender of the military spouse on perceived stress and psychological well-being.

The generalization of this study was limited to military spouses and not inclusive to the civilian population in nature. Participants of this study were limited to military spouses who identify as African American who have or are currently experiencing deployment of their military service member. These spouses were married and at least 18 years of age due to the legal age requirement for marriage and age requirement for enlisting into the United States Armed Forces. The survey used in this study was delimited to adult respondents who were 18 years old and older. The results of this study did not apply to the civilian population, as spouses the civilians may not experience the unique experiences in comparison to military spouses who are legally married to a United States military service member.

Boundaries of the study consisted of the inclusion of African American male and female military spouses. Previous research has not examined the effects of deployment

among other genders to include male military spouses (Borelli et al., 2013; Borelli et al., 2019; Kees & Rosenblum, 2015; Lara-Cinisomo et al., 2013). This study focused on the relationships of attachment styles, deployments, and perceived stress but did not focus on the overall physical health that could be potentially impacted by the impact of deployment. Aducci et al. (2011) found that most spouses experience risk factors of somatic disorder and sleep deprivations during deployment cycles.

Limitations

Limitations were considered within this study. One possible limitation was due to the nature of the data being collected through online database systems. With the use of online data collection, there was a possibility that participants with bias may select themselves into the study and may not answer the questions truthfully which could affect internal validity. For example, individuals with bias may participate to provide false information and sabotage the research.

An additional limitation with the use of online surveys was that recruiting participants through social media platform who do not meet criteria may participate in the study without being identified by the researcher. For instance, without face-to-face interactions, there was a possibility that I was unable to identify and verify the participant's military spouse's status due to the anonymity of participants in the study. The limitation with participant validation was that spouses who are no longer affiliated or considered a dependent status (e.g., has an expired or inactive military dependent identification card) with the military could potentially participate.

A potential barrier for collecting primary data was recruitment due to legal and/or ethical considerations of Operational Security (OPSEC) guidelines for military families and spouses. For example, some service members may not be able to disclose where they deployed. Military spouses may worry about inadvertently disclosing OPSEC. This study asserted that the use of online and social media recruitment platforms may add to the hesitation of participants volunteering for such a study. Moreover, this study asserted that the internal validity may be impacted by potential biases of the participants due to the military culture and subcultures within the military population. Lastly, this study asserted military culture could impact military spouses from sharing information due to the military guidelines and governing rules.

Significance of the Study

The significance of this study was to contribute to the understanding of assessing the relationship of attachment styles, perceived stress, and psychological well-being of African American military spouses. Examining the relationships were valuable in aiding with perceptions during deployment among African American families. Insights from this study may be used to aid counseling professionals in helping military personnel and their families to reintegrate effectively. The results of the current study are intended to improve the lives of military families through understanding their psychological well-being and perceived stress. Furthermore, clinicians can have more targeted tools to enhance mental health and family support services when needed among African American families during and after deployment.

It is imperative to assess the relationship of perceived stress, psychological well-being, and attachment among spouses of African American military spouses. Previous researchers have not examined the relationship of attachment, perceived stress, and/or psychological well-being among African American military spouses. The results of this study provided much-needed insights into assessing the relationship of attachment and perceived stress and/or psychological well-being that are valuable in aiding with perceptions during deployment among African American spouses.

The results of this current study are intended to be used to improve and create supports for African American military spouses and their families. This study intended to assist military counselor professionals in identifying challenges faced by African American military spouses during and after deployment. Furthermore, this study intended to understand the attachment of African American military spouses. This study explored the strengths and strategies used during these experiences to further develop and implement programs that can assist families and military personnel with deployment supports.

Significance to Theory

The theoretical base for this current study was Bowlby's (1969) attachment theory. Attachment theory is a concept in developmental psychology that concerns the importance of "attachment" in regard to personal development (Bowlby, 1969). The significance of Bowlby's attachment theory to this current study was its contribution to understanding the relationship of attachment styles and perceived stress and/or psychological well-being among African American military spouses. The relationship of

attachment styles, perceived stress, and/or psychological well-being was examined, as it is valuable in aiding with the perceptions of African American military spouses during deployment. This study may add to the body of knowledge by including a more racially and gender diverse sample, exploring factors associated with both male and female African American spouses of service members to include enlisted service members.

Significance to Social Change

There is gender and racial inequality in past research of military spouses among the military population. Researchers have tended to not include both male and female military spouses before, during, and following their experiences of deployment. Additionally, researchers have not explored a diverse group of military spouses when it comes to race and culture. This study has implications to effect positive social change at the personal, family, international, and general levels for military leaders and African American military spouses. Previous military research has only focused on the impact of deployment among male service members, female military spouses, and families with predominately White participants.

Within previous military studies, there has been limited research that has been inclusive to African American military families and spouses. There is no current research examining the relationships of military deployments, attachment styles, perceived stress, and psychological well-being among both male and female African American military spouses. The continuum of military deployments, attachment, marital distress, and psychological well-being is a problematic recurring issue for military spouses and military service members of all ethnicities and cultural backgrounds (Borelli et al., 2019;

Lufkin, 2017). Though there has been extensive military research and literature, no research has examined how deployments affect both male and female military spouses nor male and female African American military spouses as it relates to the impact of gender of the military spouse on perceived stress and psychological well-being.

Previous research studies have examined the effects of deployment among White female military spouses who were educated (Borelli et al., 2013; Lara-Cinisomo et al., 2012). Exploring both male and female military spouses can add to the body of knowledge in a more diverse sample by exploring deployments, attachment styles, and perceived stress among both male and female African American spouses of service members who identify as African American and effect social change for African American male and female spouses. This study will contribute to understanding the association of military deployment, attachment styles, perceived stress, and/or psychological well-being among African American male and female spouses. This information could assist military mental health professionals with more targeted tools to enhance mental health services when needed and bring forth social change and gender equality implications for both male and female African American military spouses.

Summary and Transition

Military deployments are ongoing and continue to effect military spouses and families. The need for continued research in examining the effects of deployment is significant in contributing to the existing body of knowledge and understanding for mental health professionals to further develop interventions to care for military spouses and service members. In Chapter 1, an overview of military deployment and its

influential factors among military spouses was provided. Key factors, concepts, and significance of the study were defined while demonstrating the need for further examination of the relationships of attachment styles and deployments, on perceived stress and psychological wellbeing of African American military spouses. Additionally, a brief overview of attachment theory was discussed.

Attachment theory will be the guide for the study as briefly discussed. In Chapter 2, a comprehensive review of the existing literature on attachment styles, deployments, deployment types, deployment cycles, perceived stress, gender, and psychological wellbeing of military spouses will be presented. The literature review will also consist of existing studies on the role of attachment, perceived stress, deployments, military marriages, and gender differences. Lastly, the role of attachment theory among military marriages will be discussed.

Chapter 2: Literature Review

Little is known about African American military spouses' experience during military service members' cycles of deployment. There is a dearth in the literature examining the relationship of military deployments, attachment styles, perceived stress, and/or psychological well-being among male and female African American military spouses. Previous research studies have only focused on the effects of deployment among female spouses and have not focused on both male and female military spouses. Furthermore, the inclusion of male and female African American military spouses in previous research was very limited as previous researchers examined the effects of deployment, as discussed in Chapter 1. The purpose of this study was to determine if a relationship exists between deployments, attachment styles, and gender on the perceived stress and/or psychological well-being of African American military spouses.

Though previous research on the effects of deployments and attachment has focused on the emotional attachment among female military spouses within traditional family homes, little quantitative research has been conducted on attachment styles, deployments, perceived stress, and psychological well-being among both male and female African American military spouses. The continuum of military deployments and psychological well-being is a problematic recurring issue for military spouses (Borelli et al., 2019; Lufkin, 2017). There is inequality in past research of military spouses during the cycles of deployment as it relates to gender and ethnicity.

This chapter begins with an overview of methods and strategies used to examine relatable literature. In the overview section, a concise analysis and discussion of

Bowlby's (1969) attachment theory used for this study will be presented. Associated significant variables applicable to military service members' spouses and this model origins will also be explored. The second section encompasses the literature on the overview of deployment to include types, cycles, length, and risk factors of deployment. In the third section, the literature on perceived stress and the psychological well-being of military spouses during and after deployment cycles will be discussed. I also discuss the significance of military culture, military belief systems, and gender differences among military spouses. Lastly, the fourth and final section outlines attachment styles as a primary way to recognize the attachment and emotional connection among military spouses and their service members.

Literature Search Strategy

The literature search strategy included searches within Walden University's Library Databases to include: PsycINFO, ProQuest, ERIC, Sage Journals, Military/Government Collections, and MERLN (Military Education Research Library Network search). In addition, Google Scholar was also implemented in the literature review strategy. The following keywords were searched in PsycINFO: *attachment* and *attachment styles*. The next set of keywords searched were the following: *gender*, *gender norms*, *military deployment*, and *parental deployment*. In military and government collections, *African American military families*, *African American military spouses*, *military*, *military dependent*, *military couples*, *military wife*, *military husband*, and *same-sex military families* were used. While using Sage journals, I conducted searches with

keywords *parental deployment, military marriages, military spouses, male military spouses, and deployment cycles.*

Furthermore, a search of *parental stress, psychological well-being, perceived stress, deployment separation, and attachment* was conducted in ERIC and ProQuest. A search of the dependent variables (*psychological well-being, perceived stress*) was also used. Lastly, in Military Education Research Library Network Search (MERLN), the keywords *types of deployment, deployment cycles, duration/length of deployment, number of deployments, gender, attachment, African American military families, African American military spouses, military, military dependent, military couples, military wife, military husband, same-sex military families, and combat exposure* were used.

Dissertations were included within the literature search. The emphasis of the review of the literature included published research from 2001 to the present. The review of published research within the last 11 years was important to include. The past 11 years of published research identify an accurate problem statement and need for further research. Through an exhaustive review of previously published literature, a theme emerged indicating a lack of research examining the relationships of deployment, attachment styles, and perceived stress of both male and female African American military spouses.

Theoretical Foundation

Attachment Theory

The theoretical framework used for this study was Bowlby's (1969) attachment theory. Attachment theory originated from Bronfenbrenner's ecological systems theory, a multifaceted system of relationships from infancy to adulthood that is influenced by various stages of the individual's surrounding environment (Tudge & Rosa, 2019). There are various important concepts and themes within Bowlby's attachment theory. One important concept is the attachment behavior system. The attachment behavior system provides an intangible relation between ethological models of human development and innovative concepts on emotion regulation and personality (Tudge & Rosa, 2019). For example, attachment theory helps explain the behaviors of individuals who are separated from their caregivers, spouses, or families.

Attachment theory is grounded in the developmental stages of attachment as it describes the dynamics of interpersonal relationships from birth to adulthood (Bowlby, 1969). The primary focus of attachment theory is on the connections and relationships between people. The key theme of attachment theory is that primary caregivers who attend to the infant's needs establish a development of a sense of security for the infant (Bowlby, 1969). For example, beginning at birth, infants communicate with crying. As the infant cries, the caregiver may check the infant's diaper, feed the infant, or rock the infant to calm the crying. In this example, the infant recognizes that the caregiver is attentive and reliable, which builds a secure foundation for the child to then explore the world (Tudge & Rosa, 2019).

Bowlby (1969) described four phases of attachment development to their caregivers. The four phases of attachment development are: (a) pre-attachment phase: birth to 3 months; (b) indiscriminate attachment phase: 3 months to 6 months; (c) discriminate attachment phase: 6 months to 3 years; and (d) formation of reciprocal relationship phase: 3 years until childhood ends (Bowlby, 1969). Each phase of attachment development has a significant impact on the overall development of attachment from the time infants are born into the world (Bowlby, 1969).

Ainsworth (1978) added to the literature of attachment by indicating the four attachment styles that emerged from Bowlby's (1969) attachment theory. There are four styles of attachment within attachment theory. The four attachment styles of attachment are the following:

- Secure attachment: Individuals who have a secure attachment are prepared to venture into the world with less fear in establishing healthy relationships (Ainsworth, 1978).
- Avoidant attachment: Individuals who display avoidant attachment are apprehensive and doubtful in their attachment security to the caregiver (Ainsworth, 1978).
- Ambivalent attachment: Individuals are often upset when a caregiver leaves the room and display apprehension and doubt in their attachment security (Ainsworth, 1978).
- Disorganized attachment: Individuals with a disorganized attachment style seem to be perplexed and display conflicting behaviors when their caregiver is

present due to past experiences of confusion (Ainsworth, 1978). For example, if a child or individual were abused, this could lead to experiences of fear and anger.

According to Ainsworth (1978), existing research has revealed that early attachment styles can have a significant impact on the individual's life. For instance, an individual who developed a secure attachment style during their childhood has high self-esteem in forming strong and healthy relationships as adults (Ainsworth, 1978; Bowlby, 1969). Ainsworth suggested that individuals with a secure attachment style share their feelings openly and establish healthy relationships. In contrast, individuals who developed an avoidant attachment style as a child may have lower self-esteem and emotional detachment from others. For instance, individuals with an avoidant attachment style may have difficulty being vulnerable with others. Comparably, individuals with a resistant attachment style as children may have difficulty in forming relationships and trusting others as adults (Chandra et al., 2010).

Attachment Theory and Military Couples

Attachment theory is generally applied in research among individuals, couples, and families who encounter various forms of separation (Borelli et al., 2013; Borelli et al., 2019; Knobloch & Theiss, 2012; Lowe et al., 2012). Attachment styles have been associated in previous research with military deployments, marital conflict, and perceived stress (Balderrama-Durbin et al., 2018; Marini et al., 2017; Vincenzes, 2014). Military couples face frequent separations, often due to service members' call of duty to

deployments. In previous research, attachment theory has been applied to explore the impact of deployments among military spouses (Vincenzen et al., 2014).

In recent years, Bowlby's (1969) attachment theory has been applied to studies of military wives, families, and the impact of deployment. Previous research of attachment and attachment styles among military spouses has focused on how coping styles and perceived stress can impact the security of the relationship, whereas other research focused on how attachment can affect adverse emotions during the absence of military personnel during deployment phases (Cafferky & Shi, 2015; Vincenzen et al., 2014). Cafferky and Shi (2015) as well as Vincenzen et al. (2014) indicated that the significance of spouses maintaining their emotional attachment during separation coping styles, and psychological well-being. For example, researchers suggested that female military spouses' levels of stress increased due to the length of deployments (Cafferky & Shi, 2015; Vincenzen et al., 2014). The significance of the findings was as deployments increased in duration, specifically to longer than 6 months, the levels of psychological distress of female military spouses significantly increased (Cafferky & Shi, 2015; Vincenzen et al., 2014).

Furthermore, Borelli et al. (2013) explored the attachment security of military spouses during deployment. For instance, Borelli et al. examined the linguistic indicators exclusively to wives of deployed service members. Borelli et al. found that attachment styles, attachment security, attachment avoidance, and anxiety of non-deployed female spouses were associated with the deployment of their military spouse. The results

indicate that attachment security during a military deployment relates to the adjustment of wives' overall well-being to include psychological and emotional (Borelli et al., 2013).

Bowlby's (1969) theoretical work has been used largely in all aspects of military research to include deployment separation and attachment of military children and families. This theory accentuates the foundation of attachment as it relates to connecting experiences with others (Borelli et al., 2013). The approach provides details on attachment as it is grounded in nature versus nurture assumptions of the overall developmental stages of attachment as it describes the dynamics of interpersonal relationships. Attachment theory was sought to assist with understanding the impact of deployment among military spouses. Attachment theory was used to examine the relationship and attachment among military spouses of African American military families.

Literature Review

Military Deployment

Since 2015, approximately 1.3 million military service members have been deployed to various countries. Deployment is a significant variable to consider within this study. For instance, military deployment plays a vital role among military spouses and families due to the prolonged separation. United States service members are often displaced away from their families, spouses, and partners throughout their military careers. Often, service members are away from their families for as little as one 1 month to a year or even up to 18 months (DOD, 2017). Deployment types, lengths, and times vary among each branch of service and mission.

The effects of deployment vary substantially across military spouses and families. When service members are placed on deployment rotations, military spouses or partners are left with innumerable responsibilities of engaging in multiple roles during the absence of the service member which has often led to additional stressors (Borelli et al., 2013; Meadows et al., 2017). Military spouses may experience additional stressors to include inadequate financial supports, limited communication, infidelity, relationship insecurities due to attachment, detachment, lack of support groups, and combat exposure (Marini et al., 2017).

Pre-Deployment

Prior to deployment, service members experience a pre-deployment cycle. The pre-deployment cycle consists of various tasks including training exercises, field trainings, health assessments, intensive medical evaluations, counseling, and family readiness briefings (DOD, 2017). During the pre-deployment cycle, the service member's communication may decrease due to the service member preparing themselves to be away from family (Vest et al., 2017). For example, some service members begin to distance themselves from their spouses as one coping mechanism in desensitizing the fact of being away. Lowe et al. (2012) suggested that military spouses and service members experience pre-deployment stress. Pre-deployment stressors include the following: clarifying changes in family dynamics, striving for intimacy, increased stress of non-military spouses/caretakers, lack of information, potential threat to the service member, and preparations for altered parenting (De Burgh et al., 2011; Gewirtz et al., 2011; Lowe et al., 2011).

During-Deployment

Existing research has been found to focus primarily on this stage of the deployment cycle (Meadows et al., 2017; Pincus et al., 2001). During deployment, military spouses and families may experience androgynous roles, adjustment to changes within their marital relationship feelings of rejection, loneliness, feelings of guilt, indifferent attachment styles, perceived stress, attachment anxiety, negative emotions, feelings of anxiety, feelings of fear, and lack of support (Vincenzes, 2014). Military spouses may experience additional stressors to include inadequate financial supports, limited communication, infidelity, relationship insecurities due to attachment, detachment, lack of support groups, and combat exposure (Marini et al., 2017).

Borelli et al. (2019) examined the attachment anxiety and trauma history during the deployment cycle in two studies occurring 1 year apart. Borelli and colleagues aimed to examine the attachment anxiety and mental health prevalence of female military spouses. There were 86 participants overall between the two studies (Study 1 N= 41; Study 2 N= 45). The reported racial/ethnic make-up of the participants in Study 1 were 76% White women and in Study 2 were 80% White women (Borelli et al., 2019). In Studies 1 and 2, no other racial/ethnic makeup was reported. The research was conducted through surveys and questionnaires that included Fraley et al.'s (2000) AAS and Experiences in Close Relationships–Revised Scale. Borelli et al. (2019) found that partners who experience higher attachment anxiety have poorer adjustment during deployment cycles. Findings from other studies found that deployment has a psychological impact of loneliness and depression on the spouses of service members,

even those who have experienced multiple past deployments (Riggs & Riggs, 2011). They later found that it was imperative to maintain family readiness, family-focused care, and resources are needed to equip spouses to handle the emotional challenges of deployment (Riggs & Riggs, 2011).

Return from Deployment

Creech et al. (2014) sought to examine the impact of military deployment and reintegration on children and parenting as it relates to non-deployed spouses. A systematic review was used in hopes of developing an understanding of deployment separation and parenting roles for military families. This systematic review studied three areas of research relevant to the topic (e.g., the impact of deployment separation on parenting, the impact of parental mental health symptoms during and after reintegration, and current treatment approaches in veteran and military families). However, the systematic review did not specifically focus on issues faced by the family when a mother is deployed, and the father remains in the home. Creech et al. (2014) found that the impact of military deployment is prevalent among military spouses and the effects of parenting during and following deployment. For instance, non-deployed parents are engaged in both parental roles of mother and father during deployment that often leads to parenting distress. It was found that parental distress can impact the overall parenting of the non-deployed parent (De Burgh et al., 2011). Creech et al.'s (2014) research study provides a better understanding of the impact of military deployment and reintegration on children and parenting of non-deployed military spouses as it relates to attachment, reintegration, and psychological well-being.

Perceived Stress and Psychological Well-Being

Perceived stress and the impact of deployment among military spouses and families can be internalized in many ways. Previous research has found high rates of mental health diagnoses and symptoms among military spouses during and after deployments to foreign countries (Erbes et al., 2017; Gormam et al., 2011; Green et al., 2013). Erbes et al. (2017) concluded that military spouses are considered at an elevated risk for mental health symptoms during the cycles of deployment, especially during times of combat. In another study conducted by Lara-Cinisomo et al. (2012) brought forth the awareness of significant trends related to caregivers' emotional well-being to include poor mental health and marital distress. Lara-Cinisomo et al. (2012) found that maternal and/or psychological well-being has an important role in child and family functioning. The limitations included families who were not enlisted as well as the participants who declined to participate. For example, participants may have been stressed or too overwhelmed to participate in the study (Lara-Cinisomo et al., 2012).

Kess and Rosenblum (2015) suggest that military families often experience substantial distress that impacts their psychological well-being. For example, military families have been found to experience untreated symptoms of depression, anxiety, and posttraumatic stress (Kees & Rosenblum, 2015). Numerous instruments were used in assessing the psychological well-being and perceived stress of military spouses within Kess and Rosenblum's (2015) research. For example, the PSS was used to assess the degree of control or predictability people perceive they have over life events. Kess and Rosenblum (2015) focused on the impacts of psychological well-being and adjustment of

female spouses during the stages of deployment. Vigorous evidence of this research shows that a growing number of female military spouses experience heightened levels of depression, anxiety, adjustment difficulties, and stress before, during, and after deployment (Kess & Rosenblum, 2015).

Padden et al. (2011) focused on the relationships of stress, coping, and mental/physical well-being of female military spouses during deployment separation from their partners. The findings concluded that stress was related to the women's age as well as the psychological well-being of spouses during active-duty military personnel deployment (Padden et al., 2011). Previous researchers examined the comparison of couples with and without recent deployment on marital satisfaction (Allen et al., 2012). The key factors that were examined within Allen et al.'s (2012) research were methods of communication, positive bonding, parental attachment, family attachment, and psychological well-being. Allen et al. (2012) did not include female service members and their husbands, male service members and their husbands, female service members and their wives. Researchers in Allen et al.'s (2012) study used numerous instruments to measure marital satisfaction, communication, satisfaction with sacrifice, and positive bonding. Those instruments include the following: Schumm's The Kansas Marital Satisfaction Scale, Stanley's Satisfaction with Sacrifice Scale, Stanley and Markman's Communication Danger Signs Scale, and Markman's Positive Bonding Scale (Allen et al., 2012). Researchers found that recent deployments were not directly related to marital functioning through symptoms of post-traumatic stress disorder (PTSD) but later found

that the association between husbands' PTSD symptoms and wives' satisfaction led to caregiver burden (Allen et al., 2012).

Culture Versus Subculture

While culture is difficult to define, the military has its own unique subculture and shared language that is more precisely understood as a coalescence of associated subcultures (Georgieva & Marinov, 2017). Most multicultural scholars acknowledge that there is diffusion and overlap between cultures (Gone, 2011). Military service members and spouses are a part of a distinct subculture that is different from the civilian population. Within the military subculture, there is a shared common language that aids ineffective communication. This specialized vocabulary is important not only for proper communication but also to understand unspoken dynamics (Reger, 2008).

While each branch of the military has cultural components that are both unique to that service and shared across branches; the core cultural components provide strong organizational leadership (Meyer, 2013). For example, a specific cultural group or subgroup is defined, in part, by a shared set of beliefs that affect the thinking and behavior of many members of the military to include hard work, expendability, and teamwork (Meyer, 2013). Each military service member across all branches of the military follows the set beliefs and values of each individual branch that interacts within the organization (Meyer, 2013).

There is a shared set of beliefs within the military that plays a vital role in how service members and their families represent themselves by following the set of distinctly structured expectations, rules, and guidelines. Operations security (OPSEC) is one

specific set of guidelines that is used primarily with military service members and their families (Lees, 2016). OPSEC is a set of guidelines that is used for safeguarding information that is shared about service members (Lees, 2016). OSPEC is often used when service members are deployed from their home. For instance, family members and military spouses cannot share specific information of where military service members are being deployed, the exact location of the service members, or when they are scheduled to return home from deployment (Lees, 2016).

Stoicism is deeply rooted in military culture (Hall, 2011). Military service members are trained to have a stoicism mindset with controlling their emotions during basic combat training cycles and phases (Hall, 2011). For instance, service members are taught to suck up, show no emotion, and keep pushing for survival. Furthermore, military service members are taught to survive deprivation and the minimization of need and attachment (Hall, 2011). In addition to stoicism, there is a chain of command that leads the United States Military and those who participate in service. The chain of command has a set of rules and uniform code of military justice that governs the participation of service members. Military service members are upheld to the uniform codes and regulations to include their daily activities while on and off duty.

Sociological Understandings of Gender

Gupta et al. (2019) explored gender equality and gender norms in their research. Gupta et al.'s (2019) article explored the view of gender roles as it relates to both male and female. In the view of exploring gender differences of men and women, the expectations placed on them are not purely the result of their biological sex but reflect

socially constructed ideas about 'being a man' or 'being a woman' (Gupta et al., 2019).

Masculinity is a sociological concept that can be defined as the collection of roles, behaviors, activities, expressions, and practices that are broadly associated with being male or female, respectively (Gough et al., 2016; Henry, 2017).

There is variation in the way masculine and feminine are defined across different social settings or contexts, so it is more appropriate to use the terms masculinities and femininities. Hegemonic masculinity refers to the current form of masculinity held in the highest regard in a particular social context; it is an ideal to which most men aspire and/or against which they measure themselves (Gough et al., 2016). In general, hegemonic masculinity is characterized by attributes such as: striving for power and dominance, aggressiveness, courage, independence, efficiency, rationality, competitive-ness, success, activity, control, and invulnerability; not perceiving or admitting anxiety, problems and burdens and withstanding danger, difficulties, and threats (Gough et al., 2016).

In gender relations, there are inequalities not just between groups of men and women, but also between different types of masculinity. Hegemonic masculinity is the most desired and powerful form of masculinity; complicit masculinity describes the gender relation of men who benefit from the 'patriarchal dividend' (i.e., they benefit from men's general dominance and higher status within society) without achieving hegemonic masculinity; marginalized masculinity refers to gender relations experienced by men where their gender intersects with other structures, such as class and race (Fox & Pease, 2012).

The inability to express distressing emotion is considered a risk factor for psychological distress. Compared to women, men tend to have less awareness and ability to cope with their own emotions or the emotions of others (Gough et al., 2016). This lack of emotional knowledge is part of the construction of masculinity, rooted in beliefs developed from childhood, that to disclose – or even experience emotional distress constitutes weakness (Gough et al., 2016). Not having been socialized in emotional skills, some men may then not have opportunities to develop such skills in mid-life. The result may be a 'big-build' process: emotional illiteracy hinders men from identifying their emotional distress; such feelings build for some time before men realize they are vulnerable; they may then feel inhibited about admitting these problems to others or seeking help; and, as a result, experience a build-up of distress which can culminate in crisis, including suicidal feelings and behavior.

Gender roles of masculinity and femininity are viewed as binary oppositions (Windsor, 2013). Previous researchers have noted that many equate femininity to be commonly associated with females (McSally, 2015; Windsor, 2013). For instance, those who associate females with femininity view female characteristics as sensitive, sweet, and nurturing. Hyperfemininity is one of many stereotyped behaviors that is derived from femininity and gender roles of society (Windsor, 2013). Van Gilder (2019) found that military service members who identify as female or feminine pose a threat to military effectiveness. The findings of Van Gilder (2019) shed a light on the interrelationship between hegemonic masculinity and heteronormativity, as it seems that opposition to

women and non-heterosexual men in the military is born out of a fear that the masculine environment could become feminized.

Gender and Military

The assumptions of gender within the U.S. military armed forces have a significant impact on the experience of military spouses during deployment cycles (McSally, 2011). Male military spouses are a minority among active-duty military families (Lufkin, 2017). Lufkin's (2017) study focused on male spouses' levels of life and marital satisfaction in addition to employment information, levels of education, and other specific measures. Participants who identified as African American or Black made up 8.3% of the overall participants in Lufkin's (2017) research. Lufkin (2017) found that there were lower levels of employment and indifferent interpersonal dependence of male military spouses.

Despite the recent policy changes that have increased women's participation in the United States military, researchers have noted that the military continues to reinforce masculinity through aggressive conditioning at basic combat training, training exercises, advanced individual trainings, and overall military culture (McSally, 2011; Van Gilder, 2019). Data from 2017 proposed that women represent 16% of enlisted service members who are active-duty status and 18% of officers (Reynolds & Shendruk, 2018). Numerous research studies have continued to focus on female military spouses' experience with deployment and its effects (Cafferky & Shi, 2015; Kess & Rosenblum, 2015; Laser & Stephens, 2011; Lowe et al., 2012; Vincenzes et al., 2014). Kess and Rosenblum (2015) focused on the impacts of psychological well-being and adjustment of female spouses

during the stages of deployment. Vigorous evidence of previous research shows an increase of female military spouses experiencing heightened levels of depression, anxiety, adjustment difficulties, and stress before, during, and after deployment (Kess & Rosenblum, 2015). Participants were all females, the majority of whom were well-educated and primarily White. The racial/ethnic identities of the participants were nine white females and one black female. Furthermore, the applicability of Kess and Rosenblum's (2015) study was not inclusive with male spouses or with female spouses from a more diverse educational and ethnic background.

Attachment Security

Borelli et al. (2013) explored and examined the attachment security of military spouses during deployment. Borelli et al. (2013) aimed to examine the linguistic indicators exclusively to wives of deployed service members. Huebner et al.'s (2007) study examined the ambiguous loss of parental deployment, and effects of deployment among children as it is related to the attachment with their absent parent and/or parents who are service members. The primary focus of Heubner et al. (2007) research conducted within this study was on the children of deployed service members. Within Huebner et al.'s (2007) study, there were a limited amount of Black/African American families. The racial/ethnic composition of this study sample was 61% White, 17% Black, 10% Biracial, 7% Latino/Latina, 3%, Asian-American, and 1% Native American (Huebner et al., 2007) among military families. African Americans are considered the second-largest racial minority in the United States (Vespa, 2018). According to 2019 US census, there are 328,239,523 people in the United States (Vespa, 2018). Whites make up 76.3% and

African Americans are estimated to make up 13.4% of the population (Vespa, 2018). Therefore, the Huebner et al. (2007) study did provide a greater representation of minorities compared to the distribution of the general racial make-up of the United States. Huebner et al. (2007) found that there are prevalent effects of deployment due to the lack of communication between the service member and the non-deployed family members leading to ambiguous loss through semi-structured focus group interviews.

The continuum of military deployments, attachment, distress, and psychological well-being is a problematic recurring issue for military spouses and military members (Borelli et al., 2019). Researchers have not examined how deployments affect both male and female military spouses nor male and female African American military spouses as it relates to the impact of gender of the military spouse on perceived stress and psychological well-being. Previous research studies have examined the effects of deployment among White female military spouses who were educated.

Exploring both male and female military spouses can add to the body of knowledge in a more diverse sample by exploring deployments, cultural considerations, attachment styles, and perceived stressed among both male and female African American spouses of service members. The current research study contributed to understanding the association of military deployment, attachment styles, perceived stress, and psychological wellbeing among African American male and female spouses for mental health professionals and clients. This information could assist military mental health professionals with more targeted tools to enhance mental health services when needed to identify challenges faced by African American families during and after deployment.

Summary and Conclusions

This chapter provided a comprehensive review of the existing literature on attachment styles, deployments, deployment types, deployment cycles, perceived stress, gender, and psychological well-being of military spouses. Over the past 20 years, previous qualitative research studies have examined the effects of deployment among military families and female military spouses. It is vital to understand attachment styles, gender, and the relationship with deployment among both male and female African American military spouses to effect social change and enhancement of more targeted tools for mental health services. It is also important to understand how attachment styles and gender can contribute to adjustment during and following deployment among African American military spouses during potentially high-stress periods.

This study will contribute to understanding the association of military deployment, attachment styles, perceived stress, and psychological wellbeing among African American male and female spouses. This information could assist military mental health professionals with more targeted tools to enhance mental health services when needed and bring forth social change and gender equality implications for both male and female African American military spouses. It is vital to understand how the stress of deployment is affecting African American mothers and fathers in their daily routines, especially during potentially high-stress periods.

In Chapter 3, an overview of the research design, rationale, and methodology will be provided. The predictor and criterion variables, research design, and research questions will be identified and explained. Additionally, the target population, sample

size, data collection, and recruitment will be defined as well as the identification of sampling procedures. Chapter 3 will conclude a discussion of the ethical procedures and threats to validity.

Chapter 3: Research Method

There is a dearth in the literature examining the relationship of military deployments, attachment styles, perceived stress, and/or psychological well-being among male and female African American military spouses. Previous research studies have focused primarily on the effects of deployment among female spouses and have not focused on both male and female military spouses. The purpose of this quantitative study was to determine if a relationship exists between deployments, attachment styles, and gender on the perceived stress and/or psychological well-being of African American military spouses.

In this chapter, the nonexperimental research design will be identified and explained. The predictor and criterion variables of the study, study methodology, sampling process, and data collection process will be identified and addressed in this chapter. Additionally, the procedures for recruitment and participation will be discussed alongside ethical considerations for the procedures for the study.

Research Design and Rationale

This quantitative study used a nonexperimental research design using a multiple regression data analysis procedure to examine the relationships of attachment styles, deployments, and perceived stress of African American military spouses. The purpose of this quantitative study was to determine if a relationship exists between the PVs of attachment scores (close, anxious, and dependent), the number of deployments, types of deployments, and gender, on the CVs of perceived stress and psychological well-being. A nonexperimental quantitative research design is generally used in correlational research

(Creswell, 2009). This mathematical analysis method design is used to examine the relationship of two or more variables (Creswell, 2009). The advantage of using this design is that researchers can achieve faster effective data collection times from diverse populations through the use of online survey methods (Creswell, 2009). In contrast, the limitation of using this design is that it only covers the relationship of the variables being studied.

Methodology

Population

The target population for this study was African American male and female military spouses who are married to military service members. As of 2019, there are roughly 671,809 married active-duty military service members and 352,934 married selected reserve military service members (DOD, 2019). There is a significant number of married military service members. According to the DOD (2019), 48% of military service members are married, and 36% have children.

The online requirement was used with this study. Recruitment for participants took place over social media platforms, local military installations, and military family support groups to reach all geographical locations of potential participants. A link to SurveyMonkey was provided to each online platform for potential participants. The use of SurveyMonkey allowed the identification of potential participants who met the study's specific requirements to remain anonymous. To participate in this study, individuals had to be 18 years of age and identify as a Black or African American military spouse, whose

military service spouse had experienced at least one deployment or no deployment while they were married.

Sampling and Sampling Procedures

Convenience sampling and snowball procedures were used in the current study to ensure that the appropriate sample size was reached. Participants recruited using convenience sampling were easily accessible (Creswell, 2009). Snowball procedures are commonly used in research when existing participants provide referrals to other potential participants who meet the specific criteria of the study's target population (Frankfort-Nachimas & Frankfort, 2012). In the current study, snowball procedures were used due to the nature of online recruitment platforms as a secondary sampling procedure to increase the chances that the appropriate sample size is reached. Military spouses were recruited through online recruitment platforms, flyers, and military family advocacy programs. A demographic questionnaire was provided to all participants to obtain the following: gender types, types of deployment, duration/length of deployment, number of deployments, active-duty service members, national guard service members, and reserve service members, attachment styles, a measure of their stress, and a measure of psychological well-being (Appendix A).

The inclusion criteria for the sample of participants were that individuals (a) identify as African American or Black, (b) be married to a United States military service member, (c) be 18 years of age or older, and (d) have or have not experienced or currently experiencing a deployment. Lastly, if the participant was considered in a protected population (e.g., under the age of 18, mentally disabled, educationally

disadvantaged, hospitalized, incarcerated, or a child) they were excluded from participation in the study.

The G* statistical software is commonly used to determine appropriate sample sizes for research studies that are conducted by doctoral students (Faul et al., 2009). The G*3.1.9.7 version of G* statistical software was applied in determining this study's sample size. A linear multiple regression, fixed model R2 deviation from zero was used to determine the sample size with the following input perimeters: effect size of .15, a err prob level of .05, a power level of .95, and four predictors. The calculated estimated sample size is 129.

Procedures for Recruitment, Participation, and Data Collection (Primary Data)

Military spouses were recruited via online forums to access participants from geographical military installations in the United States and those who were stationed overseas. The recruitment took place through advertisements and flyers on social media platforms (e.g., Facebook, Instagram, and Snapchat), military spouses support social media platforms, family readiness group social media platforms, local military installations, and military family support groups.

Data were collected online through SurveyMonkey. During each survey and form, participants had an option to exit or opt-out of the survey at any time if they felt uncomfortable. Those who opted out had their surveys deleted, and the data were not included in the study. Data were collected from surveys of African American military service members' spouses, included a demographic questionnaire, Cohen's (1988) PSS, Collins and Read's (1990) Revised Adult Attachment Scale, and Ryff's (1989) PWB. The

CVs was measured using the PSS and PWB. The PVs were measured by using the AAS and the demographic questionnaire. The PSS, PWB, and AAS have been used in previous research (Giff et al., 2019; Kaiser et al., 2018; Wang et al., 2015) to examine the levels and impacts of attachment, psychological well-being, and AAS. Giff et al. (2019) used the PSS-4 in their research to examine post-deployment parenting in military couples. Wang et al. (2015) use the PWB in their previous research to examine the psychological well-being of military spouses. Kaiser et al. (2018) explored the long-term effects on adult attachment in German occupation children born after World War II using the AAS in their research.

The participants were prompted by the advertisement on the online forums to view the provided informed consent form for the current study. The informed consent form included the following: the identification of the researcher and sponsoring institution, introductions to the study, description of the study and purpose, identification of potential risks to participants, and the assurance of confidentiality. Next, the participants were provided the inclusion and exclusion criteria for participation in the study. Once participants read the informed consent, they were prompted to review the agreement section of the form for participation in the study by selecting the “I consent to participate” box.

After reviewing the informed consent form and consenting to participate, participants were prompted to save a copy of the informed consent as a PDF file or to print it for their records. Participants were then be prompted to complete the demographic questionnaire and begin/complete the AAS, PSS, and PWB. Once all sections of the

study were completed, participants were directed to the final page for submission. An automated thank you statement was provided after the submission of the survey with my and the university's contact information should there be questions, comments, or follow-ups on the results of the study.

Instrumentation and Operationalization of Constructs

Several instruments were used to assess and obtain information to test the validity of the study and its outcomes. The following instruments were used in this study to assess the relationship between the number of deployments, types of deployments, attachment styles, and gender on the psychological well-being and perceived stress of African American military service member spouses.

Adult Attachment Scale

The AAS is a 5-point Likert scale that was adapted from the works of Hazen and Shaver (1987) and Levy and Davis (1988). This AAS was later revised by Collins in 1996 (Collins, 1996). The 18-item AAS measures adult attachment styles that have three variances (*close, dependent, and anxious*). The 5-point Likert scale allows individuals to rate each item ranging from 1 = (*not at all characteristic*) to 5 = (*very characteristic*). For example, one sample item from the AAS includes the following: "I am not sure that I can always depend on people to be there when I need them" (Collins & Read, 1990). The AAS is an appropriate instrument to the current study as it provides a continuous variable of individual attachment scores. The appropriateness of the scale allows self-measurements and identification of attachment behaviors and responses of individualized

behaviors. I contacted the assessment developer to obtain permission to use this scale in this study (Appendix B).

To assess the reliability and validity of the AAS, Collins and Read (1990) examined the correlation of adult attachment in three studies. The three subscales of the AAS demonstrated Cronbach's alpha ranging from .69 to .75 (Collins & Read, 1990). Test and Retest that were examined by Collins and Read (1990) for 2 months Cronbach's alpha ranged from .52 to .71. The results also indicated that anxiety was largely independent of the others (Collins & Read, 1990). Several previous researchers have used the AAS by examining the correlation of attachment and found similar alpha values to Collins and Read's original examination (O'Connor & Elklit, 2008; Shura et al., 2017; Teixeira et al., 2019; Woodhouse et al., 2015). AAS has been used in previous military research studies and dissertations (Kaiser et al., 2015; Renaud, 2008). Renaud (2008) used the revised AAS scale in their research examining the attachment characteristics of combat veterans with PTSD.

Perceived Stress Scale

The Perceived Stress Scale-10 (PSS-10) was developed by Stephen Cohen in 1983 (Cohen, 1988). There are three previous versions of the scale to include the Perceived Stress Scale-14 (PSS-14), Perceived Stress Scale-4 (PSS-4), and the Perceived Stress Scale-10 (PSS-10). The PSS is a 10-item self-report instrument that measures feelings and thoughts of how individuals perceive situations, which aligns with the current study's interest in examining the relationships of attachment styles, deployments, and perceived stress in African American military spouses. The scale also measures

experienced levels of stress in the past month. The 10-item scale allows individuals to rate questions on a 4-point scale ranging from (*0 = never; 1 = almost never; 2 = sometimes; 3 = fairly often; 4 = very often*), which provides a possible total score of 40 (Cohen, 1983). For example, one sample item from the PSS-10 includes the following: “In the last month, how often have you felt nervous and “stressed?” The developer of the assessment was contacted, and permission was obtained to use this scale in this study (Appendix D).

The reliability of Cohen’s (1988) PSS-10 and PSS-4 demonstrated moderate convergent validity. The reliability of the scale ranged was .84, .85, and .86. The Cronbach alpha scores ranged from .60 to .85. The PSS-4 results demonstrated low reliability of .60 compared to the current PSS-10 scale. As a result, Cohen et al. (2013) suggested that the PSS-10 is the best form of the PSS, with the current scale’s internal consistency reliability and factorial validity. Similar research studies have shown that there is adequate internal consistency, test-retest reliability, and validity among diverse populations (Taylor, 2015; Teixeira et al., 2019).

Psychological Well-Being Scale

The PWB scale was developed by Ryff (1989). The PWS has two versions, an 18-item and 42-item scale. Both versions measure a person’s overall psychological well-being. The PWB 42-item and PWB-18 item scale each measures the same six subscales (autonomy to self-acceptance of individual’s psychological wellbeing; Ryff, 1989). The scale was developed for adults of all ages. The instrument allows individuals to self-score responses on a 7-point scale ranging from 1 = *strongly agree* to 7 = *strongly disagree*

(Ryff, 1989). For example, one sample item from the PWS scale includes the following: “Maintaining close relationships has been difficult and frustrating for me” (Ryff, 1989, p. 1075). The 18-item version of the PWB aligned with the study’s interest, as it allowed participants to self-measure their psychological well-being. Permission to use the PWB scale was obtained from the developer (Appendix F).

The reliability and validity of the 18-item version of the PWB were assessed by Ryff (1989) examining the meaning of psychological well-being of adults. The results of Ryff found internal consistency reliability ranging from .86 to .93. The coefficients at 6 weeks ranged from .81 to .85 in the Test-retest reliability (Ryff, 1989). Previous researchers have used both versions of the PWB in their research (Curhan et al., 2014; Ryff & Keyes, 1995). Curhan et al. (2014) examined the comparison of the United States and Japan’s subjective and objective hierarchies and relationships of psychological well-being using the PWB-42 item scale, which found internal consistency reliability ranging from .70 to .96.

Data Analysis Plan

The IBM SPSS Statistics 25 software (Statistical Package for the Social Sciences Standard; SPSS) was used for the analyses and data cleaning, of the study. Data entry was automatic through SPSS. Furthermore, I randomly select 10% of the cases and complete a detailed screening to ensure all of the data is entered correctly. SPSS software was also used to perform correlational coefficients between variables, analyze data, and report the results of the study. The Durbin-Watson Test was used in the study in examining the homoscedasticity and linear relationship between variables.

The following research questions and hypotheses were examined by linear multiple regressions in the current study:

RQ 1: Is there a relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress within African American military service member spouses?

H₀1: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the Adult Attachment Scale (AAS), and gender on perceived stress as measured by the Perceived Stress Scale (PSS) within African American military service member spouses.

H_a1: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on perceived stress as measured by the PSS within African American military service member spouses.

RQ 2: Is there a relationship between the number of deployments, types of deployments, attachment styles, and gender on the psychological well-being of African American military service member spouses?

H₀2: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on psychological well-being as measured by the Psychological Well-Being Scale (PWB) within African American military service member spouses.

H_{a2}: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on psychological well-being as measured by the PWB within African American military service member spouses.

Linear Multiple Regression Data Analysis

To address the research questions in the current study, a linear multiple regression data analysis was used. A linear multiple regression data analysis was used in this study to determine if a relationship exists between the selected variables. The primary purpose of a multiple regression is to understand the relationship between two or more variables (Cohen et al., 2013). Multiple regression data analysis procedures can be utilized to predict the values of a specific variable based on familiarity of its association with known values of other variables (Cohen et al., 2013).

Data Assumptions

There are several assumptions of using multiple linear regressions in research (Field, 2013). One assumption is that there is a linear relationship between variables. The second assumption is that there is no multicollinearity and the third assumption is that homoscedasticity across the values of the PVs. Lastly, there is no autocorrelation. Each assumption can be addressed by either scatterplots and/or histograms, Variance Inflation Factor (VIF) values, and Durbin-Watson Test (Field, 2013). Scatterplots were used to analyze the assumption of a linear relationship between variables. VIF values were used in the SPSS to test the assumptions of no multicollinearity between variables. Durbin-

Watson was used to test if there is no autocorrelation among the data. Each assumption was addressed in SPSS software.

Threats to Validity

External Validity

The military is its own unique population that is different from the general population. The results of the current study will not be generalized to the general population due to the difference in military experiences with military deployments. Furthermore, the external validity of the current study will not be generalized to the general military population of military spouses due to the study being exclusive to African American or Black military spouses. Another possible threat to external validity is the mistrust and fear of participation due to historical events to include the Tuskegee syphilis study and many more studies (Scharff et al., 2010). Perceptions of mistrust in exploratory and investigative research have been strongly influenced by the racial inequalities in the United States.

Internal Validity

There is a low probability of internal validity in the study due to the use of a correlational research design. Previous research results have indicated that correlational research has low internal validity in comparison to experimental research designs that yield high internal validity (Plonsky & Ghanbar, 2018). There may be errors in the selected variables for the study. In this study, there is no control over the PVs, which could possibly limit the internal validity. There are presumptions that there was no

selection bias in the study, a convenience and snowball sampling procedures were used for recruitment of participants to decrease the possible threat.

History, maturation, and instrumentation are other additional threats to internal validity. The first potential threat is the history within the study may be impacted by the decreased numbers of deployments in the last few years to combat areas (DOD, 2017). It is possible that the type and area of deployment could have more or less of an effect on the spouse's stress levels and overall psychological well-being. It is also possible that the effects of the military service member's return and the number of children at home could impact the military spouse's perception of perceived stress. The second potential threat to validity is the maturation of results. For example, the results may show that military spouses have lower levels of perceptions of perceived stress and psychological well-being due to the increase of available military family advocacy programs. The final threat to internal validity is the instrumentations and scales that are used in the current study. There is a presumption selected participants have not completed the instruments prior and can possibly decrease the likelihood of increasing their overall scores. Pretest and posttest were not included in the study.

Construct Validity

Construct validity describes the degree of measurement that is used to assess the study's theoretical construct (Meehan et al., 2017). Attachment theory is the grounded framework for the study. The AAS assessed the attachment styles of military spouses in the study. Attachment theory provides an understanding of military spouse's attachment to their partner during the deployment (Bowlby, 1969). There are also two other

measures that are used in the current study to assess the research questions. Along with both, the PWB and PSS, the study assessed the relationship of attachment styles, psychological well-being, and perceived stress of African American military spouses. The PWB and PSS are reliable measures to Attachment Theory due to the self-measurement of individual's perceptions about themselves during separation from others. For this study, in particular, the focus of the PWB and PSS was used to examine the relationship between the number of deployments, types of deployments, attachment styles, and gender on the psychological well-being and perceived stress of African American military service member spouses.

Ethical Procedures

An IRB application was submitted to obtain permission to recruit participants and collect data for the study. Obtaining IRB approval helped decrease and address any ethical issues of recruitment and participation. With IRB approval obtained, participants were recruited through non-coercive methods. Recruitment took place on online platforms after receiving approval from the online platform's administration to include the announcement by social media group moderators or administrators. All participants who self-identify and met the criteria to participate in the study had an option to withdraw from the study at any time as explained in the informed consent processes. The privacy of participants was protected as each participant's participation was anonymous. To address the concerns of protection of privacy for participants, all information obtained from the current study is saved on a password-protected external hard drive and locked in a file cabinet for a minimum of five years.

Summary

Chapter 3 provided an overview of the research design for the current study. The quantitative study examined the relationships of attachment scores (close, anxious, dependent), deployments, the number of deployments, types of deployments, and gender on the perceived stress and psychological well-being of African American military spouses. This chapter identified and explained the research design, rationale, and methodology. Additionally, the identification of the predictor and criterion variables, research questions, target population, sample size, data collection, recruitment, sampling procedures, and threats to validity were presented in detail. Chapter 4 will provide an analysis of the current study's data collection results and the demographic breakdown of the participants.

Chapter 4: Results

Introduction

The purpose of this quantitative study was to determine if a relationship exists between the PVs of the number of deployments, types of deployments, attachment styles (close, anxious, dependent), and gender, on the CVs of perceived stress and psychological well-being. The following research questions and hypotheses were examined by linear multiple regressions in the current study:

RQ1: Is there a relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress within African American military service member spouses?

H₀₁: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on perceived stress as measured by the PSS within African American military service member spouses.

H_{a1}: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on perceived stress as measured by the PSS within African American military service member spouses.

RQ2: Is there a relationship between the number of deployments, types of deployments, attachment styles, and gender on the psychological well-being of African American military service member spouses?

H₀₂: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on psychological well-being as measured by the PWB within African American military service member spouses.

H_{a2}: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on psychological well-being as measured by the PWB within African American military service member spouses.

In this chapter, I will present the data collection. I will discuss the results of the data collection and provide an overview of the descriptive statistics found in this study. Lastly, I will conclude this chapter with a summary of the results.

Data Collection

Data were collected from September 3, 2021, to November 16, 2021, after receiving IRB approval on September 2, 2021. The IRB approval expiration date for this current study is September 2, 2022. Participants completed the surveys through survey monkey link with a 77% completion rate. Recruitment occurred via social media to include Facebook. Though additional recruitment was provided, the appropriate sample size for this study was 129. A total of 172 participants provided consent to participate. After data cleaning and screening were complete, a total of 40 surveys were deleted and not included in the statistical analysis due to incomplete surveys or responses. The final sample size included in the statistical analysis was 132 participants.

After data collection were complete, the raw data were downloaded and inputted into SPSS software from survey monkey. The raw data were coded and analyzed in SPSS by reviewing each survey thoroughly. There were no discrepancies in the data collection from the plan presented in Chapter 3.

Baseline Descriptive and Demographic Characteristics

Participants in the study were African American military spouses who met the inclusion criteria for participation. Participants all gave their informed consent to participate in the study. There was a total of 172 participants who identified as an African American or Black military spouse. Of the 172 participants, there were a total ($n=132$) who completed all of the surveys and responded to the participant inclusion criteria accurately. There were 40 surveys deleted/excluded from the sample due to incompleteness of the survey for unknown reasons or responding in a manner that would imply the participant did not meet inclusion criteria (i.e., not identifying as African American).

The sample included 127 (96.2%) female military spouses and five (3.8%) male military spouses. According to 2019 Department of Defense demographic report, male spouses made up an estimated total of 8.1% and female spouses account for 92% of the military spouses within the military population. The racial/ethnic composition of this sample were as follows: 118 (89.4%) identified as Black or African American, one (.8%) identified as Other, and 13 (9.8%) identified as two or more races. Of the racial/ethnic composition, all participants identified as Black or African American to participate in the study. The ages of participants ranged from 22 to 55 years old. An overview of the age

ranges are provided in Table 1. The education breakdown of the sample included five (3.8%) participants who held a Ph.D., Ed.D., Psy.D, or other doctorate, 10 (7.6%) completed some form of trade school, 17 (12.9%) received a GED/high school diploma, 47 (35.6%) held a bachelor's degree, and 53 (40.2%) completed a master's degree.

As of 2020, there are 2,395,993 active duty and ready reserve personnel (DOD, 2020). The Department of Defense (2020) demographic report identified that the following breakdown of each branch as a percentage of the entire Armed Forces of the United States: Army (46%), Airforce (22.1%), Navy (17.8%), Marine Corp (12.1%) and Coast Guard (2.0%). Military spouses in this study's sample indicated the following service members' affiliation: U.S. Army (51.5%), U.S. Air Force (18.2%), U.S. Navy (23.5%), U.S. Marine Corp (5.3%), U.S. Coast Guard (.8%), and U.S. Space Force (.8%). Military spouses were also asked to specify their gender, ethnicity, age, education, military affiliation, type of deployment, and number of deployments their partner has experienced within the last 10 years. Further detailed descriptive statistics are included in Table 1.

Table 1*Descriptive Statistics of Military Spouses*

Variable		<i>N</i>	%
Gender	Female	127	96.2
	Male	5	3.8
Ethnicity	Black or African American	118	89.4
	Other	1	.8
	Two or more races	13	9.8
Age	22-30	32	24.3
	31-40	81	61
	41-50	15	11.5
	51+	4	3.2
Education	Ph.D., Ed.D., Psy.D, or other Doctorate	5	3.8
	Trade school	10	7.6
	GED/High school	17	12.9
	Bachelor's	47	35.6
	Master's	53	40.2
Military affiliation	U.S. Coast Guard	1	.8
	U.S. Space Force	1	.8
	U.S. Marine Corp	7	5.3
	U.S. Air Force	24	18.2
	U.S. Navy	31	23.5
	U.S. Army	68	51.5
Deployment type	None	17	12.9
	Combat	21	15.9
	Non-combat overseas	70	53
	Non-combat stateside	8	6.1
	Non-combat stateside/combat	2	1.5
	Non-combat overseas/combat	6	4.5
	Noncombat overseas/non-combat stateside	8	6.1
Number of deployments	0	21	15.9
	1	42	31.8
	2	21	15.9
	3	20	15.2
	4+	28	21.2

Descriptive Statistics of Variables

The variables within the sample consisted of a calculation of the sum of the AAS scale as advised by the creators (Collins, 1996). There were several items within the AAS instrument that were reversed scored to create the three subscales (close, depend, and anxious). Each scale score was accurately calculated, accounting for the reversed scored items, to manually produce the total scale score for each subscale. Items 1, 6, 8, 12, 13, and 17 were reversed scored to reflect the Close subscale. The Close subscale assessed comfort of intimacy and closeness (Collins, 1996; Teixeira et al., 2019). Items 2, 5, 7, 14, 16, and 18 were reversed scored to reflect the Depend subscale. The Depend subscale assessed the degree of individuals depending on others when needed (Collins, 1996; Teixeira et al., 2019). Items 3, 4, 9, 10, 11, and 15 were reversed scored to reflect the Anxious subscale. The Anxious subscale assessed individuals' feelings of rejection or unloved from others (Collin, 1996; Teixeira et al., 2019). Each computed subscale was inputted in SPSS.

The PSS assessment consisted of 10 item survey. Of the 10 items, four items (4, 5, 7, and 8) were reversed scored. The purpose of the reverse scoring for PSS scale were to address the positively stated items in the assessment. The scoring positively stated items were reversed scored to reflect the following: (0=4; 1=3; 2=2; 3=1; 4=0) prior to the calculation and completion of the of all scale items in the PSS. Additionally, the PWB scale consisted of 18 items, of which 10 items (1, 2, 3, 8, 9, 11, 12, 13, 17, and 18) were reversed scored. The purpose of the reverse scoring for PWB scale were to address the

positively stated items in the assessment and ensure that higher scores equated to higher psychological well-being.

Results

In this section, I will report descriptive statistics that appropriately characterize the sample, evaluate statistical assumptions, and report statistical analysis findings.

Assumption Testing

As stated in Chapter 3, there are several assumptions highlighted when using a multiple regression in data analysis (Fields, 2013). Each assumption was tested by the following: scatterplots, histograms, VIF values, and Durbin-Watson Test. Scatterplots were used to analyze the assumption of a linear relationship between variables. VIF values were used in the SPSS to test the assumptions of no multicollinearity between variables. The VIF for the PVs of gender, number of deployments, type of deployments, Close subscale, Depend subscale, and Anxious subscale ranged from 1.080 to 1.652; which indicted that were no multicollinearity with the sample. Table 2 provides an overview of the collinearity statistics.

Table 2

Coefficients for Independent Variables

Model	Collinearity Statistics	
	Tolerance	VIF
Gender	.902	1.109
Number of deployments	.910	1.198
Type of deployment	.926	1.080
Close	.821	1.218
Depend	.535	1.868
Anxious	.605	1.652

Testing Assumptions of Homoscedasticity

Durbin-Watson was used to test if there is no autocorrelation among the data. Durbin Watson must range from 0 to 4. The Durbin Watson for psychological well-being was 2.121 and 1.898 for perceived stress. There was no homoscedasticity indicated with the Durbin-Watson ranging from 1.898 to 2.121.

Figure 1

Scatterplots Testing for Homoscedasticity

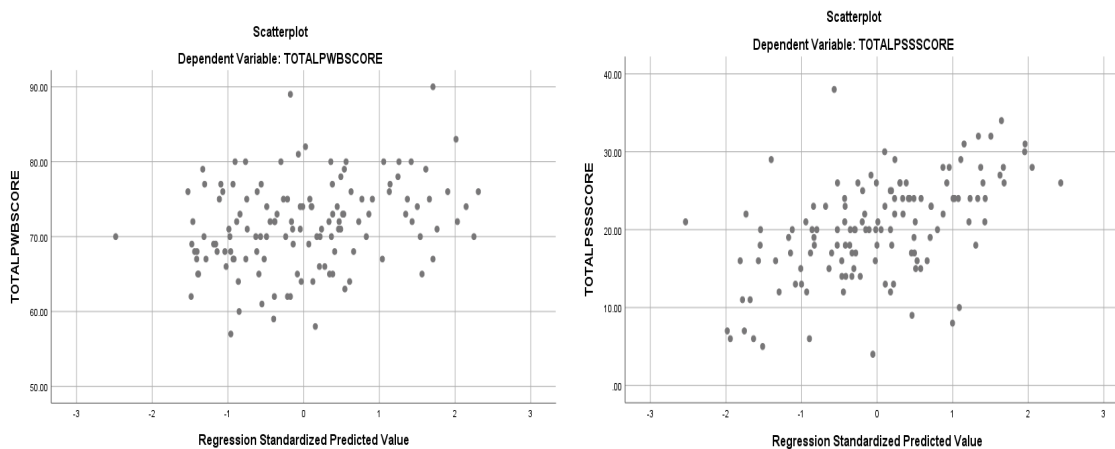
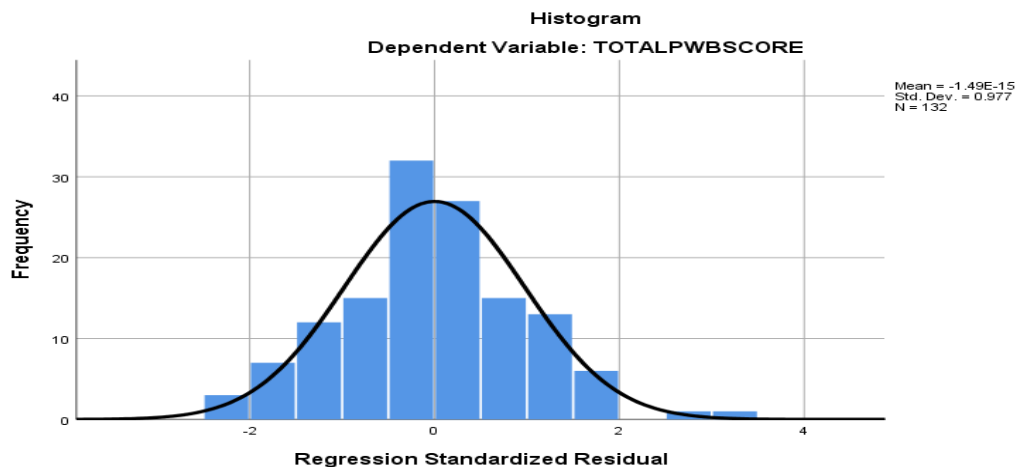
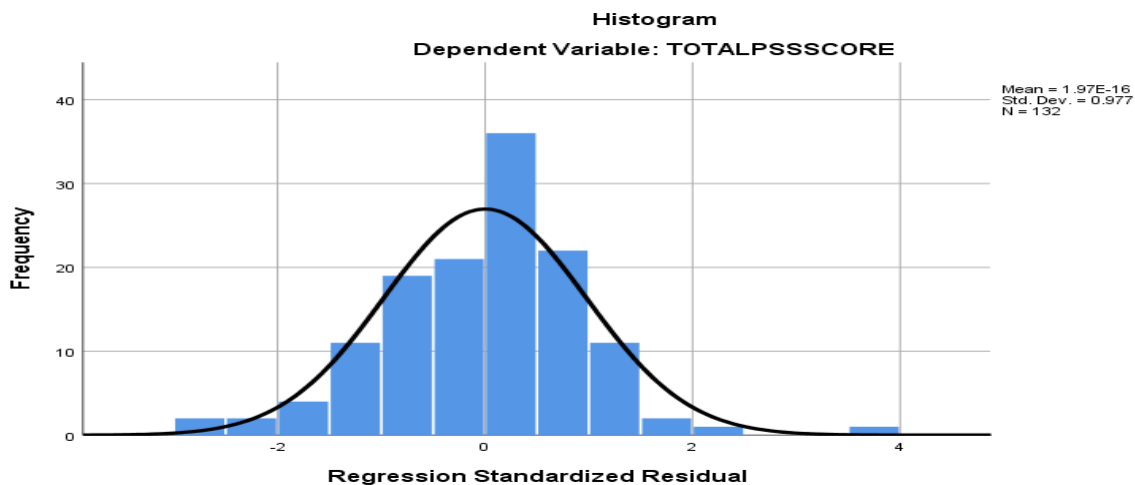


Figure 2

Histogram for Psychological Well-Being



Note. The histogram of standardized residuals of total psychological well-being indicated normal distribution. The histogram indicated a standard deviation of 0.977 and mean of -1.49E-15.

Figure 3*Histogram for Perceived Stress*

Note. The histogram of standardized residuals of total perceived stress score indicated that the frequency of PVs in the study contained normal distribution. The histogram indicated a standard deviation of 0.977 and mean of 1.97E-16.

Results of Multiple Regression

A linear multiple regression data analysis was used in this study to examine the relationship between predictor and criterion variables. The following research questions were examined with two separate multiple regressions in SPSS:

The first research question examined if there was a relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress within African American military service member spouses.

H₀₁: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the Adult Attachment Scale (AAS), and gender on perceived stress as measured by the Perceived

Stress Scale (PSS) within African American military service member spouses.

H_{a1}: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on perceived stress as measured by the PSS within African American military service member spouses.

A multiple regression was completed to determine if there was a relationship between the combined PVs of number of deployments, type of deployments, and attachment styles (close, depend, and anxious), and gender on perceived stress (CV). A significant regression equation resulted with ($F(6,125)=8.292, p<.000$), with adjusted R^2 of .25. The results suggested that 25% of the variance in perceived stress was accounted for by the six predictors. The PV of anxious ($B = .367, p < .000$), as measured by the AAS, and type of deployment ($B = .167, p = .035$) were individually significant predictors of perceived stress. The predictors of number of deployments, close, and depend attachment styles, and gender indicated that there was no statistical significance with perceived stress. With a combination of the predictor variables, the results revealed that there is a statistical significance between the predictor variables of number of deployments, types of deployments, attachment styles (close, depend, and anxious), and gender on perceived stress among African American military spouses. The hypothesis for the first research question was confirmed, $p<.000$ and the null hypothesis was rejected. In table 3, the results of the multiple linear regression are displayed in addition to the coefficients being displayed in table 4.

Table 3Model Summary^b for Perceived Stress

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	.534 ^a	.285	.250	5.61033	.285	8.292	6	125	.000	1.898

^a Predictors: (Constant), Gender, type of deployment, number of deployments, Anxious, Close, and Depend.

^b Dependent Variable: Perceived stress

Table 4Coefficients^a for Perceived Stress

Model	Unstandardized	Coefficients Std. error	Standardized	t	Sig.	95.0% Confidence Interval for B		Collinearity	VIF
	B		Beta			Lower bound	Upper bound	Tolerance	
1 Constant	20.414	4.581		4.456	.000	11.348	29.481		
Gender	-2.670	2.694	-.079	-.991	.323	-8.002	2.661	.902	1.109
Number of deployments	-.173	.366	-.037	-.473	.637	-.898	.552	.910	1.098
Type of deployments	.732	.344	.167	2.126	.035	.051	1.414	.926	1.080
Close	-.088	.124	-.059	-.705	.482	-.333	.158	.821	1.218
Depend	-.164	.141	-.120	-1.161	.248	-.443	.115	.535	1.652
Anxious	.373	.099	.367	3.779	.000	.178	.569	.605	1.652

Note. ^aDependent variable: Perceived Stress

The second question examined if there was a relationship between the combined PVs of the number of deployments, types of deployments, attachment styles, and gender on psychological well-being within African American military service member spouses.

- H₀2: There is a relationship between the number of deployments, types of deployments, attachment styles as measured by the Adult Attachment Scale (AAS), and gender on psychological well-being as measured by the Psychological Well-Being Scale (PWB) within African American military service member spouses.
- H_a2: There is no relationship between the number of deployments, types of deployments, attachment styles as measured by the AAS, and gender on psychological well-being as measured by the PWB within African American military service member spouses.

A multiple regression was completed to determine if there was a statistical significance in the number of deployments, types of deployments, attachment styles (close, depend, and anxious), and gender on psychological well-being. A none-significant regression equation revealed that ($F(6,125) = 1.852, p = .094$, with adjusted R^2 of .038). The results suggested that 03.8% of the variance in psychological well-being was accounted for by the six predictors. The predictors of number of deployments, type of deployment, attachment styles of close, and depend, and gender indicated that there was no statistical significance with the criterion variable of psychological well-being. There was a statistically significant relationship between the Anxious subscale score of the AAS ($B = .257, p = .021$) and the criterion variable of psychological well-being.

With a combination of the predictor variables, the results revealed that there was not a statistical significance between the predictor variables of number of deployments, type of deployment, attachment styles of close, depend, and anxious) and gender on

psychological well-being among African American military spouses. The hypothesis for the second research question was rejected and the null hypothesis was confirmed $p=.094$.

In table 5, the results of the multiple linear regression are displayed in addition to the coefficients being displayed in table 6.

Table 5

Model Summary^b for Psychological well-being

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	.286 ^a	.082	.038	5.73260	.082	1.852	6	125	.094	2.121

^a Predictors: (Constant), Gender, type of deployment, number of deployments, Anxious, close, and Depend.

^b Dependent Variable: Psychological well-being

Table 6

Coefficients^a for Psychological well-being

Model	Unstandardized B	Coefficients Std. error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics		
						Lower bound	Upper bound	Tolerance	VIF	
1	Constant	70.104	4.681							
	Gender	-1.448	2.752	-.047	-.526	.600	-6.895	4.000	.902	1.109
	Number of deployments	-.173	.366	-.037	-.473	.637	-.898	.552	.910	1.098
	Type of deployments	.012	.352	.003	.035	.972	-.684	.709	.926	1.080
	Close	-.011	.127	-.008	-.087	.931	-.262	.240	.821	1.218
	Depend	-.034	.144	-.028	-.237	.813	-.319	.251	.535	1.868
	Anxious	.235	.101	.257	2.334	.021	.036	.435	.605	1.652

^aDependent variable: Psychological well-being

Summary

A multiple regression was completed to test the two research questions in this study. The results for the first research question revealed that there was a statistical significance and relationship with number of deployments, types of deployments, attachment styles (close, depend, and anxious), and gender on perceived stress within African American military service member spouses. The hypothesis for the perceived stress was confirmed and the null hypothesis was rejected. The results for the second research question revealed that there was not a statistical significance or relationship with number of deployments, types of deployments, and attachment styles (close, depend, and anxious), and gender on psychological well-being within African American military service member spouses. The hypothesis for psychological well-being was rejected and the null hypothesis was confirmed.

Based on the statistical analyses' findings shown in this study, there is evidence that the combination of attachment styles was a predictive factor among perceived stress within African American military service member spouses. Number of deployments, types of deployments, attachment styles (close and depend), and gender were not significant predictors on psychological well-being within African American military service member spouses. Anxious attachment style indicated to be a significant predictor on psychological well-being. Chapter 5 will provide the summary findings, limitations, recommendations, and implications from the study for future and present research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to determine if a relationship existed between the PVs number of deployments, types of deployments, attachment styles, and gender on the CVs of perceived stress and psychological well-being among African American military service member spouses. Findings from prior research suggest that non-deploying military spouses with greater attachment insecurity report higher rates of distress before, during, and following deployment (Allen et al., 2011; Bommarito et al., 2017; Woodhouse et al., 2015). Researchers have explained that there is extensive research on the effects of deployments and attachment among female military spouses and families (Borelli et al., 2013; Green et al., 2013; Padden et al., 2011). Within those existing studies, many researchers focused on emotional attachment among female military spouses within traditional family homes and excluded male spouses from the research.

This study had two research questions that were examined. The first research question examined if there was a relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress within African American military service member spouses. The second question examined if there was a relationship between the number of deployments, types of deployments, attachment styles, and gender on psychological well-being within African American military service member spouses. The results revealed that there was a statistically significant relationship between the PVs of number of deployments, types of deployments, attachment styles

(close, depend, and anxious), and gender on perceived stress among African American military spouses.

This study filled the gap in research by focusing on both male and female spouses of deployed service members by examining a relationship between the number of deployments, types of deployments, attachment styles, and gender on perceived stress and psychological well-being of African American military service member spouses. In this final chapter, I will discuss the interpretation of findings related to the literature review of prior research and theoretical framework. Additionally, I will discuss the limitations of the study and recommendations for future research. Lastly, I will provide implications for social change and conclusions from the study for future research.

Interpretation of Findings

The first question examined the relationship between the number of deployments, types of deployments, attachment styles (close, depend, and anxious), and gender on perceived stress within African American military service member spouses. The six PVs were examined to see their impact on the CV of perceived stress. The findings of the first multiple regression analysis results revealed that there is a statistically significant relationship between all of the PVs and perceived stress. The hypothesis for the first research question was confirmed and the null hypothesis was rejected. The findings also indicated that the anxious attachment style and type of deployment were independently strongly correlated with perceived stress among African American service member military spouses. The anxious attachment style subscale of the AAS assessed individuals' feelings of rejection or unloved from others among their past and present close

relationships (Collin, 1996). Findings revealed the higher the anxious attachment score and type of deployment, the higher the perceived stress among African American service member military spouses within the sample.

The participants in this study revealed that they experienced the following types of deployment: 53% noncombat-overseas deployment, 15.9% combat deployment, 12.9% no deployment, 6.1% noncombat-stateside deployment, 6.1% noncombat overseas and noncombat stateside, 4.5% noncombat overseas and combat, and 1.5% non-combat stateside and combat. The type of deployments indicates the significance of various thoughts and feelings surrounding deployment as it predicts higher levels of perceived stress among African American military spouses. This study revealed that types of deployment predicted increased higher levels of perceived stress. This finding is consistent with much of prior research of deployment separation among military families that often are faced with challenges of numerous types of deployment that often lead to increased stress (Padden et al., 2011). Previous research studies have indicated that the uncertainty and possibility of danger related to various types of deployments are more stressful and disruptive among nondeployed military spouses (Borelli et al., 2019; Erbes et al., 2017; Meadows et al., 2017; Wiens & Boss, 2006). For instance, previous research studies indicated that military spouses often experience numerous stressors through deployment cycles, deployment types, and deployment in general (Borelli et al., 2019; Erbes et al., 2017; Meadows et al., 2017).

The second question examined the relationship between the number of deployments, types of deployments, attachment styles (close, depend, and anxious), and

gender on psychological well-being within African American military service member spouses. The six PVs were examined with the CV of psychological well-being. The findings of the second multiple regression analysis results revealed there was not a statistically significant relationship between the six PVs and psychological well-being within African American military service member spouses. The results of this study revealed that number of deployments, type of deployments, attachment styles (close and depend), and gender were not significant predictors of psychological well-being among African American military service member spouses. However, the results revealed that the anxious attachment style subscale was a significant predictor by itself of psychological well-being. The results of testing the second research question indicated that the higher the attachment score, the higher the psychological well-being was among African American service member military spouses. The second research question hypothesis was rejected, and the null hypothesis was confirmed.

Researchers have identified that attachment has a prominent impact on an individual's life (Ainsworth, 1978; Borelli et al., 2019; Tudge & Rosa, 2019). Attachment styles have been connected in prior research with military deployments, marital conflict, and perceived stress (Balderrama-Durbin et al., 2018; Marini et al., 2017; Vincenzes, 2014). Furthermore, previous research conducted by Cafferky and Shi (2015) and Vincenzes et al. (2014) suggested that the importance of spouses maintaining their emotional attachment during separation were important as female military spouses reported feeling increased levels of stress during deployment cycles. Vigorous evidence of Ainsworth (1978) as well as Kess and Rosenblum (2015) indicated a growing number

of female military spouses experiencing heightened levels of depression, anxiety, adjustment difficulties, and stress before, during, and after deployment. The results of this study revealed the consistency of the prior research conducted by Ainsworth (1978) and Kess and Rosenblum (2015) as it relates to the attachment styles and perceived stress of both female military spouses. Male participants in this study accounted for 3.8% of the sample size. Due to the number of male participants in this study, it could not be generalized that there was a consistency with previous research of male military spouses (Lufkin, 2017).

Empirical research studies indicated that attachment styles are considered to be important for close relationships and well-being (Karreman & Vingerhoets, 2012). Previous research study findings implied that individuals with anxious or avoidant attachment styles have been connected with lower and negative psychological well-being (Karreman & Vingerhoets, 2012; Nourialegha et al., 2020). This study revealed that was a positive relationship between anxious attachment style and psychological well-being. For instance, as military spouses' anxious attachment styles increased, the psychological well-being increased. Factors of these findings are unique and indicates that perhaps there is resilience among military spouses during the deployment cycles. Sinclair et al. (2019) suggested that military spouses who have a resilient trait have a higher psychological well-being during deployment. For example, military spouses who have experienced at least one deployment and have family support, social support, and spiritual and religious supports have been found to have greater resilience during the cycles of deployment (Calvo et al., 2020; Kees, & Rosenblum, 2015; Wang et al., 2015). After an exhaustive

search of previous literature, there appears to be no research to support this study's finding. The finding of this study showed that anxious attachment style is a significant predictor on increased psychological well-being among African American military spouses, which warrants future research.

The seemingly conflicting results of increased anxious attachment resulting in increased perceived stress versus increased anxious attachment resulting in increased psychological well-being would also require future exploration of the relationship between perceived stress and psychological well-being. Additionally, future exploration of the standardization and development of the PSS, PWB, and the AAS may prove beneficial in clarifying the results of this study. The standardization and interpretation of results in particular, when it comes to African Americans and the military population individually and combined, may provide additional information to help explain these results.

Theoretical Framework and Research Findings

Bowlby's (1969) attachment theory was the theoretical framework for this study. Attachment theory highlights the significant influences of connection experiences and societal interactions among individuals from birth to adulthood (Borelli et al., 2013; Bowlby, 1969). Bowlby's attachment theory identified four phases of attachment starting from birth to adulthood. Each phase has an influential effect among individuals' societal interactions with others. As indicated in Chapter 2, the focus of attachment theory is on the connections, relationships, and attachment behaviors of individuals and others (Tudge & Rosa, 2019). Attachment theory was used to aid this study with understanding the

impact of gender, number of deployments, type of deployment, and attachment styles on perceived stress and psychological well-being among African American male and female military spouses. According to Borelli et al. (2013) and Tudge and Rosa (2019), existing research has revealed that early attachment styles can have a significant impact on the individual's life. For instance, an individual who developed a secure attachment style during their childhood has high self-esteem in forming strong and healthy relationships as adults (Ainsworth, 1978; Bowlby, 1969). Additionally, individuals with an avoidant attachment style may have difficulty being vulnerable with others. Comparably, individuals with a resistant attachment style as children may have difficulty in forming relationships and trusting others as adults (Chandra et al., 2010). The overall results of this study support attachment theory by indicating that attachment and attachment styles play a major role among military spouses as they often find themselves in androgynous roles before, during, and following deployment (Lara-Cinisomo, 2012; Lufkin, 2017). Additionally, the results of this study revealed that anxious attachment styles of African American military service member spouses are more likely to have an increased probability of perceived stress due to the being the sole parent during the various types of deployment. For instance, this study revealed that the attachment styles of anxious was significant predictors on perceived stress of African American military service member spouses.

One result from this study does not initially align with the theoretical framework. The result of African American military service member spouses with higher anxious attachment styles are likely to have a higher probability of psychological well-being does

not align with Bowlby's (1969) attachment theory (AT), as one would hypothesize that higher anxious attachment would be associated with lower psychological well-being. The results of this study revealed that anxious attachment style was a significant predictor on the psychological well-being of African American military service member spouses. In other words, the higher the attachment score, the higher the psychological well-being was among African American service member military spouses within the sample. Therefore, this study does support AT by revealing African American military service member spouses with anxious attachment styles have a higher probability of perceived stress which could have a psychological impact on the spouses who have experienced at least one or more past deployments (Borelli et al., 2019); however, it does not support AT in the context of psychological well-being.

For psychological well-being, the relationship was strongest amongst individuals who indicated a high anxious attachment style. The findings of this study indicates that the increased anxious attachment style (as measured by the AAS) may significantly lead to higher psychological well-being of individuals. I would hypothesize that high attachment scores would lead to low psychological well-being. Individuals higher in attachment anxiety engage their fight or flight response by continuously pursuing support and reassurance in relationships (Nourialegha et al., 2020). Factors of these findings are unique and indicates that there is resilience among military spouses during the deployment cycles. After an exhaustive search of previous literature, there appears to be no past research to support the relationship between anxious attachment (as measured by the AAS) and psychological well-being (as measured by the PWB) found in this study.

Limitations of the Study

There were several limitations considered within this study. One limitation was due to the nature of the data being collected through online database systems. The use of data being collected online created a safe place but also with the possibility of participants not understating the research questions and study's purpose. With the use of online data collection, there was a possibility that participants with bias may select themselves into the study and may not answer the questions truthfully which could affect internal validity and limit the study results (Shrout et al., 2018).

Additional limitation with the use of online surveys was that recruiting participants through social media platform who do not meet criteria may participate in the study without being identified by the researcher (Thackray et al., 2017). Without face-to-face interactions, I was unable to identify and verify the participant's military spouse's status due to the anonymity of participants in the study. The limitation with participant validation was that spouses who are no longer affiliated or considered a dependent status (e.g., has an expired or inactive military dependent identification card) with the military could potentially participate and affect external validity.

Moreover, another limitation relates to the low number of male participants in this study. The male participants accounted for a total of five (3.8%) participants in addition to the 127 (96.2%) female participants. Male spouses make up an estimated total of 8.1%, and female spouses account for 92% of the military spouses within the military population (DOD, 2019). With the small sample size of male participants in this study, gender as a PV on perceived stress and psychological well-being could be a possible

limitation. Male spouses in this study accounted for 3.8% in comparison to the 8% estimated total of male spouses among all armed forces. With males 3.8% in comparison to the estimated 8% total male spouses within the military population, it can be argued that this information could be generalized to the military population and also considered a limitation due to focusing solely on African American and Black female and male military spouses.

The last limitation of this study was recruiting and collecting primary data through online surveys with military spouses who were stationed at various duty stations in the United States. The limitation of Operational Security (OPSEC) within this study should also be considered due to legal and ethical considerations of (OPSEC) guidelines for military families and spouses. OPSEC guidelines highlights the safety and protection of sharing information with others to protect military families and service members (Lees, 2016). Therefore, military spouses may have not participated due to OSPEC guidelines, and the legal and ethical considerations could have limited the study results. Anticipated participants who met the criteria may have not participated due to the fear of causing harm and risk of safety precautions outlined in OPSEC guidelines for services members and their families.

Recommendations

Though there were limitations highlighted in this study, there are several recommendations to consider. First, recommendation would be to increase the recruitment measures to include incentives to ensure an increase of male spouses' participation. Within this study's sample, there were a total of the 132 participants and of

those participants, there were only 5 males. Recruiting military spouses at local and stateside military installations could assist researchers with pursuing more participants and decreasing the likelihood of participant's bias (Frankfort & Nachimas, 2018).

Male military spouses make up about 8% of military spouses and are considered a minority within the military population (DOD, 2017). Due the low number of 3.8% male participants in this study, it is recommended that additional studies be conducted to fill in the gap for African American male military spouses and other male military spouses. Future studies should be conducted to further examine the impact of spousal deployments, as well as experiences of perceived stress, and psychological well-being among African American and other male spouses. Future qualitative and longitudinal research studies should be conducted to understand the lived experiences of deployment cycles of spousal deployments, perceived stress and psychological well-being among African American female and male spouses. This could help with effecting social change and bringing forth awareness of the lived experiences of African American military spouses. Findings of this study revealed that there was a statistical significance and relationship with the predictors on perceived stress within African American military service member spouses. Further research is recommended to look at each Armed Forces branch separately while examining the relationship of number of deployments, type of deployments, attachment styles, and gender on perceived stress within African American service male and female military spouses.

Since the results of this study provided a unique perspective between anxious attachment style and psychological well-being, another recommendation would include

exploring the development and standardization of the Adult Attachment Scale and the Psychological Well-Being Scale to determine any potential bias or inconsistencies related to both the African American population, the military population, and combined populations. Additionally, future exploration of AT in relation to African Americans, Services Members and their families, and a combination of cultural factors may provide helpful information to address the culturally specific needs of these systems. Lastly, an exploration of the relationship between perceived stress and psychological well-being is warranted given the results of this study.

Implications for Social Change

The results of this study add to the body of literature concerning deployments, gender, attachment styles, perceived stress, and psychological well-being among African American male and female military spouses. Prior research particularly focused on female military spouses (De Burgh et al., 2011; Marini et al., 2017; Vincenzes, 2014). The primary focus of this study was examining the relationship of the types of deployments, attachment styles, and gender on perceived stress and psychological well-being of African American male and female military spouses. One goal of this study was to bring awareness to the military population as there was gender and racial inequality highlighted in prior research of military spouses (Borelli et al., 2013; Borelli et al., 2019; Kees & Rosenblum, 2015; Lara-Cinisomo et al., 2013).

This study has implications to effect positive social change at the personal, family, international, and general levels for military leaders and African American military spouses. Exploring both male and female military spouses could add to the body

of knowledge in a more diverse sample. This study could contribute to understanding the association of military deployment, attachment styles, perceived stress, and psychological well-being among African American male and female spouses. This information could assist military mental health professionals with more targeted tools to enhance mental health services when needed.

Additional implications of workshops, seminars, and additional research studies can provide additional resources and tools for military spouses, military family readiness programs, and military professionals. Findings from this study can be found to be resourceful for professional organizations and professionals who work specifically with military spouses. The findings may assist military family readiness programs and leaders in developing new trainings, workshops, seminars, and one on one family readiness sessions to assist military families with navigating the anxiety and challenges of deployment. The findings may also educate and promote the need of additional supportive services through Army Community Service (ACS), Fleet and Family Support Program (FFSP), Airforce Family Support Programs (AFSP), Unit Personal and Family Readiness Program (UPFRP), and Military Family and Support Center that can assist military families when they are going through the phases of deployment. The results indicated that there was a significant relationship between the PVs of anxious attachment style and types of deployments on perceived stress among African American military spouses. To effect social change, new deployment preparation courses and programs could be implemented to focus primarily on the cultural aspects of military spouses, attachment styles, and types of deployments. For instance, African American military

spouses may be better equipped or prepared for deployments if there were specific programs that were geared towards attachment securities, attachment styles, anxious attachment, perceived stress, and anxiety surrounding deployment of their military service member within the military population. In addition to new programs and courses, it is important to highlight the need for more advocacy for further developed and specific ACS programs that can assist African American military families when they are faced with the challenges of deployment.

Conclusion

This quantitative study purpose was to determine if a relationship existed between the PVs of attachment scores (close, anxious, dependent), the number of deployments, types of deployments, and gender, on the CVs of perceived stress and psychological well-being among African American female and male military spouses. The sample size for this study was met with a ($n=132$). Within the sample, there were 127 female and 5 male participants who met inclusion criteria and completed the informed consent for participation, demographics questionnaire, adult attachment scale, perceived stress scale, and psychological well-being scale anonymously.

Within the literature, there has been innumerable research on the effects of deployment among military spouses in general (Borelli et al., 2013; De Burgh et al., 2011; Gewirtz et al., 2011; Lowe et al., 2011; Meadows et al., 2017). Although researchers have investigated this issue, there is still very little or no literature on understanding the relationship of military deployments among male and female African American military spouses. Moreover, previous research studies have only focused

primarily on the effects of deployment among female spouses and have not focused on both male and female military spouses. The inclusion of male and female African American military spouses in previous research was very limited as researchers examined the effects of deployment.

This study was conducted to fill the gap in research and contribute to the body of quantitative literature within military studies. Two separate multiple regression analyses were completed to assess the two research questions included in the study. The first research question sought to examine if a relationship existed between the number of deployments, types of deployments, attachment styles, and gender on perceived stress within African American military service member spouses. The second question sought to examine if a relationship existed between the number of deployments, types of deployments, attachment styles, and gender on psychological well-being within African American military service member spouses.

The results for the first research question revealed that there was a statistically significant relationship with the predictors on perceived stress within African American military service member spouses. The hypothesis for the perceived stress was confirmed and the null hypothesis was rejected. The PV of anxious ($B = .367, p < .000$), as measured by the AAS, and type of deployment ($B = .167, p = .035$) were individually significant predictors of perceived stress among African American military spouses. The results for the second research question revealed that there was not a statistically significant relationship with the predictors on psychological well-being within African American military service member spouses. The hypothesis for psychological well-being

was rejected and the null hypothesis was confirmed. However, the anxious subscale score of the AAS ($B = .257, p = .021$), was individually a significant predictor of the CV of psychological well-being among African American military spouses.

In conclusion, though there is still a need for further research in this area to effect gender and racial equality in military research, this study added to a small portion of the literature that is needed in this population. The implications from this study can assist mental health professionals by developing new seminars, workshops, enhanced counseling tools, and effect the need for further social change for African American military spouses within the military population.

References

- Ainsworth, M. D. S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Lawrence Erlbaum.
- Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2012). Hitting home: relationships between recent deployment, post-traumatic stress symptoms, and marital functioning for army couples. *Journal of Family Psychology, 24*(3), 280. <https://doi.org/10.1037/a0019405>
- Balderrama-Durbin, C., Erbes, C. R., Polusny, M. A., & Vogt, D. (2018). Psychometric evaluation of a measure of intimate partner communication during deployment. *Journal of Family Psychology, 32*(1), 31.
- Blank, C., Adams, L. A., Kittelson, B., Connors, R. A., & Padden, D. L. (2012). Coping behaviors used by Army wives during deployment separation and their perceived effectiveness. *Journal of the American Academy of Nurse Practitioners, 24*(11), 660-668.
- Bommarito, R. K., Sherman, M. D., Rudi, J. H., Mikal, J. P., & Borden, L. M. (2017). Challenges facing military spouses during postdeployment reintegration: A review of the literature and current supports. *Military Behavioral Health, 5*(1), 51-63.
- Borelli, J. L., Froidevaux, N. M., Yunusova, A., & Sbarra, D. A. (2019). Attachment anxiety and trauma history uniquely and interactively predict adjustment during and following deployment among military partners. *Journal of Family Psychology, 33*(2), 226.

- Borelli, J. L., Sbarra, D. A., Randall, A. K., Snavely, J. E., St. John, H. K., & Ruiz, S. K. (2013). Linguistic indicators of wives' attachment security and communal orientation during military deployment. *Family Process, 52*(3), 535-554.
- Cafferky, B., & Shi, L. (2015). Military wives emotionally coping during deployment: Balancing dependence and independence. *American Journal of Family Therapy, 43*(3), 282-295. <https://doi.org/10.1080/01926187.2015.1034633>
- Calvo, V., D'Aquila, C., Rocco, D., & Carraro, E. (2020). Attachment and well-being: Mediatory roles of mindfulness, psychological inflexibility, and resilience. *Current Psychology, 1-14*.
- Carr, S., Colthurst, K., Coyle, M., & Elliott, D. (2013). Attachment dimensions as predictors of mental health and psychosocial wellbeing in the transition to university. *European Journal of Psychology of Education, 28*, 157-172. <https://doi.org/10.1007/s10212-012-0106-9>
- Chandra, A., Lara-Cinisomo, S., Jaycox, L. H., Tanielian, T., Burns, R. M., Ruder, T., & Han, B. (2010). Children on the homefront: The experience of children from military families. *Pediatrics, 125*, 16-25. <https://doi.org/10.1542/peds.2009-1180>
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge.
- Collins, N. L., & Read, S. J. (1994). Cognitive representations of adult attachment: The structure and function of working models. In K. Bartholomew & D. Perlman (Eds.) *Advances in personal relationships, Vol. 5: Attachment processes in adulthood* (pp. 53-90). Jessica Kingsley, Inc.

- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology, 71*, 810-832.
- Creech, S. K., Hadley, W., & Borsari, B. (2014). The impact of military deployment and reintegration on children and parenting: A systematic review. *Professional Psychology: Research and Practice, 45*(6), 452-464.
<https://doi.org/10.1037/a0035055>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage.
- Curhan, K. B., Levine, C. S., Markus, H. R., Kitayama, S., Park, J., Karasawa, M., Kawakami, N., Love, G. D., Coe, C. L., Miyamoto, Y., & Ryff, C. D. (2014). Subjective and objective hierarchies and their relations to psychological well-being: A U.S./Japan comparison. *Social Psychological and Personality Science, 5*(8), 855-864. <https://doi.org/10.1177/1948550614538461>
- De Burgh, T. H., White, C. J., Fear, N. T., & Iversen, A.C. (2011). The impact of deployment to Iraq or Afghanistan on partners and wives of military personnel. *International Review of Psychiatry, 23*, 192-200.
<https://doi.org/10.3109/09540261.2011.560144>
- Denscombe, M. (2014). *The good research guide: for small-scale social research projects*. McGraw-Hill Education.

- Department of Defense. (2017). Active-duty statistics, 2017. Retrieved from <https://download.militaryonesource.mil/12038/MOS/Reports/2017-demographics-report.pdf>
- Department of Defense. (2016b). Survey of active spouses, 2016. Retrieved from https://download.militaryonesource.mil/12038/MOS/Surveys/ADSS1501_Briefing_Mini_2016.pdf
- Department of Defense. (2018). Profile of the military community: Demographics report. <https://download.militaryonesource.mil/12038/MOS/Reports/2018-demographicsreport.pdf>
- Department of Defense (2019). Demographics Report. Retrieved from <https://download.militaryonesource.mil/12038/MOS/Reports/2019-demographics-report.pdf>
- Department of Defense. (2020). Demographics Report. Retrieved from <https://www.militaryonesource.mil/data-research-and-statistics/military-community-demographics/2020-demographics-profile/>
- Erbes, C. R., Kramer, M., Arbisi, P. A., DeGarmo, D., & Polusny, M. A. (2017). Characterizing spouse/partner depression and alcohol problems over the course of military deployment. *Journal of Consulting and Clinical Psychology, 85*(4), 297.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149-1160.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.).

Sage.

- Fox, J., & Pease, B. (2012). Military deployment, masculinity and trauma: Reviewing the connections. *Journal of Men's Studies*, 20(1), 16-31. Retrieved from <https://ezproxy.lapl.org/login?url=http://search.proquest.com/docview/921643592?accountid=6749>
- Fraley, R. C., & Roisman, G. I. (2019). The development of adult attachment styles: Four lessons. *Current Opinion in Psychology*, 25, 26-30.
- Georgieva, V., & Marinov, P. (2017). Intercultural interactions in a military context. *Land Forces Academy Review*, 22(3), 153-162.
- Gewirtz, A. H., Erbes, C. R., Polusny, M. A., Forgatch, M. S., & DeGarmo, D. S. (2011). Helping military families through the deployment process: strategies to support parenting. *Professional psychology: Research and Practice*, 42(1), 56.
- Giff, S. T., Renshaw, K. D., & Allen, E. S. (2019). Post-deployment parenting in military couples: Associations with service members' PTSD symptoms. *Journal of Family Psychology*, 33(2), 166–175. <https://doi-org.ezp.waldenulibrary.org/10.1037/fam0000477>
- Girme, Y. U., Agnew, C.R., VanderDrift, L. E., Harvey, M. S., Rholes, S. W., & Simpson, J. A. (2018). The ebbs and flows of attachment: Within-person variation in attachment undermine relationship wellbeing across time. *Journal of Personality and Social Psychology*, 114, 397-421.
- Gortney, W. E. (2010). *Department of defense dictionary of military and associated terms*. Joint Chiefs of Staff, Washington.

- Green, S., Nurius, P. S., & Lester, P. (2013). Spouse psychological well-being: A keystone to military family health. *Journal of Human Behavior in the Social Environment, 23*(6), 753-768.
- Gupta, G. R., Oomman, N., Grown, C., Conn, K., Hawkes, S., Shawar, Y. R., & Equality, G. (2019). Gender equality and gender norms: framing the opportunities for health. *The Lancet, 393*(10190), 2550-2562.
- Hall, L. K. (2011). The importance of understanding military culture. *Social Work in Health care, 50*(1), 4-18.
- Henry, M. (2017). Problematizing military masculinity, intersectionality and male vulnerability in feminist critical military studies. *Critical Military Studies, 3*(2), 182-199.
- Huebner, A. J., Mancini, J. A., Wilcox, R. M., Grass, S. R., & Grass, G. A. (2007). Parental deployment and youth in military families: Exploring uncertainty and ambiguous loss. *Family Relations, 56*(2), 112-122.
- Jones, L. V., Hopson, L. M., & Gomes, A. M. (2012). Intervening with African-Americans: Culturally specific practice considerations. *Journal of Ethnic and Cultural Diversity in Social Work, 21*(1), 37-54.
- Joseph, A. L., & Afifi, T. D. (2010). Military wives' stressful disclosures to their deployed husbands: The role of protective buffering. *Journal of Applied Communication Research, 38*(4), 412-434.
- Kaiser, M., Kuwert, P., Braehler, E., & Glaesmer, H. (2018). Long-term effects on adult attachment in German occupation children born after World War II in comparison

- with a birth-cohort-matched representative sample of the German general population. *Aging & Mental Health*, 22(2), 197–207. <https://doi.org.ezp.waldenulibrary.org/10.1080/13607863.2016.1247430>
- Karreman, A., & Vingerhoets, A. J. (2012). Attachment and well-being: The mediating role of emotion regulation and resilience. *Personality and Individual Differences*, 53(7), 821-826.
- Kees, M., & Rosenblum, K. (2015). Evaluation of a psychological health and resilience intervention for military spouses: A pilot study. *Psychological Services*, 12(3), 222.
- Knobloch, L. K., & Theiss, J. A. (2012). Experiences of US military couples during the post-deployment transition: Applying the relational turbulence model. *Journal of Social and Personal Relationships*, 29(4), 423-450.
- Lara-Cinisomo, S., Chandra, A., Burns, R. M., Jaycox, L. H., Tanielian, T., Ruder, T., & Han, B. (2012). A mixed-method approach to understanding the experiences of non-deployed military caregivers. *Maternal and Child Health Journal*, 16(2), 374-384. Doi:10.1007/s10995-011-0772-2.
- Laser, J. A., & Stephens, P. M. (2011). Working with military families through deployment and beyond. *Clinical Social Work Journal*, 39(1), 28-38.
- Lees, D. W. (2016). Understanding effects of Operations Security (OPSEC) awareness levels of military spouses through the lenses of training and program management: A qualitative study (Doctoral dissertation, Creighton University).

- Lowe, K. N., Adams, K. S., Browne, B. L., & Hinkle, K. T. (2012). Impact of military deployment on family relationships. *Journal of Family Studies, 18*(1), 17–27.
- Lufkin, K. (2017). An exploratory study of marital and quality of life ratings among male spouses of military members. *Contemporary Family Therapy: An International Journal, 39*(3), 162–171.
- McFarlane, A. C. (2009). Military deployment: The impact on children and family adjustment and the need for care. *Current Opinion in Psychiatry, 22*(4), 369-373.
- McSally, M. E. (2011). Defending America in mixed company: Gender in the U.S. Armed Forces. *Daedalus, 140*, 148–164. https://doi.org/10.1162/DAED_a_00105
- Meadows, S. O., Tanielian, T., Karney, B., Schell, T., Griffin, B. A., Jaycox, L. H., ... & Vaughan, C. A. (2017). The deployment life study: Longitudinal analysis of military families across the deployment cycle. *Rand Health Quarterly, 6*(2).
- Meehan, M., Massavelli, B., & Pachana, N. (2017). Using attachment theory and social support theory to examine and measure pets as sources of social support and attachment figures. *Anthrozoös, 30*(2), 273-289.
- Meyer, C. E. (2013). Case report: Military subcultural competency. *Military Medicine, 178*(7), e848–e850.
- Mikulincer, M., & Shaver, P. R. (2009). An attachment and behavioral systems perspective on social support. *Journal of Social and Personal Relationships, 26*, 7–19. <https://doi.org/10.1177/0265407509105518>
- Murphy, B. A., Costello, T. H., Watts, A. L., Cheong, Y. F., Berg, J. M., & Lilienfeld, S. O. (2020). Strengths and weaknesses of two empathy measures: A comparison of

the measurement precision, construct validity, and incremental validity of two multidimensional indices. *Assessment*, 27(2), 246-260.

Nourialeagha, B., Ajilchi, B., & Kisely, S. (2020). The mediating role of gratitude in the relationship between attachment styles and psychological well-being. *Australasian Psychiatry*, 28(4), 426–

430. <https://doi.org/10.1177/1039856220930672>

O'Connor, M., & Elklit, A. (2008). Attachment styles, traumatic events, and PTSD: A cross-sectional investigation of adult attachment and trauma. *Attachment & Human Development*, 10(1), 59-71.

Padden, D. L., Connors, R. A., & Agazio, J. G. (2011). Stress, coping, and well-being in military spouses during deployment separation. *Western Journal of Nursing Research*, 33(2), 247-267. <https://doi.org/10.1177/0193945910371319>

Pincus, S. H., House, R., Christenson, J., & Adler, L. E. (2001). The emotional cycle of deployment: A military family perspective. *US Army Medical Department Journal*, 4(5), 6.

Plonsky, L., & Ghanbar, H. (2018). Multiple regression in L2 research: A methodological synthesis and guide to interpreting R2 values. *The Modern Language Journal*, 102(4), 713-731.

Renaud, E. F. (2008). The attachment characteristics of combat veterans with PTSD. *Traumatology*, 14(3), 1-12.

Riggs, S. A., & Cusimano, A. (2014). The dynamics of military deployment in the family system: What makes a parent fit for duty? *Family Court Review*, 52(3), 381-399.

- Riggs, S. A., & Riggs, D. S. (2011). Risk and resilience in military families experiencing deployment: the role of the family attachment network. *Journal of Family Psychology, 25*(5), 675.
- Rizzo, A., Cukor, J., Gerardi, M., Alley, S., Reist, C., Roy, M., & Difede, J. (2015). Virtual reality exposure for PTSD due to military combat and terrorist attacks. *Journal of Contemporary Psychotherapy, 45*(4), 255-264.
- Robertson, S., Gough, B., and Robinson, M. (2016). "Men, 'masculinity' and Mental Health: Critical Reflections," in *Handbook on Gender and Health*. Editor J. Gideon (Cheltenham: Edward Elgar).
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069-1081.
- Scharff, D. P., Mathews, K. J., Jackson, P., Hoffsuemmer, J., Martin, E., & Edwards, D. (2010). More than Tuskegee: understanding mistrust about research participation. *Journal of Health Care for the Poor and Underserved, 21*(3), 879–897.
- Sheehan, C. M., & Hayward, M. D. (2019). Black/white differences in mortality among veteran and non-veteran males. *Social Science Research, 79*, 101-114.
- Sheppard, S. C., Malatras, J. W., & Israel, A. C. (2010). The impact of deployment on US military families. *American Psychologist, 65*(6), 599.
- Shrout, P. E., Stadler, G., Lane, S. P., McClure, M. J., Jackson, G. L., Clavél, F. D., ... & Bolger, N. (2018). Initial elevation bias in subjective reports. *Proceedings of the National Academy of Sciences, 115*(1), E15-E23.

- Shura, R. D., Rutherford, B. J., Fugett, A., & Lindberg, M. A. (2017). An exploratory study of attachments and posttraumatic stress in combat veterans. *Current Psychology, 36*(1), 110-118.
- Sinclair, R. R., Paulson, A. L., & Riviere, L. A. (2019). The resilient spouse: understanding factors associated with dispositional resilience among military spouses. *Military Behavioral Health, 7*(4), 376-390.
- Street, A. E., & Dardis, C. M. (2018). Using a social construction of gender lens to understand gender differences in posttraumatic stress disorder. *Clinical Psychology Review, 66*, 97-105.
- Taylor, J. M. (2015). Psychometric analysis of the ten-item perceived stress scale. *Psychological Assessment, 27*(1), 90.
- Teixeira, R. C. R., Ferreira, J. H. B. P., & Howat-Rodrigues, A. B. C. (2019). Collins and Read Revised Adult Attachment Scale (RAAS) validity evidences. *Psico, 50*(2), e29567-e29567.
- Thackray, H., Richardson, C., Dogan, H., Taylor, J., & McAlaney, J. (2017). Surveying the hackers: The challenges of data collection from a secluded community.
- Tudge, J., & Rosa, E. M. (2019). Bronfenbrenner's Ecological Theory. *The Encyclopedia of Child and Adolescent Development, 1-11*.
- Van Gilder, B. J. (2019). Femininity as perceived threat to military effectiveness: How military service members reinforce hegemonic masculinity in talk. *Western Journal of Communication, 83*(2), 151–171.

- Vespa, J., Armstrong, D. M., & Medina, L. (2018). *Demographic turning points for the United States: Population projections for 2020 to 2060*. Washington, DC: US Department of Commerce, Economics and Statistics Administration, US Census Bureau.
- Vest, B. M., Cercone Heavey, S., Homish, D. L., & Homish, G. G. (2017). Marital satisfaction, family support, and pre-deployment resiliency factors related to mental health outcomes for reserve and national guard soldiers. *Military Behavioral Health, 5*(4), 313-323.
- Vincenzes, K. A., Haddock, L., & Hickman, G. (2014). The implications of attachment theory for military wives: Effects during a post-deployment period. *Professional Counselor, 4*(2).
- Wang, M., Nyutu, P. N., Tran, K. K., & Spears, A. (2015). Finding resilience: The mediation effect of sense of community on the psychological well-being of military spouses. *Journal of Mental Health Counseling, 37*(2), 164-174.
- Warner, C.H., Appenzeller, G.N., Warner, C.M. & Grieger, T. (2009). Psychological effects of deployments of military families. *Psychiatric Annals, 39*, 56 – 63
- Wiens, T. W., & Boss, P. (2006). Maintaining family resiliency before, during, and after military separation.
- Windsor, E. J. (2013). Odd Couples: Friendships at the Intersection of Gender and Sexual Orientation. *American Journal of Sociology, 118*(6), 1729–1731.

Woodhouse, S., Ayers, S., & Field, A. P. (2015). The relationship between adult attachment style and post-traumatic stress symptoms: A meta-analysis. *Journal of Anxiety Disorders, 35*, 103-117.

Appendix A: Demographic Questionnaire

Demographic Questionnaire

Please complete this demographic questionnaire. Please answer each question carefully and accurately.

1. What gender do you identify as?
 - A. Female
 - B. Male
 - C. Non-binary
 - D. Prefer not to answer

2. What is your age? _____

3. Please specify your ethnicity.
 - A. Caucasian
 - B. Black/African American
 - C. Latino or Hispanic
 - D. Asian
 - E. Native American
 - F. Native Hawaiian or Pacific Islander
 - G. Two or More
 - H. Other

4. If you selected two or more races; do you identify as Black or African American?
 - A. Yes
 - B. No
 - C. Does not apply to me

5. What is your partner's or spouses' ethnicity?
 - A. Caucasian
 - B. African American
 - C. Latino or Hispanic
 - D. Asian
 - E. Native American
 - F. Native Hawaiian or Pacific Islander
 - G. Two or More
 - H. Other

6. What is your highest level of education?
 - A. Some High School
 - B. GED or High School Diploma
 - C. Bachelor's Degree
 - D. Master's Degree
 - E. PhD or Higher
 - F. Trade School

7. Are you married?
 - A. Yes
 - B. No

8. What is your spouse's military affiliation?
 - A. U.S. Army
 - B. U.S. Air Force
 - C. U.S. Marine Corps
 - D. U.S. Navy
 - E. U.S. Coast Guard
 - F. U.S. Space Force

9. What component does your spouse currently serve in?
 - A. Active Duty
 - B. Reserves
 - C. National Guard

10. In the last 10 years, how many times has your spouse deployed?
 - A. 1
 - B. 2
 - C. 3
 - D. 4+

11. Is your spouse currently deployed?
 - A. Yes
 - B. No

12. Please indicate the type of deployment that your spouse has experienced?
 - A. Combat
 - B. Noncombat-Overseas
 - C. Noncombat stateside

13. How long was the most recent deployment? Please enter in months _____.

Appendix B: Permission to Use the Adult Attachment Scale

Department of Psychology
Barbara

University of California Santa

August, 2008

Dear Colleagues:

Thank you for your interest in the Adult Attachment Scale. In this document you will find a copy of the original and revised Adult Attachment Scales, along with information on scoring. You'll also find some general information about self-report measures of adult attachment style, and a list of references from our lab.

Please feel free to use the Adult Attachment Scale in your research and, if needed, to translate the scale into a different language. If you do translate the scale, I would greatly appreciate it if you could send me a copy of your translation so that I can (with your permission) make the translation available to future researchers.

Before choosing the Adult Attachment Scale for your research, please be sure to investigate other self-report measures of adult attachment. There have been many developments in the field since my original scale was published, and you may find that newer scales – such as Brennan, Clark, & Shaver's (1988) Experiences in Close Relationships scale (ECR) – are better suited to your needs. I have included some references that will help you locate information on these newer measures.

Thank you for your interest in our work, and good luck with your research.

Sincerely,

Nancy Collins

Professor, UCSB

Appendix C: Adult Attachment Scale

The following questions concern how you *generally* feel in *important close relationships in your life*. Think about your past and present relationships with people who have been especially important to you, such as family members, romantic partners, and close friends. Respond to each statement in terms of how you *generally* feel in these relationships.

Please use the scale below by placing a number between 1 and 5 in the space provided to the right of each statement.

1-----2-----3-----4-----5
Not at all **Very**
characteristic **characteristic**
of me **of me**

- 1) I find it relatively easy to get close to people. _____
- 2) I find it difficult to allow myself to depend on others. _____
- 3) I often worry that other people don't really love me. _____
- 4) I find that others are reluctant to get as close as I would like. _____
- 5) I am comfortable depending on others. _____
- 6) I don't worry about people getting too close to me. _____
- 7) I find that people are never there when you need them. _____
- 8) I am somewhat uncomfortable being close to others. _____
- 9) I often worry that other people won't want to stay with me. _____
- 10) When I show my feelings for others, I'm afraid they will not feel the same about me. _____
- 11) I often wonder whether other people really care about me. _____
- 12) I am comfortable developing close relationships with others. _____
- 13) I am uncomfortable when anyone gets too emotionally close to me. _____
- 14) I know that people will be there when I need them. _____
- 15) I want to get close to people, but I worry about being hurt. _____
- 16) I find it difficult to trust others completely. _____
- 17) People often want me to be emotionally closer than I feel comfortable being. _____

18) I am not sure that I can always depend on people to be there when I need them.

Appendix D: Permission to Use the Perceived Stress Scale

Cohen Participation of Use.pdf x +

File | file:///C:/Users/jpatt/OneDrive/Documents/Cohen%20Participation%20of%20Use.pdf

Apps Announcements... Gmail YouTube Maps

Cohen Participation of Use.pdf 1 / 2 - 50% +

PERMISSION FOR USE OF THE PERCEIVED STRESS SCALE

I apologize for this automated reply. Thank you for your interest in our work.

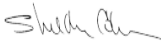
PERMISSION FOR USE BY STUDENTS AND NONPROFIT ORGANIZATIONS: If you are a student, a teacher, or are otherwise using the Perceived Stress Scale (PSS) without making a profit on its use, you have my permission to use the PSS in your work. Note that this is the only approval letter you will get. I will not be sending a follow-up letter or email specifically authorizing you (by name) to use the scale.

PERMISSION "FOR PROFIT" USE: If you wish to use the PSS for a purpose other than teaching or not for profit research, or you plan on charging clients for use of the scale, you will need to see the next page: "Instructions for permission for profit related use of the Perceived Stress Scale."

QUESTIONS ABOUT THE SCALE: Information concerning the PSS can be found at <http://www.cmu.edu/psych/psychweb/assessments/assessments.htm> (click on scales on the front page). Questions about reliability, validity, norms, and other aspects of psychometric properties can be answered there. The website also contains information about administration and scoring procedures for the scales. Please do not ask for a manual. There is no manual. Read the articles on the website for the information that you need.

TRANSLATIONS: The website (see URL above) also includes copies of translations of the PSS into multiple languages. These translations were done by other investigators, not by our lab, and we take no responsibility for their psychometric properties. If you translate the scale and would like to have the translation posted on our website, please send us a copy of the scale with information regarding its validation, and references to relevant publications. If resources are available to us, we will do our best to post it so others may access it.

Good luck with your work.



Sheldon Cohen
Robert E. Doherty University Professor of Psychology
Department of Psychology

INSTRUCTIONS FOR PERMISSION FOR PROFIT RELATED USE OF PERCEIVED STRESS SCALE

Profit related use of the Perceived Stress Scale requires the permission of both the American Sociological Association (ASA) and the author (S. Cohen).

The author (S. Cohen) will grant you permission to use the PSS in printed questionnaire form, for a one-time fee of US\$1,500. If you plan to use it online or in an app, the fee is \$200 per year. A lifetime permission is \$900. If you are making a bank transfer to us and we will provide information) or through a check or money order in foreign currency, the fee is \$230 USD. Our charge supports the documentation of the scale on our website (<http://www.cmu.edu/psych/psychology/ross-immunity-disease-lab/index.html>; click on scales on front page) and handling of copyright requests.

The check should be made payable to:

Sheldon Cohen, 155 Lakeside Road, Pittsburgh, PA 15238-1707, USA.

Permission requires your completing a short form for the American Sociological Association (ASA), and paying their required fee (I think \$25 for the page). The ASA form must be signed by me before submission to them.

Requests for copyright permission may use the [online form](#). Please complete the form and send it to us (with appropriate payment as discussed above) for a signature. After receiving the form and payment, we will return the signed form to you for submission to ASA with their payment.

Please let us know if you have any questions about the scale or its interpretation. We wish you the best of luck with your project.

Sheldon Cohen
scohen@cmu.edu

Appendix E: Perceived Stress Scale-10

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 F: Permission to use Psychological Well-Being Scale

Mail - Jasmine Willis - Outlook - Personal - Microsoft Edge
 https://outlook.office.com/mail/deeplink?popoutv2=1&version=20210524004.16

Reply all | Delete | Junk | Block | ...

Permission to use Psychological Well-being Scale in Research

 Jasmine Willis
 Fri 6/4/2021 1:57 PM
 To: cryff@wisc.edu

Hello Dr. Ryff,

I am a current doctoral student at Walden University and would like to use the Psychological Well-being Scale. My dissertation topic is examining the Relationships of Attachment Styles, Deployments, and Perceived Stress of African American Military Spouses. The purpose of this quantitative study is to determine if a relationship exists between the independent variables (IV) of attachment scores (close, anxious, dependent), the number of deployments, types of deployments, and gender, on the dependent variables (DVs) of perceived stress and psychological well-being. I would like to use the Psychological Well-being scale to determine if there is a relationship between the number of deployments, types of deployments, attachment styles, and gender on the psychological well-being of African American military service member spouses.

Thank you,
 Jasmine Willis, MS
 Walden University Doctoral Student

[Reply](#) | [Forward](#)

Mail - Jasmine Willis - Outlook - Personal - Microsoft Edge
 https://outlook.office.com/mail/deeplink?popoutv2=1&version=20210524004.17

Reply all | Delete | Junk | Block | ...

RE: Permission to use Psychological Well-being Scale in Research

Greetings,

Thanks for your interest in the well-being scales.
 I am responding to your request on behalf of Carol Ryff.
 She has asked me to send you the following:

You have her permission to use the scales for research or other non-commercial purposes.

They are attached in the following files:

"Ryff PWB Scales" includes:
 - psychometric properties
 - scoring instructions
 - how to use different lengths of the scales
 (see note about the 18-item scale, which is not recommended)

"Ryff PWB Reference Lists" includes:
 - a list of the main publications about the scales
 - a list of published studies using the scales

There is no charge to use the scales and no need to send us the results of your study.
 We do ask that you please send us copies
 of any journal articles you may publish using the scales to:
 berrie@wisc.edu and cryff@wisc.edu.

Best wishes for your research,

--
 Theresa Berrie
 UWMadison Institute on Aging

Appendix G: Psychological Well-Being Scale

Psychological Well-Being Scale

Instructions: Select one response below each statement to indicate how much you agree or disagree.

1. "I like most parts of my personality."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

2. "When I look at the story of my life, I am pleased with how things have turned out so far."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

3. "Some people wander aimlessly through life, but I am not one of them."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

4. "The demands of everyday life often get me down."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

5. "In many ways I feel disappointed about my achievements in life."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

6. "Maintaining close relationships has been difficult and frustrating for me."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

7. "I live life one day at a time and don't really think about the future."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

8. "In general, I feel I am in charge of the situation in which I live."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

9. "I am good at managing the responsibilities of daily life."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

10. "I sometimes feel as if I've done all there is to do in life."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

11. "For me, life has been a continuous process of learning, changing, and growth."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

12. "I think it is important to have new experiences that challenge how I think about myself and the world."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

13. "People would describe me as a giving person, willing to share my time with others."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

14. "I gave up trying to make big improvements or changes in my life a long time ago"

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

15. "I tend to be influenced by people with strong opinions"

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

16. "I have not experienced many warm and trusting relationships with others."

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
----------------	----------------	----------------	----------------------------	-------------------	-------------------	-------------------

17. "I have confidence in my own opinions, even if they are different from the way most

other people think.”

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
-------------------	-------------------	-------------------	-------------------------------	----------------------	----------------------	----------------------

18. “I judge myself by what I think is important, not by the values of what others think is important.”

Strongly agree	Somewhat agree	A little agree	Neither agree nor disagree	A little disagree	Somewhat disagree	Strongly disagree
-------------------	-------------------	-------------------	-------------------------------	----------------------	----------------------	----------------------