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EXPLORING DIMENSIONS OF WELL-BEING AMONG SPOUSES OF ACTIVE-DUTY SERVICE MEMBERS

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

by

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Dedication

This dissertation is dedicated to our nation's U.S. military service personnel and their families, both past and present. It is also dedicated to my own military family, my loving husband Kerrick and our amazing children - Landen, Khya, and Ariana.

Acknowledgement

I would like to acknowledge the military spouses who participated in the study. Their willingness to take the time to share their experiences and details about their lives has made this dissertation possible. I am also greatly appreciative of the outpouring of support that I have received from various members of the military community.

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Abstract

EXPLORING DIMENSIONS OF WELL-BEING AMONG SPOUSES OF ACTIVE-DUTY SERVICE MEMBERS

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During an era when the United States has been engaged in the longest waging wars in U.S. history, military families have been exposed to extraordinary amounts of stress and have had to learn to adapt in a culture where repeated deployments, recurrent family separations, and frequent relocations have become the norm. A surge in research in recent years on the families of Service members has brought increased attention to the unique challenges and demands of spouses, raising concerns about how to best meet their needs. Despite the increased attention, few studies have focused on spousal well-being. Acknowledging this lack of research, the present dissertation study utilized a mixed-methods approach to explore various dimensions of well-being, as directly experienced by spouses of active-duty military personnel.

Data was collected from a web-based survey completed by 300 spouses of active-duty Service members. Quantitative data included a wide range of demographic, family, military lifestyle, and service utilization questions along with a battery of standardized instruments measuring various risk and protective factors, which represent components of well-being.

Qualitative data were collected from four open-ended questions and analyzed thematically.

Qualitative and quantitative components were corroborated in the final analysis.

Results of the study found significant differences in well-being scores among subsamples of participants divided by employment status, race, and Service member rank. However, subsamples divided on the basis of having children, education level, and Service member combat deployment history did not result in significantly different well-being scores. Separate hierarchical regression analyses were performed on the outcome scores for each component of well-being (social, mental, and physical). The findings revealed that selected risk & protective factor variables were significant predictors within each model. On the other hand, socio-demographic characteristics only added to the predictive power of outcomes scores in the mental component of well-being. Qualitative findings included data on participants' perspectives of the rewards and challenges of military life, the impact of the military lifestyle on parenting experiences, and advice to spouses new to the military lifestyle.

Implications and limitations of this study, as well as suggestions for future research to enhance the well-being of military spouses, are discussed.

The family is just as much a part of the military as the Service member they support. Their care and devotion is integral to the continuing efforts of our men and women in uniform. This support is not without cost, however. The sacrifices made by military families are great: relocation, deployment, and reintegration, in particular, pose tremendous challenges, and often negatively affect the well-being of the family unit, and, consequently, the community in which they reside. In order to strengthen our communities and repay their devoted service, we must ease the difficulties faced by military families. (Points of Light Network, 2013, para. 1).

CHAPTER 1 – INTRODUCTION

The phone rings. “Hey love, just calling to let you know that I got new orders today.”

While it was no surprise that we were going to be moving, given that we’ve been here longer than the original assignment time of two years, I am overcome with alarm, excitement, and fear, with thoughts of “where to?” and “when?” running through my mind. He hangs up and I’m left alone with my unsettled thoughts and emotions.

“What am I going to do about school?” I’m in the middle of my program.

“Will I find a job?” I need to bring in income to help support our family.

“Will it be better to live on or off base?” We’ve never lived in that part of the country.

“How are the schools?” The kids are getting a great education here.

“Will we be able to make friends?” We’ll have to start all over again.

“Will he deploy again?” And if so, “how soon?” He hasn’t even been back for a year.

As questions continue to fill my head and I try to gain control of the mounting anxiety, I take a deep breath and realize that we’ve gone through this before and our family has always managed to make the best of the changes that come our way. After all, the military way of life is nothing new to me. As a child of a retired disabled Army veteran, a sibling of an Iraqi war veteran, and a spouse of an active-duty Soldier, I know what to expect. Even so, it is at times both exhilarating and challenging. And though the military has afforded my family many wonderful opportunities, it has also required sacrifices.

The scenario described above is based on the researcher's life and is the shared reality of thousands of military spouses. It is the inspiration and impetus behind this research study that aims to bring about a more comprehensive understanding of the ways in which spouses are managing in the current military environment, in which change is ever-present. The present study employed a mixed-methods approach to explore various dimensions of military spousal well-being in an effort to gain insight into their overall functioning. The findings of the study were used to formulate hypotheses around seminal characteristics affecting military spousal well-being, and may eventually help to inform the provision of services, subsequently enhancing the wellness and quality of life (QOL) of military spouses and their families.

Background

The environment of active-duty military spouses is one in which frequent moves and family separations are standard practice. Military spouses have numerous physical and emotional demands placed on them during periods of both deployment and non-deployment that are not shared by children and Service members (Points of Light Network, 2013; Sims, Wong, Bana, & Winkler, 2013). Spouses are expected to be both flexible and adaptable, bearing the responsibility of juggling multiple roles in the ever-changing military environment. The added responsibilities of military spouses are numerous and frequently include finding the family a new home to live in with each new move, securing a new job at each new installation, taking on a dual-parent role whenever the Service member is absent from the home, and caring for the physical and psychological wounds of the Service member following deployment (Eubanks, 2013; RAND, 2011). Despite the many responsibilities military spouses take on, studies suggest that the overwhelming majority of spouses are resilient and able to effectively cope with the demands of military life (Blakely, Hennessy, Cheung, & Skirton, 2012; Blank, Adams, Kittelson,

Connors, & Padden, 2012). Military spouses been shown to possess a great number of strengths, including skills to manage multiple roles, openness to new experiences, adaptability and flexibility to enact change quickly, and a willingness to get involved in their communities (Eubanks, 2013; Hall, 2008).

Challenges of Military Life

Not surprisingly, a number of studies conducted with spouses have identified deployment as the most stressful aspect of military life (Dimiceli, Steinhardt, & Smith, 2009; Green et al., 2013; Savych, 2008). Prolonged separations, added responsibilities, as well as anxiety and worry about their service member's safety during deployments are among the challenges that create an atmosphere of uncertainty and stress for military spouses (Hosek, 2011). In their study comparing the perceived stress and somatization scores between spouses of deployed Services members ($n = 62$) and spouses of non-deployed Service members ($n = 68$), Burton, Farley, & Rhea (2009) found that spouses whose partners were deployed to a combat zone reported significantly higher stress and somatization scores than those whose partners were not deployed ($p < .001$). Other risk factors shown to impact the mental health of spouses during periods of deployment include deployments longer than 11 months (Mansfield et al., 2010), the mental health of the returning Service member, having children, and spousal life circumstances such as pregnancy (De Burgh, White, Fear, & Iverson, 2011; Eaton et al. 2008). Faulk, Gloria, Cance, & Steinhardt (2012) found that spouses' failure to successfully manage the demands of military life during periods of deployment could lead to the onset of symptoms consistent with mental illness, including depression.

Other more recent studies suggest that the stressors experienced by both military spouses and the greater military community have begun to shift away from deployment towards growing

financial concerns related to budget cuts and the downsizing of military troops along with concerns over spouse education and employment (Blue Star Families [BSF], 2013; 2014). The number of personnel serving in the military has steadily declined since 2010 and is expected to continue to decline as the Department of Defense (DoD) continues to shrink its spending as part of post-war downsizing. DoD reports that in 2013 just over 206,000 active -duty personnel separated from the military, in which close to 46% were voluntary (end of contract or early release), 27% retired, and 26% were involuntary separations (DoD, 2014). Fears over job security have created an atmosphere of uncertainty for many military families who might otherwise have expected to stay in the military. Ambiguity about the overall impact of budget cuts to funding for military schools, existing community support services, education benefits, housing, and pay have also been noted as primary concerns of military families (BSF, 2014.).

To add to these concerns, worries about financial instability are also linked to the difficulties spouses face in securing and/or maintaining employment because of frequent military relocations. Military families relocate on average every two to three years either within the U.S. or overseas, moving at four times the rate of civilian families (Croan, Levin, & Blankenship, 1992; Military Homefront, 2002; Points of light Network, 2013). With each change in duty station, spouses are challenged to maintain family stability as they work to secure employment and financial stability, aid in the adjustment of their children, learn to make new friends, and establish a new system of support. In 2012, participants in the Military Family Lifestyle Survey listed military spouse employment among a top concern, with the majority reporting that the military had a negative impact on their ability to pursue a career, and over half citing lack of affordable childcare as a reason for not working (BSF, 2013). Further, frequent military relocations separate spouses from their families of origin, which may heighten feelings of

loneliness, isolation, and a lack of social support (Bowen, Mancini, Martin, Ware, & Nelson, 2003). Spouses who relocate overseas are thought to face even greater obstacles due to a greater degree of cultural and linguistic adjustment, in addition to added financial strains and limited employment opportunities (Blakely, Hennessy, Cheung, & Skirton, 2012; Burrell et al., 2006 Palmer, 2008). This can lead many spouses struggling to integrate and adjust to their new communities.

Rewards of Military Life

Even with the added challenges accompanying the military lifestyle, the military offers spouses exciting and diverse opportunities and rewards. A major attraction of the military is its strong sense of community and built in system of support, which provides an abundance of financial and social resources (Segal, 2006). Spouses and their families have access to numerous programs (e.g. support groups, family readiness groups, mental health services, education/employment support services, recreational facilities) intended to help them thrive (Martin et al. 2000; Segal, 2006). Additional benefits include housing, medical care, education support, travel opportunities, and access to low cost food (Hardaway, 2004). Evidence also suggests that relocations and separations have positive effects on the well-being of military spouses. Some spouses have reported that their relationship with their Service member became stronger and more flexible because of work-related separations (Segal, 2006). Relocations have also been shown to have positive impacts on spouses, providing opportunities to travel and experience different cultures (Segal, 2006). Similar studies documenting spousal satisfaction with the military lifestyle of spouses who were stationed overseas, cite family unity and opportunities to travel and experience new cultures as positive attributes (Lakhani, Thomas, & Gilroy, 1985; McNulty, 2003; Jervis, 2009). Other potential benefits include enhanced coping mechanisms and

social skills (Jones, 1973). Associations between the rewards of military life and spousal well-being have yet to be explored but may act as protective factors that could potentially ameliorate some of the noted risks (Palmer, 2008).

Indicators of Military Spouse Well-Being

Existing studies on the military population offer a wealth of information about many of the challenges, rewards, resources, and strengths, of military families, with a limited few offering more specific insight into spouses' unique experiences. Data gathered from the majority of these studies have been primarily descriptive but have speculated about the potential of various characteristics acting as risk and protective factors (e.g. deployment, family separations, relocations, level of social support, branch of service, resilience, use of programs & resources, etc.) in measuring the functioning and well-being of military families (Chandra et al., 2011; Miller, Meadows, Hanser, & Taylor, 2011; Orthnor, & Rose, 2005; Park, 2011; Saltzman et al., 2011; Weins & Boss, 2006). Studies which have examined associations among and inferences of military spouses' functioning have almost exclusively focused on the mental health of military spouses during periods of deployment (De Burgh, White, Fear, & Iverson, 2011; Mansfield et al., 2010; Orthnor & Rose, 2009; Padden, Connors, & Agazio, 2011; Renshaw, Allen, Rhoades, & Blais, 2011; Sheppard, Malatras, & Israel, 2010; Spera, 2009; Warner, Appenzeller, Warner, & Grieger, 2009). Findings from these studies suggest that length of deployment, Service member mental health, level of family stability, military and community support, and levels of depression and stress are all associated with the mental health of spouses during or immediately following deployment of the Service member. While valuable, this domain-specific research offers only limited insight to the larger concept of spousal well-being, thereby limiting knowledge about the overall functioning and health of military spouses in the present day.

Moving beyond description and deployment, a study conducted by Green, Nurius, & Lester (2013) utilized bivariate analyses and entry-step hierarchical regression to examine predictors of psychosocial vulnerability among a sample of 161 female spouses of active-duty service personnel; this study also tested the effects of family stress and strain on the sample's psychological health. Findings from that study suggest that family stressors, strain, and social support predict a significant portion of the variance in spouses' psychological health, measured using the Brief Symptom Inventory (BSI), even when controlling for deployment and socioeconomic factors. A comparison of means between subsets of the military spouse sample dichotomized by socioeconomic resources found that spouses who had not graduated college, reported poorer household finances, and first became parents at age 24 or younger reported significantly higher psychological distress and family stress, and family strain, and lower levels of social support (Green, Nurius, & Lester, 2013).

In an effort to move the discussion from psychological well-being to the overall well-being of spouses, the present study builds on existing literature including Green et al.'s (2013) study, and including other important constructs such as pre-existing mental health (Hardaway, 2004), physical health (Defense Manpower and Data Center [DMDC], 2009), resilience (Eubanks, 2013), life satisfaction, utilization of supportive resources (DMDC, 2014) and adaption to the military lifestyle (Booth et al., 2007) in assessing military spousal well-being. The present study also considers the potential influence of the military culture, a frequently neglected but equally important consideration when examining military spousal well-being (Palmer, 2008). Each of these constructs and their relationship with military spousal well-being are discussed in greater depth in the review of the literature in chapter 2.

Operationalization of Well-Being

Well-being is a broad and overarching concept that encompasses a complex blend of dimensions that are useful for understanding people's lives. When viewed as a multidimensional phenomenon, well-being includes a mixture of people's life circumstances, how they feel, and how they function (Newton, 2007b). Over the years, researchers within different disciplines have focused on specific domains of well-being (e.g. physical, psychological, social, and economic) while either excluding or limiting attention to others. Researchers have also utilized different measures and methodologies to define well-being, resulting in inconsistent findings associated with well-being and its predictors (Centers for Disease Control and Prevention [CDC], 2013; Veenhoven, 2008). To add to the lack of consensus, the term well-being is oftentimes used interchangeably with related terms such as happiness and quality of life. This makes it difficult to discern the exact determinants of well-being (CDC, 2013; Newton, 2007a).

Despite the lack of agreement, most researchers tend to agree that well-being generally includes, "the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning" (CDC, 2013, para. 4). Within the military, well-being is also operationalized as a broad concept whose indicators include such measures as QOL, family adaptation, mental health, marital satisfaction, physical health, financial well-being, and life satisfaction among others (Booth, et al., 2007). The present study seeks to explore military spousal well-being from a holistic standpoint, relying on the CDC's broad definition of well-being to guide the development of the study's survey instrument.

In this study, well-being is operationalized as an integration of social, mental, and physical domains (Lyubomirsky, King, & Diener, 2005). Each domain of well-being will be measured

separately, but viewed as a single component of overall well-being. A brief description of each component is presented.

- Social Component - involves a person's relationships with other people and is measured by participant's perceived level of emotional (expressions of empathy, love, trust, & caring), instrumental (tangible aid and services), and appraisal (information that is useful for self-evaluation) social support (Sherbourne & Stewart, 1991).
- Mental Component – involves a person's perception of their psychological and emotional well-being and is measured by participant's perceived levels of social functioning, emotional problems, vitality (energy), and mental health (Ware, Kosinski, Turner-Bowker, & Gandek, 2002).
- Physical Component – involves participant's perceptions of their physical health and is measured by participant's perceived levels of physical functioning, bodily pain, physical health, and general health (Ware, Kosinski, Turner-Bowker, & Gandek, 2002).

Rationale for the Study

The well-being of the spouse is crucial to the success and healthy functioning of the military family. Military spouses are chiefly responsible for maintaining balance and stability in the household (Green, Nurius, & Lester, 2013), and when their well-being is compromised, the entire family system is affected (Bronfenbrenner, 2005). A recent surge in research on military families since the beginning of the wars in Iraq and Afghanistan has brought increased awareness to the unique experiences of military spouses and has raised concerns and interest about their well-being (BSF 2014; Eaton et al., 2008 and Mansfield, et al., 2010). Despite this attention, few studies have sought to gain a comprehensive understanding of military spousal well-being. Over

the past several years, research on military spouses has primarily concentrated on the psychological well-being of spouses during the deployment cycle (De Burgh, White, Fear, & Iverson, 2011; Mansfield et al., 2010; Padden, Connors, & Agazio, 2011; Spera, 2009). As the attention of our nation and military continues to shift further away from the wars that have heavily defined American culture since the attacks on September 11 2001, it will become increasingly important to understand how to best support and meet the needs of military families following the end of the Global War on Terrorism (GWOT). This may be partially accomplished by deepening our understanding of varying characteristics associated with the well-being and life experiences of military spouses across the socio-ecological system.

Purpose of the Study

The purpose of this exploratory study was to address concerns regarding the lack of research on the overall functioning of military spouses (American Psychological Association [APA], 2007). The study aimed to build on gaps in the existing literature by (1) describing the study sample's individual and family demographics; military lifestyle characteristics; risk & protective factors; social, mental, physical, & general health; and military life experiences; (2) investigating whether significant differences in well-being exist between dichotomous socio-demographic subsets of the sample; (3) exploring potential predictors of participants' social, mental, and physical well-being; and uncovering themes among participants' perceptions on (4) the impact of the military lifestyle on parenting experiences and style; (5) the most challenging & rewarding aspects of military life; and (6) words of advice to spouses who are new to the military lifestyle.

In line with the recommendations outlined in the Rand Corporation's report summarizing guidelines for improving the QOL of Army families, this study intended to bring greater attention

to the multi-dimensional characteristics of military spousal well-being by investigating the “big picture” of well-being along with its domain-specific traits while also ensuring that the research provided participants a platform to express their viewpoints regarding military life (Sims et al., 2013). The goal of this study was not to summarize the key components of well-being for all military spouses but rather to describe and explore multi-dimensional characteristics of well-being among the study sample. The study’s quantitative and qualitative findings were corroborated to inform future research by generating tentative hypotheses about the seminal characteristics associated with the well-being of active-duty military spouses. The results of the study offer a foundation of knowledge that can be used to inform future research initiatives and best practices for enhancing military spousal well-being.

Nature of the Study

This study utilized a social work lens and mixed methods approach to explore various dimensions of well-being among active-duty military spouses. Social work’s core concept of person-in-environment was used to conceptualize the study and build parameters around the concept of well-being. The methodology employed a web-based survey design integrating a mix of both quantitative and qualitative elements to capture a diverse range of perspectives from active-duty spouses affiliated with each branch of service across a variety of military installations. Results of the study were analyzed using a combination of descriptive, bivariate, multivariate, and thematic analyses.

Significance of the Study

President Obama made the care and well-being of military families a national priority with the launch of the 2011 *strengthening our Military families: Meeting America’s Commitment* initiative. A core priority of the initiative is to enhance the overall well-being and psychological

health of military family members (White House, 2011). The DoD, military leaders, and military policy makers are also heavily invested in protecting and enhancing the well-being of military spouses, often described as “the central family member upon which the family and its well-being depend” (Green et al., 2013, p.753). Recognizing that the QOL of the military spouse is vital to maintaining the strength of the overall military force, DoD made family support and the promotion of well-being part of its strategic goal in its 2011 report to Congress (DoD, 2012). In addition, national media attention on the effects of war on the military population has brought greater awareness around the cultural gap that exists between the military and civilian communities (Fleming, 2010). Pew Research surveys have found that 84% of post-9/11 veterans and 71% of civilians agree that the public does not understand the problems faced by the military population (Pew Research Center, 2011). Additionally, findings from the 2013 Military Family Lifestyle Study found that 92% of military families report not feeling that the general public truly understands the sacrifices they make (BSF, 2013). As the military continues to downsize, the cultural gap is likely to widen and can lead to feelings of social isolation among military families. In an effort to narrow this gap, disciplines in the social sciences such as social work have taken significant strides towards advancing knowledge about how to effectively integrate military families into society at large.

Social work programs across the country, including a military social work initiative led by University of Southern California’s School of Social Work, have begun to incorporate military social work courses and concentrations in their curricula. There has also been a growth in research, trainings, and seminars centered on building military culture competence. The Council of Social Work Education (CSWE) recognized the need to respond to the needs of military families, and in 2010 developed education and practice standards for military social work

concentrations (CSWE, 2010). The following year, the National Association of Social Workers (NASW) became a member of *Joining Forces*, Dr. Jill Biden and First Lady Michelle Obama's comprehensive national initiative to mobilize all sectors of society to support and provide opportunities to military Service members and their families (NASW, 2012). Despite these developments, a strong presence of social work research is lacking from the empirical literature. As the GWOT comes to an end, attention will likely be placed on the needs of military families in a post-war era. It is imperative that social workers both within and outside of the military community respond by staying on the cutting edge of research and knowledge pertaining to the military population. The Council on Social Work Education (CSWE) recognizes that all communities have been affected by the GWOT and calls on social workers to respond to their needs. Experts in the field of military social work second this notion and urge social workers as well as other mental health and family practitioners to "understand the military culture, identify the signs of distress among military personnel and their families, and be familiar with the common stressors that are encountered when one of more family members are in the military" (Weiss et al., 2013).

Summary

This chapter begins with a scenario of the researcher's life and provides an overview of the study's background. The chapter then summarizes key indicators of military spousal well-being, provides a rationale from the present study, reviews the study's purpose and nature, and discusses the study's significance. This is followed by the study's definition and the operationalization of the construct of well-being. The chapter concludes with a definition of the study's terms, listed below.

Definition of Terms

This study utilizes terminology that is indicative of the military population, lifestyle, and culture. The following definitions are provided to ensure uniformity and understanding of these terms throughout the chapters of the dissertation.

Active Duty – full-time duty in the active military service of the United States (DoD, n.d.)

Active-duty military spouse – term used to describe military spouses who are themselves civilians but who are married to a Service member on Active Duty military status

Deployment – a long-term assignment, usually to a combat or war zone (Hall, 2008, p. 289)

Enlisted – military personnel whose pay-grades are E1-E9 and oftentimes perform jobs specific to their own occupational specialty (DoD, n.d.)

GWOT – Global War on Terrorism. A term commonly used to refer to the wars in Iraq and Afghanistan, which started as a result of September 11, 2001

Officer – Military personnel whose pay-grades include warrant officers (W1-W5) and commissioned officers (O1-O10) who hold positions of authority and greater responsibility for the command (DoD, n.d.).

Military Spouse – A spouse or domestic partner (eligible for benefits) of a Service member. This term is used interchangeable with active-duty military spouse.

Permanent Change of Station (PCS) – relocation to another military base

Quality of Life (QOL) – a broad term that covers multiple domains of life that can be affected by multiple stressors. The term is generally used by the military to describe virtually anything that can support the military family (Sims et al., 2013)

Rank – a title used to denote a member's level of authority and responsibility (DoD, n.d.)

Readiness – the ability of the U.S. military forces to fight and meet the demands of the National Military Strategy (Joint Chiefs of Staff, 2010)

Reintegration – period of transition and readjustment following deployment for service members and their families. (Hinojosa & Hinojosa, 2011; Knobloch, Ebata, McGlaughlin, & Ogolsky, 2013)

Reserve Component / Reserves – Military personnel serving in the U.S. National Guard and Reserves of each of the military branches.

Service Member – a member of any branch and rank of the U.S. military (Army, Air Force, Navy, Marines, Coast Guard)

As this project moves forward, chapter 2 will review the research literature, discuss the theoretical framework used to organized and guide the key constructs of military spousal well-being, and will present the study's research questions. This leads to a discussion of the study's methodology and data analysis plan in chapter three. Chapter 4 provides a discussion of the study's findings and the dissertation then concludes with chapter five which presents the study's implications, limitations, and recommendations for future research.

CHAPTER 2 – LITERATURE REVIEW

Chapter 2 begins with a review of the existing research literature pre and post September 11, 2011 and is followed by a discussion of the theoretical framework used to guide the study and organize the remainder of the chapter. This is followed by a review of the literature on potential characteristics of military spousal well-being across the macro-micro continuum. The next section highlights the key constructs and variables under investigation. The chapter concludes with the study's research questions.

The foundation of this research project was built on the work of others and an appreciation for what is already known about military spouses. The review of the literature begins with an overview of influential studies that have guided the study's line of inquiry and provide an argument for how the present study adds new knowledge concerning the well-being of spouses in the modern military.

Pre 9/11 Studies on Military Spouses

Research involving the military family originated following WWII and gradually increased as the composition of the military transitioned from mostly single men to married men (Vaughan-Cole, 1998). Following the Vietnam war, upwards of 50 percent of all military personnel were married, prompting the military to place greater emphasis on the needs of the military family (Bowen, 1985). Arguably, the most well known literature about the needs of military family during this period was written by Mady Segal (1998) who described the military and family as “greedy institutions” with competing demands that must adapt learn to adapt, adjust, and compromise in order to bring about institutional change. During this period, researchers also began examining the impact of deployment and separation on the mental health of military wives (Dickerson & Arthur, 1965; Greenberg, 1966; MacIntosh, 1968). The surge in

interest around military spouses gained further momentum in the 1980's, when the Army Research Institute for the Behavioral and Social Sciences began researching how spousal perceptions and satisfaction with the military influenced retention rates and readiness among Service members (Segal, 2006).

The momentum around military family research continued to gain traction in the early 1990's during the Persian Gulf War, also referred to as Operation Desert Shield/ Desert Storm. In the first known study to examine predictors of general well-being (GWB) among military spouses, Rosen & Moghadam (1991) measured Army wives' social support, personality, domains of life satisfaction, and military life stress along with husband's duty schedule against GWB. The results of the analyses could not be located. A longitudinal study with 1,274 spouses of Desert Storm veterans examined the relationship between life events and symptoms across time during and after the deployment of one's spouse in order to understand whether marital factors contributed to the retention and reenlistment plans of military personnel (Rosen, 1995). Though the majority of spouses fared well, deployment was shown to affect the emotional well-being of spouses who were chronically distressed during the pre-deployment period. Additionally, this study found that certain socio-demographic characteristics such as young age affected spouse well-being (Rosen, 1995).

Chandra and colleagues' (2011) review of the literature examining the impact of deployment on spouses during previous war eras suggested mixed results. The majority of studies found some association between deployment and marital issues that led to poorer psychological well-being and feelings of reduced social support among spouses (Raschmann, Patterson, & Schofield, 1989; Hiew 1992; Burrell, Adams, Durand, & Castro, 2006). However, other studies observed no significant effect of deployment on spousal well-being (Nice 1981; Schumm, Bell,

Resnick., 1996). The juxtaposition of these findings may be linked to a number of differences related to the location and duration of the deployment, type of military mission, or spousal characteristics. The culmination of research on military spouses from earlier generations remains relevant today and offers much needed insight into spousal well-being, as many fundamental experiences of military duty and family life (such as separations and reunions) have not substantially changed (Martin, Rosen, & Sparacino, 2000). The knowledge gained from these studies has laid the groundwork for research initiatives pertaining to spouses in the current military climate.

Post 9/11 Studies on Military Spouses

The GWOT has led to a renewed interest and surge in research involving military families. Over the past decade, research around deployment challenges (Hoge, Castro, & Eaton, 2006; Hosek, 2011; Orthner & Rose, 2005), marital satisfaction (Karney & Crown, 2007), employment and education (Harrell, Lim, Castaneda, & Golinelli, 2004; Savych, 2008), and caregiving responsibilities (Tanielian & Jaycox, 2008; Tanielian et al., 2013) has gained increased attention. These research trends have been heavily influenced by DoD's Active Duty Spouse Survey (ADSS) which has surveyed a representative sample of active-duty spouses (approx. 65,000) every two years since 2006 on a range of issues (e.g. demographics, spouse military support, deployment, reintegration, PCS moves, child well-being, education & employment, social support, current level of stress, marital satisfaction, and service utilization) of the military lifestyle (DoD, 2009; DMDC, 2014). The survey's results are used by DoD to make decisions on policies and programs that aim to better serve military spouses and their families and have highly influenced the variables of interest in the present study. In a summary of findings from the 2012 ADSS (DMDC, 2014), DoD compared the results with the results with findings from the 2006 &

2008 ADSS and from the findings of the Military Family Life Project ([MFLP]; DMDC, 2012), a longitudinal study launched in 2010 with a sample of 28,552 active-duty military spouses that measured the attitudes and opinions of active-duty spouses. Responses asking spouses to identify their level of satisfaction with the military lifestyle, 64% of ADSS participants reported that they were satisfied and 13% were dissatisfied compared to 62% of the MFLP participants who reported being satisfied and 14% who reported being dissatisfied, both of which were significantly higher than in the 2006 and 2008 ADSS. Similarly, results assessing spouses' current levels of personal stress found that 58% of participants from the 2012 ADSS and 58% of MFLP participants each reported current levels of stress that were more than usual while 11% in each sample reported current levels of stress in their life that were less than usual (DMDC, 2014). Trends among the data found that unemployment rates among spouses (25%), "more stress than usual" (52%), and discomfort with financial conditions (13%) were significantly higher than in 2006 and 2008 (DMDC, 2014).

Other major sources of data that have largely influenced current research trends involving military spouses post- 9/11 are the Survey of Army Families (SAF) the Military Family Lifestyle Survey, and the Military Family Life Project. The Survey of Army Families (SAF), first piloted in 1987, has largely informed policies, programs, and services meant to improve the QOL of Army families. The most recent SAF (conducted in 2010) surveyed three subsamples of active-duty spouses who were stratified into groups based on the rank and deployment status of their spouses (currently deployed, deployed and returned, and not deployed). The study included responses from 16,805 spouses, yielding a sampling error of \pm one percent for the total sample (Rayzor, 2011). Over 70 % of spouses indicated that their families adjusted well to the demands of being an Army family, signifying that the overwhelming majority are resilient and possess the

ability to manage the challenges and demands of military life. Trend data comparing the 2010 survey results with the results from the 2004/5 survey found an increase in the percentage of spouses who reported coping well or very well with their Soldier's absence during the deployment, an increase in the number of spouses who were satisfied or very satisfied with the Army way of life, and an increase in the percentage of spouses who reported receiving helpful support. These promising results suggest that the Army has taken important strides towards understanding and responding to the unique needs of spouses. The results also indicate that spouses and their families continue to experience challenges related to family functioning in the current military environment. Compared to the 2004/5 study results, there was an increase in the percentage of spouses who stated that their family experienced emotional/nervous or marital problems within the past 6 months as well as an increase in the percentage who reported it took their family more time to adjust following deployment. Nearly half of all spouses who participated in the 2010 survey also conveyed that they were dissatisfied with the amount of time their spouse was away during deployments, and approximately two-thirds reported that their spouse had deployed more than once since the start of the GWOT. Those in the "deployed" and "returned and not deployed" groups also expressed that they would experience serious or moderate problems coping as the time that their Soldier was absent from the home increased (Rayzor, 2011). These findings support the notion that the stress associated with the long-standing war has begun to take a toll on the families of Soldiers, and conveys an urgency to find solutions to further support military families. In spite of the valuable information, SAF provides concerning military spouses, consistent with most recent research on military families, findings are limited to spouses of Army personnel. Though there is general consensus that there is a commonality of shared experiences among all military spouses, the results are not necessarily

generalizable to spouses in other branches of the military who may have different experiences, resources, and supports.

The Military Family Lifestyle Survey conducted by Blue Star Families, now in its fifth year, has also greatly added to knowledge concerning the experiences and priorities of military spouses and their families. The survey includes a combination of multiple choice and open-ended questions that target different aspects of the military lifestyle. Of importance is that the survey sample includes spouses from each of the five military branches of service. The most recent multi-method survey was conducted on-line in February 2014 in collaboration with the Institute of Veterans and Military Families (IVMF) and included responses from more than 6,200 military family respondents, in which 3,328 completed the survey (53%). Seventy percent of participants were spouses of either active duty service members or veterans (BSF, 2014). New question items added to the newest version of the survey centered on the impact of sequestration and budget cuts, veteran's transitions, education, use of resources, and standardized measures to capture data on depression, substance abuse, and stress (BSF, 2014). Among active-duty spouse respondents, the top military issues identified were related to concerns military pay and benefits (73%), changes to retirement benefits (63%), impact of deployment on children (43%), military spouse employment (42%), and military lifestyle uncertainty (32%). An important finding garnered from the study is that while the majority of spouses were able to effectively cope with the demands of military life, 39% reported feeling stressed either "most" or "all" of the time. The primary sources of stress were cited as deployment and separation, financial stress, and employment related stress. Interestingly, a higher percentage of veteran spouses reported depression symptoms compared to active duty-spouses. Possible reasons for this finding could be related to the lack of built-in resources afforded to families during active-duty and the lack of community support once families

transition to veteran status. Findings also reveal that stigma associated with formal help seeking remains high among members of the military community, with the majority reporting that they sought formal support in the civilian community. When asked about their level of comfort seeking help from a military provider, 51% of spouse respondents reported that they were either “not very comfortable” or “extremely uncomfortable” with seeking help. The majority of spouses (86%) reported that they relied on family and friend networks for emotional support (BSF, 2014). Each of the aforementioned studies discussed have made valuable contributions to the growing body of evidence concerning military spouses and have helped to inform the line of inquiry for the present study. They have also helped to illuminate the importance of and need for continued research around military spousal well-being. Notably absent from the three studies is a strong emphasis on spousal strengths and an exploration of potential predictors of military spousal well-being. The present study builds upon this body of work and proposes to combine and further explore many of the constructs previously examined in order to provide a more holistic overview of spousal well-being.

Theoretical Framework

This study approaches the exploration of military spouse well-being through a ‘person-in-environment’ (PIE) lens. PIE recognizes well-being as a holistic concept that cannot be considered in isolation of the environment. It assumes that individual well-being is influenced by various factors such as social relationships, organizations, and policies, and views people and their environments as reacting to and changing in response to each other (Germain & Gitterman, 1980). The ecological systems model is an extension of PIE and provides scholars and practitioners an ordered way of looking at the interconnected and multilayered reality of individuals and groups (Meyer, 1995). Ecological systems perspective is described as an

umbrella framework that is highly regarded for providing order, structure, and meaning to diverse theories and assumptions (Siporin, 1979). The model assumes that demographics such as age, gender, race, and ethnicity shape the environment in which individuals function, thereby having a direct and indirect influence on their well-being (Satariano, 2006). It also emphasizes the larger community in which spouses function, allowing for the potential of each of the various systems to both support and erode well-being (Bronfenbrenner, 2005). Its broad nature is useful for summarizing research on the complex blend of characteristics that contribute to military spouse well-being. The use of this model is also supported by military researchers who argue that the most effective way to help military Service members and their families is through a military-centric social work perspective that is operationalized through an ecological model (Marquez, 2012).

Within social work, the ecological systems framework based on the work of Urie Bronfenbrenner (1989, 1994, and 1999) and Murray Bookchin (1982) has become a core theoretical framework for thinking about and understanding the complexity of human beings' psychosocial functioning (Meyer, 1995; Ungar, 2002). Social work has expanded upon Bronfenbrenner's model by emphasizing the perspectives of the client and the client system. This assists social workers in better understanding the 'fit' between people and their environments (Germain & Gitterman, 1980, 1996; Payne, 2005). The model is readily used in practice as a tool for analyzing the impact of change between people, their relationships, and their environments as well as to identify intervention strategies at different levels of the social system. This holistic approach to understanding military spouse well-being provides a useful means for exploring factors that can either put people at risk or act as protective barriers against poor well-being across the ecological system. In summary, the ecological systems model will provide a comprehensive

framework for exploring and organizing the multiple dimensions of spousal well-being under examination.

Theories of Influence

As an overarching paradigm, the ecological systems framework allows for the inclusion of other important theories that influence human behavior (Payne, 2005). Family stress, family systems & coping, and risk & resilience theories have largely informed existing studies on military spouses and their families (Blank et al., 2012; Burton et al., 2009; Chapin, 2011; Everson, Darling & Herzog, 2013; Green et al., 2013; Lowe, Adams, Browne, & Hinkle, 2012; Massello, 2007; Orthner & Rose, 2009; Weiss et al., 2013, & Westhuis, Fafara, & Ouellette, 2006). These studies have helped to bring awareness to the resources, risks, and protective factors of military spouses as well as increase understanding around the ways that military families manage and adapt to the numerous stressors and demands of military life. They have also largely informed the variables under investigation in this study. An ecological approach is useful for expanding knowledge regarding military spouses by broadening the lens to include not only transactions between individuals and their families, but also the larger systems within which military spouses are embedded (Paley, Lester, & Mogil, 2013). One limitation of the socio-ecological framework is its challenge in capturing how society and the environment influences the way people feel and perceive the impact of these multi-dimensional systems in their everyday lives (Payne, 2005). This limitation creates difficulty in assessing and predicting the impact of larger macro system factors (i.e. military culture) on military spousal well-being.

Theoretical Model

The ecological systems framework provides a visual diagram for organizing dimensions of well-being across the ecological system. The various characteristics of spouse well-being under

investigation in this study are discussed within the four levels of the ecological system. A brief description of each level is presented along with an illustration, shown in Figure 1.

- Individual level: Individual demographics, personal history, and biological factors
- Micro level: Close personal relationships with family and close friends
- Mezzo level: Context in which social relationships occur (service agencies, organizations, childcare, workplace)
- Macro level: Wider-societal factors such as the community, cultural values, customs, and policies

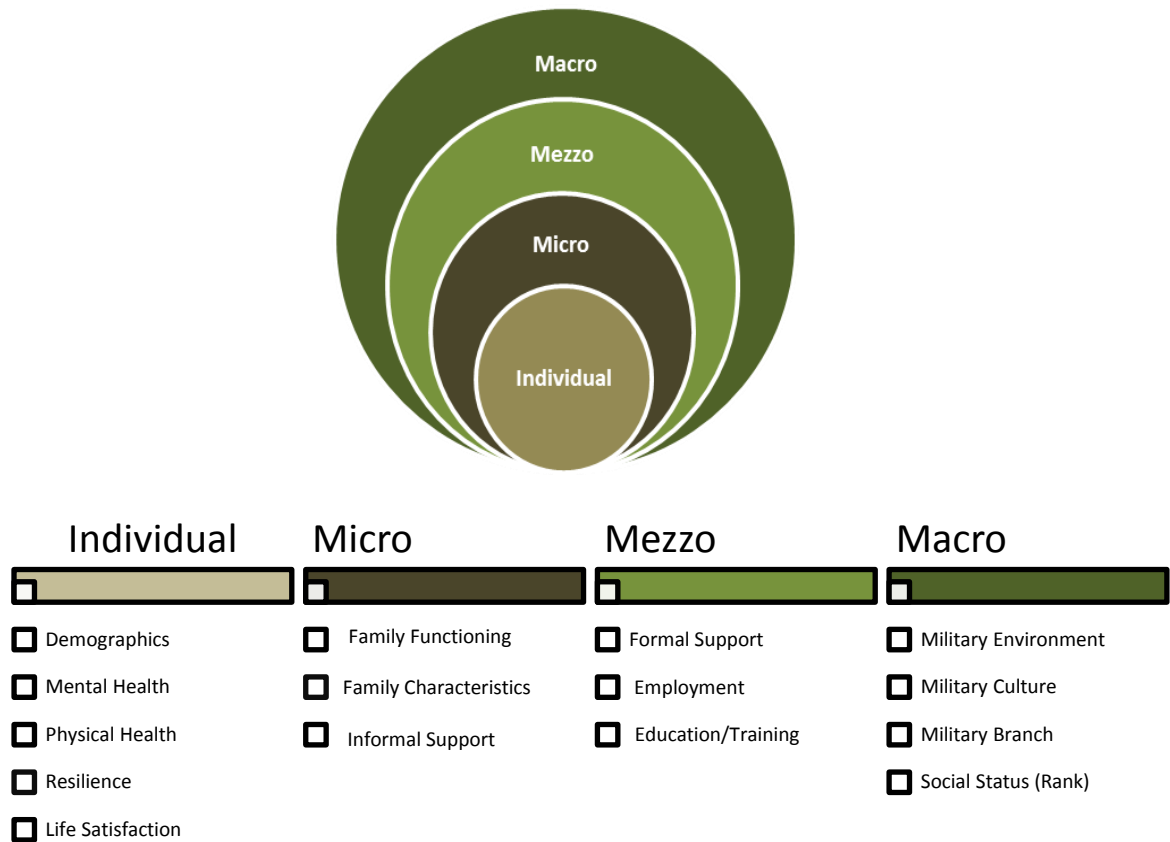


Figure 1

Dimensions of Military Spousal Well-Being

Macro

The environment plays a key role in shaping individual experiences, as every other system and interaction occurs within the context of the larger milieu. For military spouses, the environment is largely influenced by the military, an organization with its own unique culture. The military culture differs from the rest of American society in a number of important ways. It operates under a different set of rules, follows a separate set of customs, and lives by a separate set of values. Even the physical environment of a military installation is in stark contrast with the civilian community, surrounded by a barricade that separates it from the larger community with guards standing at each entrance. These distinct differences limit the generalizability of research conducted with non-military samples and bring attention to the importance of conducting research that considers environmental factors. This section highlights important environmental constructs that likely influence the lives of military spouses.

Military Environment

The composition of the military has changed considerably since the end of the Vietnam War, over the last 40 years when the military ended the draft and switched to an all-volunteer force. The ensuing impact resulted in a more diverse military population. When compared to the civilian sector, military families are more likely to be younger, more highly educated, and more ethnically diverse (Rostker, 2006). Military Service members are also getting married at rates higher than civilians in the broader population (DoD 2014; Pew Research Center, 2011). As of 2013, over half (55.2%) of all military personnel were reported as being married (DoD, 2014). The upsurge in marriage since the Vietnam war has brought attention to the needs of military families and has led to an increase in initiatives to improve their quality of life (DoD, 2009).

The military's changing demographics are partially due to an increase in the number of women serving in the U.S. Armed Forces. According to the DoD (2014), the percentage of female military personnel has steadily increased since 2000 with women now comprising 14.5% percent of all active-duty Service members. This number is expected to continue to grow as military women's roles and responsibilities continue to expand (Ghahramanlou-Holloway, Cox, Fritz, & George, 2011). As a result, the number of dual military families and families with civilian spouses who are male has increased. These growing sub-populations have been identified as experiencing unique and added challenges (Hobson, 2006; Long, 2010; Schumm, Bell, Rice, & Sanders, 1996).

Spouses who themselves have prior service experience in the U.S. Armed Services and those who have prior experience as military child dependents are subgroups of the military population that are also underexplored in the empirical literature. Early research measuring stress levels among spouses during deployments to the first Gulf War found that growing up in a military family reduced emotional stress among deployed spouses (Rosen, Teitelbaum, & Westhuis, 1993). Additionally, Padden, Connors, & Agazio (2011) found that while not statistically significant, spouses of deployed service members who grew up in the military had a lower mean Perceived Stress Scale (PSS) score ($M=15.97$, $SD = 6.54$) than did those who did not ($M = 18.14$, $SD = 6.54$). Research on the influence of growing up in the military is limited to studies involving spouses with a deployed partner, but suggests that previous experiences could affect coping and subsequently influence spouse well-being. The researcher was unable to locate any prior studies examining the influence of prior military service. experience on the coping and well-being of civilian spouses, but assumes that prior military skills training and experience with deployments could influence their coping and well-being. For both subgroups, previous

knowledge and familiarity with the culture may help spouses become more adaptable. For those reasons, this study will ask participants to report whether or not they have prior military service experience and or prior experience as a military child dependent. As discussed in chapter one, consideration for the military climate is equally important in the discussion of environmental factors that influence spousal well-being. Today's military climate is one of uncertainty that has many military families on high alert. As DoD works to reshape it's priorities with the gradual drawdown of the GWOT, budget cuts are being made to accommodate a shrinking military force. The quality of life of military families will likely be impacted by the proposed cuts, including a reduction in pay for housing, increased health care costs, and base closures (Shanker & Cooper, 2014). The downsizing of the military also brings with it an air of instability due to uncertainties about job security. Under Defense Secretary Hagel's proposed budget cuts, upwards of 440,000 to 450,000 Army personnel will be dropped from the military in the coming years (Shanker & Copper, 2014). This estimate does not include personnel cuts from the other branches. The impending changes create an atmosphere of instability and ambiguity within the military community, leading to increased feelings of tension and stress among military families.

Deployment. Combat deployments in support of the GWOT are common occurrences within the current military context. To date, there have been more than 2.4 million deployments in support of the GWOT in which more than 50,000 U.S. Service members have been wounded and over 6,640 Service members have died (Fischer, 2013). Deployment is a continuous cycle that goes beyond what is commonly understood as the period when Service members "deploy" to a combat zone such as Iraq or Afghanistan. The Department of Defense (2011) identifies four distinct phases of the deployment cycle: pre-deployment (period of routine training in preparation for deployment); deployment (period of separation from Service member's home installation);

post deployment (Service member's return to home installation); and reintegration (period of readjustment to family life, the community, and regular military duties). Each phase of the deployment cycle has its own set of hardships and opportunities for growth that could result in fluctuations in spousal well-being.

The deployment cycle is considered a routine and "normative crisis" within the military culture, with the majority of military families having experienced it multiple times (Chapin, 2011). Its impact on the functioning of spouses and their families has been well documented in the literature (APA, 2007; Esposito-Smythers et al., 2011; Fraser, 2011; Hosek, 2011; Sheppard, Malatras, & Israel, 2010; Warner, Appenzeller, Warner, & Grieger, 2009). Studies suggest that the majority of military spouses possess high levels of resiliency and are able to adjust and cope with the demands of deployment. Research also indicates that some spouses do report emotional and mental problems that have adverse effects on their well-being (Hosek, 2011; Mansfield et al., 2010; Westhuis et al., 2006). Contrary to the belief that deployment has only negative impacts on the family system and marital relationship, studies have also found that deployment brings some families closer together and can lead to increased feelings of self-assuredness, marital improvement, and self-discovery (Davis, Ward, & Storm, 2011; Hosek, 2011). Even as the operational tempo of the military shifts from an era heavily defined by combat and deployment to one of recovery, deployment remains a critical experience for military personnel and their families. U.S. service members are expected to continue to deploy in support of the GWOT through at least 2015 or longer. Additionally, the overall impact of the current conflict is expected to have long-term effects on the family (Lester et al., 2010; Link & Palinkas, 2013). For these reasons, the present study will inquire about the deployment status of spouses' Service members.

Military Culture

The military lifestyle is directly experienced by only a small percentage of Americans. Over the last decade, less than one percent of all Americans have served in the U.S. Armed Forces, the lowest number since WWII (Pew Research Center, 2011). Military Service members and their families live in a distinct subculture of American society, governed by a separate set of laws, norms, traditions, and values that are shared by all branches of the military to include honor, courage, loyalty, integrity and commitment (Coll, Weiss, & Metal, 2013). The military is largely defined by the act of selflessness, where the expectation is that Service members will sacrifice themselves for the greater good (Hall, 2008; Luby, 2012). There is also a strong sense of pride and unity among members of the military community. This includes military spouses, the majority of whom report feeling proud that they are married to a Service member (DMDC, 2009). Military community members also tend to value group solidarity over individualism (Exum, Coll, & Weiss, 2011). Many of these values are shared by military spouses and are thought to act as protective characteristics that contribute to the overall strength and resilience of the military (Eubanks, 2013). A potential threat to the health and well-being of spouses is the stigmatization of mental health care within the military culture. While the military has taken action towards reducing mental health stigma in the military community (Gould, Greenberg, & Hetherington, 2007), researchers tend to agree that mental health stigma is still prevalent and deters many Service members and veterans from seeking mental health services (BSF, 2014; Dickstein, Vogt, Handa, & Litz, 2010).

The stigmatization of mental health also applies to spouses. Many spouses fear that seeking formal support will negatively impact their Service member's career (Eaton et al., 2008). Consequently, some spouses avoid seeking formal services in order to protect the image of their

Service member (APA Task Force, 2007). Spouses' adjustment to the military culture plays an important role in their health & well-being (Drummet et al., 2003; Stewart Black & Gregersen, 1991). Though many spouses come to adopt the military's values, others may struggle to adjust to the military lifestyle. The worldview of spouses and their adjustment to the military lifestyle is critical to understanding their overall well-being. Practitioners, researchers, and policy makers have a responsibility to acknowledge and understand the unique cultural characteristics of the military before attempting to intervene (Hall, 2011). This study will ask participants questions specific to the military lifestyle in an effort to assess the potential influence of the military culture on the well-being of spouses.

Other important factors include the policies that directly impact the welfare of military families. In recent years, the military has introduced a number of policies intended to enhance the quality of life of military spouses. Policies around education and employment have taken center stage among initiatives targeting spousal satisfaction with military life. They are backed by past studies showing that negative experiences and dissatisfaction in these areas impact military family quality of life and lead to retention issues among military personnel (Harrell et al., 2004). Policies concerning education and employment will be discussed within the mezzo section of the review. Policies regarding the repeal of the 1996 Defense of Marriage Act (DOMA) and Don't Ask/ Don't Tell (DADT) have also garnered attention. Each has led to changes that impact the way in which DoD defines the military family. Recently, LGBT families have become eligible for benefits due to the Supreme Court's overturn of DOMA (Public Law No. 104-199), a federal law that defined 'marriage' as a legal union between only a man and woman as husband and wife and 'spouse' as a person of the opposite sex of a husband or wife (DoD, 2013a). The repeal of DOMA guarantees military benefits to all spouses in a legally binding marriage, regardless of

whether it is a heterosexual or gay marriage. As of August 14, 2013, the policy changes officially took effect, ensuring that all spouses are eligible to receive the full benefits afforded to them (DoD, 2013b).

Military Branches

There are close to 1.4 million military personnel serving in one of the five branches that make up the Active Duty component of the U.S. military (DoD, 2014). Though each of the military branches serves a common purpose to protect and defend the nation, each has its own mission and cultural identity. The Army makes up the oldest and largest military branch employing 38.5% of all active-duty personnel (DoD, 2014). It is primarily tasked with defending the nation on the ground. The next largest service branch is the Air Force (24%), which guards the nation by air and space. It is followed by the Navy (23%), responsible for defending the nation by sea. The Marine Corps comprises 14% of active-duty component and its personnel are trained to fight by both sea and land. They are known as the U.S.' rapid-reaction force and are usually the first branch to respond with "boots on the ground" during times of war. The smallest branch of service is the Department of Homeland Security's (DHS) Coast Guard, which comprises 3% of active-duty personnel. The Coast Guard's mission is primarily in domestic affairs but is unique in the sense that it typically operates under the Department of Homeland Security during times of peace and can be transferred to the Department of the Navy during times of war (Department of Defense, 2013c; Powers, 2013).

While all spouses of military Service members share a common reality, those whose Service members serve in the same branch of service are more likely to identify with one another and encounter a greater commonality across experiences. It is not uncommon to hear a military spouse provide a more specific label that identifies the branch of service in which they are

affiliated with, oftentimes using terms such as “Army wife” or “Navy spouse.” Potential differences in experiences between the branches (i.e. rate and likelihood of combat deployments, service utilization, PCS moves, perceived stress, and satisfaction with military life) could impact the quality of life and well-being of military spouses (DMDC, 2009).

Social Status (Rank)

Social class and rank cannot be ignored when discussing potential indicators of well-being among military spouses. The organization of the military is very structured and tends to be organized according to factors such as rank, job specialty, unit, and place of residence (Burrell, Durand, & Fortado, 2003). The U.S. military operates under a hierarchal system using rank, where the responsibility for personnel, equipment, and mission grows with each increase in rank (Department of Defense, n.d). The titles used to describe one’s rank vary among each of the service branches, but each branch shares the basic rank categories of enlisted, warrant officers, and commissioned officers. The rank of a Service member reflects his or her social status, with officers holding higher authority and status than enlisted personnel. The difference in status between officers and enlisted is often reflected in education, income, access to resources, and level of responsibility. While not synonymous with pay grade, a Service member’s rank impacts their earning potential, living environment, and military status (Daley, 1999; Hall, 2008). The divide in class system creates two separate lifestyles within the same community, with officers typically socializing and living amongst one another and enlisted personnel doing the same (Hall, 2008). Fraternization policies that prohibit personal and business relationships between officers and enlisted personnel are largely responsible for this separation.

The military’s rank structure, while necessary for maintaining the hierarchal system, also impacts the quality of life of enlisted and officer spouses who informally carry the rank of their

spouse (Drummet et al., 2003). Mehta (2012) argues that rank creates a dual class system that perpetuates differences in treatment, role expectations, and stereotypes between officers' spouses and enlisted spouses. Henderson (2006) goes on to say that although separation between spouses is no longer a requirement, spouses of enlisted or officer Service members still frequently segregate themselves. Spouses of enlisted services members are typically younger and those whose service members are lower ranking (E1-E4), are considered an "at-risk" group who report greater difficulty in adapting to the military lifestyle (Booth, Segal, & Bell, 2007; Spera, 2009). Spouses of lower ranking Service members also tend to view deployments as being more stressful than do spouses of senior ranking Service members (DoD, 2009). Further, the 2008 Active Duty Spouse Survey found that spouses of lower ranking Service members perceived themselves as having access to less social support, higher levels of stress, and higher levels of mental health concerns (DMDC, 2009). They also have higher rates of unemployment and a greater percentage are actively seeking work (DoD, 2012). In comparison, officers' spouses are more likely to have a higher education, more income, and greater life experiences (Hall, 2008). Officer spouses are also said to have feelings of increased pressure to hold up the status quo and have higher expectations to volunteer (Mehta, 2012). Many spouses of officers in leadership roles also have added responsibilities to support the military's mission, creating additional time demands that could influence their stress levels and well-being (Massello, 2007).

The divide between spouses based on rank also exists within spouse-led military support groups, where it is not uncommon to find separate spouse led groups for spouses of officers and spouses of enlisted personnel. Hall (2008) likens these groups and the sense of belongingness they bring to college sororities, stating that separation can lead to feelings of inferiority or inequality among enlisted spouses and greater pressure to carry responsibility and fit the mold of

what is expected of officer spouses. Despite the segregation this creates, the military has taken significant strides towards equalizing the differences in services between ranks (Hall, 2011). Even still, macro level discrimination and segregation impacts the functioning of individuals (Corcoran & Nichols-Casebolt, 2004). Perceived discrimination has a strong association with measures of stress and mental health (Kessler, Mickelson & Williams, 1999) and has been shown to be significantly associated with depressive symptomatology among disadvantaged social groups (Schmitt & Branscombe, 2002).

Mezzo

The mezzo level includes characteristics in the immediate social environment (e.g. work, school, church, and other community organizations) that influence the lives of individuals and their families. Individuals' satisfaction with the mid-level systems they interact with contributes to general well-being and has been directly linked to satisfaction in other areas of life (Deci & Ryan, 2008; Milyavskaya, Phillippe, & Koestner, 2013). The mid-level systems reviewed in this section have been linked to the quality of life of military spouses and include systems of formal support, employment, education, and child care.

Formal Support Networks

Perceived social support is a key component to the mental health and wellness of military spouses (Antonucci, Sherman, & Akiyama, 1996) and is a significant predictor of life satisfaction and negative affect (Newsom and Schulz 1996; Sarason, Sarason, & Gurung, 1997; Siedlecki, Salthouse, Oishi, & Jeswani, 2013). Sources of both formal (e.g. programs, organizations, support groups) and informal (e.g. family and friends) support systems have been shown to assist in the recovery of major life stressors (Maton, 1989; McCubbin & Patterson, 1983; Orthner & Rose, 2009). Sources of formal support include agencies and organizations who provide a set of

resources that can potentially enable informal systems and can encourage personal growth among spouses (Bowen, Martin, Mancini, & Nelson 2000; Orthnor & Rose, 2009). Within the military, the overwhelming majority of support programs are offered at no cost. Another important source of support for military families is DoD's Military OneSource website, which is considered the primary mechanism for communicating information and support to military families who are dispersed throughout the U.S. and overseas (DoD, 2009).

Military researchers have emphasized the importance of the power inherent in both formal and informal networks and have advocated for efforts to build community capacity at the local, state, and national level. This has led to new initiatives that reinforce a sense of shared responsibility to connect people with other people and with formal organizations (Huebner, Mancini, Bowen, & Orthner, 2009). Typical sources of support offered to spouses at the community level include the unit leadership of the Service member, military community human service agencies, and Family Readiness Groups (FRGs) (Bowen et al. 2000; Huebner, Mancini, Bowen, & Orthnor, 2009). According to the National Military Family Association, the majority of military families post- 9/11 rely on at least one military support program and find value in their ability to help manage the demands of military life, with rates of service utilization steadily increasing in recent years (NMFA, 2004; 2009). This study will measure levels of formal and informal support using descriptive analyses to describe the frequency in which organizations and sources of support are being accessed.

Since the start of the GWOT, studies involving the effectiveness of formal support services among military families have almost exclusively focused on the utilization rates, effectiveness, and satisfaction of formal support services as they relate to deployment. Major military spouse studies such as the Active Duty Spouse Survey and the Military Family Lifestyle

Survey focus solely on spousal perceptions of level of support during or immediately following periods of deployment (BSF, 2013; DMDC, 2009). Pre- 9/11 research conducted with military wives of Active Duty Army members who deployed in support of Operation Desert Shield/Desert Storm in the early 1990's found that positive experiences with military services during periods of deployment enhances families' views on the supportiveness of the unit leadership and is associated with positive coping post-deployment (Pittman, Kerpelman, & McFadyen, 2004). Similarly, findings from a study with Army spouses of Service members deployed to the GWOT found that perceived social support from the military was predictive of strong adjustment to deployment (Orthnor & Rose, 2006). Spouses service use and satisfaction with family support programs unrelated to deployment has garnered less attention and has been minimally researched within the past decade.

Despite the benefits of support programs, barriers to care limit their accessibility and utilization. Many of the same obstacles that present challenges for obtaining mental health care among military families also present challenges for obtaining support from other formal resources and services. Stigma, inconvenience (e.g. inflexible appointment times, inconvenient hours, lack of child care), misinformation, lack of transportation, and lack of knowledge about how and where to seek assistance may prevent many military families from tapping into the myriad of resources available to them (APA, 2007; Drummet et al., 2003; Murphy & Fairbanks, 2013). National Guard and reserve spouses who do not live near the military community experience an added set of barriers, as many have inadequate access to military support programs and professionals who are familiar with the culture and needs of the community (Murphy & Fairbank, 2013). Additionally, spouses who are new to the military lifestyle may use formal services at lower rates. This is likely because new spouses may be unaware of the various support programs

available to them. Studies have shown that those who have limited support resources are likely to struggle in isolation, increasing their vulnerability to psychological distress and poor well-being (Green et al., 2013; Skomorovsky, 2014; Warner, Appenzeller, Warner, & Grieger, 2009). An exploration of spousal utilization and perceived level of support from these formal supports may help to identify gaps in existing services. A brief review of primary sources of support related to spouse wellness will be summarized here.

Family Advocacy Program (FAP). The Department of Defense has a clear stance against family violence and in 1981 established FAP's across the branches of service (Rentz et al., 2006). FAPs are designed to promote healthy military families through identification, prevention, treatment, and support in cases of family distress. Its overall vision is to “provide education and support for families at risk for domestic violence and child abuse and neglect” and is staffed by clinicians, victim advocates, home visitors and prevention specialists (DoD, 2009, p.38). The prevalence of spousal abuse and child maltreatment poses a serious problem in the military community though research is mixed as to whether rates of abuse are higher or lower than rates in the civilian community (Rentz et al., 2006; Segal, 2006). Along with counseling services, FAP's offer preventative interventions to include public awareness campaigns, parent & family life education, and safety education for children (Military OneSource, 2013). Another subprogram of the FAP is the New Parent Support Program (NPSP), which offers a variety of services (e.g. home visits, parenting classes, playgroups, and referrals) to new and expecting parents at risk for child maltreatment.

Mental health counseling. Spouses have access to mental health care on the military installation through a variety of mental health settings, including behavioral health clinics,

social work services, or through their health care provider. Many of these services have been criticized for being more heavily geared towards the needs of service personnel rather than family members, and this may contribute to the reason why spouses prefer to seek services from the community (APA, 2007). Spouses who prefer to use mental health providers in the civilian community have the option to use their Tricare health insurance plan. Despite the array of services available to military spouses, less than half are believed to seek mental health care when needed (Murphy & Fairbanks, 2013). Of those who seek care, the majority choose to acquire support from non-traditional mental health settings. Eaton and colleagues (2008) found that while mental health stigma is lower among spouses than Service members, upwards of 20 percent who screened positive for mental health problems reported that they solely relied on their primary care physician (PCP) for their mental health care. This is cause for concern due to many PCP's lacking the skills and training to treat spousal mental health problems. Spouses reported issues around difficulty getting time off of work, difficulty getting an appointment, cost, and embarrassment as the top barriers for not seeking mental health care (Murphy & Fairbanks, 2013).

To address the increased need for mental health services that are both flexible and offer confidentiality, DoD established Military One Source Counseling and Military Family Life Consultants (MFLC) – both of which provide confidential short-term counseling to families experiencing stress (DoD, 2009). Military OneSource counseling occurs either face-to-face or telephonic counseling sessions and MFLC's provide on-demand face-to-face counseling to both Active Duty and Reserve Component families. There are also Joint Family Support Assistance Programs (JFSAP) that offer financial counseling, life coaching, and short-term solution focused counseling (DoD, 2009).

Chaplain services/spiritual support. Chaplains in the military have traditionally been used to provide non-medical counseling and deliver seminars and retreats to military families that support healthy functioning (Murphy & Fairbanks, 2013). A survey of Army spouses whose spouse was either deployed or had recently returned from deployment found that the majority who used chaplain services believed that they had a positive impact on their ability to manage the demands of military life (Rayzor, 2011). By tracking spousal utilization rates and satisfaction with religious and spiritual support services, more can be understood about their potential influence on spouse wellness.

Studies conducted with civilian samples have found that spirituality has a positive effect on psychological well-being (Fiorito & Ryan, 2007; Utsey et al., 2007; Unterrainer, Landenhaut, Moazedi, Wallner-Liebmann, & Fink, 2010) and is positively associated with the ability to cope with life stressors (Graham, Furr, Flowers, & Burke, 2001; Tix & Frazer, 1998). Similarly, research on the impact of religion and spirituality among military families has found that spiritual beliefs and practices support healthy functioning (Carlson & Erickson, 2002) and that faith and a belief in God acts as a powerful coping mechanism for overcoming family crises related to deployment, separation, and death (Hamlin-Glover, 2009).

Family Readiness Group (FRG). Family Readiness Groups (FRG) are viewed as critical components to providing family readiness that supports military family well-being (Orthnor & Rose, 2003). They are comprised of a volunteer network of military spouses who provide guidance and support to families of Service members. FRG's have come a long way in being recognized as a positive source of support (Orthnor & Rose, 2007) and have worked hard to shed their image as gossip groups that have historically been believed to further marginalize some spouses by pitting officer against enlisted spouses. Despite efforts to become a primary resource

of support, many military families continue to distance themselves from FRGs. Less than 40% of Army spouses who participated in 2010 Survey of Army Families stating that they participated in their FRG (Rayzor, 2011), and approximately three fourths of those who participated, felt that they were helpful. Other studies have reported mixed findings on the usefulness of FRGs in supporting well-being.

Employment & Education

Military spouses are a highly motivated population whose skills and education typically exceed those of the general population (Institute for Veterans & Military Families, 2014). While the bulk of military spouses are employed, research has found that military spouses earn less and have significantly higher rates of unemployment than their civilian counterparts (Harrell et al., 2004; Institute for Veterans & Military Families, 2014). To be exact, the unemployment rate of military spouses is recorded as being three times that of civilian spouses and the wage gap between civilian and military spouses is 42 percent (U.S. Dept. of Treasury & DoD, 2012). Among spouses who are unemployed, the majority express a desire to work and pursue a higher education (BSF, 2013).

Military spouses face a number of additional obstacles that are not shared by their civilian counterparts. Challenges associated with frequent relocations, family separations, and long work hours of the Service member can offset the degree completion of spouses and make it difficult to find work. Additional problems associated with costs, job market alignment, employer bias, licensure transferability, and childcare concerns negatively impact military spouses opportunities and overall satisfaction with the military lifestyle (Beck, 2012; BSF, 2013; Segal, 2006). Not surprisingly, military family respondents who completed the 2013 Military Family Lifestyle Survey listed spouse employment opportunities as a primary concern (BSF, 2013). Similar to

earlier studies, the majority reported that being a military spouse had a negative impact on their employment opportunities and their ability to pursue a career (Harrell et al., 2004). Interestingly, civilian men married to military women have higher dissatisfaction with their employment opportunities than do civilian women married to military men (Cooney, 2003). The imposed constraints of military life creates frustration among spouses who report feeling “stuck” in their ability to pursue their education and career goals (Jennings-Kelsall, Aloia, Solomon, Marshall, & Leifker, 2012). This places them at higher risk for poor self-esteem (Maguire, Hughes, Bell, Bogosian, & Hepworth, 2014), higher levels of stress (Kerr, Dattilo, & O’Sullivan, 2012) and depression (Jefferis et al., 2011), all of which contribute to poor well-being. Furthermore, military families who depend on two incomes to make ends meet are at risk for financial instability (DoD, 2009).

Despite these obstacles, Blakely and colleagues (2012) found military spouses to be extremely resourceful, with many having responded to challenges in finding work by pursuing self-employment opportunities. The growth in entrepreneurship among military spouses is expected to grow and is ideal, providing the flexibility to work from home and without geographic restrictions (BSF, 2013). Fortunately, organizations at the national and state levels have also responded by creating programs and opportunities to help spouses overcome educational and employment obstacles. Programs and benefits such as the Post 9/11 Bill (extends the educational benefits of service member’s to their dependents to cover the costs of tuition and books), Career Advancement Accounts (provides grants to enable spouses to pursue college, training, certifications, and licensure), Military Family Licensing Act (provides license portability between states), and the Military Spouse Employment Partnership (MSEP) (a targeted recruitment and employment initiative that provides career & education counseling, coaching, and job search

assistance) have been a tremendous help for spouses who are interested in furthering their careers. Additional positives cited by spouses include the availability of academic programs on or near the military base, spousal preference employment initiatives, and employment training and workshops (Harrell et al., 2004). Studies indicate that even with the abundance of resources more work needs to be done around awareness as many spouses are still unaware of the services available to them (BSF, 2013; Booth et al., 2007).

Childcare

A primary hindrance to education advancement and employment among spouses is the perceived lack of quality child care for those who are parents to young children. Military families are many times not afforded the benefit of relying on trusted family members or friends to watch their children, and therefore may have to rely on the services of child care providers. Noted challenges to securing quality child care are primarily related to limited availability (e.g. operating hours and wait-lists) as well as locating and paying for quality child care (BSF, 2013; Harrell et al., 2004; NMFA, 2004). The literature suggests that the lack of childcare during parental deployments can cause significant problems for military families. A representative sample of spouses surveyed in 2008 reported issues related to childcare with 68 percent stating that managing childcare is a problem and nearly half of the sample reporting that they had additional costs associated with childcare (DMDC, 2009). Similar results were found in studies surveying Army and Air Force families separately. Less than half of all Army parents surveyed in 2010 felt that they were able to manage the task of arranging childcare (Rayzor, 2011). Air Force spouses cited difficulties finding a job that paid enough to cover the costs of childcare as the most common problem for not working (Miller, Meadows, Hanswer, & Taylor, 2011). The evidence points to lack of accessible and affordable childcare as a source of stress for military

spouses that can compromise their well-being. From this research, it appears that adequate childcare, or a lack thereof, contributes to a negative cycle hindering some spouses from reaching their fullest potential.

DoD recognizes that issues around child care causes military families strain and added stress, and in 2012 established a five-year plan to increase awareness and availability of childcare services. Initiatives include the development of a website that enables customers to request childcare programs & services, the construction of new facilities, and partnerships with community providers (DoD, 2012). Others have suggested improvements through increases in hourly care, childcare options for children with special needs, and respite care for families in need of a break (NMFA, 2004).

Micro

The micro system is comprised of smaller social systems that include the individual's family and close relationships. According to ecological theory, these close relationships have the greatest impact on personal well-being (Bronfenbrenner, 1989). Social support at the mezzo level has consistently been regarded as a protective factor against the effects of stress, thereby contributing to well-being (McCubbin et al., 1980). The focus of this section is to bring attention to the potential impact of family relationships and informal sources of supports on spousal well-being.

Family Functioning

For the sake of clarity, the present study defines family as the social unit that consists between spouses/life partners and their children. Family systems theory postulates that family members cannot be understood in isolation from one another. When there is a change in the functioning of one family member, the other family members are also affected (Bronfenbrenner,

2005). This is true whether the change is positive or negative. Olson and Gorall (2003) argue that healthy family relationships are only achieved when the individual and family are able to strike a healthy balance that allows them to be both independent from and connected to one another, which is particularly relevant for military families who frequently experience separations. The primary vehicle for facilitating healthy family functioning is communication between family members. Communication is typically measured through listening skills, speaking skills, self-disclosure, clarity, staying on topic, respect, and regard and individuals satisfaction with their family system (Olson & Gorall, 2003). Positive communication is particularly important during periods of deployment when interaction may be limited. Hosek (2011) found that positive communication during deployment helps to decrease stress caused by the family separation and Chandra and colleagues (2011) found that household challenges among military families decreased as the quality of family communication increased.

Healthy family functioning is vital for military families and has been shown to directly and indirectly influence personal and family well-being (Farajzadegan, Koosha, Sufi, & Keshvari, 2013). Families who report higher levels of family satisfaction have lower levels of stress and a higher sense of well-being (Edwards & Rothbard, 1999; McCubbin et al., 1980). Those who report less satisfying family relationships are at risk for poorer mental health (Edwards & Rothbard, 1999; McCubbin et al., 1980). Social support is regarded as the primary mediator that protects families from poor well-being and has been shown to protect individuals from the potentially harmful effects of stressful events (Armstrong, Birnie-Lefcovitch, & Ungar, 2005).

When looking at family functioning within the military population, few studies examine well-being among families holistically, with the majority focusing on either the marital or the parenting relationship. Of those studies that look at the entire family system, most center on the

functioning of the military family during periods of deployment and separation. Issues that are believed to place families at greater risk for poor well-being are longer deployments and the return of Service members who have suffered emotional or physical wounds (Chandra et. al, 2013; Hosek, 2011; Flake et al., 2009; Fraser, 2011; and Paley et al., 2013). In contrast with previous findings, Asbury and Martin (2012) found that neither length nor frequency of deployments had any bearing in moderating the constructs of stress or well-being.

Marital Relationship

The marital relationship is a primary source of social support and is an important component to the coping and well-being of military spouses. Higher marriage quality has been found to be a buffer against high rates of stress, depression, and anxiety and has been linked to higher rates of life satisfaction and physical health (Chioqueta & Stiles, 2007; Holt-Lundsted, Birmingham, and Jones, 2008; O'Brien, DeLongis, Pomaki, Puterman, & Zwicker, 2009; Simons, Lorenz, Wu, & Conger, 1993). Previous studies examining the rates of marriage satisfaction among military spouses have yielded mixed results. Since the start of the GWOT, rates of divorce across all branches of Service were steadily increasing until the most recent year when rates of divorce were lower in 2013 than in 2013 for every branch except for the Navy (DoD, 2014). Still, several large-scale studies report that the majority of military spouses are generally satisfied with their marriages (BSF, 2013; 2014; DMDC, 2014; DoD, 2009). Age, social status (enlisted vs. officer), and race have all been found to be associated with marriage satisfaction among military spouses. Spouses who are older and those married to officers typically report higher levels of marriage satisfaction (DoD, 2009) and lower levels of marital problems than do spouses of enlisted personnel (DMDC, 2009). African American spouses also tend to report significantly lower levels of marital satisfaction when compared to White and Hispanic spouses

(DoD, 2009). Research on gender differences in marital satisfaction rates among military spouses is scarce, though civilian samples have consistently found that women tend to feel more responsible for managing the relationship (Vogel & Karney, 2002) and are more sensitive to problems that arise in the marriage (Bradbury, Beach, Fincham, & Nelson, 1996).

A key construct in marriage satisfaction among military families is deployment. Deployment has been found to influence spousal perceptions' about the quality of their relationships. Deployment status (deployed vs. not deployed) and length of deployment (<6 or >6 months) have been shown to add significant strain on military marriages, with longer and more frequent deployments resulting in lower levels of marital satisfaction (DoD, 2009; Flake et al., 2009; Karney & Crown, 2007; Rayzor, 2011). The probability of divorce has also been shown to increase as the total months of deployment increases (Hosek, 2011). In a comparison between military and civilian spouses, one study found a statistically higher level of marital discord among the military spouse participants, finding that 80% of military spouse participants had frequently considered divorce compared to 17% of civilian spouses (Asbury & Martin, 2012). Another study surveying spouses of both deployed and non-deployed Service members found that most active-duty military spouses report that they are satisfied with their marriages despite the demands of military life (DMDC, 2014).

Collectively, the data suggest that deployment poses a risk to the marriages of military families and can potentially impact spousal ability to cope with stress. Researchers who have sought to understand how deployment impacts the marital relationship have found changing roles in the marriage and problems growing apart as major issues described by spouses (Chandra et al., 2011). An exploration of the various sociodemographics associated with the relationship of family functioning will be examined in the study.

Parenting

The 2012 Demographics Profile of the Military Community published by DoD reports that there are just shy of two million U.S. military children, with children under the age of five comprising the largest percentage (DoD, 2013). The military lifestyle of the Service member consists of long duty hours, routine trainings, and deployments, oftentimes making the military spouse the primary caregiver of any children. During periods of deployment, the responsibilities and demands of the spouse become further amplified. Tasks that were previously shared with the service member become the sole responsibility of the spouse who must also now manage the emotional needs of their children. In all, military children are resilient and do extremely well during periods of both peacetime and deployment (Weins & Boss, 2006). There are, however, a number who struggle and experience challenges that can impact their well-being (Flake et al., 2009; Paley et al., 2013; Park, 2011). In a study seeking to understand the functioning of military children and their non-deployed caregivers during deployment, non-deployed caregivers described experiencing parenting problems with their child's behavior and challenges around their child's behavior in school (Chandra et al., 2011). Subsequently, the compromised well-being of the child(ren) creates stress for the parent, thereby also impacting his or her own well-being.

Pregnancy during deployment or during the post-partum period also poses a risk to spousal well-being and has been associated with an increased risk of postpartum depression (Robrecht, Millegan, Leventis, Crescitelli, & McLay, 2008; Smith, Munroe, Foglia, Nielsen, & Deering, 2010). Spouses left without the emotional support of their partner are unable to share in the typically joyous experience of pregnancy with their partner. This can contribute to increased stress, particularly following the Service members' return from deployment when family

members are relearning their roles in the family. The parenting demands placed on spouses may lead to feelings of “role overload,” leaving spouses at risk for psychological distress (Voydanoff & Donnelley, 1989). The 2010 Army Spouse survey found that spousal perceptions of their ability to manage child-related tasks well lessened while the Service member was deployed and when compared to 2004/5, there was an overall decrease in spousal confidence in parenting abilities (Rayzor, 2011). This finding may signal that the long standing GWOT is beginning to take a toll on military spouses, the majority of who have experienced deployments multiple times.

Despite these risks, the majority of military spouses are able to effectively balance the demands of parenting with their varying roles and responsibilities. Furthermore, parents who agree about the parenting style and childrearing of their children are more likely to have a stable family environment and experience higher levels of family satisfaction (Olson & Gorall, 2003). Families who do not agree on the parenting style of their children typically experience more conflict and increased levels of family dysfunction (Olson & Gorall, 2003). Fortunately, many military spouses have access to parenting resources and rely on the support of their friends and family to help manage the physical and emotional demands of parenting.

Informal Support

Military spouses depend heavily on the informal support of family and friends when they have personal or family problems or need additional support in managing the demands of military life (Huebner et al., 2009; Orthner & Rose, 2006; Orthner & Rose, 2009; Rayzor, 2011; Wiens & Boss, 2006). These important relationships are critical and have been shown to serve a protective role against a myriad of stressors that can potentially have a negative influence on the well-being of military spouses (Bowen & Martin, 2011; Fields, Nichols, Martindale-Adams, Zuber, & Graney, 2012; Verdeli et al., 2011). Strong informal support has been linked to fewer health

problems, higher self-esteem, and better personal adjustment to stressors (Orthnor & Rose 2009; Sinokki et al., 2009; Thompson & Peebles-Wilkins, 1992).

Spouses who provide social support to others can also reap rewards. Research has shown that individuals who provide support to others experience feelings of pride (Sommer & Bourgeois, 2010), an increased sense of purpose (Taylor & Turner 2001), and increased odds of well-being and health (Post, 2005). Studies on military spouses have found that support from another spouse acts as a buffer against the stress of separation caused by deployment (Martin, Rosen & Sparacino, 2000; Rosen & Moghadam, 1990). Green, Nurius, & Lester (2013) found that spouses at the greatest risk for low levels of social support are those who have not yet graduated college, have fewer financial resources, and those who became a parent at age 24 or younger, placing them at greater risk for psychological distress. Additionally, findings for the Survey of Army Families V (SAF-V) found that enlisted spouses, especially those in the lower ranks, were less likely to have support from friends and family than officer spouses (Orthnor & Rose, 2005). Civilian male spouses, spouses from Hispanic backgrounds, and those living in the communities for less than a year also reported lower levels of social support (Orthnor & Rose, 2005). Distance from the military installation had no effect on the likelihood of having a close relationship. These findings suggest that while overall, military spouses appear to have high levels of social support, certain subgroups are at risk for lower social support and may influence their well-being, warranting the need for further investigation.

Social media. Social media is an important source of social support for the majority of spouses who readily use it to sustain communication with their loved ones. The 2014 Military Lifestyle Survey found that spouses rely heavily on social media to connect with their loved ones during deployment as well as with family and friends. A total of 95% reported using social

media, and 75% reported using websites, predominately Facebook, to connect with friends and family who did not live near them (BSF, 2014). The 2011 Army Spouse Survey also captured spousal use of social media and found that nearly 96 percent relied on the internet and email to connect with their deployed Service member (Rayzor, 2011). Organizations have also taken advantage of social media as a platform to extend formal support to military families. The Military OneSource website and military.com were reported among the top three online resources that military families access (BSF, 2013). Emerging research theorizes that social media may indirectly influence well-being by increasing feelings of connectedness among some while helping others avoid social isolation (Dohyun & Dong-Hee, 2013).

Individual

Military spouses are a diverse group of women and men who are generally healthy and do well in life. Their socio-demographic characteristics and experiences largely define who they are and how they cope within the military environment. Information pertaining to spouses' personal characteristics yields important data about their overall well-being. This section will provide a general overview of what is known about military spouses' demographics, mental and physical health traits, resilience traits, and life satisfaction.

Demographics

Military families tend to marry younger, belong to a racial or ethnic minority group, and are more likely to have graduated from high school or have some college than the general public (Harrell et al., 2004). These factors result in a young, diverse, and educated military spouse population. The *2012 Demographics Profile of the Military Community* reports that there are over 1.1 million spouses, in which 93 percent of active-duty spouses are women. Of those, approximately 30 percent identify with a racial or ethnic group (DMDC, 2009). Nearly half

(46.2%) are 30 years of age or younger, another 33 percent are ages 31 to 40, and 20 percent are over the age of 40 (DoD, 2013c). These overarching demographics shed light about some of the risk and protective factors that may influence spouse well-being.

Research generally indicates that young age and identification with a racial or ethnic minority group may be a risk factor for poor well-being while higher education typically acts as protective barrier. Spouses who are younger in age and are newly married to a service member appear to face increased challenges and may be at higher risk of poor well-being (Karney & Crown, 2007). Hall (2008) puts forward that many young and newly married spouses have trouble adjusting to the military lifestyle and struggle with being isolated from their friends and family. She goes on to say that younger spouses initially lack the knowledge and skills needed to seek support from resources in the military community, placing them at higher risk for experiencing elevated levels of stress.

In regard to gender, research has almost exclusively focused on female spouses and has given minimal attention to male spouses in the Active (7 percent) and Reserve (13 percent) Component (DoD 2013c). The military male spouse population is expected to grow as the number of women serving in the military continues to rise. Existing programs and resources were initially created for and typically target wives of Service members. This may lead to feelings of isolation among male spouses who might find it challenging to build strong support networks within the military community. Findings from the 2008 Active Duty Spouse Survey found that female spouses reported higher levels of perceived stress as compared to males, and that male spouses were more interested in having their spouse leave service (DMDC, 2009). Data suggests that elevated stress scores among female spouses may well be attributed to gender expectations. Harrell (2003) argues that the military spouse is a socially constructed gendered role that places

added pressure on female spouses to volunteer and provide unit support. She argues that male military spouses are not held to the same standards and are not expected to fill the same obligations and therefore experience less stress. Though Harrell makes a valid argument, military experts contend that male spouses experience a different set of expectations, stating that their role as a military spouse may clash with their sense of who they are as males, since the role of the “warrior” is typically a position assigned to men (Sanchez, 2011). The researcher was unable to locate any studies within the academic literature outside of Hobson’s (2006) phenomenological dissertation that focuses on the deployment experiences of male military spouses who are married to Active Duty Navy women. Hobson found that participants experienced varying levels of stress adjusting to their roles as both a military spouse and primary caregiver for their children during periods of deployment. He also found that participants grew to accept their new roles and reported that the paternal bonds with their children were strengthened as a result (Hobson, 2006). Hobson’s initial findings suggest that male spouses exhibit strengths that could potentially aid in their ability to manage the demands of the military lifestyle. A basic internet search on male military spouses yielded limited results. The Military OneSource website offers an information sheet that provides a summary of what male spouses should expect and how to adjust to life as a male spouse, but resources on where to go for support are not provided (Military OneSource, n.d). The researcher did locate one online resource named *Macho Spouse* that provides information and support for male military spouses (Macho Spouse, n.d.). In sum, very little is known about the functioning of male spouses and Hobson’s initial findings suggest that further research is needed.

Concerning race and ethnicity, minority spouses have received little attention in the academic literature despite a high percentage (30 percent) of minority families within the military.

Among civilian families, ethnic values and identity play a significant role in a family's functioning, overall satisfaction with life, and well-being (Hicks, 2013; Liebkind, 1992; McGoldrick, Giordano, & Garcia-Preto, 2005; Phinney, Horenczyk, Liebkind, & Vedder, 2001). In general, minorities are thought to be at higher risk for poor well-being due to their greater likelihood of being at the receiving end of racism and discrimination, both of which are highly associated with poor psychological well-being and decreased physical health (Heim, Hunter, & Jones, 2011). Conversely, research with racial minority groups has found that identification with ethnic background helps to maintain high self-esteem, creates a sense of community, and acts as a protective factor against poor well-being (Phinney, 1990). Within the military, racial and ethnic discrimination has also been noted as a long-standing problem despite conscious efforts by the military to ensure equality and fair treatment. Risk and protective factors specifically among military minorities have been less explored.

A thorough search of the literature generated little information about the influence of race and ethnicity on the well-being of military spouses. Westhuis and colleagues (2006) conducted an exploratory study examining whether ethnicity (Caucasian, African American, Hispanic, or other minority) had an intervening role on how well female Army spouses with children cope with everyday stresses. The study gathered data from 4,464 female spouse participants who participated in the 2001 Survey of Army Families IV and hypothesized that certain variables (age, marital satisfaction, financial problems, emotional problems, education, and social support) would differ in their impact on spousal coping based on ethnicity. The researchers found similarities in coping behaviors between each of the three ethnic groups (Caucasian, Hispanic, & African American) but found that areas of family functioning, finances, spousal employment, and emotional problems appeared to be more sensitive for African American and Hispanic spouses. A

noted limitation of the study is the comparatively small sub-sample of Hispanic and African Americans. Moreover, the study is limited to three ethnic groups, focuses solely on Army spouses, and was conducted prior to 9/11, further limiting its generalizability to spouses in today's military environment. The *2008 Active Duty Spouse Survey* showed that racial and ethnic minority spouses reported similar levels of social support but higher levels of perceived stress as compared to Caucasian spouses (DoD, 2009). Conversely, the *2004/5 Survey of Army families* found that Hispanics reported having few closer relationships and both Hispanics and Blacks were less likely to see their communities as supportive as compared to White spouses (Orthnor & Rose, 2005). Interestingly, results from the same sample found that when controlling for the use of informal and formal supports, Black spouses had significantly higher levels of well-being ($\beta = .48; p < .01$) than White spouses (Orthnor & Rose, 2009). When the use of supports is not included, results show no significant difference. Research on immigrant spouses is further limited, though it seems reasonable to assume that their experiences with potential language, economic, and cultural barriers present challenges in adapting to the military lifestyle. Collectively, the findings on ethnic and minority spouses suggest the need for further research that explores their strengths and resources.

Mental Health

The psychological health of military spouses has garnered much attention since the start of the GWOT. Studies have made known that the majority of spouses are adaptive and in good mental health despite experiencing multiple stressful life events (Lara-Cinisomo et al., 2012; NMFA, 2011). Still, there are a portion of spouses, particularly during and around the time of deployment, who struggle to successfully manage the demands of military life. This places a minority of spouses at an increased risk for psychological distress.

Perceived stress. A study conducted by Burton, Farley, & Rhea (2009) that compared levels of perceived stress (PSS-10) and somatization (PHQ-15) between spouses of deployed ($n = 62$) and non-deployed ($n = 68$) Service members found that spouses of deployed service personnel had significantly higher rates of perceived stress and somatization than spouses of non-deployed Service personal ($p < .001$). The study findings also found a significant correlation between level of perceived stress and level of somatization ($r = .878, < p = .001$). Similarly, findings in a study of 367 military spouses (Faulk, Cloria, Cance, & Steinhardt, 2012) found that a third of spouses whose Service member was deployed showed moderately severe levels of depressive symptoms, measured using the 20-item Center for Epidemiological Studies Depression scale (CES-D), even after controlling for demographic and deployment variables ($\beta = .59, < .001$). In contrast, positivity was shown to have a negative association with depressive symptoms ($\beta = -.39, < .001$) and played a moderating role on the relationships between stress and depressive symptoms ($\beta = -.29, < .001$). A review of the literature on the psychological health of spouses with a Service member who is currently deployed or recently returned finds that high rates of depression among spouses exist (Verdelli et al., 2011), with some researchers suggesting that poor mental health among spouses is becoming increasingly problematic as the war rages on (Booth et al., 2007). If left untreated, these problems can lead to long term consequences. Certain subgroups of spouses have been found to be at increased risk of elevated stress during and around the time of deployment. Specifically, this includes spouses who marry earlier and have children sooner (Ahmadi & Green, 2011), spouses who are pregnant and who already have young children at home (Warner et al., 2009), and spouses of service members in the National Guard and Reserves (Erbes, Meis, Polusny, & Arbisi, 2012; Verdelli et al., 2011).

Stressful life events. Scholars in the area of stress and coping report that stressful life events can have detrimental effects and are associated with suicide, anxiety, depression, physical health risks, and substance abuse (Kendler, Kawkowski, & Prescott, 1999; Kessler, 1997; Lantz, House, Mero, & Williams, 2005; Lavee, McCubbin, & Olson, 1987). Evidence suggests that negative life events are associated with poor wellbeing and mental health outcomes, arguing that the perceived impact of life events may be a stronger predictor of well-being than the number of life events participants experience (Burns & Machin, 2013). An exploratory study examining relationships between depression, stressful life events, social support, and self-esteem in 100 middle class African American women aged 20 to 35 years, found a positive correlation between depression and stressful life events and a negative correlation between depression and social support. Findings from the study's regression analysis, using depression as the dependent variable, revealed that 15% of the variance was accounted for by stressful life events and social support, while self-esteem did not significantly contribute to the model (Warren, 1997). The findings suggest the stressful and potentially traumatic past life events may negatively impact factors associated with well-being. The lack of evidence surrounding the impact of past stressful life events on the current functioning of military spouses remains unknown and warrants further examination.

Among media and news outlets, there is also a growing interest in spousal suicides. The military does not currently track attempted or completed suicides of military family members. However, advocates argue that tracking family member suicides would help to validate whether anecdotal reports that spousal suicides are growing are in fact true and would help to identify whether there is a problem that needs to be addressed (NMFA, 2013). The closest estimate of spousal suicidal ideation comes from military family members who participated in the 2013 and

2014 Military Family Lifestyle Survey, in which 9% of military spouses in 2013 and 8% of spousal respondents in 2014 reported that they had “ever considered suicide” (BSF, 2013; 2014). In all, research finds that spouses who are highly educated, are in healthy marital relationships, maintain a positive outlook, and have strong systems of support are more likely to avoid the negative effects and risks for poor well-being (Chioqueta & Stiles, 2007; Faulk et al., 2012; Chapin, 2011; Fields et al., 2012).

To summarize, the research provides important information on many of the risks, stressors, and protective factors that may influence military spouse well-being. A noted limitation of these studies is that most focus exclusively on military spouses during periods of deployment and fail to include other important environmental and social variables associated with well-being. The present study seeks to augment what is already known about the mental health of spouses by adding new information around potential influences of well-being unrelated to deployment and seeks to uncover and explore various potential predictors of well-being to provide greater context around spousal functioning. The study may also reveal constructs not previously considered that influence the mental health of military spouses.

Physical Health

In the matter of physical health, military spouses are thought to be predominately healthy though little data on the physical health of military spouses is available within the academic literature. In Burrell, Durand, & Forado’s (2003) study with Army Active Duty and Reserve Spouses, over 95 percent reported average-to-excellent physical health when responding to the question, “How would you rate your current state of physical health?” Likewise, the 2006 and 2008 Active Duty Spouse Surveys each showed that nearly all spousal participants ranked their overall health between good and very good, with only 2 percent reporting poor health (DMDC

2007; 2009). While these results are promising and suggest that spouses generally do well physically, there are those who experience psychological distress, placing them at risk for poor well-being. Padden, Connors, & Agazio (2011) found that among their sample of 105 female Army Spouses, physical well-being is negatively correlated ($r = -.487, p < .001$) with perceived stress. Similarly, findings from a sample of 346 Army spouses who experienced at least one deployment while living overseas found that both living in a foreign country and fear for Soldier safety were negatively related to physical well-being (Burrell et al. , 2006). Further research on the impact of the military lifestyle on physical well-being is warranted given the potential long-term consequences of poor physical health on well-being.

Alcohol and drug use. The negative impacts of alcohol and drug use on personal well-being are well documented within the research literature (Hawkins, Catalano, & Miller, 1992; Olsen, Allen, & Azzi-Lessing, 1996). However, research among substance abuse within the military spouse population is extremely limited. Existing evidence on alcohol and drug abuse among Army military spouses predicts little increase in substance use from 2001-2007, with only 2% report alcohol or drug abuse in 2001 and 4% in 2004 and 2005 (Booth et al., 2007; as cited in Ahmandi & Green, 2001). The study of military spouse alcohol and drug use is thought to be an important predictor in determining outcomes of well-being, with research suggesting that a minority of spouses are likely to develop adverse coping mechanisms in order to deal with the stressors of military life, placing them at greater risk for substance use (Ahmadi, 2011).

Resilience

Resilience is a multifaceted concept that describes an individual's ability to 'bounce back' and recover from stress (Tusaie & Dyer, 2004). The term resilience has been embraced by the military community and is often used to describe service members and their families who continue to fare well despite multiple years of engaging in conflict and experiencing repeated deployments and separations. Among military researchers, resilience is regarded as being one of the most important factors in predicting successful outcomes for military personnel and their families (Sinclair & Britt, 2013). Although the majority of military families are able to adjust to the demands of the military, the military recognizes that a number of military service members and their families require additional support in handling the stresses of military life. This has resulted in new initiatives toward the development of resilience programs and trainings offered to both service members and their families (APA, 2013; Meredith et al., 2011).

Other studies have found that the impact of deployment and multiple life stressors on the well-being of some spouses results in psychological growth and gained strength (Chapin, 2011). In 2011, RAND conducted a thorough literature review on factors that contribute to the psychological resilience of the military across the ecological system, reviewing over 270 documents (Meredith et al., 2011). Their review resulted in a limited number of rigorous studies that assessed well-being. Factors with the most evidence towards resilience at the individual level include positive thinking, positive affect, realism, and behavioral control. At the family-level, family support has the highest correlation, and at the unit level, positive command climate has the strongest relationship with resilience. Sense of belongingness was found to have the most evidence at the community level. RAND's findings suggest that work around resilience should move beyond the family and individual to include the unit and community so that change can occur on a larger scale. Through viewing the spouse as part of a larger system, lasting positive

change and growth among spouses can only be sustained if the entire system is influenced. Another study conducted by Hamlin-Glover (2009) found that a combination of coping resources; satisfaction with the military lifestyle; low levels of experienced stress; increase in community support; unit support, and both faith and spirituality all contributed to resilience among military families. Furthermore, positive functioning in the marriage has also been found to be a predictor of resilience among military families (Melvin et al., 2012).

Together, the literature offers much insight into the variables that promote resilience among spouses, providing important information around factors that may influence their overall well-being. Military spouses are thought to possess high levels of resilience due to their ability to cope with military-related life stressors, such as lengthy and repeated deployments, separations, and frequent relocations (Blakely, Hennessy, Cheung, & Skirton, 2012). Asbury & Martin (2012) found that despite the many stressors military spouses face, those who experience deployment separation do not report higher levels of depression and anxiety when compared to their civilian spouse counterparts, regardless of the length of time their partner was deployed. Asbury and Martin (2012) speculate that this could be due to increased services and access to social support, however this may also be attributed to other traits. Though plausible, there is continued need for further investigation concerning the resiliency traits of military spouses. An exploration of the interplay between resilience and well-being may help researchers better understand how spouses can learn to build their resiliency and may help in the growth of social policies that promote spousal well-being across the ecological system. Social work interventions such as Saleebey's strengths perspective (1996) which focuses on recognizing inner strengths is loosely related to the term resilience and may prove to be useful in understanding the resilient traits of spouses (Wood, Linley, Maltby, Kashdam, Hurling, 2011). Unlike many studies that operate from a deficit

model, this study seeks to add emphasis to spouses strengths by asking them to complete a resilience scale as well as asking them to offer words of advice to spouses new to the military lifestyle. The inclusion of a strengths approach in the examination of spousal resilience is advantageous because it allows for a more comprehensive overview of military spouse well-being (Fraser, 2012).

Life Satisfaction

Life satisfaction centers on a person's own judgments and is a common predictor of general well-being (Diener, 1984). Shin and Johnson (1978) define life satisfaction as "a global assessment of a person's quality of life according to his chosen criteria" (p.478). Low levels of life satisfaction have been found to be highly correlated with depression though anxiety and life satisfaction appear to be only moderately correlated (Heady, Kelley, Wearing, 1993). Therefore, it is unlikely for an individual to be both depressed and highly satisfied with life but it is not uncommon for someone to be both anxious and satisfied with life. Additional predictors of life satisfaction include self-esteem (Diener & Diener, 1995), self-rated health (Palmore & Luikart, 1972), and interpersonal relationships (Froh et al., 2007).

An early study on military wives found that those with greater life satisfaction tended to report greater perceived social support from friends and family, internal locus of control, and lower levels of emotional distress (Klein, Tatone, & Lindsay, 1989). Additional results from the interview data point to the importance of adaptability and "fit" into the military lifestyle, securing employment, and marital quality as potentially contributing variables. More recent studies on military spouses suggest that they are generally satisfied with their lives, however officers' spouses consistently report higher satisfaction than do spouses of enlisted personnel (BSF, 2013; Booth et al., 2007; DMC 2007 & 2009; Rayzor, 2011). As discussed elsewhere, this is likely

attributed to quality of life issues related to social status, economic resources, and education. Other contributors to low life satisfaction are related to financial concerns around spousal employment and a lack of organizational support (BSF, 2013; Bowen & Neenan, 1990). These predictors will be re-examined in the present study in hopes that it will help to identify spouses who may be at greater risk for low life satisfaction and poor well-being. In addition, the present study will include spouses' descriptive responses about the rewards and challenges of military life in an effort to bring greater context to the underlying factors that influence their life satisfaction and well-being.

Gaps in Knowledge

The aforementioned literature offers valuable insight into the functioning of military spouses while also highlighting existing gaps surrounding their well-being. A noted deficit in the existing research is that it has primarily focused on specific element of spouse well-being (i.e. relationship functioning, mental health, coping) rather than emphasizing multiple facets and has heavily concentrated on the mental/psychological component of well-being, while mostly ignoring the physical and social components of well-being. Further, although some overlap is expected between predictors of the identified military spousal well-being components, little is known about the variations and similarities that exist between them. Another noted limitation is the lack of research that involves spouses from more than one branch of military service. The vast majority of research involving military spouses has been conducted with those who are married to Service members in the U.S. Army, with far less research examining spouses affiliated with the other branches of service, with only a select few involving spouses from more than one branch of service (ADSS, 2006; 2008; 2012; MFLP, 2011; BSF 2013; 2014). Though branch specific research is important in helping decision-makers tailor policies and services unique to the

needs of families within each service, research involving spouses from the different branches offers a rich source of data for exploring their similarities. In addition, there appears to be very little empirical research that emphasizing the strengths of military spouses. The majority of military spouse research has focused on identifying their needs and challenges. As a result, many of the underlying resources and characteristics that contribute to military spousal resilience are still unknown (Meadows, 2012).

Finally, it is important that research focus on both challenges and rewards of military life unrelated to deployment. Research in the years since 9/11 has almost exclusively focused on spousal functioning during periods of deployment and reintegration, offering little attention to other sources of stress that may affect spouses' well-being (Chandra et al., 2011). While this research has been timely and important, attention to other important and potentially traumatic life events unrelated to deployment (i.e. birth of child, childhood trauma, loss of relative, injury, relocation), may deepen our understanding and appreciation of other influences that may impact military spouses' functioning and well-being. An understanding of these life events may help to bring greater attention to the experiences, resources and needs of military spouses.

In summary, the review of the military spouse literature presented here provided a foundation for the study's line of inquiry and research questions. The study sought to add to the existing body of knowledge by describing, exploring, and testing combinations of multi-systemic characteristics of well-being among the active-duty military spouse population that were not yet explored in the academic literature.

Summary of Key Constructs

The review of the military spouse literature points to a number of interrelated constructs that may be linked to military spousal well-being. Recognizing that research on the holistic well-being of military spouses is limited, this section pulls together key constructs thought to be associated with the functioning and well-being of military spouses, Figure 2. The constructs presented here were used to inform the development of the survey questionnaire and research hypotheses. In order to test the hypotheses, similar variables were categorized into groups (risk factors; protective factors; demographics; military lifestyle characteristics) and then organized under larger collections (risk & protective factor characteristics and socio-demographic characteristics). Decisions about the placement of variables within certain groups were chiefly informed by their association to mental well-being, since the military spouse literature places little focus on social and mental well-being, and the direction in which the variables were tested (i.e. items scored positively were grouped under protective factors and items scored negatively were grouped under risk factors). This study explored the same sets of variables across each component (social, mental, and physical) of military spousal well-being in order to assess similarities and differences.

Risk & Protective Factors

Risk Factors

- Alcohol/drug use
- High level of perceived stress
- History of stressful life events

Protective Factors

- Resilience
- Positive family functioning
- Utilization of support resource

Socio-demographics

Demographics

- Age, sex, race,
- Education level
- Employment status
- Children

Military Lifestyle Characteristics

- Military branch
- Service member rank
- Service member deployment history
- Location of Duty Station
- Number of PCS moves
- Prior military experience/familiarity

Figure 2
Variables of Interest

In this study, the risk and protective factor characteristics acted as the primary predictors of military spouse well-being because of the existing evidence which has supported a clear association between risk and protective factors variables and outcomes of health and personal wellness (Cohen, Kamarck, Mermelstein, 1983; Green et al., 2013; Olson, 2010; Olson & Barnes, 2010). Participant's socio-demographics (i.e. individual and military characteristics) were conceptualized as secondary predictors since there was less evidence to support their association to the outcomes of military spousal well-being and the researcher was primarily interested in uncovering whether the unique socio-demographic characteristics of military spouses predicting well-being over and above what was accounted for by the risk and protective factor variables. It is worth noting that because of the exploratory nature of this study and lack of consensus on the best measures for studying dimensions of personal well-being, the study's use of language with such terms as "outcomes" of well-being, are used generally and the findings should be considered tentative. The means by which the identified constructs were tested are discussed in depth in chapter 3.

Research Questions and Hypotheses

As a result of the literature reviewed and the purpose of this study, the following five research questions will be explored:

RQ1. What are the multidimensional characteristics of the military spouse sample?

RQ2. Are there observed differences in the social, physical, mental and/or general well-being outcome scores between socio-demographic subsets of the military spouse sample?

H₁: Social, physical, mental and general well-being outcome scores will differ by age (25 and younger vs 26 and older) of military spouses.

H₂: Social, physical, mental and general well-being outcome scores will differ by race (white vs. non-white) of military spouse.

- H₃: Social, physical, mental and general well-being outcome scores will differ by the education level (no degree vs. college degree) of military spouses.
- H₄: Social, physical, mental and general well-being outcome scores will differ by the employment status (employed v. not employed) of military spouses.
- H₅: Social, physical, mental and general well-being outcome scores of military spouses will differ by the military rank (enlisted vs. officer) of their Service member.
- H₆: Social, physical, mental and general well-being outcome scores of military spouse will differ by the deployment history (GWOT deployment vs. no deployment) of their Service member.
- H₇: Social, physical, mental and general well-being outcome scores will differ between military spouses who do and do not have children.
- RQ3. How well do socio-demographic characteristics predict participant performance on each measure related to well-being, after controlling for risk and protective factor variables?
- H₁: Risk and protective factor variables predict a significant amount of the variance in measures of participants' social, mental, and physical well-being.
- H₂: Socio-demographic characteristics predict a significant amount of the variance in measures of participants' social, mental, and physical well-being over and above the variance accounted for by risk and protective factor variables.
- RQ4. In what ways do military spouses believe that the military lifestyle influences their parenting experiences and/or style?
- RQ5. What do military spouses describe as the most challenging and rewarding aspects of the military lifestyle?
- RQ6. What words of advice do participants offer to spouses who are new to the military lifestyle?

CHAPTER 3 – METHODOLOGY

The literature presented in Chapters 1 and 2 provides context for the current study and suggests the need for research that explores a more complete and holistic understanding of military spousal well-being. This study investigated the dimensions of well-being described in the aforementioned review of the literature using a combination of deductive and inductive methods. This chapter presents an overview of the: (1) population and sample; (2) research design; (3) sampling methods and recruitment procedures (4) human subjects protection; (5) data collection strategy; (5) measurement tools; and (7) data analysis plan.

Population and Sample

The Department of Defense's most recent publication on the demographic profile of the military community reports that there are nearly 690,000 active-duty military spouses, the majority of which are women (93%) who are 30 years of age or younger (52.6%) (DoD, 2014). Data on the race and ethnicity of military spouses is not well monitored. Findings about the race and ethnicity of the active-duty military community are typically limited to the Service member, with the latest DoD report stating that 30% of active-duty Service members identify with a non-dominant racial or ethnic group (DoD, 2013c). This report closely mirrors findings from the 2008 *Survey of Active Duty Spouses*, which reports that approximately 30% of spouses identify with a racial/ethnic minority group (DMDC, 2009).

The target population for the present study was U.S. civilian spouses who were either married or in a civil union to someone serving on Active Duty in one of the five branches of service (U.S. Army, Marine Corps, Navy, Air Force, or Coast Guard) and who were at least 18 years of age. Spouses married to veterans no longer serving on Active Duty and those married to service members attached to the Reserve Component were ineligible to participate. A pragmatic

approach that gave consideration for the timeline and ability to effectively manage and analyze the qualitative findings was used to determine the desired sample size of 150-300 completed survey responses.

Research Design

This non-probability exploratory study utilized an on-line survey design to explore military spouse well-being. Military spouses of active-duty Service members are geographically dispersed across hundreds of military installations across the United States and overseas. This creates a challenge in collecting a diverse sample that includes spouses from each of the military branches of service. An on-line survey design was chosen because of its low-cost ability to collect information from a large and diverse number of participants at one point in time. This approach was also ideal in that it protects participant anonymity and provides flexibility in allowing participants to complete the survey at a place and time that is convenient for them (Lefever, Dal, & Matthíasdóttir, 2007). These are important considerations when seeking to maximize participation among members of the military community who are oftentimes weary of sharing personal information and live fast-paced lifestyles that require flexibility. A noted limitation of an online survey design is the possibility of fraudulent responses because there is little control over who volunteers to complete the survey as well as technical issues that can arise such as poor-internet connection and/or a slow modem (Lefever, Dal, & Matthíasdóttir, 2007). Other limitations are its susceptibility to bias due to either low or non-response to particular survey items and issues with participants' ability to accurately recall information (Thyer, 2001).

The study utilized a concurrent mixed methods approach commonly referred to as "intramethod mixing," which combines quantitative (standardized tests with multiple choice) and qualitative (open-ended narrative responses) elements within one research study (Johnson &

Turner, 2003). Assessment batteries such as the one developed for this study are commonly used within mixed methods research to explore a phenomenon (Teddlie & Tashakkori, 2009). A mixed-methods approach is advantageous in that it utilizes multiple ways of knowing that allows for comprehensive analyses of phenomena, embracing the voice of the study participants, and enhances the validity of findings through a process commonly referred to as triangulation (Chaumba, 2013). Triangulation adds additional context to the study's findings by using multiple data sources and methods to crosscheck and merge the data (Bryman, 2006 and Chaumba, 2013). A limitation of the mixed-methods design is that it can prime participants to reply more consistently to the closed-ended questions and less so to the open-ended questions, resulting in fewer qualitative responses (Vitale, Armenakis, & Field, 2008).

The quantitative component of the survey instrument was comprised of a series of closed-ended questions that gather information on participants' demographics, military lifestyle characteristics, family characteristics, drug and alcohol use, and use of social supports. The quantitative component also included various psychometrically sound and commonly used assessment scales along with modified measurement instruments. They included the: Family Communication Scale (FCS); Family Satisfaction Scale (FSS); SF-12v2 Health Survey (SF-12v2); 10-item Perceived Stress Scale (PSS-10); a modified version of the Life Events Checklist (LEC), 5-items from the Medical Outcomes Study Social Support Survey (MOS-SS5), Brief Resilience Scale (BRS), and Satisfaction with Life Scale (SWLS). The qualitative component of the study included four open-ended questions seeking to gather information about participants' perceptions on the influence of the military lifestyle on their parenting experiences; the challenges and rewards of the military lifestyle; and advice that they would offer to spouses who are new to the military lifestyle.

Sampling Methods and Recruitment Procedures

This study utilized purposive sampling techniques through a direct marketing approach to recruit spouses of active-duty Service members. A purposive sampling method was selected for reasons of practicality and usefulness in gathering data specific to active-duty spouses. The multi-method on-line recruitment strategy used in this study was chosen to help ensure a mix of participants from diverse backgrounds within each of the military branches. A limitation to this strategy is that the study's findings are not generalizable to the greater active-duty military spouse population and are therefore limited to the context of the study sample. For this reason, extreme caution was assumed when making inferences about the study's findings. Nevertheless, the findings of the study add existing knowledge and context to what is known about the lives, experiences, and well-being of military spouses during an era heavily defined by years of war and repeated deployments.

Information about the study was passed via the social networking web to individuals and organizations that are frequently accessed by military spouses. Military spouses were recruited via social media websites (Facebook and Twitter), military spouse support groups, specifically targeted internet sites, and the study investigator's personal contacts. This recruitment strategy was deemed appropriate given the military's frequent use of communication with military families and existing research that found that members of the military community are typically frequent users of social media (BSF, 2014; Rayzor, 2011). Prior to advertising the study, the researcher created a Facebook page and Twitter account that provided a brief description of the study (Appendix A) along with a link to the survey website. To gain access, the researcher contacted site administrators of the targeted Facebook pages, forums, and internet sites (Appendix B) to ask permission to either post a link to the study's Facebook or Twitter account

or directly post a brief description of the study along with a link to the survey's web page. Information about the study was only posted on those pages and/or sites that granted permission. Personal contacts of the researcher were provided the link to the study webpage, either verbally or via social networking. As an incentive for participation, the researcher informed all participants prior to taking the survey that they would have the chance to win one of five \$50 bank cards once the survey was complete by providing their email address in a separate drawing.

Human Subjects Protection

This study sought and gained approval from the Institutional Review Board (IRB) at Virginia Commonwealth University. The study posed no physical risk to participants and minimal psychological or emotional risk. Specifically, emotional risk was related to questions asking participants to recall past stressful life events that were potentially traumatic. The study welcome page (Appendix C) provides an overview of the study's purpose, possible risks and benefits, the contact information of the study investigator, institutional contact information (IRB and Dissertation Chair), and a study consent statement that reads "If you agree to participate, you will be directed to the survey after clicking "I Agree." The researcher's Institutional Review Board (IRB) granted a waiver for a formal written consent form that would require participants to list their name given that no identifiable information was collected and the study posed minimal risk. This was done to help protect the confidentiality of participants.

The study's welcome page informs all participants that their participation is voluntary and that they can skip any question that they do not feel comfortable answering. Participants were also informed that they could stop participating in the study at any time without penalty. Furthermore, participants were informed that their completion and submission of the survey would be used to represent their consent to participate. Participants were also notified that their

responses would remain anonymous and that no identifying information would be collected. Those who chose to participate in the sweepstakes for a chance to win a bank card entered their email address in a separate site not linked to their survey responses. A hyperlink to the study website that provided updates on the study's progress and findings as well a list of supportive resources was linked to the welcome page and attached at end of the survey. Participants were encouraged to bookmark the study website to gain direct access to the study findings and supportive resources.

Data Collection

All data were collected through a self-administered web-based survey stored on the secure web application REDCap. REDCap is specifically designed to support data capture of research studies and allows users to build, manage, and store data for on-line surveys. The web-based survey design was selected because of its cost and time benefits, ability to reach a large and diverse sample of spouses who are geographically dispersed across the county and overseas, and its ability to have data downloaded in a variety of formats such as Excel and SPSS (Alessi & Martin, 2010). This format is ideal because it minimizes coercion and allows participants to self-select their willingness to participate while protecting their anonymity. As stated previously, an online survey design appears appropriate for the military population as the 2013 Military Family Lifestyle Survey found that the majority of military families reported regularly using the internet and social networking websites to connect and communicate with others (BSF, 2013). Nevertheless, this method presents problems with collecting a quality sample by targeting only those spouses who have already tapped into sources of social support through social media websites. This inadvertently excludes military spouses who are either less socially connected and/or lack access to the internet.

Four screener questions with inclusion/exclusion criteria were added to the beginning of the survey questionnaire to ensure that data was collected by only those participants who met study criteria. The screener questions are multiple choice and read: 1) What is your age?; 2) Are you yourself currently serving on either Active duty, the Reserves, or in the National Guard; 3) What is your marital status?; and 4) What component of the military is your spouse affiliated with?. Respondents who selected their age as 17 and under in question 1, responded “yes” to question 2, selected the options “divorced” or “single” in question 3, or selected an option other than “Active-Duty” for question four were redirected to the end of the survey and thanked for their interest and time. This was completed using REDCap branching logic. The final sample included civilian spouses who were either married, in a civil union, or the widow of someone serving on Active Duty in one of the five branches of the U.S. military.

Measurement

The present study employed several data capturing techniques to better understand spouse’s perceptions about the military lifestyle and to gain a broader understanding of their well-being. Though well-being is often noted as a broadly defined concept lacking a clear definition (CDC, 2013), scientists generally agree that it includes a mixture of people’s life circumstances, how they feel, and how they function (Newton, 2007b). The survey questionnaire developed for this study sought to gather data on military spouses’ life circumstances, feelings, and functioning by incorporating a wide-range of questions related to their sociodemographics, risk and protective factors, and well-being. The survey questionnaire includes a combination of closed-ended items, scales, standardized instruments, and open-ended questions. It was designed to take an average of 20 minutes to complete.

Prior to implementation, the survey was piloted for readability, item sequence, and overall user-friendliness with several individuals, including two military spouses whose educational levels mirror that of the expected respondent sample. Feedback from the pilot testing led to adjustments in wording and order sequence of items and measures in the survey questionnaire. The final survey instrument was organized into eight general sections (background; military lifestyle characteristics; rewards/challenges of military life; mental & physical health; family functioning; social support; life satisfaction; and advice to new military spouses). Each of the sections fall within one of the major variable groups (sociodemographics, risk factors, protective factors, well-being outcomes, and advice to new spouses) explored in the present study.

This section provides a description of the question items and measures used to comprise the researcher developed survey questionnaire, titled “Military Spouse Well-Being Survey.” The survey questionnaire grouped items within the following categories: sociodemographics; risk factors; protective factors; measures of well-being; and advice to new military spouses.

Sociodemographics

Socio-demographic characteristics of the sample were collected from various multiple-choice questions that covered participants’ individual demographics, family demographics, and characteristics of their military lifestyle. Many of the socio-demographic question items and categories mirrored those in the DoD’s Active Duty Spouse Survey (DMDC, 2014). Some of the question items included the option “other,” allowing participants to write a short description.

Individual demographics. Closed-ended survey items related to individual demographics included multiple-choice questions on participant: age (18-21; 22-25; 26-30; 31-36; 36-40; or over 40); sex (male or female); racial/ethnic group (American Indian/Native

American; Asian/ Indian; Hispanic/ Latin; Black/ African American; White/ Caucasian; Pacific Islander; and other); born in the U.S. (yes or no); U.S. citizenship (yes or no); household income (\$0 to \$24,999; \$25,000 to \$49,999; \$50,000 to \$74,999; \$75,000 to \$99,999 ; \$100,000 to \$149,999; \$150,000 + ; and I don't know); employment status (full-time; part-time; and not employed); education level (Some high school, no diploma; high school graduate/GED; some college; trade/technical/vocational training; college degree; some graduate coursework; and graduate/professional degree); currently enrolled in education program (yes or no); and if “yes” to education program (full-time or part-time).

Family demographics & characteristics. Survey question items related to the demographics of the family included spouse sex (male or female), length of marriage, pregnant (yes or no), children (yes or no), and support of others living in the home (yes or no). Respondents who selected “yes” to having children were prompted to complete an additional set of questions. The additional question items inquire about the age ranges of the children (0-5; 6-11; 12-18; 18 or older); type of parental relationship (biological; stepchildren; or both) and use of childcare (yes or no). Participants who respond “yes” to childcare were asked about the type of childcare used (Informal – family/friends; Paid – in home; Paid – childcare center; other). Participants were instructed to check as many as apply to each question involving children.

More specific information about the parenting experiences of participants who responded “yes” to having children was gathered from the open-ended question:

- To what extent do you think that being a military family has influenced or affected your parenting experiences or parenting style?”

Military lifestyle characteristics. The military lifestyle question items covered four general areas. Information about the service member, the military environment, participant

history or familiarity with the military, and the rewards and challenges of military life. A number of items in service member and military environment sections were adapted from similar question items included on the Active Duty Spouse Survey (DoD, 2009). Other closed-ended question items and the two open-ended questions were developed by the researcher and were included because of their potential to add new knowledge about the lifestyle and experiences of military spouses.

Service member. Data collected about the military characteristics of the Service member included information from the following question items: branch of service (Army; Air Force; Navy; Marine Corps; or U.S. Coast Guard); years served in the military (less than a year; 1-5; 5-10; 10-15; 15-20; 20 years or longer; or I don't know); pay grade (E1-E4; E5-E6; E7-E9; W1-CW5; O1-O3; O4-O6; O7 & above; and I don't know); and history of deployment to Iraq or Afghanistan (yes or no). Respondents who acknowledged that their Service member had been deployed were prompted to answer additional items. These include number of deployments; current deployment status (deployed or not deployed); length of time since last deployment (0-6 months; 7-12 months; 1-2 years; and 2 year or longer); and problems related to deployment (PTSD, TBI, physical injury, other, or doesn't apply). Respondents who selected "no" on the question item asking whether their Service member had deployed in support of the wars in Iraq or Afghanistan were asked an additional question on whether their Service member had deployed anywhere else since September 11, 2001. Respondents who selected "yes" were given the same questions related to deployment status, length of time since last deployment, and problems related to deployment.

Military environment. General questions about the respondents' current military environment were gathered from information collected from two survey items: current location

(stateside or overseas) and housing (on or off post). Information about the number of permanent changes of station (PCS) the respondent experienced was gathered on a separate item.

Respondents were asked to select the number of PCS moves (0-6 or more) they have had.

Prior history and/or familiarity with the military. Military spouses who have prior familiarity and experience with the military may have experiences and resources that differ from those who have no prior knowledge about the military way of life. Questions about respondents' prior military experience were based on two items: childhood military experience (yes or no) and prior military service experience (yes or no). Spouses who responded "yes" to having prior military experience, were asked about their prior branch of service, number of years in service, number of years since removed from service, and about their deployment history.

Strengths & challenges of military life. This sub-section is self-explanatory and includes two open-ended questions that asked respondents to share their perceptions about the military lifestyle. They include:

- What do you consider to be the most rewarding aspects of military life?
- What do you consider to be the most challenging aspects of military life?

Risk Factors

Characteristics, habits, and experiences thought to negatively impact the well-being of military spouses were high levels of perceived stress, alcohol and drug use, and history of stressful life events. This section provides a summary of the standardized instruments and questions items used to describe and explore potential risk factors for the study sample.

Perceived stress. The 10-item Perceived Stress Scale (PSS-10; Cohen, Kamarck, Mermelstein, 1983) is a widely used standardized instrument that questions respondent's levels of stress over the past 4 weeks in terms of how unpredictable, uncontrollable, and overloaded

they perceive their lives. It is a valid and reliable self-report scale that has been used in multiple settings with various cultures, languages, and populations (Sami, Ankur, Kurubaran, Saad, & Krishna, 2014). The measure has been shown to have good internal reliability, with Cronbach's alphas between 0.78 to 0.91, and test-retest reliability coefficients between 0.55 to 0.85 (Sami et al., 2014). The strength of the internal reliability of the PSS-10 with the current sample was consistent, yielding a Cronbach's alpha of .88. Participants were asked to rate how often they had certain feelings and thoughts over the past month using a 5-point Likert-type scale, ranging from never (0 points) to very often (4 points). Total scores range from zero to 40, with higher scores indicating higher levels of stress.

Alcohol and drug use. Data about alcohol consumption and history of problems with alcohol and drugs was gathered from several multiple-choice question items that are part of the Integrated Screening Tool developed by the Institute for Health and Recovery (IHR, 2007). The first item asked participants to respond "yes" or "no" to having drunk alcohol in the past month. Participants who responded "yes" were prompted to answer three additional questions about the number of drinks they've had in the past month (none – 5 or more), number of drinks they've had on any given day (none – 5 or more), and the number of times they had 4 or more drinks per day in the past month (none – 5 or more). An additional question asked participants to select "yes" or "no" to whether they had any past difficulties in their life due to alcohol or drugs, including prescription medications.

Stressful life events. An adaptation of the *Life Events Checklist* (LEC-5) was used to gain perspective on stressful life experiences of participants. The 17-item self-report *Life Events Checklist* (LEC; Blake et al., 1995) assesses previous exposure to potentially traumatic events in a respondent's lifetime and has demonstrated adequate psychometric properties as a stand-alone

assessment of traumatic exposure. It possesses adequate test-retest reliability over a 1-week period with a mean kappa coefficient of .61 for direct exposure and .41 for indirect exposure ($r = 0.82$; Elhai et al., 2011; Gray, Litz, Hsu, & Lombardo, 2004) and demonstrates strong convergence with related potential traumatic exposure scales and predicted PTSD symptomatology in college students and combat veterans (Gray et al., 2004; Rosen et al., 2012).

This study utilized a revised version of the newly updated LEC-5 (Weathers et al., 2013). The revised version is shortened, eliminating 5 of the checklist items thought to be confusing or irrelevant by respondents who participated in the pilot testing of the survey. Additional changes replaced the options “learned about it” and “part of my job” with the option “happened to my spouse.” The final checklist asked participants to check the options: happened to me; witnessed it; happened to my spouse; not sure; and doesn’t apply for each life event. In instances when a participant responded “yes” to a stressful event, participants were prompted to use their own interpretation to self-select whether the event occurred while they were a child or an adult. When the stressful experience was caused by someone else, participants were presented an additional item that asked them to select the option that describes who the perpetrator of the event was (spouse/partner; parent; friend/ acquaintance; stranger; other; or prefer not to say). A total score was calculated by adding the number of items where participants endorsed a stressful life event as “happened to me.”

Protective Factors

Protective factors thought to promote well-being among military spouses were high levels of family functioning, resilience, and utilization of formal and informal supports. A descriptive summary of each construct and measurement is included in this section.

Family functioning. Family communication, family satisfaction, and relationship satisfaction were the three areas used to measure the family functioning of survey participants. A description of each measurement constructed is provided below.

Family communication. The degree to which respondents feel satisfied with the communication in their family was measured using the 10-item Family Communication Scale (FCS; Olson & Barnes, 2010). The scale is based on the longer 20-item Parent-Adolescent Communication Scale (Barnes & Olson, 1985) and can be used with a variety of family types. It is designed to measure the family's capacity for positive communication with characteristics related to cohesion and flexibility. The internal consistency alpha reliability is .90 with a test-retest coefficient of .86 (Baiocco, Cacioppo, Laghi, & Tafa, 2013; Pereira & Teixeira, 2013). The internal consistency of the FCS for the current sample was slightly higher, yielding a Cronbach's alpha of .94. Participants are asked to rate their agreement with each of the ten items using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale is scored by totaling the sum of all 10 scale items. Scores range from 10-50 with higher scores indicating more positive quality and quantity of family communication. More specifically, the final scores are grouped into levels: very high (50-44), high (43-38), moderate (37-33), low (32-29), and very low (28-10).

Family satisfaction. Respondent's satisfaction with their family system was measured using the 10-item Family Satisfaction Scale (FSS; Olson, 2010). The FSS assesses satisfaction with the family system in regards to family cohesion, flexibility and communication. The scale is based on the original 14-item Family Satisfaction Scale developed by Olson and Wilson (1982). The FSS has an internal consistency alpha reliability of .92, with a test-retest of .85 (Baiocco et al., 2013; Pereira & Teixeira, 2013). The internal reliability for the current sample

was equally as strong, yielding a Cronbach's alpha of .92. Participants are asked to rate their agreement with each of the ten items using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale is scored by totaling the sum of all 10 scale items. Scores range from 10-50 with higher scores indicating higher levels of family satisfaction. More specifically, the final scores are grouped into levels: very high (50-45), high (44-40), moderate (39-36), low (35-30), and very low (29-10).

Relationship satisfaction. Participants' satisfaction with their relationships was measured by a single Likert-type question item that read, "Overall, how satisfied are you with the quality of your relationship?" The item measures satisfaction on a 4-point scale: 4 (very satisfied), 3 (somewhat satisfied), 2 (somewhat dissatisfied), or 1 (very dissatisfied). A point value was not given to respondents who answered the question with the option "neither satisfied or dissatisfied." Scores ranged from 1- 4 with higher scores indicating higher levels of relationship satisfaction.

Resilience. Respondents' level of resilience was measured using the six-item Brief Resilience Scale (BRS; Smith et al., 2008). The BRS measures resilience as a single construct that assesses respondents' perceptions about their ability to bounce back and recover from stress. Participants are asked to rate the extent to which they agree with each of the statements using a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). When used with student and behavioral medicine samples, the BRS demonstrated good internal consistency and test-retest reliability, with Cronbach's alpha ranging from .80-.91 (Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008). The Cronbach's alpha of the BRS for the current sample also fell within the range of good internal consistency, yielding a α .88. The target population for the BRS is adults, ranging in age from 19-62 (Windle, Bennett, & Noyse, 2011). The BRS is

scored by reverse coding items 2, 4, and 6 and finding the mean of the six items. Scores range from 1-5, with higher scores indicating higher levels of resilience.

Utilization of Formal and Informal Support. The survey questionnaire includes several question items that ask participants about their use of different services offered to military families as well as more general services that can be accessed in both military and civilian communities. Information about the use of certain informal sources of support is also collected.

Formal support. Data about formal service use was collected from five-closed ended multiple choice questions. The first two question items asked participants to rate the amount of support they receive from their spouse's unit or chain of command and from military programs during times when they've needed it. Response options for both questions ranged from 1 (none of the time), 2 (a little of the time), 3 (some of the time), 4 (most of the time), 5 (all of the time), to (not applicable). Higher scores suggest a higher level of perceived support during times when they've needed it. Another single question item asks, "Do you receive support from community organizations?" (yes or no).

Four additional closed-ended question items ask participants to answer "yes" or "no" to whether they have *ever* participated in the following services: Mental health/behavioral health/counseling services, Family Advocacy Program (FAP), chaplain services/spiritual support, or other organizations. Participants who respond to using another organization are asked to provide a brief description describing the organization. Participants who respond "yes" to either item are asked two additional questions related to each service: "Have you participated in this service in the past 30 days?" (yes or no) and "Where did you participate?" (on the military installation; in the community; or both).

Informal support. Data on types of informal support used by participants was gathered from a single self-report item that asked respondents to indicate which form(s) of support they relied on. The options include family; friends; social media (Facebook, Twitter, blogs, etc.); or other. Respondents were instructed to select as many options as were applicable. Respondents who selected “other” were given the option to write a short description of the other form of support.

Well-Being Outcome Variables

This study operationalizes well-being across three components 1) *social well-being*, 2) *physical well-being*, and 3) *mental well-being*. In addition, several measures were combined to consider *general well-being* related to general health, and life satisfaction. Standardized instruments served as outcome measures for each component of well-being. The standardized instruments used to measure each of the respective components of well-being were incorporated in to the survey questionnaire and are discussed here.

Social well-being. In this study, social well-being was characterized as participants’ level of perceived social support during the past month. Although social support, and the MOS Social Support Survey (MOS-SS), is typically used to predict health and wellness, the present study sought to carve out and explored new ways of measuring the complex concept of well-being by utilizing a shortened version of the MOS-SS as the outcome variable for social well-being. The original MOS-SS is a 19-item questionnaire that was originally developed for patients with chronic conditions who were a part of the 2-year Medical Outcomes Survey (Sherbourne & Stewart, 1991). The survey is multi-dimensional and measures four functional support constructs: emotional/transformational, tangible, affectionate, & positive social interaction (Netting, Wilson, Goodie, Stephens, Byers, & Olsen, 2013; Sherbourne & Stewart,

1991). The MOS-SS has demonstrated good internal consistency with a Cronbach's alpha \geq 0.91 and has been shown to be valid in various populations (Maxwell et al., 2013; Netting et al., 2013).

The 5-item scale and scoring method used in this study was adapted from the modified version of the MOS-SS developed by Cisler, Begle, Amstadter, & Acierno (2012). Participants responded to items using a 4-point scale from "none of the time" to "all of the time." Item response options "I don't know" and "I choose not to answer" were not scored. Participants were asked about "emotional (e.g., "someone available to love you and make you feel wanted"); instrumental (e.g., "someone available to help you if you were confined to bed"); and appraisal (e.g., "someone available to give you good advice in a crisis") social support" (Cisler, Begle, Amstadter, & Acierno, p. 221, 2012). Within the current sample, the modified MOS-SS5 yielded acceptable internal consistency with a Cronbach's alpha of .78. Total scores were calculated for participants with complete data whose responses to each item received a point value. The sum aggregate scores were created by summing the points for each question item, producing a total score range of 5-20. The MOS-SS5 was scored as a continuous variable; however, scores were interpreted by quartiles in order to bring meaning to the findings. Scores in the lower quartile of the sample ratings were interpreted as having low social support and scores in the upper quartile of sample ratings were interpreted as having high social support.

Mental & Physical well-being. The mental and physical well-being of participants was assessed using the physical and mental composite summary scores derived from the standard (4-week recall) Medical Outcomes Study Short Form version 2 Health Survey (SF-12v2). The SF-12v2 is a shortened 12-item version of the SF-36v2. Both measures are widely used and have proven to be valid and useful for screening mental and physical health across diverse populations

(Maruish & DeRosa, 2009; Ware, Kosinski, Turner-Bowker, & Gandek, 2002). The SF-12v2 measures the same 8 domains of functioning and well-being as the SF-36v2: physical functioning (PF), role limitations due to physical problems (RP), bodily pain (BP), general health perceptions (GH), energy and vitality (VT), social functioning (SF), role limitations due to emotional problems (RE), and mental health (MH) (Maruish & DeRosa, 2009). The SF-12v2's certified *QualityMetric Health Outcomes™ Scoring Software 4.5* was used to calculate the mental health composite scores (MCS) and physical health composite scores (PCS) of the study sample (Saris-Baglana et al., 2011). The scoring software uses algorithms to conduct missing data estimation (MDE), transform raw item scores into standardized scores, and to calculate “factor scoring coefficients” as weights to generate norm-based MCS and PCS summary scores (Saris-Baglana et al., 2011). Within this study, there were 27 missing response items and final MCS and PCS scores were calculated for all but one participant. MCS and PCS scores have both shown to have high internal consistency ($\alpha > .80$) among subgroups of the general population (Cheak-Zamora, Wyrwich, & McBride, 2009). The internal consistency of the SF-12v2 within the current sample was also strong, yielding a Cronbach's alpha of .84.

Mental well-being. The aggregate MCS score is related to the SF-12v2 items that focus on social activity, depression, vitality, and amount accomplished because of emotional problems (Cheak-Zamora, Wyrwich, & McBride, 2009). The mental component items are most highly correlated with the SF, MH, VT, & RE domains of the measure (Ware, et al., 2002). In normative data, the mean MCS score is set to 50, thus, scores > 50 indicate better mental health than the mean and scores < 50 indicate worse mental health (Ware, et al., 2002).

Physical well-being. The PCS summary score is derived from the SF-12v2 items that focus on the general health, work limits, amount accomplished because of physical problems,

limited ability to climb stairs, and mobile activity (Cheak-Zamora, Wyrwich, & McBride, 2009). The physical component items are most highly correlated with the PF, RP, BP, and GH domains of the measure (Ware et al., 2002). In normative data, the mean PCS score is set to 50, thus scores > 50 indicate better physical health than the mean and scores < 50 indicate worse physical health (Ware et al., 2002).

General Well-Being

The general well-being of study participants was measured using the standardized score of the general health (GH) question item on the SF-12v2 and the total score of the Satisfaction with life Scale (SWLS). Data about the general well-being of military spouses was collected to glean information about participants' own perceptions about their health and well-being and to provide a basis for comparison with the study's domain specific well-being outcomes scores (MOS-SS5, MCS, & PCS). General well-being is not a composite of previously measured social, physical and mental well-being, but for the purposes of this study is considered as a distinct construct based on participant perceptions, as follows.

General health. The QualityMetric Health Outcomes™ Scoring Software 4.5, described above, was used to compute the norm-based GH scores of the study sample. The GH score is derived from the first item on the SF-12v2, which measures respondent's perceptions about their general health on a scale from "excellent" to "poor." Though it is correlated with the PCS aggregate score of the SF-12v2, it is also commonly used as a single measure of perceived health throughout the world and has acceptable internal reliability, with a Cronbach's alpha of .75 (Ware et al, 2002). The general U.S. population normed score for the GH scale is 50 ($SD = 10$), thus scores below 50 indicate poorer general health perceptions than the norm and scores above 50 indicate better general health perceptions (Ware et al., 2002).

Life satisfaction. Life satisfaction was assessed using the five-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The SWLS is designed to measure global cognitive judgments of satisfaction with one's life and demonstrates high internal consistency and reliability with diverse populations. It has a Cronbach's alpha ≥ 0.89 and has been shown to be positively associated with other measures of subjective well-being and negatively associated with measures of psychopathology (Diener et al., 1985; Kobau, Sniezek, Zack, Lucas, & Burns, 2010). Within the current sample, the SWLS yielded a Cronbach's alpha of .90. Participants use a 7-point Likert-type scale to rate each item from 1 "strongly disagree" to 7 "strongly agree." Responses to each item are given point values that are then added to produce a summed aggregate score. Higher overall scores indicate greater levels of life satisfaction. To be precise, scores are grouped into ordered categories that delineate the respondent's level of life satisfaction. Levels of life satisfaction range from: extremely satisfied (35-31); satisfied (30-26); slightly satisfied (25-21); neutral (20); slightly dissatisfied (19-15); dissatisfied (14-10); to extremely dissatisfied (9-5) (Diener, 2006).

Advice to Others

The last question of the survey instrument asks participants to share advice with spouses new to the military lifestyle. This question was included to provide participants the opportunity to share "tips" with other spouses in the military community and to gather additional insight into their lives. The open-ended question reads:

- "If you could talk to somebody who is getting ready to be a military spouse, what is it that you would want them to know about the military lifestyle?"

Data Analysis Plan

The present study uses a convergent mixed methods design for data analysis. Quantitative and qualitative data were collected at the same point in time but were analyzed separately (Creswell & Plano Clark, 2011). This design is considered most appropriate when seeking to discover a complete understanding of a phenomenon. Following a separate analysis of the quantitative and qualitative components, the two data sets were merged and corroborated to interpret the overall findings (Creswell & Plano Clark, 2011). A description of the analysis plan for the quantitative and qualitative components of the study follows.

Quantitative Analysis

The IBM Statistical Package of the Social Sciences (SPSS) version 22 was utilized to conduct the statistical analysis of the quantitative data. The following four analyses were conducted to test the study's hypotheses: (1) descriptive statistics for each item response; (2) independent sample t-tests; (3) correlational analyses of the potential predictor variables and well-being outcome variables; and (4) sequential regression analyses for the social, mental, and physical components of well-being.

Prior to running the analyses, short-ended responses to items under the option "other" were categorized, coded, and subsequently quantified. The completed data set was then screened for missing data, errors, violations of normality, and outliers. Each of the measures, outside of the SF-12v2, were calculated to determine the composite scores and then categorized as separate variables in SPSS. Participants with missing data on standardized measures were not given composite scores and were omitted from the bivariate and multivariate analyses. A goal of the exploratory study was to obtain true scores of the participant sample in an effort to better understand dimensions of their well-being; therefore, missing-data imputation was not

performed. The scores for the SF-12v2 were calculated using the *QualityMetric Health OutcomesTM Scoring Software 4.5* to ensure accurate scoring of the data. SF-12v2 scores were then uploaded in the SPSS data set.

Univariate Analysis

Descriptive statistics were conducted to interpret the univariate findings and answer RQ1. What are the multidimensional characteristics of the military spouse sample? The purpose of the analysis was to summarize the data of the total sample in order to understand the characteristics of the study sample. Results of the descriptive analysis included frequencies, measures of central tendency, and measures of variability. Variability among the socio-demographic variables (IV's) was an important consideration in determining whether newly created dichotomous variables were generated for further analysis. The results of the univariate analysis were used to look for trends and patterns that helped to inform the selection of group and predictor variables tested in RQ2 and RQ3. The findings are presented in chapter 4.

Bivariate Analysis

A series of non-directional independent sub-sample *t*-tests were performed to test the hypotheses formulated for RQ2. The purpose of the analyses were to investigate whether there were any significant differences in the well-being outcome scores between socio-demographic subgroups of the participant sample. Socio-demographics in each variable category were grouped and re-categorized into dichotomous dummy variables prior to running the inferential statistics. The selection of variables chosen for group comparisons were informed by the review of the literature and univariate findings. The military spouse literature also informed the decision to dichotomize the variables, as much of the literature has focused on differences in QOL between distinct subgroups (e.g. enlisted vs. officer rank; younger vs. older spouses;

employed vs. unemployed) of the military spouse population. The socio-demographic characteristics tested in the analyses include participant age, race, education level, employment status, children, Service member rank, and Service member deployment history.

Category	Group 1		Group 2
Age	25 years or younger	vs.	26 years or older
Race	White	vs.	Non-white
Education	No degree	vs.	College degree
Employment	Working	vs.	Not working
Military Rank	Enlisted (E1-E9)	vs.	Officer (W1-5 - O1 & above)
Deployment	No deployment	vs.	Deployment
Children	No kids	vs.	Kids

An alpha level of .05 was set as a standard to decide if there was an observed difference between the grouping variables and mean scores of the well-being outcome variables (Jaccard & Becker, 2010). The findings were used to inform the selection of predictor variables in RQ3. The means, standard deviations, and *t* statistic findings are reported in chapter 4.

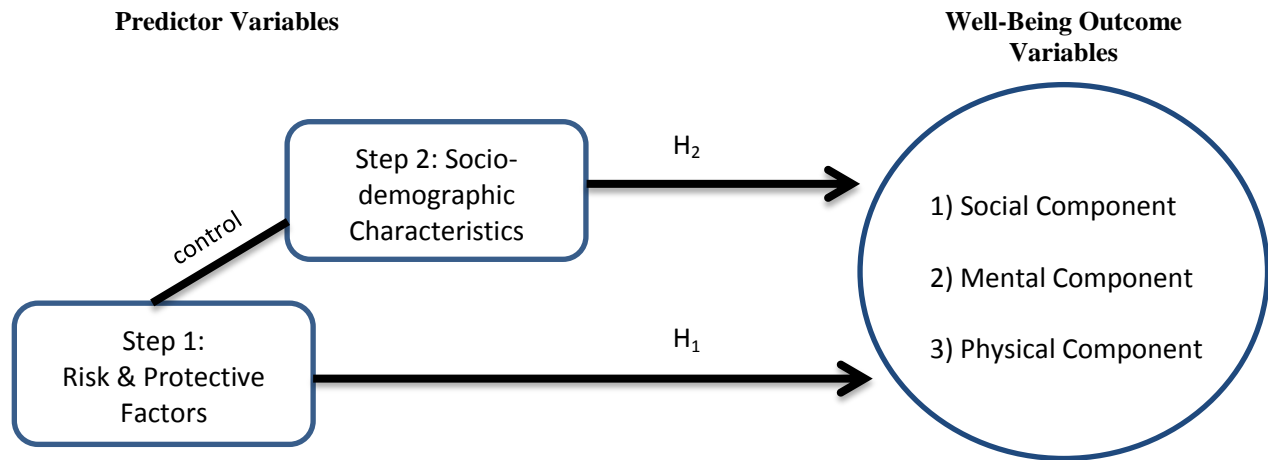
Multivariate Analysis

Multiple regression is considered a useful analytic strategy for capturing complex interrelationships among variables in survey research (Tabachnick & Fidell, 2007). Hierarchical (sometimes called sequential) regression analyses were applied to answer the hypotheses for RQ3. The analyses tested the same sets of predictor variables across each domain of well-being, yielding three separate regression models. Prior to running the regression analyses, a correlation matrix between the potential predictors and outcome variables was examined to determine the significance of the relationships and multiple regression assumptions were tested. A series of multivariate prescreening procedures were completed to include absence of multivariate outliers, linearity, multicollinearity, multivariate normality, and homoscedasticity (Dattalo, P., 2013). Results from the prescreening analyses were used to inform the selection of predictor variables.

Hierarchical regression analyses were completed to predict whether risk and protective factor variables contributed to a significant amount of variance in the social, mental, and physical well-being outcome scores of study participants. A second set of analyses were then performed to investigate whether socio-demographic characteristics predicted a significant amount of the variance in the social, mental, or physical well-being outcome scores over and above that attributed to risk and protective factor variables. Noted limitations of hierarchical regression are that it can easily underestimate effects entered later in the equation and overestimate the effects of variables entered earlier (Keith, 2006). For that reason, the present study relied on logic, theoretical assumptions, and existing research studies to determine the order entry of variables entered into the regression equation (Tabachnick & Fidell, 2007).

Risk and protective factor variables were entered together into the first step of the regression equation because of supporting evidence that suggests their relative importance in predicting personal well-being (Chanfreau et al., 2008; Kobau et al., 2013). The method of combining different sets of variables in the same regression “step” is common when the order of importance of one set of variable over another is unknown (Keith, 2006). Socio-demographic and military lifestyle characteristics were entered into the second and final step of the regression equation. This decision was informed by limited existing evidence to support a relationship between well-being and active-duty military spouses’ socio-demographic characteristics. Figure 3 presents an illustration of the researcher’s conceptualization of the regression equation and analyses.

Conceptual Framework for the Hierarchical Regression Analyses



Step 1: risk factors + protective factors

Step 2: (risk factors + protective factors) + socio-demographic characteristics

Figure 3.

Conceptual framework for RQ3.

R^2 , adjusted R^2 , F – statistic, and R^2 change were applied to determine the amount of variance each set of predictor variables contributed to the well-being outcome scores. The standardized *Beta* coefficient was also applied to identify the individual predictors that had a statistically significant relationship with the predicted variance in the outcome scores. A minimum level of $p < .05$ was sought by the researcher to indicate significance. The study's non-probability sampling procedures increases risk of producing exaggerated R-square and biased estimates of regression coefficients (Dattalo, 2010), thereby limiting the interpretation of the findings. Results of the correlation matrix, prescreening procedures, and regression analyses are presented in chapter 4.

Qualitative Analysis

Qualitative data was analyzed to identify themes and examine the frequency of themes for each of the four open-ended questions. Responses to the open-ended question were analyzed separately using the qualitative data analysis strategies outlined by Miles and Huberman (1994). Microsoft Word and Excel were utilized throughout the qualitative analysis to organize question responses, highlight participant quotes, and to create matrices for comments. Content analysis began with the process of data reduction. All data were thoroughly read and unitized before being coded and categorized to create themes based on participant responses. Data were then organized and displayed in thematic conceptual matrices that included researcher comments, highlighted quotes, themes, and subthemes. Data that did not necessarily align with the lines of inquiry were displayed in a separate matrix. The frequency in themes and subthemes were then calculated to identify common perceptions among participants and provide organization to the order in which themes would be presented.

The study investigator and a research assistant conducted separate analyses of the qualitative data to strengthen the validity of the findings. Final conclusions were drawn separately and then compared to achieve intersubjective consensus, the process of reaching shared agreement about how to assign meaning to the findings (Miles & Huberman, 1994). Selected participants quotes were then incorporated into the qualitative findings to represent common themes and help ensure that the language of those surveyed was represented. The qualitative analysis procedures described here closely resemble those applied by analysts who analyzed the open-ended question responses of respondents who participated in the 2014 Military Family Lifestyle Survey (BSF, 2014). An important mention is that researcher bias heavily influenced the study constructs, measures, and variables chosen for inclusion in this

study. The selected measures are far from exhaustive, although great effort was made to include key characteristics that have been shown to be associated with well-being (CDC, 2013; Newton, 2007b).

CHAPTER 4 - FINDINGS

This chapter presents a detailed description of the data collected and analytic results with the intent of answering the study's research questions. The chapter begins with a discussion of the survey response rate and prescreening procedures. This is followed by the presentation of results of the analyses for each research question. The chapter concludes with a comprehensive synthesis of the quantitative and qualitative findings.

Response Rate

Military spouses were recruited over a six-week period in the summer of 2014 using purposive sampling techniques. A total of 434 participants visited the secure REDCap website and initiated the survey questionnaire. A series of prescreening questions were utilized to prevent spouses who did not meet study criteria from completing the survey. To meet study criteria participants must (1) be adults over the age of 18; (2) not be *actively* serving in the military on either Active Duty, in the Reserves, or in the National Guard; (3) be married, in a civil union, or the widow of an active- duty Service member; and (4) be affiliated with the Active Duty component of the military. Any respondent who selected an item choice that would make them ineligible to participate was automatically removed from the online survey and rerouted to an information page that contained a thank you message and link to the study website. After removing from the data file participants who failed to meet study criteria and participants who failed to submit the survey as complete, the study yielded a total sample size of 300 spouses. In line with the conditions of the IRB, data was only analyzed for those participants who submitted their survey as complete.

Prescreening Procedures

A prescreening of the data was conducted prior to analysis. Microsoft Excel was used to clean the data and check for entry errors and completeness. It was also utilized to score the battery of assessments included in the survey questionnaire. A more in depth cleaning and prescreening of the data using the IBM Statistical Package for the Social Sciences (SPSS version 22.0) was then completed prior to running the inferential and multivariate statistics. A recoding of the data (with all missing data coded as 999 and all other values coded as zero) was conducted to evaluate missing data. A visual assessment and series of bivariate correlation coefficients suggest that the data should be considered missing at random (MAR).

In instances when there was at least one missing item on a standardized or revised instrument, such as the PSS-10, BRS, SWLS, FSS, FCS, and MOS-SS5, an overall mean score was not calculated and the participant data was omitted from the bivariate and multivariate analyses. Outliers were screened using the graphical method of a box plot, yielding a combined total of 34 univariate outliers. Each outlier was confirmed as having a valid score with more extreme values than the normal distribution. The results suggest that the assumption of absence of outliers is not plausible. After confirming the validity of the scores and consulting with a statistician, the decision was made to retain the cases with potential outliers.

RQ1. What are the multidimensional characteristics of the military spouse sample?

Descriptive statistics were performed to answer research question one. The results are organized and presented by category: (a) demographics, (b) family characteristics, (c) military lifestyle characteristics, (d) risk & protective factors, and (e) general well-being.

Demographics

As shown in the Table 1. demographic summary, the majority of participants were Caucasian (81%) females ($n = 296$, 98.7%) married to male Service members ($n = 293$, 97.7 %). Approximately half (48.7%) of participants were between the ages of 26-35 ($n = 146$), 32.3 % were 36 years of age or older ($n = 97$) and 19% were between the ages of 18-25 ($n = 57$). Participants who selected more than one racial/ethnic group were re-categorized into a newly created multiracial category. Over eighty percent of participants were white/Caucasian ($n = 242$), 7.4% ($n = 22$) were Hispanic/Latin, 4.3% ($n = 13$) were black/African American, 3.3% were multiracial ($n = 10$), 2.0% were American Indian, 1.7% ($n = 5$) answered as “other,” and 0.3% ($n = 1$) was Pacific Islander. Noteworthy to mention is that although Table 1 shows no representation of Asian participants, four of the participants re-categorized into the multiracial category selected Asian as one of their ethnicities. In total, 19% ($n = 57$) of the study sample identified as non-white. The overwhelming majority of participants were also born in the United States (92.7%, $n = 278$) and had U.S. citizenship (96.3%, $n = 289$).

Table 1
Demographic Characteristics of Total Sample

Age	N	%
18-25 years old	57	19.0
26-35 years old	146	48.7
Over 36 years old	97	32.3
Sex	N	%
Male	4	1.3
Female	296	98.7
Spouse Sex	N	%
Male	293	97.7
Female	6	2.0
Race/Ethnicity	N	%
White/ Caucasian	242	81.0
Hispanic/ Latin	22	7.4
Black	13	4.3
Multiracial	10	3.3
American Indian	6	2.0
Other	5	1.7
Pacific Islander	1	.3
Born in U.S	N	%
Yes	278	92.7
No	22	7.3
U.S. Citizen	N	%
Yes	289	96.3
No	8	2.7

The household income of the total sample is presented in Table 1.1. Eighty-three participants (27.7%) made less than \$50,000 per year, seventy-four (24.7%) made in-between \$50,000-\$74,999 per year, forty-nine (16.3%) made in-between \$75,000 and \$99,999, sixty-eight participants (22.7%) made in-between \$100,000 and \$149,999, and twenty-one (7.0%) made over \$150,000. Five (1.7%) participants answered that they did not know their annual household income.

Table 1.1
Household Income of Total Sample

Household Income	<i>N</i>	%
\$0 to \$49,999	83	27.7
\$50,000 to \$74,999	74	24.7
\$75,000 to \$99,999	49	16.3
\$100,000 to \$149,999	68	22.7
\$150,000+	21	7.0
I don't know	5	1.7

Table 1.2 presents the employment and education findings of the total sample. Over half of participants ($n = 167, 55.7\%$) responded that they were not working and forty-four percent reported working either full ($n = 80, 26.7\%$) or part ($n = 53, 17.7\%$) time. All but two participants (0.7%) had either a high school diploma or GED. Over a quarter of participants have either a high school degree/ GED ($n = 23, 7.7\%$), a trade or technical degree ($n = 15, 5.0\%$), or some college ($n = 65, 21.7\%$). The majority of participants reported having at college degree ($n = 104, 34.7\%$), with another 4.7% ($n = 14$) reporting that they had participated in graduate coursework, and a quarter of the sample reporting that they had completed a graduate/professional degree ($n = 77, 25.7\%$). Combined, the results show that 65% of the study sample has earned a college. Another 62 participants (20.7%) reported that they were enrolled in an education program at the time in which they took the survey.

Table 1.2
Employment & Education of Total Sample

Employment	<i>N</i>	%
Full time	80	26.7
Part-time	53	17.7
Not employed	167	55.7
Education	<i>N</i>	%
Some high school, no diploma	2	0.7
High School graduate / GED	23	7.7
Some college	65	21.7
Trade/technical/vocational	15	5.0
College Degree	104	34.7
Some graduate coursework	14	4.7
Graduate/Professional degree	77	25.7
Currently in School	<i>N</i>	%
Yes	62	20.7
No	238	79.3

Family Characteristics

The overwhelming majority of participants were married ($n = 298, 99.3\%$), with only one participant (0.3%) answering that they were in a civil union and one participant answering that they were widowed (0.3%). The length of marriage between participants ranged from three months to 34 years ($M = 9.36, SD = 7.17$). When asked how satisfied they were with the quality of their relationship on a five-point Likert-two scale ranging from very satisfied to very dissatisfied, 213 participants (71.0%) were very satisfied, 65 (21.7%) were somewhat satisfied, 5 (1.7%) were neither satisfied or dissatisfied, 12 (4.0%) were somewhat dissatisfied, and 2 participants (0.7%) were very dissatisfied. The mean score of the relationship satisfaction question was 4.60, standard deviation was .77, indicating that the majority of participants had a relatively high overall satisfaction with the quality of their relationship.

When asked about children, nearly three fourths of participants ($n = 221, 73.7\%$) responded that they had children. The number of children participants had ranged from one to seven ($M = 2.16, SD = .97$). Almost half of the sample ($n = 136, 45.3\%$) had children between

the ages of 0 and 5, 29.3% ($n = 88$) had children between the ages of 6 and 11, 18.0% ($n = 54$) had children between the ages of 12 and 18, and 12.0% ($n = 36$) had children over the age of 18. The relationships between participants and their children were primarily biological ($n = 209$, 69.7%), with 5.7% ($n = 17$) reporting that they were step-parents, and 2.3% ($n = 7$) responding that their children were adopted. Another twenty-two (7.3%) of participants responded that they were expecting a child at the time that they completed the survey. Only 3.7% of participants reported that there were other children or adults living in their home that they supported. Table 2. presents a summary of the family characteristics discussed in this section.

Table 2
Family Characteristics of the Total Sample

# of Years Married	Range	<i>M (SD)</i>
	3 mo. – 34 yrs.	9.36 (7.17)
Currently Pregnant	<i>N</i>	%
Yes	22	7.3
No	277	92.3
Children	<i>N</i>	%
Yes	221	73.7
No	75	25.0
Ages of Children	<i>N</i>	%
0-5 years of age	136	45.3
6-11 years of age	88	29.3
12-18 years of age	54	18.0
18 years and older	36	12.0
Parent/Child Relationship	<i>N</i>	%
Biological	209	69.7
Step-children	17	5.7
Adopted	7	2.3
Other Adults/Kids in Home	<i>N</i>	%
Yes	11	3.7
No	287	95.7

Childcare. Of the 221 participants who reported having children, seventy-one (32.4%) answered that they used a form of child-care. Fifty-nine (84.3%) reported using child care for

short periods of time (e.g. evening babysitting) and forty-four (62.0%) reported using child care for extended periods of time (e.g. to go to work or school). The most frequent forms of childcare were paid- in home (67.6%) (i.e. in either your home or someone else's home). The same percentage of participants responded using either a childcare center (50.7%) and/or informal childcare (e.g. family and friends) (50.7%) and only eight percent of participants who were parents ($n = 6$) reported using other forms of childcare. Participants described "other" forms of childcare as after school programs, camps, and other programs.

Military Lifestyle Characteristics

Figure 4 displays a graph of the number of spouses attached to each of the five branches of the U.S. Armed Forces. The Army had the largest number of participants with forty-four percent ($n = 132$), followed by the Air Force with twenty-three percent ($n = 70$), the Navy with nineteen percent ($n = 56$), the U.S. Coast Guard with nine percent ($n = 28$), and the Marine Corps with four percent ($n = 12$).

Service members' length of service varied, with 21.3% ($n = 64$) having served 1-5 years, 23.7% ($n = 71$) having served 6-10 years, 21.7% ($n = 65$) having served 11-15 years, 18.7% ($n = 56$) having served 16-20 years, and 14.7% ($n = 44$) having served over 20 years in the military. Over half of Service members were enlisted rank ($n = 183$, 61.0%), in which 14.0% ($n = 42$) were between an E1 and E4, 31.7% ($n = 95$) were either an E5 or E6, and 15.3% ($n = 46$) were between an E7 and E9. Warrant officers were grouped together with commissioned officers, yielding a total sample of 38.3% ($n = 118$) of Service members who carried the rank of an officer. Only 3.0% ($n = 9$) of service members were warrant officers as compared to 11.7% ($n = 35$) who were between an O1 and O3 and 23.7% ($n = 71$) whose rank was O4 or above.

When asked about the location of their current duty station the majority of participants responded that they were stationed in the United States ($n = 256, 85.3\%$) and lived off the installation (off- post) ($n = 218, 72.7\%$). Of those stationed overseas, the majority of participants responded that they lived in Germany ($n = 29$), followed by Japan ($n = 5$) and England ($n = 2$). Other countries included Belgium, Peru, Israel, Spain, and Korea. Participants reported an average of three Permanent Change of Station (PCS) moves, ranging from 0-7. See Table 3 for a visual summary of the military lifestyle characteristic findings.

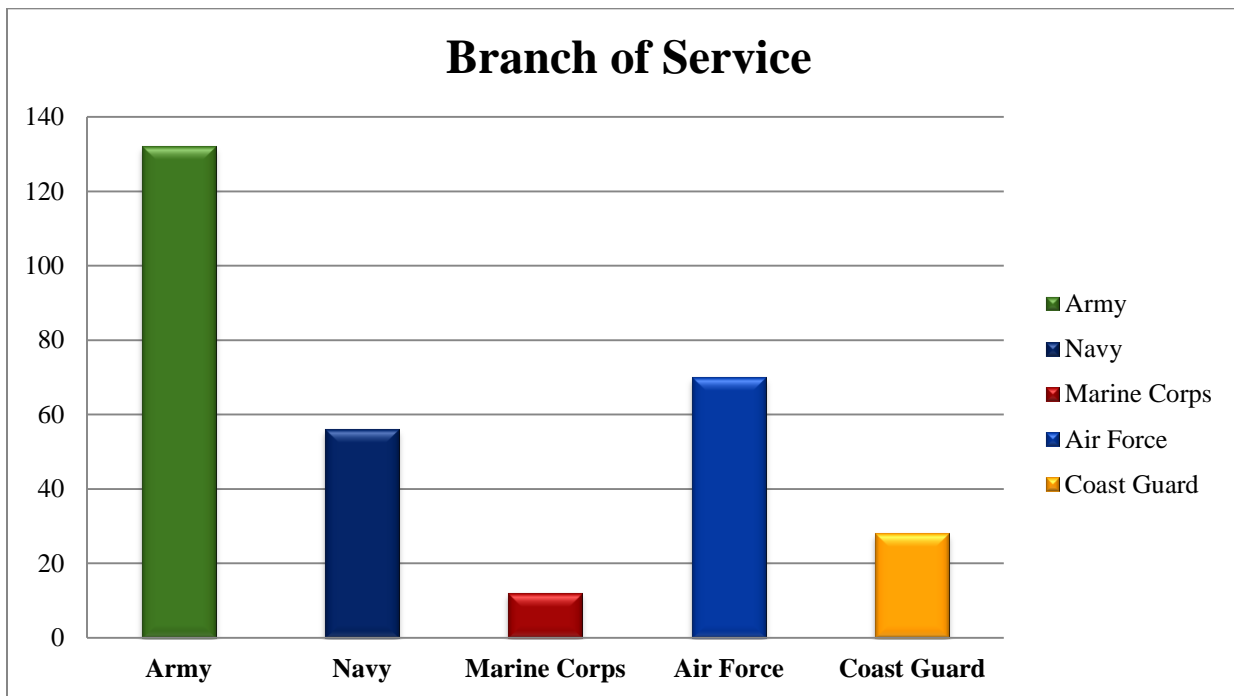


Figure 4
Branch of Service

Table 3
Military Lifestyle Characteristics of the Total Sample

Length in Service	<i>n</i>	%
1-5 years	64	21.3
6-10 years	71	23.7
11-15 years	65	21.7
16-20 years	56	18.7
21 or longer	44	14.7
Pay Grade	<i>n</i>	%
Enlisted (E1- E4)	42	14.0
Enlisted (E1-E6)	95	31.8
Enlisted (E7-E9)	46	18.3
Warrant Officer (W1-W5)	9	3.0
Officer (O1-03)	35	11.7
Officer (O4 and above)	71	23.7
I don't Know	1	0.3
Current Duty Station	<i>n</i>	%
U.S.	256	85.3
Overseas	42	14.0
Housing	<i>n</i>	%
On Post	81	27.0
Off Post	218	72.7
PCS Moves	<i>M (SD)</i>	Range
	3.03 (2.07)	0-7

Deployment. The majority of participants (83%) responded that their Service member had ever deployed, meaning that only sixteen percent ($n = 49$) of the sample had never experienced the deployment of their spouse. Over half of participants (61.7%) reported that their spouse had deployed in support of the GWOT, with the number of deployments ranging from 1 - 8 ($M = 2.17$, $SD = 1.3$). Another nearly ten percent ($n = 18$) reported that their spouse was currently deployed to either Iraq or Afghanistan. Of the service members not currently deployed, the amount of time since their last GWOT deployment ranged from 0 to 12 months ($n = 40$, 24.1%), to 1 to 2 years ($n = 40$, 24.1%), or 2 years or longer ($n = 86$, 51.8%). When asked if their Service member had experienced any problems related to their deployment(s), 30%

reported that their Service member had no problems. PTSD was the most commonly cited problem ($n = 40$, 13.3%), followed by a physical injury ($n = 24$, 8.0%), and traumatic brain injury (TBI) ($n = 10$, 3.3 %). Nineteen participants listed “other” deployment problems such as sleep issues ($n = 4$), emotional issues ($n = 3$) (e.g. difficulties readjusting, anxiety and depression), and headaches ($n = 2$) among others. There was also one participant who listed that her husband was killed in action (KIA). Twenty-five participants (8.3%) were not sure if their spouse had experienced a problem related to deployment and 90 participants (30.0%) reported no problems. See Table 4 for a summary of GWOT deployment characteristics.

Table 4
Service Member GWOT Deployment Characteristics

GWOT Deployment	N	%
Yes	185	61.7
No	114	38.0
Currently Deployed		
Yes	18	9.7
No	167	55.7
Deployment Return Time		Valid %
0-12 months	40	24.1
1-2 years	40	24.1
2 years or longer	86	51.8
Deployment Problems		
PTSD	40	13.3
TBI	10	3.3
Physical Injury	24	8.0
Other	19	6.3
Not Sure	25	8.3
No Problems	90	30.0

Of those participants whose spouses had not deployed in support of the GWOT, 64 (21.3%) reported that their spouse had deployed in support of other efforts, in which 16 (5.3%) responded that their Service members was deployed at the time of the survey. Of participants whose spouses were not deployed, a total of 12 (26.1%) service members had returned within the

last year, 11 (23.9%) had been home between one and two years, and 23 (50.0%) had been home from deployment for more than 2 years. Fifty-two participants (17.3%) responded that their spouse experienced no problems related to deployment, seven (2.3%) were not sure, two participants listed PTSD as a problem, and one cited a physical injury. Zero participants reported TBI as a problem and a total of three participants cited “other” deployment related problems. See Table 5 for a summary of non-GWOT deployment characteristics.

Table 5
Service Member Other (Non-GWOT) Deployment Characteristics

Other Deployment	N	%
Yes	64	21.3
No	49	16.3
Currently Deployed		
Yes	16	5.3
No	46	15.3
Deployment Return Time		Valid %
0-12 months	12	26.1
1-2 years	11	23.9
2 years or longer	23	50.0
Deployment Problems		
PTSD	2	0.7
TBI	0	0.0
Physical Injury	1	0.3
Other	3	1.0
Not Sure	7	2.3
No Problems	52	17.3

Spouse military experience. Slightly more than twenty percent of participants ($n = 64$, 21.3%) were former child dependents of a parent who served in the U.S. military. Another ten percent of participants ($n = 30$) had prior service experience in the military. Twelve of the 30 participants served in the Army, 8 in the Air Force, 7 in the Navy, 2 in the Marine Corps, and 1 in the Coast Guard. The majority served in the Active Duty Component ($n = 27$), five served in the Reserves, and one served in the National Guard. The length of time participants served in the

military ranged from less than a year to over 20 years, with most participants ($n = 17$) having served between 1 and 5 years. The amount of time since those participants have been out of the military ranged from less than a year to over 20 years, with the majority ($n = 12$) reporting that they had been out of the military between 5 and 10 years. Seven participants ($n = 2.3\%$) responded that they had deployed in support of the GWOT. The number of deployments ranged from 1 to 5, yielding a mean of 2.43 deployments with a standard deviation of 1.62. Six of the seven participants who had deployed reported experiencing problems related to their deployment, with 5 citing PTSD and one citing a physical injury.

Risk Factors

A battery of assessments were integrated into the survey questionnaire to gain a better understanding of various risk and protective factors assumed to have an influence on military spousal well-being. The characteristics, habits, and experiences thought to increase risk for poor well-being among military spouses were high levels of perceived stress, alcohol and drug use, and history of stressful life events. A descriptive summary of the findings for each potential risk factor variable are discussed within this section.

Perceived stress. The Perceived Stress Scale (PSS-10) measures participant's perception of stress. Participants were asked to think about how often they felt or thought a certain way about ten different items over the past month. Their scores ranged from 0-35 ($M=15.17$, $SD=7.70$), with higher scores indicating higher levels of perceived stress (Cohen & Mermelstein, 1983). The most frequent stressor endorsed by participants was feeling nervous and "stressed" ($M=2.44$, $SD=1.15$). A detailed description of the frequency and mean score for each scale item on the PSS-10 can be found under Appendix D.

Alcohol & drug use. Research has long established that there are many different factors (i.e. genetics, health status, frequency of usage, etc...) that contribute to the effects of alcohol and that alcohol consumption can carry risks to health, though some more recent research also suggests that low amounts of alcohol consumption may yield potential benefits (National Institute on Alcohol Abuse and Alcoholism, 2007). Ninety-nine percent ($n = 298$) of participants responded to survey items about their alcohol consumption and whether or not they have had any past difficulties with drugs, alcohol, or prescription medications. Sixty-five percent ($n = 195$) of participants responded “yes” to alcohol in the past 30 days, in which thirty-one percent ($n = 61$) reported drinking “5 or more days per month.” Eight percent ($n = 16$) of those who drank alcohol in the last month reported drinking “3 drinks or more per day.” Ten participants (5.1%) who endorsed having alcohol reported having “4 or more drinks per day” on “3 or more days in the past month.” There were also ten participants (3%) reported having ever had difficulties with drugs, alcohol, or prescription drugs.

Stressful life events. A revised version of the Life Events Checklist (LEC-5) was included in the survey questionnaire to capture data about difficult or stressful events that participants may have experienced or witnessed throughout their lifetime. Participants who endorsed experiencing a stressful life event were also asked to share whether the event occurred while they were a child or an adult when the event occurred. When the stressful experience was an interpersonal trauma caused by someone else, participants were asked to provide information about the perpetrator. This section focuses on the stressful life events that participants endorsed as “happened to me.” The number of stressful life events experienced by participants ranged from 0 to 8, with a mean score of 2.67 and standard deviation of 1.81. Table 6 displays the

frequency of responses for each life event and lists whether the event occurred during childhood or adulthood.

Over half of participants responded they experienced a transportation accident ($n = 194$, 64.7%) or natural disaster ($n = 162$, 54.0%) with over a quarter of participants ($n = 89$, 29.7%) reporting that they had experienced a stressful event that differed from the available item options (e.g. death of a loved one, significant family stress, miscarriage). Physical assaults occurred to 26.7% ($n = 80$) of the study sample. The majority of physical assaults were caused by a parent ($n = 31$, 39.2%) during childhood ($n = 50$, 62.5%). Furthermore, over a quarter of participants ($n = 80$, 26.7%) responded that they had been sexually assaulted in their lifetime. The majority of sexual assaults were caused by a friend or acquaintance ($n = 42$, 52.5%) during childhood ($n = 48$, 60.0%). Other unwanted or uncomfortable sexual experiences happened to 27.3% ($n = 82$) of the study sample in which the majority occurred during adulthood ($n = 45$, 54.9%) by someone who the participant considered a friend or acquaintance ($n = 52$, 63.4%).

Additional findings established that 11.0% of participants ($n = 33$) had experienced a life-threatening illness or injury, 10.0% reported experiencing a sudden or violent death ($n = 30$), 8.0% experienced a fire or explosion ($n = 24$), 5.7% experienced assault with a weapon ($n = 17$), 2.3% experienced combat or exposure to a war zone ($n = 7$), and three participants (1.0%) experienced captivity during their lifetime.

The findings of this study focus on the events directly experienced by the participant, however additional study findings listing the life events participants marked as “happened to my spouse”; “witnessed it”; “not sure”; and “doesn’t apply” can be found under Appendix D. The additional findings and their implications will be further explored in future analyses.

Table 6
Life Event Checklist Item Responses

Life Events Checklist (LEC)	Happened to Me	As a Child	As an Adult	Primary Perpetrator
Transportation Accident	194 (64.7%)	53 (27.9%)	137 (72.1%)	
Natural Disaster	162 (54.0%)	65 (40.1%)	97 (59.9 %)	
Fire or Explosion	24 (8.0%)	13 (54.2%)	11 (45.8 %)	
Any other Very Stressful Event or Experience	89 (29.7%)	18 (20.7%)	69 (79.3%)	
Other Unwanted or Uncomfortable Sexual Experience	82 (27.3%)	37 (45.1%)	45 (54.9%)	Friend/Acquaintance: 52 (63.4%)
Physical Assault	80 (26.7%)	50 (62.5%)	30 (37.5%)	Parent: 31 (39.2%)
Sexual Assault	80 (26.7%)	48 (60.0%)	32 (40.0%)	Friend/Acquaintance: 42 (52.5%)
Life-Threatening Illness or Injury	33 (11.0%)	8 (24.2%)	25 (75.8%)	
Sudden, Violent Death	30 (10.0%)	7 (23.3%)	23 (76.7%)	
Assault with a Weapon	17 (5.7%)	9 (52.9%)	8 (47.1%)	Stranger: 5 (29.4%)
Combat or exposure to war-zone	7 (2.3%)	7 (100.0%)	0 (0.0%)	
Captivity	3 (1.0%)	1 (33.3%)	2 (66.7%)	Spouse/Partner: 2 (66.7 %)

Protective Factors

The characteristics, conditions, and experiences that were thought to help promote well-being among military spouses were high levels of family functioning, high levels of resilience, and utilization of formal and informal supports. The findings for each of the protective factor variables are included in this section.

Family functioning. The Family Satisfaction Scale (FSS) and Family Communication Scale (FCS) scores were calculated to measure the level of family functioning among participants. The total score for each scale was calculated by adding the item scores. Higher scores indicate higher levels of family satisfaction and communication. The scores of the FSS ranged from 14-50 with a mean score of 39.72 and standard deviation of 7.17, indicating that the study sample has on average a high to moderate level of family satisfaction. The FCS

scores ranged from 13-50 with a mean score of 40.04 and standard deviation of 7.72. The mean score indicates that study participants have on average a high level of family communication.

Resilience. The Brief Resilience Scale (BRS) operationalizes resilience as the ability to bounce back and recover from stress. Participants' level of resilience was measured by calculating the sum of the six question items. Participant scores ranged from 1.67-5.00 with a mean score of 3.71 and standard deviation of 0.81, with higher scores indicating higher levels of resilience. The majority of participants on each scale item "agreed" with the statements, "I tend to bounce back quickly after hard times" ($n = 120, 40.0\%$), "I have a hard time making it through stressful events" ($n = 103, 34.3\%$), "It does not take me long to recover from a stressful event" ($n = 100, 33.3\%$), "It is hard for me to snap back when something bad happens" ($n = 99, 33.0\%$), "I usually come through difficult times with little trouble" ($n = 120, 40.0\%$), and "I tend to take long to get over setbacks in my life" ($n = 106, 35.3\%$). A Table summary of the frequency and mean score for each scale item on the BRS can be found in Appendix D.

Formal support. Formal support was measured by participants' perceptions of the amount of support they received from their spouses' unit/chain of command and military programs as well as their use of various supportive services/programs. Participants were asked to rate the level of support they received during times when they have needed it from both their spouses' unit/chain of command and military programs. Participants who did not respond ($n = 2$) were grouped together with those who responded "not applicable." Table 7 presents the frequency of each response and combined mean score of participants' responses. The mean score of 2.53 ($SD = 1.36$) indicates that on average, participants who've needed support received it "a little" to "some of the time" from their spouses' unit/chain of command. When examining the mean score of participants' responses ($2.57, SD = 1.29$) to the question asking about the

amount of support they received from military programs, the results indicate that on average, participants who've needed support received it between "a little" and "some of the time."

Additional descriptive information was gathered about the utilization of the Family Advocacy Program (FAP), a well-known program designed to prevent and respond to domestic and child abuse. Nine percent of the study sample ($n = 28$) answered "yes" to whether they had *ever* participated in FAP services and 4 participants responded that they had used FAP services within the last 30 days.

Table 7
Support from Unit & Military Programs

Unit/Chain of Command	N	%	M (SD)
1 = None of the time	79	26.3	
2 = A little of the time	55	18.3	
3 = Some of the time	47	15.7	2.53 (1.36)
4 = Most of the time	45	15.0	
5 = All of the time	25	8.3	
Not Applicable	49	16.3	
Military Programs	N	%	M (SD)
1 = None of the time	67	22.3	
2 = little of the time	56	18.7	
3 = Some of the time	57	19.0	2.57 (1.29)
4 = Most of the time	45	15.0	
5 = All of the time	20	6.7	
Not Applicable	55	18.3	

Mental health. Nearly half of all participants ($n = 142$, 47.3%) reported "yes" to having *ever* used mental health/behavioral/counseling services in which 17.0% ($n = 24$) of those who responded "yes," reported using mental health services within the past 30 days. The majority of participants accessed mental health services in the community ($n = 83$, 59.3%), another 22% ($n = 31$) accessed mental health on the military base, and 18.6% ($n = 26$) accessed services in both the community and on the military base. Table 8 presents a summary of the data from participants' use of mental health services.

Table 8

Mental Health Service Use of Total Sample

Mental Health Service Use	N	%
Yes	142	47.3
No	157	52.3
Service use past 30 days		Valid %
Yes	24	17.0
No	117	83.0
Location		Valid %
Military Base	31	22.1
Community	83	59.3
Both	26	18.6

Chaplaincy/spiritual support. A total of 83 participants (27.7%) reported “yes” to having *ever* used chaplaincy services/spiritual support and 17% ($n = 14$) of those who responded “yes” reported using chaplaincy/spiritual support services within the past 30 days. The majority of participants accessed chaplaincy/spiritual support on the military base ($n = 50$, 60.2%), while 13 (15.7%) accessed chaplaincy/spiritual support services in the community and 20 (24.1%) accessed services in both the community and on the military base. Table 9 presents a summary of participants’ use of chaplaincy/spiritual support services.

Table 9

Chaplain/Spiritual Support Service Use for Total Sample

Chaplain/Spiritual Support	N	%
Yes	83	27.7
No	216	72.0
Service use past 30 days		Valid %
Yes	14	17.1
No	68	82.9
Location		Valid %
Military Base	50	60.2
Community	13	15.7
Both	20	24.1

Other organizations. A total of 57 participants (19.0%) reported “yes” to having *ever* used other organizations for social support, with 36.8% ($n = 21$) responding that they accessed

these organizations within the past 30 days. The majority of participants accessed “other” organizations in the community ($n = 28, 49.1\%$), while 17 (29.8%) accessed them on the military base, and 12 (21.1%) accessed them in both the community and on the military base. The most frequently cited organizations were other military programs (e.g. Exceptional Family Member Program (EMFP), church, and other types of mental health support (e.g. Military Family Life Counselors [MFLC]). Other responses included community support groups, sororities, and Facebook spouse pages. Table 10 presents a summary of participants’ service use of “other” organizations.

Table 10
Other Organization Service Use for Total Sample

Other Organizations	N	%
Yes	57	19.0
No	240	80.0
Service Use past 30 days		Valid %
Yes	21	36.8
No	36	63.2
Location		Valid %
Military Base	17	29.8
Community	28	49.1
Both	12	21.1

Informal support. Data about types of informal support were gathered from the survey item, “Do you rely on any of the following for support? (Check all that apply).” The majority of participants answered that they relied on family (91.3%) and friends (86.7%) for support and nearly half (45.0%) responded that they relied on social media for support. Another seven percent answered that they relied on other forms of support. The most common “other” sources of support are described by participants as church ($n = 9$), other organizations ($n = 5$), and myself ($n = 3$).

Social, Mental, & Physical Well-Being

This study operationalizes well-being across three separate components 1) social well-being, 2) physical well-being, and 3) mental well-being. The outcome scores of the MOS-SS5 were used to measure social well-being and the SF-12v2's MCS and PCS norm-based scores were utilized the outcomes scores for the respective mental and physical well-being components. Table 11 lists the psychometric properties of the outcome variables for each component of well-being. According to the findings, 245 (82%) of participants had complete data to calculate total scores for the social well-being component. The mean score of the study sample ($M = 14.71$, $SD = 3.61$) suggests that participants have on average, normal levels of social support (Cisler, Begle, Amstadter, & Acierno, 2012). The raw scores of 299 participants were calculated into standardized mental health (MCS) and physical health (PCS) summary scores by the SF-12v's certified Health Outcome Scoring Software (4.5). The study sample's mean MCS score ($M = 47.42$, $SD = 9.92$) is below the standardized mean score ($M = 50$, $SD = 10$) of the general population, suggesting that participants have an average poorer mental health score than the general population (Maurish & DeRosa, 2009). In contrast, participants' mean PCS scores ($M = 54.5$, $SD = 7.88$) are above the mean PCS score ($M = 50$, $SD = 10$) of the general population, signifying that participants have average physical health score that is better than the general population (Maurish & DeRosa, 2009).

Table 11

Psychometric Properties of the Well-being Outcome Variables

Model	Scale	N (%)	M	SD	Min-Max (Range)
Social Well-being	MOS-SS5	245 (81.7)	14.71	3.61	5-20 (15)
Mental Well-Being	MCS	299 (99.7)	47.42	9.92	13.80-64.82 (51.02)
Physical Well-Being	PCS	299 (99.7)	54.5	7.88	19.68-68.65 (48.97)

General Well-being

The way in which spouses define their own health and satisfaction with life is vital to understanding their personal well-being. This study measured general well-being using the outcome scores of two separate scales, the SF-12v2's general health (GH) item score and the Satisfaction with Life Scale (SWLS) total score. The raw GH scores of the study sample were converted into standardized scores by the developer's certified scoring software to produce a new mean score ($M = 54.39$, $SD = 8.28$), indicating that the general health of the study sample is on average higher than the general health ($M = 50$, $SD = 10$) of the general population (Ware et al., 2002). The developer of the SWLS interprets the study sample's mean life satisfaction score ($M = 26.41$, $SD = 6.04$) as high, remarking that individuals with scores in this range tend to like their lives and feel that things are going well (Diener, 2006). The central tendency of each measure is listed below.

Table 12
General Well-Being Outcome Scores

Scale	N (%)	M	SD	Min-Max (Range)
General Health	299 (99.7)	54.39	8.28	34-64 (30)
SWLS	296 (98.7)	26.41	6.04	8-35 (27)

RQ2. Are there observed differences in the social, physical and/or mental well-being outcome scores between socio-demographic subsets of the military spouse sample?

The literature reviewed for this study suggests that there may be variations in well-being and quality of life among subgroups of military spouses based on differences in their socio-demographics. To test this assumption, the researcher developed a series of hypotheses.

Independent sample *t*-tests were conducted to evaluate whether significant differences between the mean outcome scores of the domain specific (social, mental, & physical) and general (general health & life satisfaction) components of well-being existed between various subsets of the

military spouse sample. The statistical analyses were conducted using a 95% confidence interval and alpha level of .05. The means, standard deviations, and *t* statistic findings for each hypothesis are organized within Tables.

H1: Social, physical, mental and general well-being outcome scores will differ by age (25 and younger vs 26 and older) of military spouses.

Results from the independent samples *t*-tests across the well-being outcome scores and general well-being scores showed no significant difference at the .05 level between spouses who are 25 years of age or younger (*n* = 57) and spouses who were 26 years of age or older (*n* = 243).

Table 13
Age: T-Test Findings

	Groups	(M, SD)	t Test
Social Well-being	25 or younger	(<i>M</i> = 14.67; <i>SD</i> = 3.81)	<i>t</i> (243) = -.067; <i>p</i> = .947
	26 or older	(<i>M</i> = 14.71; <i>SD</i> = 3.57)	
Mental Well-being	25 or younger	(<i>M</i> = 45.95; <i>SD</i> = 10.83)	<i>t</i> (297) = -1.24; <i>p</i> = .214
	26 or older	(<i>M</i> = 47.76; <i>SD</i> = 9.69)	
Physical Well-being	25 or younger	(<i>M</i> = 55.08; <i>SD</i> = 7.04)	<i>t</i> (297) = .619; <i>p</i> = .537
	26 or older	(<i>M</i> = 54.37; <i>SD</i> = 8.07)	
General Health	25 or younger	(<i>M</i> = 54.34; <i>SD</i> = 7.56)	<i>t</i> (297) = -.045; <i>p</i> = .964
	26 or older	(<i>M</i> = 54.40; <i>SD</i> = 8.45)	
Life Satisfaction	25 or younger	(<i>M</i> = 25.26; <i>SD</i> = 6.97)	<i>t</i> (75.4) = -1.43; <i>p</i> = .157
	26 or older	(<i>M</i> = 26.69; <i>SD</i> = 5.78)	

H2: Social, physical, mental and general well-being outcome scores will differ by the race (white vs. non-white) of military spouse.

Results from independent sample *t*-tests across the well-being outcome scores and general health score showed no significant difference at the .05 level between the mean scores of participants who identify as white (*n* = 243) and participants who identify as non-white (*n* = 57).

However, the t statistic of equal variances assumed found a significant difference between the mean life satisfaction scores of whites ($M = 26.76$, $SD = 5.92$) and nonwhites ($M = 24.95$, $SD = 6.40$), $t(294) = 2.05$; $p = .041$., with results presenting a higher mean score of life satisfaction among white participants.

Table 14
Race: *T-Test Findings*

	Groups	(M, SD)	t Test
Social Well-being	White	($M = 14.87$; $SD = 3.52$)	$t(243) = 1.47$; $p = .143$
	Nonwhite	($M = 14.02$; $SD = 3.95$)	
Mental Well-being	White	($M = 47.85$; $SD = 9.91$)	$t(297) = 1.56$; $p = .120$
	Nonwhite	($M = 45.57$; $SD = 9.84$)	
Physical Well-being	White	($M = 54.71$; $SD = 7.94$)	$t(297) = .961$; $p = .338$
	Nonwhite	($M = 53.60$; $SD = 7.60$)	
General Health	White	($M = 54.58$; $SD = 8.33$)	$t(297) = .822$; $p = .412$
	Nonwhite	($M = 53.58$; $SD = 8.07$)	
Life Satisfaction	White	($M = 26.76$; $SD = 5.92$)	$t(294) = 2.05$; $p = .041^*$
	Nonwhite	($M = 24.95$; $SD = 6.40$)	

*denotes significant difference at .05

H3: Social, physical, mental and general well-being outcome scores will differ by the education level (no degree vs. college degree) of military spouses.

Results from the independent samples t -tests across the well-being outcome scores and general well-being scores showed no significant difference at the .05 level between the mean scores of spouses who have earned a college degree ($n = 195$) and those who have not graduated college ($n = 105$).

Table 15

Education: T-Test Findings

	Groups	(M, SD)	t Test
Social Well-being	No Degree	($M = 14.87$; $SD = 3.69$)	$t(243) = .509$; $p = .611$
	College Degree	($M = 14.62$; $SD = 3.58$)	
Mental Well-being	No Degree	($M = 46.97$; $SD = 10.78$)	$t(297) = -.562$; $p = .574$
	College Degree	($M = 47.65$; $SD = 9.45$)	
Physical Well-being	No Degree	($M = 54.23$; $SD = 8.44$)	$t(297) = -.437$; $p = .663$
	College Degree	($M = 54.65$; $SD = 7.58$)	
General Health	No Degree	($M = 53.51$; $SD = 7.97$)	$t(297) = 1.36$; $p = .176$
	College Degree	($M = 54.86$; $SD = 8.42$)	
Life Satisfaction	No Degree	($M = 26.09$; $SD = 5.68$)	$t(294) = -.682$; $p = .496$
	College Degree	($M = 26.59$; $SD = 6.24$)	

H4: Social, physical, mental and general well-being outcome scores will differ by the employment status (employed v. not employed) of military spouses.

Results from the independent samples *t*-tests with equal variances not assumed revealed a significant difference between the mean mental component scores of participants who work ($n = 133$) and those who do not work ($n = 167$). The mean difference in the mental component scores of participants who work ($M = 49.27$, $SD = 7.24$) and participants who do not work ($M = 45.95$, $SD = 8.33$), $t(297) = 2.98$; $p = .003$, indicates better mental health among those who are employed. A notable mention is the near significant difference between the social component scores of participants who work ($M = 15.20$; $SD = 3.27$) and participants who do not work ($M = 14.34$; $SD = 3.82$), $t(239) = 1.91$; $p = .058$. Though further testing is needed, this finding brings to question whether working military spouses experience higher levels of social support, on average, than those who are unemployed.

Results from the independent samples *t*-tests also established significant differences in the mean outcomes score of life satisfaction. A *t* statistic of equal variances not assumed found a significant difference in the mean score of life satisfaction between participants who work ($M = 27.52$; $SD = 5.48$) and those who do not work ($M = 25.55$; $SD = 6.33$), $t(291) = 2.86$; $p = .005$., signifying higher life satisfaction among working participants. Additionally, a *t* statistic of equal variance assumed found near significance between the general health score of participants who work ($M = 55.42$; $SD = 8.17$) and those who do not work ($M = 53.57$; $SD = 8.29$), $t(297) = 1.92$; $p = .055$.

Table 16
Employment: T-Test Findings

	Groups	(M, SD)	t Test
Social Well-being	Working	($M = 15.20$; $SD = 3.27$)	$t(239) = 1.91$; $p = .058$
	Not Working	($M = 14.34$; $SD = 3.82$)	
Mental Well-being	Working	($M = 49.27$; $SD = 7.24$)	$t(297) = 2.98$; $p = .003^*$
	Not Working	($M = 45.95$; $SD = 8.33$)	
Physical Well-being	Working	($M = 55.08$; $SD = 7.24$)	$t(294) = 1.15$; $p = .252$
	Not Working	($M = 54.05$; $SD = 8.34$)	
General Health	Working	($M = 55.42$; $SD = 8.17$)	$t(297) = 1.92$; $p = .055$
	Not Working	($M = 53.57$; $SD = 8.29$)	
Life Satisfaction	Working	($M = 27.52$; $SD = 5.48$)	$t(291) = 2.86$; $p = .005^*$
	Not Working	($M = 25.55$; $SD = 6.33$)	

*denotes significant difference at .05

H5: Social, physical, mental and general well-being outcome scores of military spouses will differ by the military rank (enlisted vs. officer) of their Service member.

Results from the independent samples *t*-tests established significant differences in the mean outcome scores of the social and physical component scores of well-being between

participants married to enlisted personnel ($n = 183$) and participants married to officers ($n = 115$). Specifically, the t statistic of equal variances assumed found a significant difference in the social component score of participants whose spouses were enlisted ($M = 14.27$; $SD = 3.64$) and participants whose spouses were officers ($M = 15.43$; $SD = 3.51$), $t(241) = -2.44$; $p = .015$, with a higher score of social support found among participants married to officers. A t statistic of equal variances not assumed found a significant difference in the physical component scores between participants whose spouses were enlisted ($M = 53.80$; $SD = 8.29$) and participants whose spouses were officers ($M = 55.65$; $SD = 7.11$), $t(270) = -2.05$; $p = .042$, with findings indicating a higher score of physical health among participants married to officers.

Results from the independent sample t -tests of equal variances not assumed also found significant differences in the mean outcome scores of general well-being. A significant difference was found between the general health scores of participants whose spouses are enlisted ($M = 53.23$; $SD = 8.55$) and participants spouses who are officers ($M = 56.19$; $SD = 7.57$), $t(261) = -3.12$; $p = .002$, with higher general health score found among participants married to officers. A significant difference found between the life satisfaction scores of participants whose spouses were enlisted ($M = 25.62$; $SD = 6.34$) and participants spouses who were officers ($M = 27.60$; $SD = 5.38$), $t(268) = -2.86$; $p = .005$, showed a higher score of life satisfaction among participants married to officers.

Table 17

Service Member Rank: T- Test Findings

	Groups	(M, SD)	t Test
Social Well-being	Enlisted	(<i>M</i> = 14.27; <i>SD</i> = 3.64)	<i>t</i> (241) = -2.44; <i>p</i> = .015*
	Officer	(<i>M</i> = 15.43; <i>SD</i> = 3.51)	
Mental Well-being	Enlisted	(<i>M</i> = 46.63; <i>SD</i> = 10.36)	<i>t</i> (270) = -1.89; <i>p</i> = .060
	Officer	(<i>M</i> = 48.77; <i>SD</i> = 8.92)	
Physical Well-being	Enlisted	(<i>M</i> = 53.80; <i>SD</i> = 8.29)	<i>t</i> (270) = -2.05; <i>p</i> = .042*
	Officer	(<i>M</i> = 55.65; <i>SD</i> = 7.11)	
General Health	Enlisted	(<i>M</i> = 53.23; <i>SD</i> = 8.55)	<i>t</i> (261) = -3.12; <i>p</i> = .002*
	Officer	(<i>M</i> = 56.19; <i>SD</i> = 7.57)	
Life Satisfaction	Enlisted	(<i>M</i> = 25.62; <i>SD</i> = 6.34)	<i>t</i> (268) = -2.86; <i>p</i> = .005*
	Officer	(<i>M</i> = 27.60; <i>SD</i> = 5.38)	

* denotes significant difference at .05

H6: Social, physical, mental and general well-being outcome scores of military spouse will differ by the deployment history (GWOT deployment vs. no deployment) of their Service member.

Results from the independent samples *t*-tests across both the social, mental, and physical well-being outcome scores and the general well-being scores showed no significant difference between participants whose spouses have deployed (*n* = 185) in support of the wars in Iraq and Afghanistan (GWOT) and those who had not deployed (*n* = 114).

Table 18

Service Member Deployment Experience: T- Test Findings

	Groups	(M, SD)	t Test
Social Well-being	No Deployment	(<i>M</i> = 14.25; <i>SD</i> = 3.43)	<i>t</i> (242) = -1.56; <i>p</i> = .120
	Deployment	(<i>M</i> = 14.99; <i>SD</i> = 3.71)	
Mental Well-being	No Deployment	(<i>M</i> = 46.68; <i>SD</i> = 9.92)	<i>t</i> (296) = -1.11; <i>p</i> = .270
	Deployment	(<i>M</i> = 47.98; <i>SD</i> = 9.82)	
Physical Well-being	No Deployment	(<i>M</i> = 54.44; <i>SD</i> = 8.09)	<i>t</i> (296) = -.099; <i>p</i> = .921
	Deployment	(<i>M</i> = 54.53; <i>SD</i> = 7.78)	
General Health	No Deployment	(<i>M</i> = 53.87; <i>SD</i> = 8.93)	<i>t</i> (296) = -.825; <i>p</i> = .410
	Deployment	(<i>M</i> = 54.69; <i>SD</i> = 7.87)	
Life Satisfaction	No Deployment	(<i>M</i> = 25.90; <i>SD</i> = 6.45)	<i>t</i> (293) = -1.12; <i>p</i> = .263
	Deployment	(<i>M</i> = 26.71; <i>SD</i> = 5.79)	

H7: Social, physical, mental and general well-being outcome scores will differ between military spouses who do and do not have children.

Results from the independent samples *t*-tests across both the social, mental, and physical well-being outcome scores and the general well-being scores showed no significant difference between participants who have children (*n* = 221) and those who do not have children (*n* = 75).

Table 19

Children: T-Test Findings

	Groups	(M, SD)	t Test
Social Well-being	No kids	(<i>M</i> = 14.88; <i>SD</i> = 3.70)	<i>t</i> (239) = .695; <i>p</i> = .223
	Kids	(<i>M</i> = 14.66; <i>SD</i> = 3.61)	
Mental Well-being	No kids	(<i>M</i> = 47.12; <i>SD</i> = 8.81)	<i>t</i> (293) = -.307; <i>p</i> = .759
	Kids	(<i>M</i> = 45.53; <i>SD</i> = 10.36)	
Physical Well-being	No kids	(<i>M</i> = 54.34; <i>SD</i> = 8.03)	<i>t</i> (293) = -.291; <i>p</i> = .771
	Kids	(<i>M</i> = 54.65; <i>SD</i> = 7.72)	
General Health	No kids	(<i>M</i> = 54.96; <i>SD</i> = 8.92)	<i>t</i> (293) = .641; <i>p</i> = .522
	Kids	(<i>M</i> = 54.26; <i>SD</i> = 7.97)	
Life Satisfaction	No kids	(<i>M</i> = 25.85; <i>SD</i> = 6.49)	<i>t</i> (290) = -.828; <i>p</i> = .409
	Kids	(<i>M</i> = 26.53; <i>SD</i> = 5.91)	

RQ3. How well do socio-demographic characteristics predict participant well-being scores after controlling for selected risk and protective factor variables?

Hierarchical regression analyses were applied to research question 3 in order to explore the varying relationships between each outcome variable of well-being (social, mental, and physical) and the ordered predictor variables (risk & protective factors and sociodemographics). For this study, the final predictor variables included in the regression analyses were chosen based on whether they had a significant correlation with at least *one* of the outcome variables at $p < .05$ and did not majorly violate the pre-screening assumptions for multivariate procedures. This criteria led to nine predictor variables, yielding a cases-to-predictor variables ratio ($n = 122 \geq 50 + 8*9$) that falls well within the required sample size needed to test multiple correlation (Tabachnick & Fidell, 2007). Table 20 presents a matrix of the correlation coefficients between each predictor variable and the outcome variables. Correlation matrix between all of the

variables is located in Appendix E. The same 9 predictor variables were tested in each model to allow for comparisons between the social, mental, and physical components of well-being. The order in which each set of variables were entered into the equation was derived from theoretical assumptions and empirical studies. This section begins with a summary of the results of the multivariate prescreening assumptions and is followed by a discussion of the findings for each model.

Table 20

Correlation Matrix between Predictive and Outcome Variables

Predictor Variables	Social (MOS-SS5)	Mental (MCS)	Physical (PCS)
<i>Step 1 – Risk & Protective Factors</i>			
Perceived Stress	-.361**	-.754**	-.003
Alcohol last 30 days	.254**	.130*	.161**
Stressful Life Events	-.237**	-1.33*	-.258**
Family Satisfaction	.367**	.430**	.023
Resilience	.277**	.484**	.062
Mental Health Service Use	-.198**	-.209**	-.098
<i>Step 2 – Sociodemographics</i>			
Age	.032	.152**	-.119*
Employment	-.119	-.166**	-.065
Service Member Rank	.155*	.106	.114*

*Correlation significant at the 0.05 level

** Correlation significant at the 0.01 level

Prescreening for Multivariate Assumptions

Prior to testing the regression analyses, the data were prescreened for assumptions of multivariate procedures to ensure the proper use of the hierarchical model and interpretation of the results. Only complete participant data was considered for inclusion in the analyses. Initial screening for univariate outliers were sought among the predictor and outcome variables prior to screening for multivariate outliers. Assumptions of multivariate outliers, multicollinearity, linearity, homoscedasticity, and multivariate normality were examined for each model (Dattalo,

2013). The results of the scatterplot, p-plot, and histogram chart for each model can be found in Appendix F.

Outliers. Initial screening for univariate outliers were sought among the predictor and outcome variables prior to screening for multivariate outliers. Raw scores for each of the continuous variables were transformed into standardized *z-scores* to examine whether any scores exceeded 3.29 ($p < .001$, two-tailed test), a common indicator used to identify potential outliers (Tabachnick & Fidell, 2007). The presence of potential outliers was found among the two lowest scores on the FSS, the lowest score on the MCS, and the three lowest scores on the PCS. All scores were retained after confirming that the potential outliers were in fact valid scores.

Prescreening for multivariate outliers was conducted by calculating Cook's distance (Cook's *D*), a common measure of influence used to identify outliers (Fox, 1991 and Tabachnick & Fidell, 2007). The more conservative formula $D > 4 / (\text{number of cases} - \text{number of predictor variables} - 1)$ was utilized as a cut-off for detecting influential cases along with the commonly accepted formula ($D > 1$) to identify a strong indication of an outlier problem (Dattalo, 2013). When utilizing the Social Support Scale (MOS-SS5) as the outcome variable, a total of 11 cases showed Cook's *D* values greater than .0189 however there were zero cases which had Cook's *D* values greater than 1.00. Similar results were found when screening for outliers using the Mental Component Score (MCS) and Physical Component Score (PCS) as the outcome variable. The MCS yielded 16 cases with Cook's *D* values greater than .0152 and zero cases with values greater than 1.00 while the PCS yielded 18 cases with Cook's *D* values greater than .0152 and zero cases with values greater than 1.00. The results indicate the possibility of potential problems with influential cases; however, neither model indicated clearly suspected

outliers with Cook's D values greater than 1.00. A visual inspection of residuals scatterplots and p-plots confirms the presence of suspected outliers.

Multicollinearity. Prescreening for multicollinearity was conducted through the inspection of bivariate correlations. The results found Pearson's r values greater than .50 between two pairs of potential predictor variables: (1) the Family Satisfaction (FSS) and Family Communication (FCS) scores ($r = .830$) and (2) the Perceived Stress (PSS-10) and Brief Resilience Scale (BRS) scores ($r = -.534$). A highly linear correlation was expected between family communication and satisfaction given that a number of items on the family satisfaction scale were partially designed to assess satisfaction with various aspects of family communication (Olsen, 2010). For that reason, only the FSS was included as a predictor variable in the final model. High levels between the PSS-10 and BRS were also expected as previous research has shown the BRS to be consistently negatively correlated with perceived stress (Smith et al., 2008). In this case, both variables were included as predictors in the final model because they measured different constructs and their correlation did not exceed the .70 marker, an indicator that multicollinearity can cause both logical and statistical problems (Tabachnick & Fidell, 2007).

Linearity. Linearity between the outcome and predictor variables was tested by calculating the Pearson correlation coefficient and through the examination of residual scatterplots (Appendix F). The results for the physical component model (PCS) suggest low levels of linear association while the results of the mental component (MCS) and social component (MOS-SS5) models suggest variations of low to moderate linearity.

Homoscedasticity. A visual assessment of the standardized predicted values as a function of standardized residual values on the residual (p-plot) scatterplots were used to

determine whether homoscedasticity was present for each mode (Appendix F). The results suggest homoscedasticity can be assumed for the social and mental component models while the results of the physical component model suggest moderate homoscedasticity.

Multivariate normality. Normality of variables was first examined through a visual inspection of skewness, kurtosis, histograms, and p-plots of each of the continuous variables. Some level of skewness and kurtosis were found among each variable, however the physical component score (PCS) was the only variable to have scores that exceeded either 1.0 or -1.0. The PCS had a negative skewness of -1.435 with a standard error of .141 and a kurtosis of 2.461 with a standard error of .281. An examination of the standardized residual p-plots confirmed non-normality of the PCS outcome variable (Appendix F). A clear violation of normality was not assumed when examining the mental component and social component scores.

The results of the pre-analysis screening procedures found minimal violations of the multivariate assumptions. The decision was made to retain the few scores identified as potential outliers once confirming that the data were accurate. It was also decided that the PCS outcome variable would not be transformed after observing that the model maintained relative homoscedasticity despite a departure from normality (Appendix F). This decision allowed the researcher to make comparisons between the model findings.

Results of the Hierarchical Regression Analyses

Hierarchical Multiple regression analyses were completed to predict whether risk (perceived stress, stressful life events, and alcohol use) and protective (family satisfaction, mental health use, and resilience) factor variables contributed to a significant amount of variance in the social, mental, and physical well-being outcome scores of study participants. A second set of analyses were then performed to investigate whether participant age, employment status

(employed vs. non-employed), and Service member rank (enlisted vs. officer) predicted a significant amount of the variance in the social, mental, or physical well-being outcome scores over and above that attributed to risk and protective factor variables. The R^2 , F – statistic, and R^2 change, are being reported to evaluate the significance of the overall model and amount of variance explained by each step in the equation. Adjusted R^2 was used to evaluate the total predicted variance explained by the predictor variables. See Table 21 for a summary of the model findings. The standardized Beta was reported to identify the individual predictors that had a statistically significant relationship with the predicted variance in outcome scores. Table 22 presents a summary of the standardized coefficients of the predictor variables in each model.

This section begins with a review of the research hypotheses for RQ3 followed by a discussion of the findings in each model of well-being.

H₁: Risk and protective factor variables predict a significant amount of the variance in measures of participants' social, mental, and physical well-being.

H₂: Socio-demographic characteristics predict a significant amount of the variance in measures of participants' social, mental, and physical well-being over and above the variance accounted for by risk and protective factor variables.

Social well-being. The social well-being findings include complete data from 225 survey participants. The first set of predictors, risk and protective factors, predicted a significant amount of the variability in the social well-being score, $R^2 = .27$, $F(6, 218) = 13.62$, $p < .001$, accounting for 27% of the predicted variance in social well-being scores. With the entry of socio-demographic characteristics in step 2, the total variance explained by the model as a whole predicted when examining adjusted R squared was 25% ($F(9, 215) = 9.42$, $p < .001$). The 2% decrease in predicted variance with the addition of the socio-demographic variables is because of

the adjusted R squares consideration for the number of predictors, which predicted less than what was expected by chance.

After controlling for risk & protective factor variables, the addition of socio-demographic characteristics (age, employment status, and Service member rank) *did not* significantly add to the total explained variance of the social well-being score, R^2 change = .01, $F(3, 215) = 1.02, p = .38$. Based on these results, the selected socio-demographic variables appear to offer limited additional predictive power toward social well-being scores beyond what is accounted for by risk and protective factor variables. Three of the nine predictor variables in the overall model were found to be statistically significant; perceived stress ($\beta = -.18, p < .05$), alcohol use in the last 30 days ($\beta = .20, p < .01$), and family satisfaction score ($\beta = .28, p < .001$).

Mental well-being. Results from the hierarchical multiple regression analysis includes the data of 277 survey participants. The first set of predictors, risk and protective factors, predicted a significant amount of the variability in the mental well-being score, $R^2 = .60, F(6, 270) = 68.70, p < .01$, accounting for 60% of the predicted variance in the mental composite scores. After accounting for the socio-demographic characteristics entered in step 2 of the equation, the total variance explained by the model as a whole when examining the adjusted R squared was 61% ($F(9, 267) = 48.04, p < .001$).

The introduction of socio-demographic characteristics in the regression equation predicted an additional 1.4% variance in mental well-being scores, after controlling for risk and protective factor variables (R^2 Change = .014, $F(3, 267) = 3.26, p < .05$). The results suggest that socio-demographic variables offer slightly more additional predictive power toward the mental component scores when controlling for the predicted variance attributed to risk and protective factor variables. In the overall model, three of the nine predictor variables were found to be

statistically significant; perceived stress ($\beta = -.65, p < .001$), family satisfaction score ($\beta = .13, p < .01$), and participant age ($\beta = .10, p < .05$).

Physical well-being. Results from the hierarchical multiple regression analysis includes the data of 277 survey participants. The first set of predictors, risk and protective factors, predicted a significant amount of the variability in the physical well-being score, $R^2 = .10, F(6, 270) = 4.80, p < .001$, accounting for 10% of the predicted variance in physical well-being scores. After entering the socio-demographic variables in step 2 of the regression equation, the total variance explained by the model as a whole when examining the adjusted R squared was 9.0% ($F(9, 267) = 4.09, p < .00$).

When controlling for risk and protective factor variables, socio-demographic characteristics *did not* add a significant portion to the predicted variance of the physical well-being score, R^2 change, .025, $F(3, 267) = 2.50, p = .06$. These results suggest that socio-demographic variables fail to offer additional predictive power in explaining the variance of physical well-being scores beyond that attributed to risk and protective factor variables. In the final model, two of the nine predictor variables were found to be statistically significant; number of stressful life events ($\beta = -.21, p < .01$) and participant age ($\beta = .17, p < .05$).

Summary of the Hierarchical Regression Findings

The hierarchical results confirmed research hypothesis one. The model summaries in the first step of the regression analyses found that risk and protective factor variables had a significant relationship with each of the outcome variables, predicting 26% of the variance in social well-being scores, 60% of the variance in mental well-being scores, and 10% of the variance in physical well-being scores. The hierarchical regression findings rejected research hypothesis two for two of the three models. Socio-demographic characteristics were not shown

to significantly increase the predictive power of the model over and above the variance accounted for by the risk and protective factor variables. When examining the results of the mental well-being model, hypothesis 2 was accepted. Socio-demographic characteristics predicted an additional 1.4% variance in mental well-being scores when controlling for risk & protective factor variables, totaling a predictive power of 61%.

Table 21
Summary of Hierarchical Regression Model Findings

Military Spousal Well-Being												
Predictor Variables	Social Model (n = 225)				Mental Model (n = 277)				Physical Model (n = 277)			
	<i>R</i> ²	ΔR^2	ΔF	<i>Df</i>	<i>R</i> ²	ΔR^2	ΔF	<i>Df</i>	<i>R</i> ²	ΔR^2	ΔF	<i>Df</i>
Step 1: Risk/Protective Factors ^a	.27**	.27	13.62**	(6, 218)	.60**	.60	68.70**	(6, 270)	.10**	.10	4.80**	(6, 270)
Step 2: Sociodemographic Characteristics ^b	.28**	.01	1.02	(3, 215)	.62**	.01	3.26*	(3, 267)	.12**	.03	2.50	(3, 267)
Model Summary:	$AdjR^2 = .25$ (25%)				$AdjR^2 = .605$ (61%)				$AdjR^2 = .092$ (9.0%)			

Note. ΔR^2 = change in *R*²; ΔF = change in *F*.

* *p* < .05. ** *p* < .01.

^a Predictors: Risk: Perceived Stress score (PSS-10); Life Events Checklist (LEC); and alcohol use last 30 days. Protective: Family Satisfaction score (FSS); Brief Resilience score (BRS); and use of mental health services in lifetime.

^b Predictors: Age group; employment status; and Service member rank.

Table 22.

Predictor Variable Coefficients for Hierarchical Models

Predictor Variables	Social Model		Mental Model		Physical Model	
	<i>B</i>	<i>p</i>	<i>B</i>	<i>P</i>	<i>β</i>	<i>p</i>
<i>Step 1: Risk/Protective</i>						
PSS-10	-.183	.017	-.651	.000	.064	.386
Alcohol Use	.474	.002	.065	.114	.114	.069
LEC	.199	.133	-.010	.814	-.214	.001
FSS	.283	.000	.133	.003	-.018	.790
BRS	-.007	.928	.042	.367	.065	.363
Mental Health	-.045	.476	-.064	.119	-.015	.812
<i>Step 2: Sociodemographics</i>						
Age group	-.050	.456	.103	.021	-.173	.011
Employment Status	.076	.218	.057	.161	.026	.667
Rank	.087	.191	-.082	.062	.127	.057

RQ4. In what ways do military spouses believe that the military lifestyle influences their parenting experiences and/or style?

Participants who responded that they had children were prompted to answer an additional open-ended question related to their parenting style and experiences. The question that participants were asked reads, “To what extent do you think that being a military family has influenced or affected your parenting experiences or parenting style?” Eighty-eight percent ($n = 194$) of the 220 respondents who identified as having children responded to the open-ended question. The analysis of the text was based on commonalities in participant responses. Responses were coded into categories that centered on key words and were then categorized into themes. Themes were then organized by rank order based on the frequency of common perceptions shared between spouses. Four primary themes evolved from the analysis: (1) The military has a positive impact on parenting; (2) the military has created a lifestyle where the participant is frequently a single parent; (3) the military lifestyle has had no impact on parenting; (4) and the military lifestyle adds additional parenting challenges that might not otherwise be

experienced in the civilian community. A summary of the dominant themes and their subthemes are presented in Table 23.

Table 23

Qualitative Themes: Impact of Military on Parenting Style and Experiences

Theme	Frequency (% of parents)	Subthemes
Military has positive impact on parenting	58 (26.3)	<ul style="list-style-type: none"> - Stronger family bond - Greater honesty, communication & understanding between family members - Develop traits of being flexible & resilient in parenting
Single Parenting	45 (20.5)	<ul style="list-style-type: none"> - Two parent role missing - Must work harder to maintain stability for kids - Requires participant to be independent and resourceful
Military has no impact on parenting	33 (15.0)	<ul style="list-style-type: none"> - no impact - no difference
Military creates added parenting challenges	32 (14.5)	<ul style="list-style-type: none"> - Feeling overwhelmed & stressed - Missing family time due to military separations - Lack of support system/family support

RQ5. What do military spouses describe as the most challenging and rewarding aspects of the military lifestyle?

Participants responded to two-open ended questions in the survey questionnaire connected to research question four. The analysis of the text was based on commonalities in response. Participant responses were read and coded into categories centered on key words. They were then organized into larger themes. Themes were then organized into rank order based on the frequency of common perceptions shared between participants. Significant participant quotes that were found to further illuminate the thematic findings were then selected to accompany the major themes and help to ensure that the language of participants was reflected.

What would you consider the most rewarding aspects of military life?

Ninety-six percent ($n = 288$) of participants responded to the open-ended question about the most rewarding aspects of military life. The written response of a particular participant provided a solid overview of many of the rewards expressed by the study sample. The most rewarding aspect of military life is, “Being able to experience and interact with different cultures and people of different countries, but also with other military families. Benefits associated with being in the military, i.e. discounts, special programs, reduced entrance fees parks, GI -Bill and being able to further my education during active duty military time. Being able to travel.” This written quote is an example of frequent and consistent themes summarizing benefits associated with the military lifestyle. In total, the qualitative analysis led to the emergence of four dominant themes: (a) new experiences, (b) sense of community, and (c) security, (d) pride/patriotism. Table 24 presents a summary of the most commonly noted themes and subthemes in response to this question. Additional themes worthy of mention relate to the military creating a sense of closeness among family members who have to heavily rely on each other in the midst of frequent change and uncertainty and feelings of self-growth and getting to know your own strength when faced with separation and adversity.

Table 24

Themes and Subthemes: Rewards of Military Life

Theme	Frequency (%)	Subthemes
New Life experiences	134 (44.6)	-Live in different places (Travel) -Experience new cultures -Broader perspective/open-minded -Adventure
Provides a strong sense of Community	103 (34.3)	-Bond with other spouses -Meet new friends who share experience -Opportunities to volunteer -Community cohesion
Security	66 (22.0)	-Secured employment for Service member -Financial security -Benefits -Access to military resources & programs
Pride/Patriotism	58 (19.3)	-Feelings of honor -Feelings of pride for spouse's service to Country

What would you consider to be the most challenging aspects of military life?

Ninety-six percent ($n = 289$) of participants responded to the open-ended question asking participants to share their thoughts about the most challenging aspects of military life. The written response of one of the participants provides a sweeping overview of many of the challenges expressed. The participant writes, “The waiting is hands down the most challenging... Waiting for what? For your husband to return from war, waiting for your husband to return from TDY, waiting for your husband to get out of work because you only have one car.... and the words duty hours are just loose terms... Waiting for the Army to tell you when to move, waiting to hear where... Waiting to hear if your spouse was promoted, waiting for your household goods, waiting to meet friends... Waiting to learn if your husband's leave was approved, waiting to save money to go see your family provided your husband's leave was approved... Hands down, waiting.” Another participant adds, “The most challenging would be the stress, not really having

a say, watching my husband have to go off to war, raising my children alone at times, the stress of being a military wife, not knowing where we will live next, the stress of having to move with kids in school and the stress and struggles that causes them and the effects it has on them and us as a whole. That the service comes before self... or family.” The statement provides meaningful insight into the multiple and unique challenges faced by many military spouses. The dominant themes that emerged from the analyses include: (a) family separations, (b) frequent relocations, (c) feelings of isolation, and (d) spouse employment and education. Table 25 presents a summary of the most commonly noted themes and subthemes in response to this question. Additional noted themes included feelings of instability & lack of control, military spouse drama, and negative perceptions about the military from the civilian community.

Table 25

Themes and subthemes: Challenges of military life

Theme	Frequency (%)	Subthemes
Family Separations	115 (38.3)	-Deployment -Long separations -Military work schedule
Frequent Relocations	90 (30.0)	-Frequent moving -Relocation Adjustment of family & children -Uprooting family -Starting over to build support network
Feeling Isolated	67 (22.3)	-Away from family/friends/support system -Raising children alone -Lack of support from military community
Spouse Employment & Education	66 (22.0)	-Spouse career/employment concerns -Difficulty obtaining education -Lacking financial independence

Research question number five was analyzed in the same manner as research question four. Eighty-nine percent ($n = 267$) of participants responded to the open-ended question with written words of advice to spouses who are new to the military lifestyle. The variation in responses led to the decision to select a participant quote to represent each of the major themes. Participant statements are therefore included within the Table summary, see Table 26. The dominant themes that emerged from the analysis include: (a) stay open and positive, (b) gain and maintain your independence, (c) get involved in your community, (d) maintain and build resilience, and (e) retain a strong relationship with your partner/spouse. An interesting finding worth mention, not included in the Table summary, is that a portion of participants offered advice that cautioned other spouses about the difficulties of the lifestyle and provided warnings about the negative effects of the military lifestyle on career aspirations and education as well as the relationship.

Table 26
Qualitative Themes: Advice to New Military Spouses

Theme	Frequency (%)	Subthemes	Statements /Quotes
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Stay open and positive	104 (34.7)	<ul style="list-style-type: none"> -Have a positive attitude -Embrace opportunities -Remain open-minded -Practice flexibility & adaptability 	“Learn to let things go and go with the flow. Your spouse is going to have to work and be gone when you wish they weren't. Being a military spouse is not always easy, but being stressed out or getting angry over it won't change anything.”
Gain and maintain your independence	80 (26.7)	<ul style="list-style-type: none"> -Focus on yourself -Focus on your education & career -Practice self-sufficiency 	“Invest in yourself. Your spouse will have times when he has to leave you for days, months, or years for his work. That is your time to throw yourself into work or a hobby that you feel passionately about.”
Get involved with your community	79 (26.3)	<ul style="list-style-type: none"> -Community involvement -Build support network -Reach out to others -Utilize military resources 	“There are a lot of sacrifices and it takes loyalty and dedication to make it through. Jump in and make new friends and use the resources available to make the most out of everything.”
Maintain & build resilience	63 (22.0)	<ul style="list-style-type: none"> -Build strength -Prepare for challenges -Practice resilience 	“You must learn to be flexible and roll with whatever is thrown your way”
Retain a strong relationship with your partner	60 (20.0)	<ul style="list-style-type: none"> -Good communication -Compromise -Strong bond 	“Make sure you can absolutely trust your partner and they trust you as well. Work on communication, especially when unexpected, stressful situations come up. It is also important to have a life of your own and friends to lean on because chances are your spouse will be gone often. And even when things are hard, never lose sight of the love you have for your partner.”

Convergence of the Quantitative and Qualitative Findings

As mentioned in chapter three, a mixed methods design is advantageous because of its ability to use multiple techniques to explore the topic of military spousal well-being, providing additional context and enhanced confidence in the study findings (Bryman, 2006; Chaumba, 2013; Creswell & Plano Clark, 2011). In this study, the quantitative findings provided an overview of the characteristics and dimensions of well-being of the military spouse sample, identified socio-demographic group differences in well-being outcome scores, and explored the

relationships among the data by predicting participants' well-being scores using theoretically based predictor variables. On the other hand, the qualitative findings provided deeper insight and understanding around participants' perspectives and unique experiences of the military environment, culture, and lifestyle. This section compares and contrasts the quantitative and qualitative findings.

Similarities between Findings

Similarities across the quantitative and qualitative findings were most apparent when examining the rewards and positive impacts of the military lifestyle with participants' total mean scores on a number of the standardized measurements. To begin, the primary theme among participants responses to the open-ended question inquiring about the impact of the military lifestyle on parenting experiences and style centered on the positive influence of the military on family functioning, specifically as it relates to creating and maintain a strong bond and good communication between family members. These findings coincide with the univariate statistic results of the Family Satisfaction (FSS) and Family Communication Scales (FCS). The average score on the FSS suggests that the study sample had moderate to high family satisfaction (Olson, 2010) and the FCS findings signify a high level of family communication (Olson & Barnes, 2010). Having and maintaining a strong relationship with your partner also emerged as a prominent theme among responses offering advice to new military spouses. In this study, the majority of participants reported some level of satisfaction with the quality of their relationship.

Consensus in findings was also found when comparing the major themes that evolved from each of the qualitative questions. In particular, participants consistently responded that community involvement and having a support network was important to managing the military lifestyle. A major theme in response to the rewards of the military lifestyle centered on the

strong sense of community that the military provides. This theme carried over to the open-ended responses offering words of advice to new military spouses, emphasizing the importance of getting involved in the community and building a strong system of support. In contrast, feelings of isolation, largely attributed to lack of social support from families/friends and the military community, emerged as a prominent theme from participants' responses to the open-ended question about the most challenging aspects of military life. A similar theme evolved in a portion of the responses from parents (14.5%) who noted that the lack of a support system added challenges to parenting children in the military lifestyle. In comparison, results from two Likert-type scale items asking participants whether they received support when they've needed it from the Service member's unit or chain of command and military programs, the average participant response for each question item was "some of the time."

Lastly, the education and employment demographics of the study sample, the majority have a college degree with a 56% unemployment rate, may provide a partial explanation as to why employment & education emerged as a major challenge of the military lifestyle

Differences between Findings

Dissimilarities between the qualitative and quantitative findings were primarily found between the major theme that evolved from responses to the primary challenges of military life and the results of the correlational analysis and independent samples *t*-test examining the relationship between Service member deployment experience and participant well-being. Though over a third of participants (38.3%) regarded family separations, related to deployment and non-deployment separations, as the most challenging aspect of the military lifestyle, correlational analysis showed no significant association between Service member deployment history (deployed vs. not deployed) and either of the well-being outcome scores. In addition, the

quantitative results showed no significant difference in mean well-being scores between spouses whose Service member had deployed and those who had not experienced a deployment (shown in Table 18). For this reason, deployment was not included under the socio-demographic variables tested in the multivariate analyses. Further implications of the quantitative and qualitative findings are discussed in chapter 5.

CHAPTER 5 – DISCUSSION

This final chapter provides a brief review of the dissertation's purpose and methodology followed by a synthesis of the study's quantitative and qualitative findings. The study's limitations are then considered before discussing military and social work implications. This is followed by recommendations for future research and the study conclusion.

Synopsis of the Study

A growth in research on the families of military Service members has brought increased attention to the unique challenges and demands experienced by military spouses and has raised concerns about how to best meet their changing needs. While prior research has made tremendous contributions toward understanding the unique experiences and needs of military spouses, little research distinguishes the multi-characteristic dimensions of their well-being. It is particularly important to expand research that examines the mental health and stress of spouses during periods of the deployment cycle. As the military draws down from the longest waging wars in U.S. history and enters into a new phase, it becomes crucial that we identify and study the various components of military families' well-being so that we can best support and meet their needs. The present study built upon the existing literature to address gaps in knowledge utilizing a social work lens and 'person-in-environment' perspective to explore the various dimensions of military spousal well-being across the socio-ecological model. The overarching goal of this study was to add additional context to what is currently known about the lives, experiences, and well-being of active-duty military spouses in the modern age. The study attempted to deepen our understanding of how active-duty military spouses are functioning in today's military environment by identifying key multi-systemic influences on their well-being. It also sought to further knowledge about the military culture by revealing participants' shared

perspectives on different aspects of the military lifestyle. This study's findings may help to guide researchers towards the development of research questions that can further expand knowledge and understanding of the domains of military spousal well-being.

The study's methodology utilized a web-based survey design integrating a mix of both quantitative and qualitative elements to capture a diverse range of perspectives from a sample of spouses affiliated with each branch of service across a variety of military installations. Active-duty military spouses were recruited via social media websites (Facebook and Twitter), virtual military spouse support groups, specifically targeted internet sites, and the study investigator's personal contacts over a period of approximately six weeks to reach the study's sample size of 300 active-duty military spouses. Quantitative data were collected from the: SF-12v2 Health Survey (Ware et al., 2002); Family Satisfaction Scale (Olson, 2010); Family Communication Scale (Olson & Barnes, 2010); Perceived Stress Scale (Cohen, 1994); The Brief Satisfaction Scale (Smith et al., 2010); twelve-items from the Life Events Checklist (Weathers et al., 2013); and five-items from the Medical Outcomes Study Social Support Scale (Sherbourne & Stewart, 1991). The qualitative data were collected from four open-ended questions. They include "What would you consider to be the most rewarding aspects of military life?"; "What would you consider to be the most challenging aspects of military life?"; "To what extent do you think that being a military family has influenced or affected your parenting experiences or parenting style?"; and "If you could talk to somebody who is getting ready to be a military spouse/partner, what advice would you give them?"

Results of the exploratory study were analyzed using a combination of descriptive, bivariate, multivariate, thematic, and convergent analyses. The study described the (1) multi-dimensional characteristics of the study sample; (2) tested for significant difference in the social,

mental, physical, and general well-being scores between dichotomous socio-demographic subsets of the study sample; (3) explored the predicted variance of risk & protective factor characteristics on participants' well-being component scores; and (3.1) explored the predicted variance of sociodemographics characteristics above and beyond that accounted for by risk & protective factor variables. In light of the importance of capturing the impact of the military environment on participant's well-being, the study also revealed themes among participants' perceptions on (4) the impact of the military lifestyle on parenting experiences and style; (5) the most challenging & rewarding aspects of military life; and (6) their words of advice to spouses who are new to the military lifestyle.

Integrated Summary of the Findings

This section highlights significant findings based on proposed hypotheses as well as unanticipated findings. The findings are interpreted in relation to the review of the literature discussed in chapter 2. The drawn inferences are organized into sections and reflect what was learned in combination of the quantitative and qualitative findings. The section concludes with a summary list of hypotheses for future research derived from the findings of this study.

Sample Demographics

The study sample included participants representing all branches of service and ranks, living within both the United States and overseas. The participant sample shared many similarities with the demographic profile of the military spouse population (DMDC, 2014; DoD, 2014) but was collected purposively and therefore, should not be considered representative of the entire military spouse population. The majority of participants were white women between the ages of 26-35 who had children and were highly educated. A comparison between the study's findings and DoD's 2013 *Demographics Profile of the Military Community* showed an under-

representation of both male (1.3 vs 7.3%) and non-white spouses (19 vs. approx. 30 %) within the sample. The findings also show an over-representation of spouses married to officers (20 vs 40%) (DoD, 2014). Altogether, the study sample represents a diverse group of individuals all of whom share the common experience of being the spouse of an active-duty Service member.

Significant Socio-demographic Characteristics

This study found that participant age had significant relationships with the study's measures of well-being. Participant age was shown to have a positive but weak correlation (.152) with the mental domain of well-being and a negative correlation (-.119) with the physical domain. Age was also the only socio-demographic predictor variable found to be statistically significant in the final hierarchical regression model of mental well-being. It was also a significant predictor within the final physical model but did not significantly add to the predicted variance when controlling for risk and protective factor characteristics. Prior research has found that spouses who are younger (<25) and therefore, newer to the military lifestyle, typically face increased challenges in adjusting to the military lifestyle which can place them at higher risk of poor well-being (Karney & Crown, 2007; Hall, 2008). However, the results of the bivariate analysis observed no group difference in either the comprehensive well-being scores or general well-being scores between participants who were younger than 26 and those who were 26 years of age and older. Overall, study findings suggest that age may be an important indicator of military spousal well-being. The study's thematic analysis on participants' advice to new spouses (i.e. stay open-minded; gain your independence; get involved in the community) may offer useful information for leaders working to develop new initiatives and programs aimed at younger spouses younger who are transitioning into the military lifestyle.

Military spouse employment concerns have become a major topic of discussion within the military community. Research has found that despite having higher levels of education, military spouses earn less and have significantly higher rates of unemployment than their civilian counterparts have, with an overall wage gap of 42% (Harrell et al., 2004; Institute for Veterans & Military Families, 2014). In the present study, over half of the participant sample reported that they were unemployed at the time of the survey. The results also revealed that nonworking participants had an average score of mental well-being that was significantly lower than the mental well-being scores of participants who were working either part or full time. In addition, thematic findings revealed that participants' perceived employment and education to be major challenges of the military lifestyle; this points to perceived gaps in opportunity between military and civilian life. Viewed collectively, the low rate of employment paired with participants' expressed frustrations over employment challenges may contribute to the lower average scores of mental well-being recorded in this sample. Literature on military spouses corroborate these findings. The 2014 *Military Family Lifestyle Survey* showed that over half of the 3,169 active-duty spouse participants were unemployed and that 85 percent of those who were employed felt that the military had negatively impacted their career (BSF, 2014). The high expense of childcare, inability to obtain employment at their current duty station, and timing issues related to deployment were all listed as top reasons among participants who were unemployed but wanted to work (BSF, 2014). Unemployed participants who had no desire to work listed their top reason for not working as their desire to stay home with their children (BSF, 2014). In another study, significant predictors of spousal unemployment included experiencing a PCS move in the past year, frequency of lifetime PCS moves, and having to acquire new credentials/licensing to work after each move (DMDC, 2014). DoD has long recognized the

need to support military spouses' careers (Harrell et al., 2004) and has worked over the years to develop policies and programs designed to improve employment opportunities for spouses. In spite of these advances, the findings from this study and recent literature suggest that military spouse underemployment continues to be a significant issue.

Finally, study findings revealed significant relationships between Service member rank and participant well-being. Service member rank is representative of social status within the military environment and impacts the lifestyle, living conditions, and QOL of military families. In this study, Service member rank was shown to have a significant, but weak positive relationship with the social and physical domains of well-being. Tests of difference between spouses of enlisted and officer personnel revealed that spouses who were married to officers had higher levels of social and physical well-being as well as perceived positive health and life satisfaction. Prior research has found that the dual class system between officer and enlisted rank personnel, while important for maintaining structure and order in the military, creates social inequities that can have negative consequences on the well-being of spouses (DoD 2009; DoD, 2012; Mehta, 2012). Additional studies have found that families of enlisted rank personnel, especially that those who are lower enlisted (E1-E4) typically have greater difficulty in adjusting the study findings support previous research with suggests that culture and the environment play a key role in predicting well-being (Chanfreau, et al., 2008).

In this study, socio-demographic characteristics did not add to the predictive power of the social or physical well-being models in hierarchical regression models. The sociodemographics characteristics did however predict an additional 1.4% of the variance in the mental well-being model when controlling for risk & protective factor variables. These findings reinforce prior

research that has found that other factors are typically stronger predictors of well-being than socio-demographic characteristics (Diener, 1984).

Risk and Protective Factor Characteristics

Both risk and protective factor characteristics were entered together in the first step of the hierarchical regression models and produced notable results. Prior to entry into the hierarchical regression models, the protective factor characteristics (family satisfaction, resilience, and mental health service use) and risk factor characteristics (perceived stress, stressful life events, and alcohol use over the past 30 days) were tested for their correlation to the well-being outcome measures. Each of the characteristics were found to be significantly correlated with the social and mental well-being domains, although only two risk factor characteristics (alcohol use and stressful life events) were significantly correlated with the physical domain of well-being.

Together, the risk and protective factor characteristics predicted a significant amount of variance in all three models of well-being (social, mental, and physical), confirming the first hypothesis in research question number one. Within the social model, the risk and protective factor characteristics predicted 27 percent of the variability in the outcome scores (MOS-SS5). The strongest predictors were family satisfaction, followed by alcohol use over the last 30 days, and level of perceived stress. An unexpected finding was that the use of alcohol over the last 30 days was shown to have a positive relationship with social well-being. The model did not include information about the amount or types of alcohol consumed and may lean toward the positive social benefits associated with moderate drinking (Heath, 2007). The risk and protective factor characteristics predicted only 10% of the physical well-being model. The strongest predictors were stressful life events and participant age. This finding is consistent with research in the psychoneuroimmunology literature studying the effects of chronic stress on the central

nervous system, confirming that there is a strong link between the impact of stressful life events on physical health and QOL (Tosevski and Milovancevic, 2006). Overall, the low level of prediction among the physical model suggests that there are other important contributors that were not considered. Lastly, the study's risk and protective factor characteristics predicted 60 percent of the variance in the mental well-being model, suggesting that constructs are fairly strong predictors of participants' mental well-being. Using the strongest predictors, the findings are consistent with previous studies suggesting that higher levels of family satisfaction, older age, and low levels of stress are predictive of mental well-being. (Chanfreau et al., 2008).

This study grouped the risk and protective factor characteristics together because of their high level of interaction within the various domains of the ecological framework (Chanfreau, et al., 2008; Corcoran & Nichols-Casebolt, 2004). While efforts were made to be inclusive of important predictors thought to impact spouse social, mental, and physical well-being, the study may not have included all of the possible predictors. In spite of these limitations, the findings contribute to knowledge building in the area of military spousal well-being through their exploration of potential risk and protective factor characteristics as predictors of the social, mental, and physical well-being scores of the study participants. Although this study examined domains of well-being separately, they should be conceptualized as interconnected with each domain impacting the other.

Rewards and challenges

The thematic findings on participant's perceptions of the rewards and challenges of military life were consistent with other research studies seeking to better understand the experiences of military spouses. The most common responses to the question asking participants what they perceive to be the most rewarding aspects of military life included *new life*

experiences, the *strong sense of community* the military provides, the *financial and job security* of the service member, and feelings of *pride and patriotism* for their spouses service to our country. Prior studies similarly suggest that most military spouses are satisfied with their lives despite the stressors of military life (Clever & Segal, 2013; DMDC 2010; 2012). The study's findings also support assertions in the military spouse literature regarding the challenges of military life. The most challenging aspects of military life endorsed by the participants in this study included *family separations*, *frequent relocations*, *feelings of isolation*, and *spouse employment & education*. An unanticipated finding among the perceived challenges was that participants felt that it was difficult to obtain an education; this was surprising in a sample in which more than 65 percent reported having a college degree. In addition, this study found no significant difference in the outcomes of well-being between participants who did and did not have a college degree. Considered together, these findings may suggest that participants felt that they had to work especially hard for the educational goals they had already achieved, or possibly that they had not yet reached their educational goals.

Additional Findings

The study results yielded several additional findings beyond the hypothesized relationships and exploratory aims. In this study, eighty-three percent of participants reported between one and eight deployments since September 11, 2001, and 15 percent reported that their spouse was deployed during the time that they took the survey. In spite of these repeated deployments, Service member deployment was not significantly correlated with either domain of well-being and showed no observed group differences between participants whose spouses had and had not deployed. Despite the lack of significance, the thematic findings revealed family separation, largely related to deployment, as the most challenging aspect of military life. This

finding is supported by the literature, which has long documented the stress and negative impact of deployment on military spouses (APA, 2007; BSF, 2014; Clever & Segal, 2013; Mansfield et al., 2010). A possible explanation for the study findings is that over time, deployment has become a developmental “normative crisis” and participants have learned to adapt and show resilience despite the fact that they still perceive deployment as being stressful and challenging (Chapin, 2011). Data from the 2012 *Active Duty Spouse Survey* found that slightly more than half of participants (51%) found it easy to readjust after deployment and 21 percent indicated that it was difficult (DMDC). Similarly, the 2010 *Military Family Life Project* study found that nearly half of the participant sample (48%) indicated that it was easy to readjust after deployment and only 23% percent of spouses indicated that their readjustment was difficult (DMDC, 2012). These findings may also suggest that many spouses have learned to cope and manage deployments; in spite of acknowledgement as a stressful event, it does not significantly alter the well-being of spouses enrolled in this study.

An additional finding of interest was that there were no group differences between having children and not having children. Seventy-four percent of participant had children and the majority had small children between the ages of 0-5. The finding supports the literature which purports that the majority of military spouses are able to effectively balance the demands of parenting. More research is needed around whether there are subgroups of spouses who might be at greater risk of becoming overwhelmed with the added responsibilities of parenting young children, particularly during periods of the deployment cycle and when relocating to a new installation. Participants' responses to the open-ended question about the impact of the military on their parenting experiences and style had varied responses. The themes with the most consensus were that the military has a *positive impact on parenting*, followed by the military at

times *made participants a single parent*, to the military lifestyle has had *no impact on parenting*, and that the military lifestyle adds *additional parenting challenges* that might not otherwise be experienced in the civilian community. These varied, and often contradictory, themes reflect the diversity of experiences shared by many military spouses. Parenting may be another domain in which military spouses demonstrate resiliency, and are able to successfully manage many roles and responsibilities in spite of the increased demands and challenges of the military lifestyle.

Unanticipated findings also emerged related to the past military experiences of the study sample. Slightly more than twenty percent of participants ($n = 64$) were former child dependents of a parent who served in the U.S. military. Additionally, ten percent of participants ($n = 30$) had prior service experience in the military. Little is known about whether former child dependents are better able to manage the military lifestyle or if military parents who were themselves military dependents as children have had any greater success in helping their own children adjust. This may be an interesting area to explore in future research.

Lastly, the study results show that nearly half (47.3%) of participants responded “yes” to whether they had ever participated in mental/behavioral health/counseling services. The study did not ask information to ask more specifically about whether participants accessed services before or during their time as a military spouse. Nevertheless, the high rates of mental health service use in this sample warrant further investigation as to whether service utilization as increased in this group related to efforts to reduce stigma and encourage mental health service utilization. Future research gathering information on the utilization of mental health services by spouses should specify to ask if mental health services were used while they were a military spouse, as well as the degree to which they learned about or were connected to mental health services through military-based programs.

Summary

Altogether, the present study adds knowledge and context to what is known about the lives, experiences, and well-being of military spouses during an era heavily defined by years of war and repeated deployments. Some of the study's findings, paired with the existing military spouse literature, led to the development of several proposed directional hypotheses for future research on military spousal well-being:

- H₁: Military spouses married to active-duty military personnel who carry an enlisted rank are at risk for poorer levels of social and mental well-being.
- H₂: Active-duty military spouses who are unemployed and searching for work are at greater risk for poor well-being and low levels of life satisfaction.
- H₃: Level of social support, mental health, and physical health are predictive of overall military spousal well-being.

Limitations of the Study

This dissertation study has several notable limitations. Foremost, an important mention is that the current study was exploratory and did not seek to generalize findings to the overall military spouse population. Nevertheless, a goal of the research was to collect data from a diverse sample of military spouse participants and test hypotheses related to spousal well-being within this diverse sample. The study sample produced a good amount of variation across military branches, locations, and household incomes but lacked sufficient diversity among participants who were non-white, males, married to enlisted personnel, and younger than age 30. The non-probability purposive sampling technique used in this study is susceptible to selection bias and attributed to the exclusion of military spouses who did not speak or read English, did not have routine access to the internet, or were not tapped into the types of on-line social support

communities where this study was advertised. Additional limitations of self-administered web-based surveys are their vulnerability to fraudulent responses and technical issues such as poor internet connections or slow modems (Lefever, Dal, & Matthíasdóttir, 2007).

Another limitation is that the study design lacked a pre-existing theory of military spousal well-being to inform the development of the survey instrument. The researcher determined that it was premature to assign a specific theory, particularly because the constructs and dimensions of well-being are not well defined (CDC, 2013). The absence of an agreed upon definition and domains of well-being prompted the researcher to borrow and pull evidence from multiple disciplines to inform the selection of the study's variables and outcomes measures. This method may lead to instrument bias, and creates threats to internal validity. The final assessment measures incorporated into the survey included a combination of both standardized and unstandardized instruments. This led to variations in recall periods (e.g. past 4 week vs. no specification) and inconsistencies in surveys reliability. It will be important for future research to test the combination of standardized and non-standardized measures used in this survey questionnaire to further assess validity and reliability.

Further, the construction of regression models in this study may have over or under estimated the degree of the relationship between the predictor variables and outcomes of well-being. Multiple regression is extremely sensitive to the combination of variables included in the model and assumes that all of the relevant predictor variables are built into the equation (Tabachnick and Fidell, 2007). In this study, the researcher's selection of variables was exploratory, and informed by the available literature on military spousal well-being. Therefore, it is possible that regression models may not include all of the predictors of military spousal well-being. As stated previously, the majority of research on military spouses has focused on

identifying important indicators of their mental health and has paid little attention to the social and physical components of their well-being. Consequently, the study's selection of variables likely placed greater weight on the mental aspects of well-being without giving fair consideration to constructs and variables more closely connected to the social and physical domains of well-being. This limitation may help to explain why socio-demographic variables were only found to add to the predicted variance of the outcome scores in the mental component and not of the social and physical components. In addition, hierarchical regression findings are sensitive to the order in which the variable sets were entered into the equation. The results can easily underestimate the effects of variables entered later in the equation and overestimate the effects of variables entered earlier (Keith, 2006). The conclusions drawn from the study should therefore be interpreted with caution.

Lastly, despite the usefulness of the socio-ecological systems framework in embracing a holistic perspective through its emphasis on multiple systems of influence, it remains weak in capturing how society and the environment influences people's perceptions of their lives (Payne, 2005; Newton, 2007a). Survey research is plagued with similar limitations and has trouble capturing data from individuals that can be used to assess and predict the impact of larger macro system factors (i.e. military environment) (Lefever, Dal, & Matthíasdóttir, 2007). This may help to explain why the theorized importance of the military environment and culture on military spousal well-being (Booth et al., 2007; Burrell et al., 2003; Clever & Segal, 2013) was not reflected in the results of the regression models which found minimal predictability of the sociodemographics and low correlations between many of the military lifestyle characteristic variables and measures of well-being. Fortunately, the study's mixed methods approach

delivered a qualitative element for capturing participants' perceptions on the influence of the military environment. This was helpful in considering the influence of larger social systems.

In spite of the noted limitations, the distinctive contributions of this dissertation study should be carefully considered for their influence on future research, practice, and policy. The present study offers rich detail about the lives of active-duty spouses and builds on the current literature through its investigation of sociodemographics group differences and its exploration of both risk and protective factors and socio-demographic characteristics as potential predictors of military spousal well-being. The results of this study also contribute to the research literature in the area of personal well-being which still grapples with identifying the key constructs and best instruments for measuring and tracking outcomes (Kobau, et al., 2010; Oguz et al., 2013).

Implications of the Findings

During a period when the military is in the midst of shifting its operational tempo from an era heavily defined by combat and deployment to one of recovery, it becomes increasingly important that we explore and identify the characteristics associated with military spousal well-being so that we can learn how to best meet their needs. The implications drawn from the study's findings highlight areas for consideration within the military community and social work profession and may help to guide subsequent efforts toward supporting the well-being of military spouses and their families.

Implications for the Military

The Obama administration's 2011 strategic initiative *Strengthening Our Military Families: Meeting America's Commitment* outlines nearly 50 commitments to coordinate and establish a unified Federal approach to supporting military families (White House, 2011). The initiative has prompted an increase in awareness and recognition of the importance in identifying

environmental and circumstantial factors that affect the well-being and QOL of military families. Military researchers recognize military spousal well-being as central to retaining a dedicated and qualified force and have invested numerous resources into programs intended to support and enhance the QOL of military families. Despite their labors, existing programs and services have been inconsistent in meeting families' needs (National Military Family Association, 2004; Sims et al., 2013). Similar findings were revealed in the present study when examining participant's descriptive data and the thematic findings. When asked to rate the level of support they received during times when they've needed it, participants responded between "a little" to "some of the time" when referring to the Service member's unit/chain of command and to military programs. Spouse employment was another area reflected in both the study and literature that seemed to suggest that the policies and programs in place to support military spouses' careers may not be having their desired effect.

In a targeted effort to improve the assessment of military families' needs and effectiveness of support programs, the Army partnered with the RAND Corporation to develop a research agenda that will help to improve research of QOL matters among military families (Sims, et al., 2013). The RAND study "Strategically Aligned Family Research" employed a concurrent analysis that included a high-level literature review, program/policy official interview, and a literature review on road mapping (i.e. a strategy used to help organizations understand their current position from a broad and strategic level). Following their analysis, RAND presented recommendations for establishing a research agenda that would first identify, "how QOL research is being used, identify gaps in knowledge, suggest potential areas for new research, and subsequently consider how the Army should think strategically about research, including its investment in new research" (Sims, et al., 2013, p. 2). The primary

recommendations outlined in RAND's report were instrumental in the conceptualization of the current research study and were used to guide the discussion of the study's implications for the military community. An important mention is that while the report was informed by data collected from the Army, the findings may also have applicability to the other branches given similarities between some the experiences (e.g. frequent relocations & separations) and likeness in the supportive programs offered to military families. The key recommendations of that report, echoing the findings of this dissertation study, are as follows:

- *Develop an agreed-upon QOL lexicon, outcomes, and metrics.* This study's design and methodology may offer a starting point for consideration towards developing techniques in the operationalization of QOL given its similarities with the construct of well-being. Both constructs are multi-dimensional, loosely defined, and can prove difficult to measure. By following a similar process in operationalizing the term and testing the separate domains, military researchers may eventually come to develop an explicit definition of QOL with agreed upon outcomes and metrics.
- *Focus research on individual domains to build the big picture.* The present study operationalizes well-being as an integration of separable social, mental, and physical domains that are assessed simultaneously and independently measured prior to their being interpreted collectively as a measure of well-being. The study was also comprehensive in its consideration for characteristics associated with well-being, using a socio-ecological framework to identify potential risk and protective factors and socio-demographic characteristics across the macro-micro continuum. Both tactics aim to provide a foundation for future domain-specific research that seeks to measure and better understand the multidimensional construct of well-being.

- *Take a comprehensive approach to needs assessment.* The person-in-environment perspective and socioecological framework used to guide the present study's design may offer important insights towards meeting RAND's recommendations for needs assessments that are inclusive and holistic in their need to take into account multiple influences. The study's thematic findings adhere to the recommendations for research that establishes need from the beneficiary's perspective and may provide useful suggestions for inclusion in needs assessments
- *Improve knowledge management to expand research; use and identify important areas for new research.* The present study relied on findings from the existing military spouse literature to identify gaps in knowledge that were then used to inform the study's research aims, hypotheses, and questions. In turn, military researchers may find this study's review of the literature to be a useful tool for identifying important constructs of well-being across the socio-ecological framework.
- *Make Army QOL research road-mapping a socialization and knowledge-sharing process.*

The present study was heavily guided by gaps in knowledge concerning military spousal well-being and the recommendations outlined in the RAND report. The study design and methodology of the present study might help to inspire military researchers and policymakers to consider the benefits of using an on-line mixed methods approach to collect data that captures multi-dimensional characteristics associated with QOL. Should military researchers and decision makers choose to consider this study's viewpoint, the potential to foster knowledge sharing could help to grow a professional network and community of interest in QOL research.

- *Target research in areas where the Army can make a difference.* This study's thematic findings offer valuable insight into participants' perceptions of important matters

associated with their military life experiences. The quantitative findings may also help to guide new directions for research in areas related to risk and protective factors and sociodemographics characteristics. Military researchers could build on the findings of the present research to help identify areas where stressors could be mitigated through the creation or modification of policies, programs, or services.

DoD appears to be in agreement with RAND's recommendations, acknowledging that "more needs to be done" to support military families across each branch of service (DoD, 2009, p. 1). The current study's application of the socio-ecological model and 'person-in-environment' perspective may interest those in the military community seeking to develop a framework for measuring well-being holistically. Military researchers may also find the results of the study useful for making comparisons between the study findings and findings from previous studies assessing military spouse functioning.

Implications for Social Work

Social work has played a significant role in the provision of services to military personnel, veterans, and their families since World War II; however, the presence of social work in the military research literature is surprisingly scarce. Critics have argued that the social work literature fails to provide the practical guidance and tools needed to competently work with members of the military community (Savitsky, Illingworth, & DuLaney, 2009). As more information and research has become available regarding the negative impacts of the GWOT on both the Service member and their families, social work has seen growth in the number of programs, seminars, and trainings offering specialized education on the military population. In spite of these gains, military spouses have continued to receive minimal attention in the social work literature. As leaders in the provision of services to members of the military community,

social work is in an ideal position to help establish frameworks of well-being that will enhance our understanding of the relationships that exist between military spouses and their changing environments. To this author's knowledge, this is the first study involving spouses of active-duty Service members that attempts to explore, measure, and predict the multiple dimensions of their well-being, defined in this study as the combination of social, mental, and physical domains. This study not only attempts to understand the underlying dimensions of military spouses' well-being, but also attempts to broaden knowledge about spouses' perspectives on the influence of the military on different aspects of their lives.

From the standpoint of knowledge building, the results of this study contribute in a number of important ways. Most notable is the study's contributions to social work research. Exploratory studies such as this one symbolize a first step toward helping to identify risk and protective characteristics within the military spouse population. The study's mixed methods approach and survey design produced study findings that offer rich detail about the multidimensional characteristics associated with active-duty military spouses in the modern day. The results of the study helped to identify key military lifestyle characteristics and experiences of the study sample worthy of further exploration. The study also offers valuable insight regarding spouses' shared perceptions of the challenges and rewards of military life and impact of the military on their parenting experiences and style. An additional distinctive quality of this study was that it offered participants the opportunity to share "words of advice" with spouses who are new to the military lifestyle. The qualitative findings will be disseminated to military spouses using the same techniques that were applied during data collection. The study may also help to lay the foundation for research that gives attention to both the "bigger picture" and "domain-specific" constructs of well-being among active-duty military spouses (Sims, et al., 2013).

Although the well-being research literature has contributed significant amounts of knowledge about well-being and its predictors, evidence supports that there are variations in predictors of well-being between different groups of people (Chanfreau, 2008). The existing knowledge gaps surrounding predictors of military spousal well-being may have hindered military leaders and helping professionals from effectively meeting spouses' needs. Future social work studies involving military spouses should consider continuing to use a holistic 'person-in-environment' perspective when researching military spouses and should move beyond mental health to include other domains of well-being in order to help narrow the gaps in the literature. Over time, the findings may be useful in informing targeted interventions to best meet military spouses' needs.

Relative to social work practice, the findings point to a number of areas where social work can intervene to impact change and enhance well-being. Within the larger social system, social workers can be instrumental in supporting military spouses by lobbying for equal employment opportunities and by advocating for policies that support military spouses and their families. Advocating for improved child care policies might also improve military spouses' employment opportunities (Lim & Schulker, 2010). Implications on the community level relate to the importance of educating the civilian community and social work students about the military lifestyle and culture by way of research, education, and practice. These efforts build sensitivity and awareness and may help to bridge the gap between the civilian and military populations. Furthermore, all practitioners should have a basic understanding of the military spouse population and should possess the skills to respond to their needs, particularly because the majority of military families seek mental health services from civilian providers in the community (CSWE, 2010; BSF, 2014). This was also true in the participant sample. Over half

of participants reported that they had used mental health services in their lifetime and the majority of those who sought services did so in the civilian community.

The study findings also have implications for direct practice. The mental health of military spouses is well documented in the literature and suggests that most military spouses are adaptive and in good mental health despite experiencing multiple stressful life events (Lara-Cinisomo et al., 2012; NMFA, 2011). The scores on measures of mental health among participants in this study closely mirrored the scores of a comparable group in the general population. Still, numerous studies have found that military spouses are at-risk for elevated levels of stress due to their high lifestyle demands (Green et al. 2013; Mansfield et al., 2010; RAND, 2011; Verdeli et al., 2011; Warner et al., 2009). Social work practitioners should be aware of the unique experiences and risks to military spouses in order to best meet their needs and support their well-being.

The study findings also bring attention to the importance of completing comprehensive assessments to include history of traumatic events. Work with military families oftentimes centers on the “here and now” and focuses on managing the demands of military life. A thorough assessment that includes information about negative and traumatic past life events can help the practitioner make informed decisions about the intervention plan. A newly released RAND study assessing community mental health professionals’ ability to provide quality health care to members of the military community found that only 18 percent ($n = 132$) of surveyed social workers had military cultural competency (Tanielian et al., 2014). The study also revealed that the majority of providers reported that they did not screen for military affiliation or assess for stressors associated with military life during their routine assessment (Tanielian et al., 2014). This finding is cause for concern. If the mental health needs of spouses are not addressed,

or addressed inadequately, the negative effects can eventually carry over to the military family. The review of the literature and findings from this study raise questions about whether spouses could in fact benefit from more personalized interventions. The researcher was unable to locate any formal behavioral health interventions or programs targeting military spouses. Existing programs involving spouses are geared toward the family and focus on issues of deployment (Beardslee, et al., 2011). The same observation of a lack of formalized interventions for military family members was made in the 2007 preliminary report *The Psychological Needs of U.S. Service Military and their Families* (APA, 2007). The absence of any formal intervention could signify lack of need, but may also be a consequence of the limited research studying military spouses and their well-being. The study findings suggest that the support and care for military spouses should stem from a strengths based approach and should focus on building and maintaining systems of support.

A final implication of the study draws on social work's commitment to diversity and social justice. Of the 300 military spouses who participated in the survey, only 19 percent identified as a minority, 1.3 percent identified as being a male spouse, and less than one percent ($n = 2$) were in a same-sex marriage. The study results also revealed that non-white participants had significantly lower perceived life satisfaction scores than white participants, a finding that deserves future examination. The low levels of participation among underrepresented groups indicates the need for more attention to well-being among these growing sub-populations of military spouses. Follow-up analyses will examine these cases more closely to compare participants' qualitative and quantitative responses and pay close attention to any idiosyncrasies in the findings, even though the sub-samples may be too small for traditional quantitative analyses. Strategies for recruitment in future studies should include purposive sampling

techniques that target websites that specifically cater to these underrepresented populations (i.e. Macho Spouse, Military Family and Partners Coalition). Though this strategy was attempted in the present study, permission to advertise the study was not granted until after the survey was closed.

The present research study and review of the literature may be considered useful for further educating and building cultural competency on the military spouse population. By increasing social work's understanding of the multi-systemic influences that impact spousal functioning during periods of both deployment and non-deployment, the researcher hopes that we can begin to work toward narrowing the cultural gap between the military and civilian communities.

Suggestions for Future Research

The results of this study provide a foundation for future studies examining the lifestyle and holistic well-being of active-duty military spouses. As a first step, follow-up analyses with the study's data will be conducted to further explore the relationships between potential predictor and outcome variables of well-being. Group differences in well-being scores among the socio-demographic characteristics will be tested using omnibus tests, such as ANOVA, to test whether the explained variance in a set of data is significantly greater than the unexplained variance, overall. Additional regression analyses will explore the predicted variance of socio-demographic characteristics and risk and protective factor characteristics among the outcomes of general well-being since both life satisfaction (Diener & Diener, 1995) and self-reported health (Chanfreau et al., 2008) have been shown to be strong predictors of high well-being. These analyses were not initially performed because the intended purpose of the general well-being construct was to provide additional descriptive detail around participants' perceptions of their overall well-being.

Supplementary regression and thematic analyses will also be performed using socio-demographic subsets of the study sample (e.g. military branch) to assess whether there are observed similarities or differences in the qualitative themes or predicted variance of well-being scores. It may also be useful to quantify and transform the qualitative themes into quantitative variables that can be entered as predictors in future analyses. Lastly, future directions will further explore participants' responses to the LEC, yielding surprising findings related to the high number of participants who endorsed potentially traumatic interpersonal life events. Further exploration of the data concerning the on-set of the stressful life event and the perpetrator will add new insight into the potential trauma histories of military spouses, which has been previously unexplored in the academic literature. Further analyses will also explore the potentially traumatic events participants marked as "happened to my spouse" and "witnessed it."

Future studies can also be performed to improve instrumentation. In this study, level of social support was operationalized as the outcome variable for the social component of well-being though it has previously been primarily used as a predictor. The study adapted Cisler and colleagues (2013) modified version of Medical Outcomes Study- Social Support Survey (MOS-SS; Sherbourne & Stewart, 1991) to include the additional item response options "I don't know" and "I choose not to answer." The added response options were not provided a value in determining level of social support and were subsequently treated as missing data. This resulted large amounts of missing participant outcome scores ($n = 55, 18.3\%$). Based on the fact that survey participants were informed that they could skip any questions they felt uncomfortable answering, the researcher suggests that future researchers eliminate the added response options. Future studies may also want to focus on improving consistency in the recall periods of the various measures either by adapting existing measures or by exchanging some of the less reliable

measures with standardized instruments that measure the same points in time. These modifications could potentially enhance the survey's reliability and validity. An important note is that when considering modifications to the instrumentation, special attention should be paid that changes do not alter the study's constructs or add to the length of the survey. Future research with a representative sample should also consider using an imputation method for handle missing data in an effort to retain sample size and minimize loss of statistical power.

Overall, it would be most helpful to replicate this study using a probability sampling method. However, the odds of gaining access to DoD's database listing the contact information of each U.S. Service member that is recorded as being married is unrealistic and highly unlikely unless the study was to be led by DoD. Difficulties in gaining access to such data gives preference to alternative strategies for future research. A different approach to future data collection would be to seek the military's permission to advertise the study throughout many different military installations and their surrounding communities. Nonetheless, this method may also prove difficult to execute given the strict requirements involving research with members of the military community and may not result in representativeness if access is only granted to a minimal number of installations.

Therefore, the most practical approach for replication would likely be to duplicate the sampling procedures used in this study for a longer duration and/or with greater outreach to recruitment sites that can lend diversity to the sample. As discussed in chapter three, advantages of using a web-based survey design and on-line purposive sampling technique provides a cost-effective and useful means for reaching a large and diverse sample of active-duty military spouses who are high users of social media (BSF, 2014) and are geographically dispersed between thousands of military installations across the world. Adjustments to the timeframe

allotted for data collection and the inclusion of previously untapped websites, forums, and on-line communities frequented by military spouses may yield a study sample with enough diversity to build transferability among sample populations and to make inferences toward generalization to the larger military spouse population based on consistent findings across diverse samples. Former studies involving the military community, such as the *Military Family Lifestyle Survey*, have employed similar sampling strategies and were successful in obtaining samples whose characteristics were comparable to the actual representation of the military community (BSF, 2013;2014).

Future research could also consider a longitudinal study design using the study's survey questionnaire. This method could prove to be useful in capturing variations in participants' well-being that are associated with major events or changes that have occurred in the military environment. As cited by Chanfreau and colleagues (2008), clear associations between predictive factor variables and outcomes of well-being are not able to be fully understood until longitudinal data becomes available. Any observed trends among the finding can be used to make inferences about important indicators of military spousal well-being and can then be compared against what is known about the well-being of the general population.

Other suggestions for future replication consist of targeting other underexplored military populations such as spouses of National Guard and Reservist personnel; male spouses who are not themselves Service members; spouses in gay marriages, dual-military spouses, and spouses who are single parents.

Conclusion

Military families are a diverse population who face a unique set of stressors and challenges that vary over time and across diverse demographic samples (Clever & Segal, 2013).

Over the last fourteen years, military families have lived and have had to learn to adjust to a culture heavily defined by the wars in Iraq and Afghanistan, where repeated deployments and prolonged family separations have become a routine part of military life. Within the military environment, spouses face a unique set of stressors and demands that are not shared by either the Service member or military child (Sims, Wong, Bana, & Winkler, 2013). They are frequently tasked with facilitating the family's adjustment to their new environment with each new move, charged with taking on dual household and parenting responsibilities whenever the Service member is away from the home, and oftentimes serve as the primary caregiver for Service members who return from war with physical and psychological wounds (Rayzor, 2011; Tanielian & Jaycox, 2008). Further, new evidence suggests that military families are now facing an added set of stressors related to concerns over financial instability, with many Service members facing an early release from the military due to the downsizing of the military force (BSF, 2013; 2014). The distinct stressors and high demands of military life coupled with the rapidly changing atmosphere of the military environment, give rise to the importance of this research project.

The military spouse literature offers valuable insight into many of the important constructs thought to be related to the welfare of military spouses; however, gaps in knowledge surrounding a holistic understanding of military spousal well-being and its potential predictors remain. This dissertation project builds on the work of others and delivers what is believed to be one of the first studies to explore military spousal well-being across multiple domains using a person-in-environment perspective. The descriptive findings of the study offer rich data on various aspects of participants' lives related to their military lifestyle characteristics, family demographics and characteristics, family communication and satisfaction, relationship satisfaction, utilization of resources, level of perceived stress, number and types of stressful life

events, perceived level of social support, general, mental, and physical health, resilience, and life satisfaction. The study's quantitative findings support previous research that suggests that employment and Service member rank may be important predictors of military spousal well-being. The findings also point to potential differences in life satisfaction between military spouse participants who are white and those who identify with a non-white racial group. The risk and protective factor characteristics perceived stress, family satisfaction, resilience, and alcohol use in the last 30 days, stressful life events, and history of mental health support appeared to be fairly strong predictors of mental well-being, but were less significant in predicting social and physical well-being. Altogether, the quantitative findings suggest that participant age, employment status, and Service member rank offer very little, if any, strength to the overall ability to predict participants' well-being beyond what is already predicted by the risk and protective factor characteristics.

The study's qualitative findings underscored many of the challenges of military life identified in previous studies while also highlighting many of the rewards associated with military life. The study participants identified new life experiences; a sense of community; feelings a sense of security; and feelings of pride and patriotism as the most rewarding aspects of military life. In contrast, participants identified family separations; frequent relocations; feelings of isolation; and concerns around employment and education as the most challenging aspects of the military lifestyle. The qualitative findings also gathered the opinions of participants who identified as parents related to their perceptions on the impact of the military on their parenting experiences and style. The majority of participants identified the military as having a positive impact on their parenting. This was followed by themes that the military has created a lifestyle where the participant frequently operates as a single parent; the military has had no influence on

participants' parenting experiences or style; and that the military has added parenting challenges that might not have otherwise been experienced. Lastly, the qualitative findings offer collective "tips" on the military lifestyle from participants to their fellow spouse who are new to the military, encouraging them to stay open and positive; gain and maintain their independence; get involved in their communities; maintain and build resilience; and to retain a strong relationship with their partners. When viewed collectively, the quantitative and qualitative results provided further validation and additional context to the findings while also highlighting potential inconsistencies that have helped to inform the study's formal hypotheses.

In closing, the study's findings offer many implications for both the military community and social work profession. The results of this study may provide a good starting point for future research seeking to better understand the multi-systemic characteristics and experiences associated with the well-being of active-duty military spouses in the modern age.

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APPENDICES

Appendix A

Online Recruitment Memo

Hi! My name is Lisa Gray and I am a military spouse and PhD student conducting a survey on military spouse well-being. If you are over age 18 and are either the spouse or domestic partner of a U.S. service member on Active Duty, you are eligible to complete a 15-20 minute survey about your thoughts and experiences. To compensate you for your time, you will have the option of entering your name into a drawing at the end of the survey for a chance to win one of five \$50 bank cards. Neither your name, nor any identifying information will be linked to your responses, which are completely anonymous. As a fellow military spouse, I hope that you will consider completing the survey! Please follow this link for more information on how to participate: [[link directs participant to the Welcome Page/Introduction Sheet of the study](#)]

Appendix B

Targeted Websites, Facebook Pages, and Forums

WEBSITES

- Military Spouse.com
- Military Spouse Support Network (MSSN)
- SupportMilitarySpouses.org
- Militarysos.com
- Militaryfamily.org

FACEBOOK PAGES

General Pages:

- Military Spouse Magazine
- Military Spouse Central
- Military Spouse's
- Military Girlfriends, Wives & Fiancés
- Macho Spouse – Male Military Spouses
- Military Spouses of Okinawa
- Military spouses in Germany

Installation Pages:

ARMY:

- Fort Rucker Wives/Families Facebook page:
<https://www.Facebook.com/#!/groups/FortRuckerWivesFamilies/>
- Fort Huachuca Army wives Facebook page: https://www.Facebook.com/pages/Fort-Huachuca-Community-Spouses-Club/127370047291163?ref=br_tf#!/groups/393190101270/
- Fort Irwin wives Facebook page: <https://www.Facebook.com/#!/pages/Fort-Irwin-Wives/200489103327584>
- Fort Gordon's Spouse's Facebook page:
<https://www.Facebook.com/#!/fortgordonspousespage>
- Fort Leavenworth Spouse's club Facebook page:
<https://www.Facebook.com/#!/FortLeavenworthSpousesClub>
- Fort Detrick Army Wives Facebook page:
<https://www.Facebook.com/#!/groups/268257493281359/>
- Fort Dix Wives Facebook page:
https://www.Facebook.com/groups/402088316516283/?ref=br_tf
- Fort Bragg Army Spouses Facebook page:
https://www.Facebook.com/groups/402088316516283/?ref=br_tf#!/ArmySpouseFtBragg
- Fort Sill Army Wives Facebook page:
https://www.Facebook.com/groups/402088316516283/?ref=br_tf#!/groups/18871384635/
- Fort Jackson Spouse's Facebook Page:
https://www.Facebook.com/groups/402088316516283/?ref=br_tf#!/groups/347347095370646/

- Fort Bliss Spouse's Facebook page:
https://www.Facebook.com/groups/402088316516283/?ref=br_tf#!/FortBlissSpouses
- Fort Hood Army Wives Facebook page:
https://www.Facebook.com/FortHoodArmyWives?ref=br_tf
- Fort Lee Area Spouses' Club Facebook page:
https://www.Facebook.com/FortHoodArmyWives?ref=br_tf#!/FortLeeAreaSpousesClub
- Germany Bamberg Mommies-Wives Facebook page:
https://www.Facebook.com/FortHoodArmyWives?ref=br_tf#!/bamberg.mommieswives?fref=ts
- Germany Hohenfels Army Spouses Facebook page:
https://www.Facebook.com/FortHoodArmyWives?ref=br_tf#!/groups/hohenfelsarmywives/

MARINE CORPS:

- Camp Pendleton Military Spouses Network Facebook page:
https://www.Facebook.com/FortHoodArmyWives?ref=br_tf#!/groups/CampPendletonMilitarySpousesNetwork/
- Camp Lejeune Wives Facebook page: https://www.Facebook.com/pages/Camp-Lejeune-Wives/151871674855977?ref=br_tf
- Quantico Marine Spouses Facebook page: https://www.Facebook.com/pages/Camp-Lejeune-Wives/151871674855977?ref=br_tf#!/groups/171203059570303/

NAVY:

- Navy Officers Spouses Club Facebook page: https://www.Facebook.com/pages/Camp-Lejeune-Wives/151871674855977?ref=br_tf#!/groups/32171968063/
- Fort Meade Navy Spouses Facebook page: https://www.Facebook.com/pages/Camp-Lejeune-Wives/151871674855977?ref=br_tf#!/groups/410099499091457/
- NAS Fallon Wives/Mommies Facebook page: https://www.Facebook.com/pages/Camp-Lejeune-Wives/151871674855977?ref=br_tf#!/groups/1457163337836001/
- NAS JRB Fort Worth Wives Facebook page:
https://www.Facebook.com/groups/225094120927631/?ref=br_tf
- NAS Oceana Wives, Girlfriends, & Family Facebook page:
https://www.Facebook.com/groups/225094120927631/?ref=br_tf#!/groups/430317640357079/
- Naval Station Everett Navy Wives Facebook page:
https://www.Facebook.com/groups/225094120927631/?ref=br_tf#!/groups/NAVSTA.Everett.Navywives/
- Japan NAF Atsugi Security Spouses Facebook page:
https://www.Facebook.com/groups/225094120927631/?ref=br_tf#!/groups/465000753590303/
- Spain NS Rota Chief wives Facebook group:
https://www.Facebook.com/groups/225094120927631/?ref=br_tf#!/groups/245656632123564/

AIR FORCE:

- Davis-Monthan Enlisted spouses Facebook page:
https://www.Facebook.com/DMEnlistedSpouses?ref=br_tf

- Beale Enlisted Spouses Club Facebook: https://www.Facebook.com/DMElistedSpouses?ref=br_tf#!/bealeenlisted.spousesclub?fref=ts
- Vandenberg Spouses' Club Facebook: https://www.Facebook.com/DMElistedSpouses?ref=br_tf#!/groups/Vadenbergsponsorsclub/
- Peterson AFB Spouses' Club Facebook: https://www.Facebook.com/DMElistedSpouses?ref=br_tf#!/pages/PSC-Spouses-Club/356971677718878
- Hurlburt & Eglin Air Force Base Spouses Facebook: https://www.Facebook.com/pages/Hurlburt-Eglin-Air-Force-Base-Spouses/162423847127026?ref=br_tf
- Moody Key Spouses Facebook: https://www.Facebook.com/pages/Hurlburt-Eglin-Air-Force-Base-Spouses/162423847127026?ref=br_tf#!/moodykeyspouses?fref=ts
- Scott Air Force Base Weathersquadron Spouses Facebook: https://www.Facebook.com/pages/Hurlburt-Eglin-Air-Force-Base-Spouses/162423847127026?ref=br_tf#!/weathersquadron.spouses.9?fref=ts
- Barksdale Enlisted Spouse Group Facebook: https://www.Facebook.com/pages/Hurlburt-Eglin-Air-Force-Base-Spouses/162423847127026?ref=br_tf#!/BarksdaleEnlistedSpouseGroup
- Osgroup Spouses Facebook: https://www.Facebook.com/pages/Hurlburt-Eglin-Air-Force-Base-Spouses/162423847127026?ref=br_tf#!/opsgroup.spouses.1?fref=ts

FORUMS

Branch of Service	Public/Private	Link
Air Force	Private	http://forums.airforcewives.com/forums/index.php
Army	Private	www.armywivesforums.com
Coast Guard	Private	http://coastiechicks.net
General Military	Public	http://spousebuzz.com/blog/category/frgspouse-support
General Military	Public	http://www.cinchoose.com/Forums/tabid/56/Default.aspx
Navy	Private	http://forums.navywives.com/forums/index.php
Navy	Public	https://www.Facebook.com/pages/Navy-Spouses-of-San-Diego/129030147168435 They
Navy	Public	https://www.Facebook.com/pages/US-Navy-GirlfriendsFiancesWives/170910542979275
Navy	Public	https://www.Facebook.com/USNavySpouseSupportGroup
Submarines	Private	http://www.submarinewivesclub.org/

Appendix C

Cover Letter

Military Spouse Well-Being Survey

Hello and welcome to the Military Spouse Well-Being Survey! This survey is part of a research study led by Lisa A. Gray, a military spouse and doctoral candidate at Virginia Commonwealth University (VCU), who is seeking to better understand the well-being of military spouses. The study has been approved by the VCU Institutional Review Board for the protection of Human Subjects (HM20001725).

This survey is designed for civilian spouses and domestic partners (who are eligible for benefits) of Service members on Active Duty in either the U.S. Army, Navy, Air Force, Marine Corps, or Coast Guard. If you are at least 18 years of age and are the spouse or domestic partner of a Service member, you are eligible to participate.

Your participation in this survey is completely voluntary and will take approximately 15-20 minutes. The survey will ask you questions about your background and experiences, the military, your family relationships, and your community. No identifying information will be collected in this survey and all completed surveys will be securely stored and will not be available to anyone not directly involved in this study. At the end of the survey, you have the option to enter into a drawing to win one of five \$50 bank cards.

Your responses, as well as those of other spouses who participate, will be used to help educate the civilian and military community about the well-being of U.S. military spouses. Although there is no direct benefit to you for your participation in this study, it is our hope that the study will provide valuable information that will help to improve the lives of military spouses and their families. Your responses are completely confidential. No individual respondents will ever be identified or identifiable.

Several questions in the survey will ask you about things that have happened to you or your family that may have been unpleasant. You do not have to respond to any questions that you do not want to. You may wish to skip any question that you do not feel comfortable answering and may quit the study at any time without penalty. If you experience any emotional stress or are in need of immediate support, please contact the Military OneSource Crisis Line at 800-273-TALK (8255) or visit their website at <http://www.militaryonesource.mil/crisis-prevention>. A list of additional supportive resources for military families are listed on the study website at <http://militaryspousestudy.wordpress.com>. The study website will also provide up to date information on the study's progress and will post the study's forthcoming results.

If your computer shuts off or you lose your internet connection while completing the survey, you will have to start over from the beginning.

If you have any questions, please contact:

Lisa A. Gray, PhD candidate, LCSW
Email: grayla2@vcu.edu
Phone: (XXX) XXX-XXXX

or

Sarah Kye Price, PhD, MSW
Email: skprice@vcu.edu
Phone: (XXX) XXX-XXXX

If you have any general questions about your rights as a participant in this or any other research, you may contact:

Office of Research
Virginia Commonwealth University
800 East Leigh Street, Suite 3000
P.O. Box 980568
Richmond, VA 23298
Telephone: (804) 827-2157

Contact this number for general questions, concerns or complaints about research. You may also call this number if you cannot reach the research team or if you wish to talk with someone else.

After reading this document, please select one of the two options listed below:

- I AGREE to participate in the survey
- I DO NOT agree to participate in the survey
[Text Box] Please close this window to opt out of the study

Appendix D

Item Response Rates for Standardized Measurements

Perceived Stress Scale (PSS-10) Item Response Rates

Perceived Stress Scale (PSS-10)	Never 0	Almost Never 1	Sometimes 2	Fairly Often 3	Very Often 4	M (SD)
How often have you been upset because of something that happened unexpectedly	38 (12.7)	93 (31.0)	98 (32.7)	47 (15.7)	24 (8.0)	1.75 (1.11)
How often have you felt that you were unable to control the important things in your life	58 (19.3)	81 (27.0)	66 (22.0)	55 (18.3)	40 (13.3)	1.79 (1.31)
How often have you felt nervous and "stressed"	18 (6.0)	40 (13.3)	100 (33.3)	75 (25.0)	67 (22.3)	2.44 (1.15)
How often have you felt confident about your ability to handle your personal problems	128 (42.7)	92 (30.7)	56 (18.7)	12 (4.0)	10 (3.3)	.94 (1.04)
How often have you felt that things were going your way	64 (21.3)	109 (36.3)	93 (31.0)	26 (8.7)	8 (2.7)	1.35 (1.00)
How often have you found that you could not cope with all the things you had to do	103 (34.3)	77 (25.7)	60 (20.0)	42 (14.0)	17 (5.7)	1.31 (1.24)
How often have you been able to control irritations in your life	65 (21.7)	118 (39.3)	80 (26.7)	27 (9.0)	9 (3.0)	1.32 (1.01)
How often have you felt that you were on top of things	58 (19.3)	119 (39.7)	90 (30.0)	26 (8.7)	6 (2.0)	1.34 (0.95)
How often have you been angered because of things that were out of your control	44 (14.7)	92 (30.7)	89 (29.7)	43 (14.3)	31 (10.3)	1.75 (1.18)
How often have you felt difficulties were piling up so high that you could not overcome them	118 (39.3)	75 (25.0)	64 (21.3)	26 (8.7)	16 (5.3)	1.15 (1.19)

Modified Life Events Checklist (LEC) Item Response Rates

Table 6

Life Event Checklist Item Responses

Life Events Checklist (LEC)	Happened to Me	Happened to Spouse	Witnessed It	Not Sure	Doesn't Apply
Natural Disaster	162 (54.0%)	79 (26.3%)	78 (26.0%)	11 (3.7%)	89 (29.7%)
Fire or Explosion	24 (8.0%)	33 (11.0%)	39 (13.0%)	16 (5.3%)	194 (64.7%)
Transportation Accident	194 (64.7%)	89 (29.7%)	53 (17.3%)	9 (3.0%)	71 (23.7%)
Physical Assault	80 (26.7%)	29 (9.7%)	26 (8.7%)	11 (3.7%)	182 (60.7%)
Assault with a Weapon	17 (5.7%)	21 (7.0%)	8 (2.7%)	7 (2.3%)	247 (82.3%)
Sexual Assault	80 (26.7%)	8 (2.7%)	1 (0.3%)	5 (1.7%)	210 (70.0%)
Other Unwanted or Uncomfortable Sexual Experience	82 (27.3%)	4 (1.3%)	3 (1.0%)	11 (3.7%)	199 (66.3%)
Combat or exposure to war-zone	7 (2.3%)	147 (49.0%)	1 (0.3%)	11 (3.7%)	138 (46.0%)
Captivity	3 (1.0%)	1 (0.3%)	1 (0.3%)	2 (0.7%)	289 (96.3%)
Life-Threatening Illness or Injury	33 (11.0%)	15 (5.0%)	49 (16.3)	7 (2.3%)	197 (65.7%)
Sudden, Violent Death	30 (10.0%)	21 (7.0%)	33 (11.0%)	12 (4.0%)	210 (70.0%)
Any other Very Stressful Event or Experience	89 (29.7%)	49 (16.3%)	10 (3.3%)	2 (7.3%)	158 (52.7%)

Brief Resilience Scale (BRS) Item Response Rates

Brief Resilience Scale (BRS)	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	M (SD)
I tend to bounce back quickly after hard times	4 (1.3)	21 (7.0)	59 (19.7)	120 (40.0)	95 (31.7)	3.94 (.96)
I have a hard time making it through stressful events	9 (3.0)	38 (12.7)	72 (24.0)	103 (34.3)	78 (26.0)	3.68 (1.08)
It does not take me long to recover from a stressful event	8 (2.7)	35 (11.7)	89 (29.7)	100 (33.3)	67 (22.3)	3.61 (1.04)
It is hard for me to snap back when something bad happens	7 (2.3)	41 (13.7)	71 (23.7)	99 (33.0)	82 (27.3)	3.69 (1.09)
I usually come through difficult times with little trouble	7 (2.3)	41 (13.7)	96 (32.0)	101 (33.7)	55 (18.3)	3.52 (1.02)
I tend to take a long time to get over set-backs in my life	4 (1.3)	31 (10.3)	67 (22.3)	106 (35.3)	92 (30.7)	3.84 (1.02)

Modified Medical Outcomes Study – Social Support Scale (MOS-SS5) Item Response Rates

MOS-SS5 Social Support Survey	None of the time 1	Some of the time 2	Most of the time 3	All of the time 4	I don't know	Choose not to answer	M (SD)
Someone available to help you if you were confined to bed	34 (11.3%)	95 (31.7%)	67 (22.3%)	59 (19.7%)	33 (11.0%)	12 (4.0%)	2.59 (.99)
Someone available to give good advice about a crisis	19 (6.3%)	49 (16.3%)	97 (32.3%)	127 (42.3%)	7 (2.3%)	1 (0.3%)	3.14 (.92)
Someone available to get together with for relaxation	27 (9.0%)	108 (36.0%)	99 (33.0%)	60 (20%)	4 (1.3%)	2 (0.7%)	2.65 (.91)
Someone available to confide in or talk about your problems	20 (6.7%)	63 (21.0%)	88 (29.3%)	123 (41.0%)	6 (2.0%)	0 (0%)	3.07 (.95)
Someone available to love you and make you feel wanted	8 (2.7%)	48 (16.0%)	85 (28.3%)	157 (52.3%)	0 (0%)	2 (0.7%)	3.31 (.84)

SF-12v2 Mental Component Response Rates

Mental Component Scale Items	N (%)	M	SD	Min - Max (Range)
Social Functioning	297 (99.0)	50.31	8.60	21-57 (36)
Role limitations due to emotional problems	296 (98.7)	47.85	9.47	15-56 (42)
Mental Health	300 (100.0)	48.87	9.26	24.06-64.21)

SF-12v2 Physical Component Response Rates

Physical Component Scale Items	N (%)	M	SD	Min-Max (Range)
Physical Functioning	300 (100.0)	54.14	6.10	25.58-57.06 (31.48)
Role Limitations due to Physical Problems	299 (99.7)	51.11	8.04	25.58-57.08 (34)
Bodily Pain	298 (99.3)	51.53	9.06	22-58 (36)

Appendix E

Correlation Matrix showing Interrelations between the Predictor Variables

	Perceived Stress (PSS-10)	Life Events (LEC)	Alcohol use	Family Satisfaction (FSS)	Brief Resilience (BRS)	Mental Health	Age Group	Job Status
LEC	.143 [*]							
Alcohol Use	-.070	-.136 [*]						
FSS	-.486 ^{**}	-.157 ^{**}	-.007					
BRS	-.534 ^{**}	-.108	.112	.374 ^{**}				
Mental Health Use	.191 ^{**}	.278 ^{**}	.041	-.141 [*]	-.220 ^{**}			
Age Group	-.126 [*]	.126 [*]	.105	.056	.103	.171 ^{**}		
Job Status	-.104	-.056	.279 ^{**}	-.007	.122 [*]	-.009	.184 ^{**}	
Rank	-.173 ^{**}	-.094	.258 ^{**}	.110	.162 ^{**}	.033	.415 ^{**}	.117 [*]

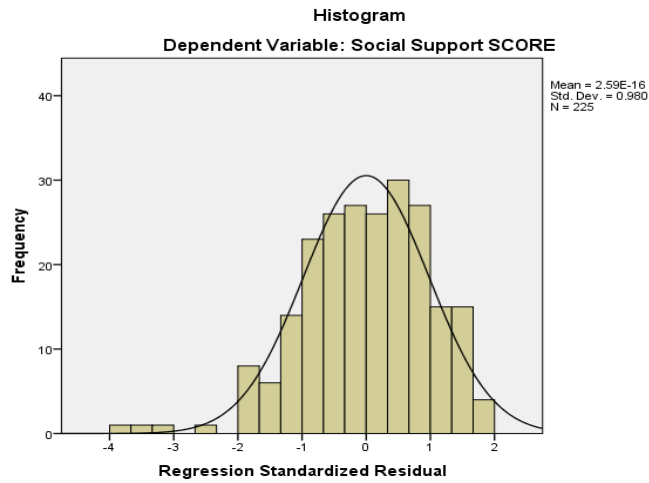
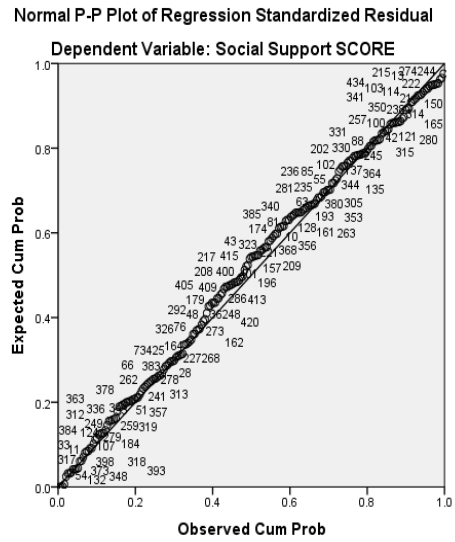
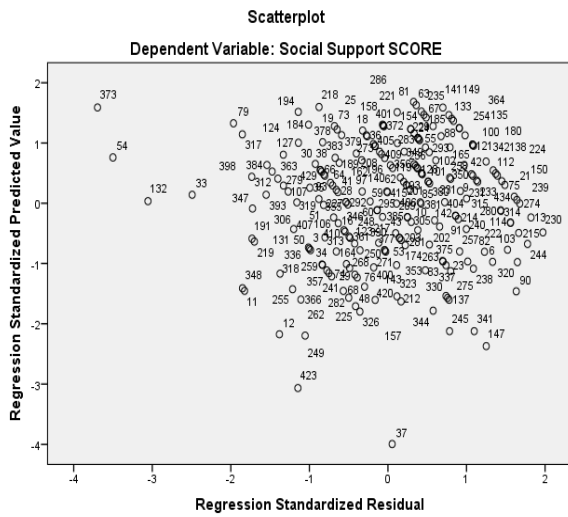
*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

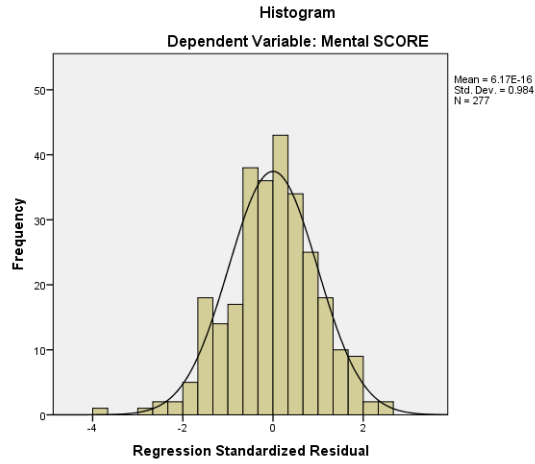
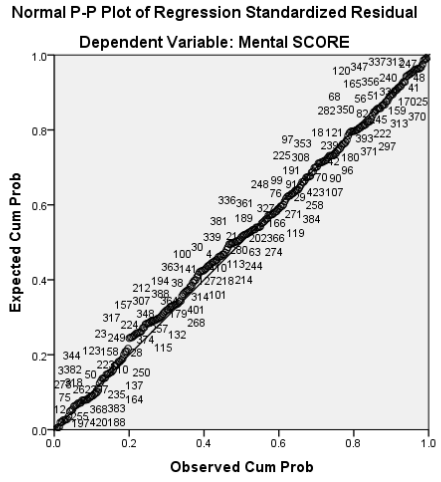
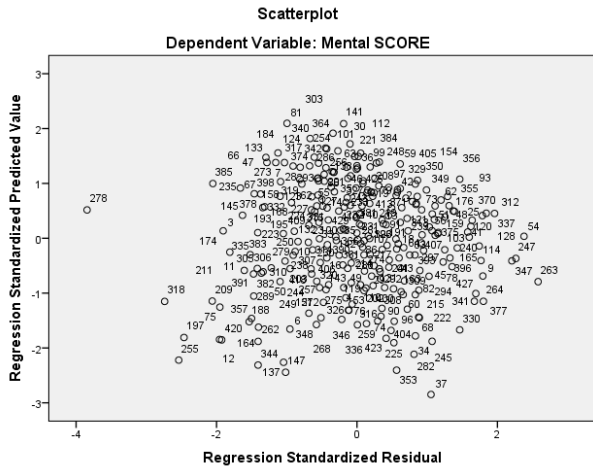
Appendix F

Scatter plot, P-plot, and Histogram Charts for Hierarchical Regression Models

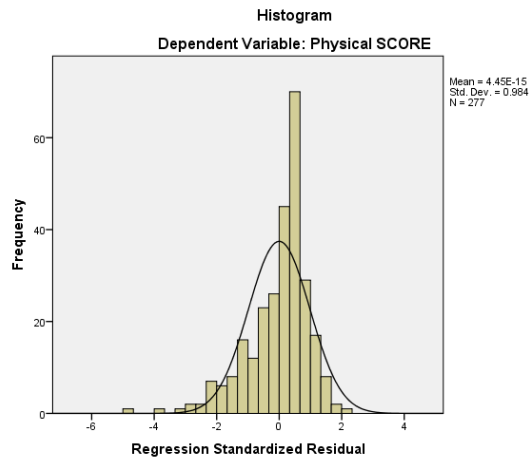
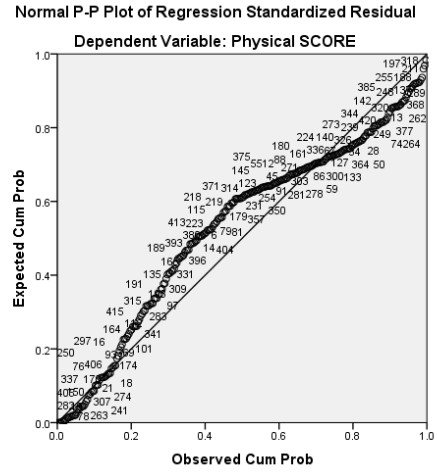
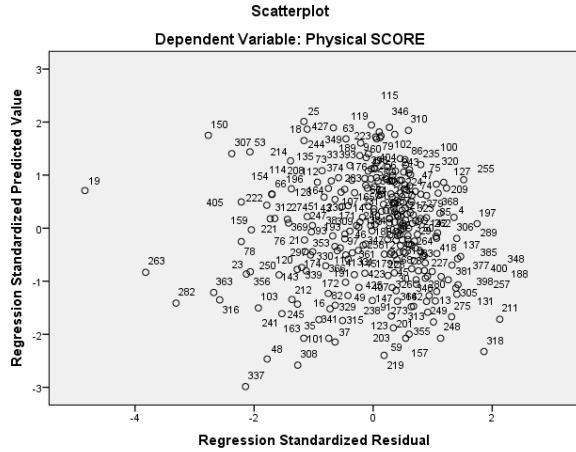
Social Well-Being Hierarchical Regression Model



Mental Well-Being Hierarchical Regression Model



Physical Well-Being Hierarchical Regression Model



Vita

Lisa Ann Gray was born on December 25, 1983 in Bad Kreuznach, Germany and is a dual citizen of the United States and Germany. She graduated from Copperas Cove High School, Copperas Cove, Texas in 2002. She received her Bachelor of Social Work from Texas State University – San Marcos in 2005 and a Master of Science in Social Work from the University of Texas at Austin. Following graduation, Mrs. Gray worked as a mental health clinician providing individual, family and group therapy services to children and families in and around the military community. During her doctoral studies, she began teaching as an adjunct faculty at VCU's School of Social Work in 2012 and began working as a Military Family Life Counselor (MFLC) in 2014. Her doctoral studies and dissertation received funding support from an internal School of Social Work dissertation honor fund in 2014 and the SAMSHA sponsored Council of Social Work Education (CSWE) Minority Fellowship Program from 2012-2015.