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Deployment Stress and Parenting Self-Efficacy Among Spouses of Members of the Armed Forces

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Abstract

Deployment in the Armed Forces has a ripple effect on the family unit. Research suggests deployment impacts the psychological well-being of military spouses and children. The spouse who stays behind plays an important role in maintaining homeostasis while adapting to the absence of the deployed servicemember. The present study aimed to understand whether there is an association between deployment stress and parental self-efficacy. The study examined these variables in 115 military spouses of active and reserve units whose servicemembers are currently on deployment or deployed within the last two years and who are parents to children between the ages of 5 and 18. Overall, data did not support a relationship between deployment stress and parental self-efficacy. However, number of deployments showed a significant relationship on parental self-efficacy in relationship to providing nurturance and empathic responses to children. Number of deployments also yielded a significant relationship in how military spouses reported feeling competent, restricted, conflicted, supported, and/or depressed in their role as a parent. Supporting or engaging in recreational activities with children had a significant adverse effect on

relationship satisfaction. Conversely, military spouse's interpersonal relationships and social support positively affected the relationship between military spouses and servicemembers. Self-esteem, self-reliance, seeking social support and psychological acceptance of deployment helped in reduction of stress which affected parental self-efficacy and lowered levels of parental stress. Developing supportive relationships and engaging in behaviors of self-development was associated with lower levels of stress and tension from deployment and stronger parental belief in ability to support cognitive and socio-emotional adjustment of child/children. Among covariates, family income was a significant predictor of military spouses' family integrity, self-reliance and self-esteem, interpersonal relationships and social support, belief in the value of the military's mission, and lower psychological tension and strain during servicemember's deployment. Race and marital status had an effect on parental self-efficacy in the domain of academic achievement. Race had a small effect on parental self-efficacy in the discipline domain. The hardship of deployment may potentially have a higher impact on military spouses managing extra responsibilities, financial hardships, and added pressure to support the academic needs of their children.

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Chapter 1

Introduction

Approximately 91% of active-duty military marriages are comprised of military female spouses, with one third of the marriages having dependent children between the ages of 0-22 (2017 Demographics: Profile of the Military Community, 2017). Research suggests military spouses play an integral role in the operational readiness of military units (Eaton et al., 2008). Spouses who perceive military life as stressful are vulnerable to lower psychological well-being (Eaton et al., 2008) and more likely to pressure servicemembers to leave the military (Eaton et al., 2008). Active-duty military families have unique stressors atypical to non-active-duty military families. Among them are (a) geographic mobility, (b) residence in foreign countries, (c) separations from family, and (d) risk of service member injury or death (Segal, 1986).

Among servicemembers, relocations, or change of duty stations, occur on average every 2-3 years (Lowe et al., 2012). Separations can happen with prolonged deployments, training assignments, and temporary duty assignments (Lowe et al., 2012). Separations vary from a few days to several consecutive months and can persist throughout the service member's contract (Burrell et al., 2006). Burrell et al. (2006) suggested that out of the four family stressors active-duty military families encounter, separation is the most important to factor in a military spouse's psychological well-being, physical well-being, marital satisfaction, and military life satisfaction. Furthermore, separation during the deployment cycle indicates that parental responses from the

parent who stays home have more important ramifications for their children's' adjustment (Flittner O'Grady et al., 2018).

Further, separation can adversely affect quality of life for both the parent at home (e.g., Dorvil, 2017; Mansfield et al., 2010) and their children (Gondoli & Silverberg, 1997; Lowe et al., 2012).

Problem

The aim of the current study is to explore whether there is an association between deployment stress and self-reported parental self-efficacy. Given the valuable role military spouses play in both the readiness of the military unit and the welfare and well-being of the family unit during the absence of the deployed spouse, this study explores whether deployment influences military spouses' ratings of their ability to parent effectively during separation of military servicemember.

Deployment Stress on Military Spouses

Separations, particularly in the form of deployments, have played a routine process in military families in support of Operation Iraqi Freedom and Operation Enduring Freedom over the past 18 years. The 2017 Survey of Active Duty Spouses (Dorvil, 2017) found that 77% of active-duty military spouses have experienced at least one military deployment. "Loneliness," "being a single parent" and "dealing with issues/decisions alone" were endorsed as the top three problems military spouses face during servicemember's deployment (Dorvil, 2017). In comparison to military spouses who have never experienced deployment, military wives of servicemembers who were deployed between 1 to 11 months, met clinical diagnoses for depression, anxiety, sleep disorders and acute stress reaction and adjustment disorders

(Mansfield et al., 2010). Deployments extending past 11 months had an even higher association of mental health diagnoses amongst military spouses (Mansfield et al., 2010).

Whether separations are short-lived or extended, military families likely encounter a mixture of emotions while adjusting to the absence of the servicemember. Logan (1987) first introduced the concept of the "emotional cycle of deployment," which discussed the series of psychological transitions family units experience prior to and following deployment. Now adapted, transitions include: (a) Pre-deployment, (b) Deployment, and (c) Post-deployment (Pincus et al., 2001). Considering separation is a routine process in the lives of military families, the anticipation of deployment or prolonged separation may foment persistent levels of stress in military spouses and children (Lowe et al., 2012).

During separations, the spouse who stays behind has to contend with their own habitual tasks of everyday life while taking on the parenting and household duties of the deployed partner during the prolonged absence of the active duty servicemember (Green et al., 2013; Lapp et al., 2010; Paley et al., 2013). The addendum of responsibilities may result in high levels of stress, which may ultimately cause underlying levels of anxiety on the family unit (Lowe et al., 2012), and contribute to decrease psychological well-being (Donoho et al., 2018). Studies suggest that shortly after separation, military spouses reported greater symptoms of depression and anxiety as well as increased use of mental health clinics (Eaton et al., 2008). Moreover, the difficulty of deployment is also manifested emotionally, where both spouses are isolated from one another as primary sources of emotional support (Gottman et al., 2011; Orthner & Rose, 2009). Cafferky and Shi (2015) found that psychological distressed heightened for military spouses whose deployed spouses were not readily available to offer emotional support or comfort. Even when considering informal and formal networks of support, contribution of the marital relationship

was the strongest predictor of psychological well-being for spouses who experience more frequent work-related separations from their partner (Orthner & Rose, 2009).

An analysis of military spouses in the Indiana National Guard found that during deployment, military spouses reported an increase in depressive symptoms and a decrease in parental responsiveness in their relational attachments to their children (Flittner O'Grady et al., 2018). Additionally, Army spouses of military members deployed during the Global War on Terror reported clinically significant levels of parenting stress, which was found to be a significant predictor of impaired psychosocial functioning in children between ages 5-12 (Flake et al., 2009). Moreover, Lowe et al. (2012) found that greater lengths of deployment negatively impacted relational attachments between dependent military spouse and their children. Conversely, the number of deployments affected reported levels of resiliency and stress. Military spouses reported resiliency and lower stress levels after approximately two deployments and an increase in stress levels at around four or five deployments (Van Winkle & Lipari, 2013).

While there is compelling research on post deployment reintegration and the effects of combat related PTSD and its disruption to the marital relationship (Knobloch-Fedders et al., 2017; Miller et al., 2013; Renshaw & Campbell, 2011), there is a dearth of information on how deployment impacts parenting self-efficacy in military spouses.

Given the multiple stressors of military culture and the cultural dictum of "mission first" (Adler & Castro, 2013), military spouses serve as the mediators between children and the deployed spouse (Gewirtz et al., 2011). Makhija et al. (2019) found an association between parental psychological distress and family functioning. Maternal well-being was also a predictor of adjustment difficulties in Dutch children whose fathers were deployed to Bosnia and Afghanistan irrespective of the duration of separation (Andres & Moelker, 2011). However,

Makhija et al. (2019) also found parental sense of competence independently related to family functioning above and beyond parental psychological distress.

Self-Efficacy

Self-efficacy is a concept proposed by Albert Bandura following the development of Social Cognitive Theory (Bandura, 1995) and refers to "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p. 2). The belief that one can affect outcomes is shaped by previous mastery experiences, social shaping and social pressure, and physiological and emotional states that include anxiety, stress, arousal, and mood (Bandura, 1995). Self-efficacy beliefs influence cognitive, motivational, affective, and decisional processes that impact quality of life and human functioning (Bandura, 2012). Individuals with high levels of perceived efficacy are likely to respond to problems and challenges with higher levels of confidence and judge negative events as external circumstances that can be subjectively overcome (Jerusalem & Mittag, 1995) as opposed to threats. Presuming agency in our abilities to overcome challenging demands fosters a sense of preparedness that makes outcomes predictable and thus reinforces the development and exercise of personal control (Bandura, 1995).

Various studies conclude a relationship between parental well-being and self-efficacy beliefs (Benzies et al., 2013; Fotiadou et al., 2008; Leahy-Warren et al., 2012; Streisand et al., 2005; Taft et al., 2012; Whittaker & Cowley, 2012) and a negative association between self-efficacy and parental stress (Dunning & Giallo, 2012; Jones & Prinz, 2005; Khoury-Kassabri et al., 2014; Scheel & Rieckman, 1998). The belief in being able to manage parental responsibilities and exercise mastery over the demands of children's emotional and behavioral needs plays a vital function in both parental well-being and child development (Jones & Prinz, 2005). Parental

attunement serves as a predictor of positive self-concept and emotional well-being in children and adolescents (Gondoli & Silverberg, 1997). Nonetheless, there is limited research closely examining the relationship between deployment stress and parental self-efficacy in military spouses.

When taking into consideration parental self-efficacy and the association between spousal support and stress, Lavenda and Kestler-Peleg (2017) found that the effect of spousal support on stress was non-significant when high parental self-efficacy was reported. Correspondingly, a strong association between spousal support and stress was found when less parental self-efficacy was reported. For military families where both parents work, the father's workload could potentially serve as a predictor for role overload in the parent who stays behind, as Crouter et al. (1999) found in their study of civilian families work pressures on adolescent well-being. Westman and Etzion (2005) found that spousal support buffered job stress for wives but did not buffer the effect of family stress on their experience of work-family conflict. The work-family conflict in family life, described as the crossover effect (Bass et al., 2009), influences one's person experiences on another family member's experiences. Bass et al., (2009) studied the crossover effect to determine whether higher work hours and job demands negatively impacted parenting outcomes for mothers and fathers and found little evidence of the crossover effect. However, the study revealed a significant relationship in the association of positive father-child interactions and wives' job demands (Bass et al., 2009). Nonetheless, the crossover effect has been studied on families where both working parents are present; limited research has been done on military families where one of the spouses is deployed. In a qualitative study of more than 1,000 military spouses, one fourth of military spouses cited, spouses "gone a lot" (Castaneda & Harrell, 2008) as having a negative effect on their work opportunities. Furthermore, military

spouses explicitly stated that “single parenting” (Castaneda & Harrell, 2008) and the expenses of childcare and or unavailability of the servicemember to contribute to the parenting demands impact their work opportunities.

Hypotheses

Hypothesis 1

Military spouses who report experiencing between two to three deployments will report lower levels of parental stress and higher levels of self-efficacy compared to parents who report experiencing their first deployment or four or more deployments.

Hypothesis 2

Military spouses who report positive emotional connections with their servicemember will report lower levels of parenting stress and higher levels of self-efficacy.

Hypothesis 3

Military spouses who report deployment as more difficult will report higher levels of parental stress and lower levels of parental self-efficacy.

Hypothesis 4

Military spouses who report higher levels of loneliness and work-family conflict will report higher levels of parental stress and lower levels of self-efficacy.

Chapter 2

Methods

Participants

The study included 115 military spouses of Active duty, Reserve and National Guard personnel with children in their household between the ages of 5 and 18 years whose spouses are currently deployed to either a combat or non-combat zone or whose spouses have deployed within the last two years. Age data were gathered by categories; the majority of participants were between the ages of 36 – 40 (N = 37, 32.2%); the median age was in this category), 48 (41.8%) identified as 35 or younger and 30 (26.1%) were older than 40 years. Families reported having 1–8 children living at home (M = 6.63; SD = 3.267). Most participants reported being married (85%), with an average of 5-10 years in the relationship (26.1%) or 10-15 years (25.2%) together. All participants identified as female; 112 (97.4%) as cis-gender and 3 (2.6%) as transgender.

Participants' reported household income ranged from less than $15,000 to more than $100,000. Income was bimodal; 26.1% reported household incomes between $50,000 and $75,000 and 26.1% reported incomes between $75,000 and $100,000. The remaining participants reported an income of $100,000+ (25.2%), and less than $15,000 – 50,000 (21.7%).

Participants were highly educated: 56.5% of mothers reported earning a bachelor's degree or higher, 31.3% had some college or two years of college, and 12.2% had a high school graduation. The majority of mothers (N = 81; 70.4%) identified as White, 20 (17.4%) mothers identified as Black, 12 (10.4) as Hispanic, and 2 (1.7%) identified as Asian. Most mothers

reported working full time (44.3%), and remaining mothers reported staying home with their children (22.6%), working part time (9.6%), working full-time inside the home (20.9%), or student (2.6%).

The majority of military spouse's service member were in an active-duty status (48.7%), followed by Reserve status (32.2%), Active Reserve (10.4%) and Active Guard (8.7%). The Army accounted for 26.1% of the participants; United States Navy (25.2%); United States Marine Corps (22.6%); United States Air Force (15.7%); National Guard (8.7%), and United States Coast Guard (1.7%). Most of military spouses' service member have served in the military for 9-12 years (23.5%), 19 accounted for one enlistment (less than 4 years), 25 accounted for two enlistments (5-8 years), 26.9% accounted for four to five enlistments (13-20 years), while 13 accounted for five or more enlistments (20+ years). Military rank was comprised of military spouse's whose service member was an enlisted member of the armed forces ($N = 65$; 56.5%) and a rank of warrant officer or officer ($N = 50$; 42.5%) with the majority of service members holding non-commissioned ranks of E6 – E9 (34.8%) and E1 – E5 (21.7%).

In relation to deployment, 60 military spouses reported service member as deployed during the time the survey was completed and 55 reported the servicemember had since returned from a deployment over the last two years. More than half (52.2%) disclosed experiencing between two to three deployments during the service member's enlistment, 18.3% experienced four or more deployments and 29.6% reported experiencing one deployment. Deployment to a combat zone outside of the United States accounted for 40.9%, while 27% of deployment accounted for a non-combat zone outside of the United States. The remaining deployments were to a non-combat zone in the United States (17.4%) and 14.8% reported service member had served in both non-combat and combat zones in and out of the United States.

Measures

Along with demographic variables and questions, that include age, sex, race, socioeconomic status, education, marital status, years married, number of children and their ages, employment status, spouse's military rank, and number of years spouse has served, this study will include a number of variables and scales. The survey will consist of the following predictor and criterion instruments:

Predictor Variables

Length of Deployment will be assessed with the use of self-report measures asking (a) number of deployments the service member has partaken during the course of their time in service (b) number of months in their current deployment; (c) number of months in prior deployment.

The Family Coping Inventory (FCI) was developed by McCubbin et al. (1981), to assess how spouses appraise their overall responses to a family separation which is permanent (e.g., divorce), for an extended period (e.g., military assignments), or recurs repeatedly (e.g., corporate executive). The FCI is a 70-item self-report instrument that has been used in three different separation studies to establish reliabilities and validities: (a) with intact families to assess wives' coping strategies when their corporate executive husbands were repeatedly gone on routine business trips of short duration (Boss et al., 1979); (b) with intact families in the military where the husband/father was separated from his family due to a long-term military assignment (McCubbin et al., 1980); and (c) with divorced persons coping with separation and single-parent status (Moore, 1980). Factor analytic procedures were used in each of these studies to determine underlying coping patterns or scales. The SPSS principal factoring with iterations method was used. Analysis of the data from each of these studies resulted in three different sets of scales. For

the prolonged military separation study, the subjects were 82 wives of Navy personnel deployed to sea for nine months. The subjects' responses to the items on the coping inventory they completed were examined for applicability to their situation, clarity, variance, and duplication (McCubbin, Dahl, et al., 1976). This resulted in a set of 30 items which were entered into a factor analysis with a final item number count of 26. Respondents are asked to evaluate how helpful specific behaviors have been to them in adjusting to the demands of individual members, the family system, and the community which they experienced during a separation, and in making an overall family adaptation to this situation.

This study used 26 out of the 70 items that correspond to the five subscales of Prolonged Military Separation. The 26 items used for this study are categorized under five scales or coping patterns: (a) Maintaining Family Integrity - Five items measuring behaviors which center around doing things together as a family, especially with the children (Cronbach's alpha = .84); (b) Developing Interpersonal Relationships and Social Support - Five items which focus upon the wife's efforts to develop meaningful and supportive relationships outside the family unit (Cronbach's alpha = .82); (c) Managing Psychological Tension and Strain - Six items which describe behaviors for reducing perceived stress and tension resulting from the separation (Cronbach's alpha = .74); (d) Believing in the Value of the Spouse's Profession &; Maintaining an Optimistic Definition of the Situation - Six behaviors which emphasize a psychological resignation to and acceptance of the stressful situation (Cronbach's alpha = .85); (e) Developing Self-Reliance and Self-Esteem - Four items which center around active self-development and growth behaviors (Cronbach's alpha = .71). Responses are made rating behaviors on a Likert Scale ranging from 0 = *Not Helpful* to 3 = *Very Helpful*.

Relationship Assessment Scale**.** The Relationship Assessment Scale (RAS) is a brief measure of global relationship satisfaction. It consists of seven items (e.g., "In general, how satisfied are you with your relationship?"), each rated on a five-point Likert scale from *poorly* (1) to *extremely well* (5) for the first item, from *unsatisfied* (1) to *extremely satisfied* (5) for the second item and from *poor* (1) to *excellent* (5) for the third item. It is suitable for use with any individuals who are in an intimate relationship, such as married couples, cohabiting couples, engaged couples, or dating couples. The brevity of the scale increases its utility in clinical settings and for online administration. Research has shown the scale to be correlated in expected directions with other measures of love, sexual attitudes, self-disclosure, commitment, and investment in a relationship (Hendrick, 1988). This scale was strongly correlated ($r = 0.80$) with the Dyadic Adjustment Scale (Spanier, 1976), has an alpha reliability of .86 (Hendrick, 1988) and a 7-week test/retest reliability of 0.85 (Hendrick et al., 1998). Higher scores indicate greater relationship satisfaction. The seven items were subjected to a principal components factor analysis with the best solution (all factor solutions specified an eigenvalue greater than one) eigenvalue greater than one) extracting one factor. In this study three of the seven items will be used to measure relationship satisfaction. The three items include: "How well does your partner meet your needs?" "In general, how satisfied are you with your relationship?" and "How good is your relationship compared to most?"

Dependent Measures Parental Stress, Parenting Self-Efficacy

The Parenting Stress Index- Short Form (PSI – SF; Abidin, 1995) is a brief version of the Full Parenting Stress Index (Abidin, 1995), a widely used and well-researched measure of parenting stress. The PSI-SF (Abidin, 1995) has 36 items from the original 120-item Parenting Stress Index (Abidin, 1995) and are drawn verbatim from the full-length Parenting Stress Index.

The PSI-SF yields scores on the following subscales: (a) Parental Distress, (PD; 12 items; e.g., ‘‘I often feel I cannot handle things well’’), (b) Parent-Child Dysfunctional Interaction (PCDI; 12 items; e.g., ‘‘My child rarely does things for me that make me feel good’’), and (c) Difficult Child (DC; 12 items; e.g., ‘‘My child seems to cry or fuss more often than most children’’). Abidin (1995), reported Cronbach of .91 for the PSI-SF, .87 for Parental Distress, .80 for Parent-Child Dysfunctional Interaction, and .85 for Difficult Child; test–retest correlations after six months ranged from .68 to .85. Reitman et al. (2002), reported Cronbach’s of .95 for the PSI-SF, .88 for Parental Distress, .88 for Parent-Child Dysfunctional Interaction, and .89 for Difficult Child. Haskett et al. (2006), reported Cronbach’s of .83 for the PSI-SF, .78 for Parental Distress, and .91 Parent-Child Dysfunctional Interaction and Difficult Child. Lee et al. (2016), found similarly high internal consistencies: .92 for the PSI-SF, .89 for Parental Distress, .82 for Parent Child Dysfunctional Interaction, and .83 for Difficult Child. Abidin (1995), proposes that parental distress (PD), child difficulty, and parent–child dysfunctional interactions (PCDI) contribute to parental stress and influence negative parenting and child behavior. Concurrent validity was established with the full Parenting Stress Index version. Correlations ranged from 0.73 to 0.95 with gross scores for the PSI-SF three subscales (Abidin, 1995).

Parental Self-Efficacy Measures

In an attempt to understand how parents’ beliefs influence their children, or to gauge success in their parenting abilities, researchers have responded by developing parental self-efficacy measures. The efforts have been met with validation of measures that are narrowed to specific age ranges in the developmental stages of life. Therefore, the breadth of literature addressing parental self-efficacy has been tailored to fit population samples that fit within the age parameters of validated parental self-efficacy measures. Consequently, if one wants to pursue a

parental self-efficacy study that encompasses the life span of when most children are present in the home (0 -18), then one has to either use multiple measures to support inclusion of all age ranges or restrict the age range parameters given a single measure for a wide range of ages (0 18) has not been developed or validated at the time of this study. As a result, parental self-efficacy for a certain population or group of people can only be measured in relation to the age of the child. It may be argued that parental self-efficacy differs or changes according to the respective age range of the child, but lack of a single measure that supports that argument leaves gaps in the literature. To be inclusive of all age ranges between 5 and 18, this study utilized The Self-Efficacy Parental Tasks Index (SEPTI; Coleman & Karraker, 2000). Language in the items were changed to accommodate for the inclusion of various age ranges. The changes for the items are discussed further below.

Self-Efficacy for Parental Tasks Index (SEPTI) – The Self Efficacy for Parental Tasks Index was developed by Coleman and Karraker (2000) to assess competency beliefs in parents of school-aged children. The Self-Efficacy Parenting Tasks Index (SEPTI) is a 36-item scale measuring parenting self-efficacy for tasks in five domains: achievement, recreation, discipline, nurturance, and health. Items are rated on a six-point Likert scale, ranging from 1 = *strongly disagree* to 6 = *strongly agree*. The items are representative of parental efforts to support child's cognitive and socio-emotional adjustment. Some examples are: "I do an adequate job in helping my child with school work" (achievement at school), or "When my child wants to play with a friend, I go out of my way to work it out" (recreation), "I have trouble deciding on appropriate rules for my child"(discipline), "I work hard to encourage healthy habits in my child" (health), and "I consistently encourage my child to express his/her emotions" (nurturance). These tasks are combined in a multidimensional index defining the construct of self-efficacy at a *domain-*

specific level. The reliability estimates for the subscales are: Achievement .74; Recreation .82; Discipline .86; Nurturance .77; Health .73. Still, based on the principal components factor analysis, several items did not load on the intended factors, so they decided to use the scale as a global estimate of parenting self-efficacy, instead of using the subscale scores. The Cronbach's alpha for the whole scale was .91.

Preliminary investigation of construct validity evidence was provided through the use of principal components factor analysis with oblique rotation. A forced five-factor solution with eigenvalues ranging from 9.39 to 1.74 and accounting for a total of 51.9% of the variance provided some support for the presence of five categories of parenting self-efficacy corresponding fairly to the subscales.

Procedure

Data was gathered through crowdsourcing using Qualtrix. Participants responded to a survey measure consisting of: demographic information, The Family Coping Inventory, The Relationship Assessment Scale, The Parenting Stress Index Short Form, and The Self-Efficacy for Parental Tasks Index. Participants with more than one child were asked to respond with respect to one child. Participants were asked to provide the age of the child they were rating. Participants were compensated by the crowdsourcing platform upon completion of the survey.

Data Analysis

Data was analyzed using SPSS 27.0.1 Descriptive data are reported for demographics and all measures in the Methods section. Pearson’s correlations were used to examine the bivariate association between deployment stress and parental self-efficacy. Stepwise regression was used to identify the aggregate total variance predicted by the predictor variables on the dependent variables of parental stress and parenting self-efficacy. A canonical correlation was used to

predict deployment difficulties and parental stress and parental self-efficacy and loneliness and work-conflict and parental stress and parental self-efficacy.

Chapter 3

Results

Descriptive data for all continuous variables are provided in Table 1. Tests of research hypotheses are presented in the following sections.

Hypothesis 1

This hypothesis proposed that military spouses who report experiencing between two to three deployments would report lower levels of parental stress and higher levels of self-efficacy compared to parents who report experiencing their first deployment or four or more deployments.

Analyses of covariance were used to assess the effects of the number of times a service member had been deployed on dependent variables. Categories included one deployment, two-three deployments, and four or more deployments. Covariates included age, race, marital status, household income, number of years the service member had been in the military and service member's military rank and military status.

FCI

First, no differences were found across number of deployments in scores on the Family Coping Inventory ($F_{2,105} = 0.543$; $p = .583$). However, among covariates, family income showed a significant relationship to Family Coping ($F_{1,105} = 15.585$; $p < .001$; $\eta^2_p = 0.131$) with a medium effect size. Second, the number of deployments showed no effect on Family Integrity ($F_{2,105} = 0.004$; $p = .996$); but among covariates, family income showed a significant relationship

Table 1

Descriptive Statistics for Independent and Dependent Continuous Variables

	Mean	SD	Skew	SE Skew	Kurtosis	SE Kurtosis
Family Coping Inventory (FCI)	83.88	13.73	-0.69*	.226	0.83*	.447
Relationship Assessment Scale (RAS)	26.70	5.47	-1.13*	.226	2.25*	.447
Self-Efficacy Parental Tasks Index (SEPTI)	103.85	28.58	-0.30	.226	-1.01*	.447
Parenting Stress Index (PSI)	110.81	13.37	-0.41	.226	2.93*	.447
(FCI) Family	3.31	6.72	-1.25*	.226	1.75*	.447
(FCI) Support	3.20	0.68	-0.75	.226	0.19	.447
(FCI) Strain	3.16	0.60	-0.49	.226	-0.06	.447
(FCI)Situation/Spouse	3.21	0.57	-0.80	.226	1.05*	.447
(FCI) Religion/Esteem	3.25	0.58	-0.40	.226	-0.54	.447
(SEPTI) Discipline	3.31	0.67	-1.25	.226	1.75	.447
(SEPTI) Achievement	3.20	0.68	-0.75	.226	0.19	.447
(SEPTI) Recreation	3.16	0.60	-0.49	.226	-0.06	.447
(SEPTI) Nurturance	3.21	0.57	-0.80	.226	1.06	.447
(SEPTI) Health	3.25	0.58	-0.40	.226	-0.54	.447
(PSI) Parental Distress	2.88	1.00	0.25	.226	-0.67	.447
(PSI) Difficult Child	3.15	0.94	0.37	.226	-0.74	.447
(PSI) Parent-Child Dysfunctional Interaction	3.19	0.69	-0.59	.226	-0.59	.447

Note. $N = 115$. *Significant departure from normal is indicated by a value of > 2 for the ratio of skew or kurtosis to their respective SEs.

to Family Integrity ($F_{1,105} = 18.727$; $p < .001$; $\eta^2_p = 0.151$) with a medium effect size. Third, the number of deployments showed no effect on Reliance and Self-Esteem ($F_{2,105} = 0.004$; $p = .980$); however, among covariates, family income again showed a significant relationship to Reliance and Self-Esteem ($F_{1,105} = 4.089$; $p < .046$; $\eta^2_p = 0.037$) with a small effect size.

Fourth, the number of deployments showed no effect on Believing in the Value of the Spouse's Profession & Maintaining an Optimistic Definition of the Situation ($F_{2,105} = 1.710$; $p = .186$). However, among covariates, family income showed a significant relationship to

Believing in the Value of the Spouse's Profession & Maintaining an Optimistic Definition of the Situation ($F_{1,105} = 11.989$; $p < .001$; $\eta^2_p = 0.102$) with a medium effect size. Age also showed a significant relationship to Believing in the Value of the Spouse's Profession & Maintaining an Optimistic Definition of the Situation ($F_{1,105} = 8.470$; $p < .004$; $\eta^2_p = 0.075$) with a small effect size.

Fifth, the number of deployments showed no effect on Developing Interpersonal Relationships and Social Support ($F_{2,105} = 1.60$; $p = .207$); however, among covariates, family income showed a significant relationship to Developing Interpersonal Relationships and Social Support ($F_{1,105} = 10.526$; $p < .002$; $\eta^2_p = 0.091$) with a small effect size. Age also showed a significant relationship to Developing Interpersonal Relationships and Social Support ($F_{1,105} = 6.291$; $p < .014$; $\eta^2_p = 0.057$) with a small effect size.

Sixth, the number of deployments showed no effect on Managing Psychological Tension and Strain ($F_{2,105} = .301$; $p = .74$); however, among covariates, family income showed a significant relationship to Managing Psychological Tension and Strain ($F_{1,105} = 11.165$; $p < .001$; $\eta^2_p = 0.096$) with a small effect size.

In summary, the number of deployments was unrelated to scores on the FCI scales. However, family income showed a small relationship to all five of these subscales. Age was also significantly related to two subscales.

SEPTI

First, no differences were found across number of deployments for total scores on the SEPTI ($F_{2,105} = 2.203$; $p = .116$); however, among covariates, race ($F_{1,105} = 4.278$; $p < .041$; $\eta^2_p = 0.039$) and marital status ($F_{1,105} = 5.544$; $p < .022$; $\eta^2_p = 0.049$) showed a significant relationship with parental self-efficacy with small effect sizes. Second, the number of deployments showed

no effect on Discipline ($F_{2,105} = 0.601$; $p = .550$) however, among covariates, race showed a significant relationship to Discipline ($F_{1,105} = 4.16$; $p < .044$; $\eta^2_p = 0.038$) with a small effect size. Third, number of deployments showed no effect on the SEPTI and Achievement ($F_{2,105} = 1.804$; $p = .17$) however, among covariates, race showed a significant relationship to Achievement ($F_{1,105} = 6.823$; $p < .010$; $\eta^2_p = 0.061$) with a small effect size. Marital Status also showed a significant relationship to Achievement ($F_{1,105} = 8.469$; $p < .004$; $\eta^2_p = 0.075$) with a small effect size. Fourth, the number of deployments showed no effect on the SEPTI and Recreation ($F_{2,105} = 2.601$; $p = .079$). Fifth, the number of deployments showed a significant relationship on Nurturance ($F_{2,105} = 3.188$; $p = .045$; $\eta^2_p = 0.057$) with a small effect size. Sixth, the number of deployments showed no effect on the SEPTI and Health ($F_{2,105} = 1.673$; $p = .193$). None of the covariates were significant predictors of the SEPTI Achievement, Nurturance, or Health subscale scores.

In summary, the number of deployments had a small relationship to Nurturance. Also, race was a significant predictor of the SEPTI total score and the Discipline and Achievement subscale scores. Marital status was a predictor of SEPTI total score and the Achievement subscale score.

PSI

The number of deployments showed no effect on Parenting Stress ($F_{2,105} = .224$; $p = .799$). Second, the number of deployments showed a significant relationship for Parental Distress (PD) ($F_{2,105} = 3.101$; $p = .049$; $\eta^2_p = 0.056$) with a small effect size. Third, the number of deployments showed no effect on the Parent-Child Dysfunctional Interaction (PCDI) ($F_{2,105} = 1.142$; $p = .323$). Fourth, the number of deployments showed no effect on the Difficult Child

scale (DC) ($F_{2,105} = 1.276$; $p = .283$). The covariates showed no significant relationship to PSI scores.

RAS

No differences were found across number of deployments in scores on the Relationship Assessment Scale ($F_{2,105} = .096$; $p = .908$). The covariates showed no significant relationship to RAS scores.

In summary, the number of deployments was generally unrelated to overall family coping, parenting, and relationship. Two exceptions were that the number of deployments had a relationship to nurturance of the SEPTI and the parenting distress subscale of PSI measure with small effect sizes. Among demographic factors, family income had a medium effect on family coping. Age had a small effect on military spouse's interpersonal relationships and support and belief in the value of servicemember's profession. Race and marital status had a small effect on parental self-efficacy in the domain of academic achievement. Race also had a small effect on parental self-efficacy in the discipline domain. The number of deployments had a negligible effect on parenting; however, age, family income, race, and marital status had small relationships to parenting distress.

Hypothesis 2

Hypothesis 2 proposed that military spouses who report positive emotional connections with their servicemember will report lower levels of parenting stress and higher levels of self-efficacy.

A stepwise regression analysis was performed to predict parenting stress and parental self-efficacy based upon emotional connection between military spouses and service members. The results suggest emotional connection between military spouses and service member did not

significantly influence deployment stress or parental self-efficacy. However, the effect of military spouse's interpersonal relationships and social support (FCI: Interpersonal Relationship and Support) significantly affected the relationship between military spouses and service members ($\beta = .455$, $t(113) = 5.431$, $p < .001$). Supporting or engaging in recreational activities with child/children (SEPTI Recreation) had a significant adverse effect on relationship satisfaction ($\beta = -.244$, $t(112) = -2.908$, $p < .004$). These results partially support Hypothesis 2.

Hypothesis 3

Military spouses who report deployment as more difficult will report higher levels of parental stress and lower levels of parental self-efficacy. Due to the use of multiple indicators, a canonical correlation was performed to test this hypothesis. Canonical correlation is a data simplification technique that assesses the correlation between a linear combination of predictor variables and a linear combination of criterion variables. This approach produces uncorrelated covariates; the number of covariates extracted is limited to the number of variables in the smaller set.

Two FCI subscales were used to predict a combination of FCI, SEPTI and PSI subscales. Deployment difficulty was measured by FCI Tension and Strain scores and FCI Believing in Value of Spouse's Profession and Maintaining an Optimistic Definition of the Situation scores. A linear combination of these scores was used to predict parental distress as measured by a linear combination of FCI Developing Interpersonal Relationships and Social Support; FCI Developing Self-Reliance and Self-Esteem; SEPTI Discipline; SEPTI Achievement; SEPTI Recreation; SEPTI Nurturance; SEPTI Health; PSI Parental Distress; PSI Parent-Child Dysfunctional Interaction; PSI Difficult Child. An alpha level of .05 was utilized. Cutoff correlations of .30 were used for interpretation of the canonical variates (Tabachnick & Fidell, 2000).

When conducting the analysis between the FCI Subscales and combination of FCI, SEPTI and PSI subscales, a statistically significant relationship was found between the FCI subscales and the FCI, SEPTI and PSI subscales. The first canonical variate yielded a canonical correlation of .941 with an eigenvalue of 7.792. It was highly significant, $F(20, 206) = 25.892$, $p < .001$. Standardized canonical correlation coefficients were -0.176 for FCI Managing Psychological Tension and Strain, and -0.873 for FCI Believing in the Value of the Spouse's Profession & Maintaining an Optimistic Definition of the Situation. Together these accounted for 17.5% of the variance on the dependent variable based on FCI, SEPTI, and PSI scales.

The second canonical variate yielded a canonical correlation of .537 with an eigenvalue of 0.404. It was also significant, $F(9, 104) = 4.672$, $p < .001$. Standardized canonical correlation coefficients were -1.344 for FCI Managing Psychological Tension and Strain, and 1.037 for FCI Believing in the Value of the Spouse's Profession and Maintaining an Optimistic Definition of the Situation. Together these accounted for 03.5% of the variance on the dependent variable based on FCI, SEPTI, and PSI scales; see Table 2.

The first canonical variate included significant predictor scores on two subscales of the FCI: Managing Psychological Tension and Strain (.765) and Believing in the Value of the Spouse’s Profession & Maintaining an Optimistic Definition of the Situation (.992). Significant criteria included two subscales on the FCI: Developing Interpersonal Relationship and Support (.941) and Developing Self-Reliance and Self-Esteem (.750); five SEPTI subscales Discipline (.121), Achievement (.408), Recreation (.370), Nurturance (.334) and Health (-.03); and all three PSI subscales, Parental Distress (.252), Parent-Child Dysfunctional Interaction (.028) and Difficult Child (.146). Results were significant and of medium size.

Military Spouses who endorsed higher levels of self-esteem and self-reliance, tended to report lower levels of stress and tension, greater psychological acceptance of the deployment, higher levels of parental self-efficacy and lower levels of parental stress. In addition, they reported they were more able to support their child's cognitive and socio-emotional adjustment (achievement, recreation, and nurturance).

Table 2

Canonical Correlation of Deployment Strain Indices as Predictors of Parental Stress and Parental Self-Efficacy

	Correlation	Eigenvalue	F	df	Sig	Variance
CANCOR-1						
Variate 1	.941	7.792	25.892	20, 206	< .001	.175
Variate 2	.537	0.404	4.672	9, 104	< .001	.035
CANCOR-2						
Variate 1	.797	1.742	9.640	18, 208	<.001	.089
Variate 2	.430	0.227	2.980	8, 105	<.005	.025

Note. $N = 115$.

Hypothesis 4

Military spouses who report higher levels of loneliness and work-family conflict will report higher levels of parental stress and lower levels of self-efficacy.

A canonical correlation analysis was performed between two FCI subscales combined as predictors with one FCI, SEPTI subscales and PSI subscales as dependent measures. Loneliness and work-family conflict was measured by FCI Developing Interpersonal Relationships and Social Support and FCI Developing Self-Reliance and Self-Esteem. A linear combination of these scores was used to predict parental distress as measured by a linear combination of FCI

Tension and Strain; SEPTI Discipline; SEPTI Achievement; SEPTI Recreation; SEPTI Nurturance; SEPTI Health; PSI Parental Distress; PSI Parent-Child Dysfunctional Interaction; PSI Difficult Child. An alpha level of .05 was utilized. Cutoff correlations of .30 were used for interpretation of the canonical variates (Tabachnick & Fidell, 2000).

When conducting the analysis between the two FCI Subscales and FCI, SEPTI and PSI subscales, a statistically significant relationship was found between FCI subscales and the FCI, SEPTI and PSI subscales. The first canonical variate yielded a canonical correlation of .797 with an eigenvalue of 1.742. It was highly significant, $F(18, 208) = 9.640$, $p < .001$. Standardized canonical correlation coefficients were -0.904 for FCI Developing Interpersonal Relationships and Social Support and -0.165 Developing Self-Reliance and Self-Esteem. Together these accounted for 8.9% of the variance on the dependent variable based on FCI, SEPTI, and PSI scales, a small effect; see Table 3.

The second canonical variate yielded a canonical correlation of .430 with an eigenvalue of 0.227. It was also significant, $F(8, 105) = 2.98$, $p < .005$. Standardized canonical correlation coefficients were -0.751 for FCI Developing Interpersonal Relationships and Social Support, 1.163 for FCI Developing Self-Reliance and Self-Esteem. Together these accounted for 11.4% of the variance on the dependent variable based on FCI, SEPTI, and PSI scales; see Table 2.

The first canonical variate included scores on two subscales of the FCI: Developing Interpersonal Relationships and Social Support (-0.99) and FCI Developing Self-Reliance and Self-Esteem (-0,639) and FCI Managing Psychological Tension and Strain (-.904); SEPTI subscales Discipline (.107), Achievement (.340), Recreation (.346), Nurturance (.291) and Health (-.158); and PSI subscales Parental Distress (.259), Parent-Child Dysfunctional Interaction (.065) and Difficult Child (-.106).

Table 3

Standardized Canonical Correlation Coefficients

	Set 1		Set 2	
	1	2	1	2
CANCOR-1-Hypothesis 3				
FCI Tension & Strain	-.176	-1.344		
FCI Optimism	-.973	1.037		
FCI Inter-Support			-.691	-0.437
FCI Rel Self Esteem			-.292	0.499
SEPTI-Discipline			-.015	-0.827
SEPTI-Achievement			.050	1.069
SEPTI-Recreation			.059	-0.178
SEPTI-Nurturance			.134	-0.637
SEPTI-Health			-.126	-0.010
PSI-PD			.046	-0.046
PSI-PCDI			.154	-0.674
PSI-Difficult Child			-.122	0.441
CANCOR-2-Hypothesis 4				
FCI Interpersonal & Support	-0.904	-0.751		
FCI Reliance & Self-Esteem	-0.165	1.163		
FCI Tension & Strain			-.843	-0.323
SEPTI-Discipline			.258	0.383
SEPTI-Achievement			-.290	-1.334
SEPTI-Recreation			.156	-0.005
SEPTI-Nurturance			.399	0.156
SEPTI-Health			-.318	0.411
PSI-PD			.167	0.485
PSI-PCDI			.355	0.542
PSI-Difficult Child			-.210	0.183

Military spouses who developed supportive relationships and engaged in behaviors of self-development were less likely to report stress and tension from the deployment and reported greater belief in their ability to support their child's cognitive and socio-emotional adjustment (achievement and recreation).

Chapter 4

Discussion

The present study was intended to address a gap in the literature examining the relationship between deployment stress and parental self-efficacy. Overall, the results of this study showed no evidence that number of deployments was generally related to military spouses' overall parenting stress and self-appraisal, family coping, and satisfaction in their relationship.

Patterns of this study's relationship between military spouse's perceived stress and number of deployments did not yield similar results to previous study (Caska & Renshaw, 2011; Van Winkle & Lipari, 2013), where military spouses reported increased stress levels after an initial deployment but decreased after approximately two deployments. However, different measures, settings, and circumstances were used for this study, which may explain the differences in results. This study revealed a relationship with the number of deployments and maternal nurturance as measured by SEPTI and a relationship between deployment and parental distress of the PSI subscale measure, with small effect sizes. These findings align with studies that show maternal stress can reduce emotional attunement to children and undermine behavioral synchronization between mother and child (Azhari et al., 2019; Sanner & Neece, 2018).

Family income had a medium effect on military spouses coping during deployment, family integrity, and belief in the value of service member's profession and maintaining an optimistic definition of the situation; age had a small effect on military spouses developing interpersonal relationships and social support. Because financial concern is likely a source of

stress for families in general, the hardship of deployment may potentially have a higher impact on military spouses who have to manage extra responsibilities on top of financial hardships. Past research has also found that maternal responses to financial stress have greater impact on children than paternal responses (Bøe et al., 2014; Bohanek et al., 2008; Kaiser et al., 2017; Rafferty et al., 2010), and that maternal responses of mothers in financially distressed homes was predictive of children's self-worth when compared to fathers' responses (Uçanok & Güre, 2014). In addition, McLoyd (1998) also found that financial stress increased parental responses of disciplinary actions. These findings suggest financial distress may be a barrier to accessing resources that could potentially enhance psychological well-being and thus influence belief in the mission of the military institution. Military spouses with better financial resources may be able to more readily carry out health seeking behaviors that foster adaptive coping in response to adverse experiences and lessen maladaptive responses to stressful parental scenarios. Furthermore, children may serve as protective factors during deployment because caring for their needs serves as impetus to seek out resources to mitigate stress (Adler-Baeder et al., 2005). It is important to note that a major financial burden may also be attributed to the fact that 24% of military spouses are unemployed, with military spouses with professional degrees having the hardest time finding employment (Dunham, 2020).

Considering the military's hierarchy, younger military spouses married to younger services members with less time in service generally receive lower rank pay grade, which may be a risk factor for initial adaptation to military life when compared to older and more experienced military spouses. Previous studies have found that younger military spouses married or living with younger servicemembers with less time in service were more likely to cope through avoidant and emotion focused behaviors (Padden et al., 2011) and rated deployment as more

stressful (Bell, 1991; Rosen et al., 1993). Avoidant behaviors may heighten stress and limit opportunities to engage in cultivating interpersonal relationships, thus they may thwart use of available resources meant to assuage stress.

Although the effect was small, race and marital status had an effect on parental self-efficacy in the domain of academic achievement. Race also had a small effect on parental self-efficacy in the discipline domain. Given the racial diversity of the military, a focused study on addressing potential disparity between race and academic achievement is needed to gain more insight given the measures used in this study were not aimed for this specific purpose. When compared to the general population, 70% of the sample identified as white, which is 6% lower than the census estimate of 2019 (76%), and 20% identified as Black, which is 7% higher in comparison to the census estimate of 13% in 2019.

General population studies have shown a positive relationship with parents' emotional support and students' academic performance (Li et al., 2020), and that parental support may serve as a facilitator to students' academic achievement "and a protective factor against the potential negative effects of external barriers, challenges, or stressors" in racially and ethnically diverse families (Barker & Roberts, 2015; Ong et al., 2006). This suggests the overall value of parental emotional support to children and academic challenges—particularly in racial minorities who may often experience racial inequities across multiple systems. Considering the multiple deployments military families encounter, there could be added pressure on military spouses to support the academic needs of their children along with the numerous responsibilities military spouses already experience once their spouse is deployed. According to the 2017-2018 public high school graduation rates, the Adjusted Cohort Graduation Rate (ACGR) for American Indian/Alaska Native was 74 %, Black was 79%, and Hispanic was 81%, which were all below

the U.S. average of 85.% The ACGR for White was 89% while Asian/Pacific Islander accounted for a 92% graduation rate (Hussar, et al., 2020). Considering overall graduation rate of minorities and the fact that military children can move up to nine different times before graduating high school (Nowicki, 2021), academic achievement is potentially a significant stressor for military spouses with children.

Despite the fact extensive research has been done on the influence of marital status on children's academic achievement, studies have yielded different conclusions. Previous research has shown that the effect size of marital status—particularly single-parent upbringing—on academic achievement was small (Mulkey et al., 1992). Other studies have found a relationship between single parenting and academic performance, with children from single parent homes scoring lower on cognitive and standardized assessments, having lower GPAs, and being less likely to graduate or pursue higher education in comparison to children living in two parent homes (Barajas, 2011). While we only found a small effect between marital status and academic achievement during deployment, it is evident military spouses expressed concern in their ability to support their children's academic needs parallel to single parents. In our study, 85% of the participants disclosed being married, while the remaining 15% disclosed being divorced, separated, never married, or in a union. It is unclear how many of the 15% of the respondents are single parenting even when the servicemember is not deployed and continuously feeling strained by everyday stressors. In addition, 42% of respondents categorized their servicemember as active duty while 32% were reserve. While our study did not capture the location of duty stations, it would be interesting to learn how academic achievement differs between children whose parents have an active-duty status and attend Department of Defense Education Activity Schools (DODEA), versus those who are in the community at large and attend local school districts. In

addition, the disparity in marital status in our sample size could potentially have contributed to the small effect sizes; a larger sample representative of the general population may yield different findings.

A correlation between relationship satisfaction, parental self-efficacy and stress yielded no incremental connection between the measures used. However, sub-measures predicted a significant relationship between relationship satisfaction and recreation (SEPTI), and relationship satisfaction and interpersonal relationships and support (FCI). Military spouses who made efforts to develop meaningful and supportive relationships outside of the family unit were more likely to report relationship satisfaction with military servicemember. In contrast, military spouses who reported high levels of engagement in their children's recreation endeavors yielded lower levels of relationship satisfaction. While our study is unable to answer whether this is cause or effect, the sub-measures indicate that parents who prioritized their children's recreational activities likely experienced strained relationships with their spouses. Conversely, military spouses who engaged in satisfying relationships and sought social support with peers who were able to understand them during difficult times, tended to report greater relationship satisfaction.

In the context of this unique finding, it appears that engaging in support for the recreational and social demands of school age children is an additional stressful responsibility in the absence of the deployed spouse. Military spouses are required to manage the challenges of housework, support with schoolwork, financial and health decisions, and contribute a significant amount of emotional support (Erickson, 2005; Pedersen, 2017) to fulfill their parental role. The investment of emotional work into the family unit may be a source of potential burnout affecting marital satisfaction, more so for mothers than fathers (Pedersen, 2017). Parents who prioritize parental identity above other identities seek greater need for validation and affirmation (Allen &

Hawkins, 1999) from the deployed spouse who may not be able to provide it. The emotional absence of the deployed spouse may further strain the relationship. Kuo and Johnson (2021) found that women with strong parental identities who expressed marital satisfaction experienced low parenting distress, concluding the value of marriage satisfaction as a protective factor in the role of parenting. In our data, military spouses who overidentified in caring for the recreational needs of their children expressed lower relationship satisfaction. Conversely, military spouses who developed meaningful interpersonal relationships and sought social support expressed relationship satisfaction.

Military Spouses who endorsed high levels of self-esteem and self-reliance, engaged in behaviors that helped in reduction of stress and tension from the separation, and disclosed psychological acceptance of the deployment, tended to report higher levels of parental self-efficacy and lower levels of parental stress. In addition, reduction of stress and acceptance of deployment appeared to help military spouses support their child's cognitive and socio-emotional adjustment (achievement, recreation, and nurturance). These results support research that finds a negative association between stress and parental self-efficacy (Dunning & Giallo, 2012; Jones & Prinz, 2005; Khoury-Kassabri et al., 2014; Scheel & Rieckmann, 1998). Arguably, psychological flexibility of acceptance to distressing events and experiences may stimulate behaviors that promote well-being and may help decrease parental stress while increasing one's ability to effectively influence's children's social-emotional adjustment. Fonseca et al. (2020) found that higher levels of parenting stress were associated with lower levels of psychological flexibility within parenting and thus negatively affected parent-child interactions. Negative child interactions in response to high levels of stress may trigger negative perceptions and thoughts of self-doubt that influence mothers to engage in avoidant behaviors to suppress uncomfortable

thoughts. On the other hand, mothers more accepting of deployment and stressful experiences, are more likely to engage in meaning seeking activities ("Learning new skills," "Developing myself as a person," "Becoming more independent," "Showing that I am strong") that contribute to reduced stress and help increase openness to negative private experiences of parental experiences that result in higher self-appraisal as a parent.

This study hypothesized that military spouses who reported higher levels of loneliness and work-family conflict would report higher levels of parental stress and lower levels of self-efficacy. Our study found that military spouses who developed supportive relationships and engaged in behaviors of self-development were less likely to report stress and tension from the deployment and reported belief in ability to support their child's cognitive and socio-emotional adjustment (achievement and recreation). In fact, spousal optimism had a greater effect on parental self-efficacy than the adverse effects of tension and strain. Our data suggests optimism is a strong mediator between stress and self-appraisal related to parenting. These findings support findings of other studies where the relationship between optimism and stress are convergent (Brissette et al., 2002). Optimism was also associated with increased positive mood and higher count of helper T cells, which play an essential role in the immune system (Segerstrom et al., 1998). It can be concluded that individuals who possess high levels of optimism are more likely to interpret situations or events in a way where they believe they can influence the outcomes and are able to cope with distressing events with greater ease than those who are less optimistic (Loh et al., 2017).

Limitations and Clinical Implications

There are limitations to this study that are essential to consider when analyzing these results. The use of self-report measures always carries the risk of imprecise reporting that may be

attributed to social desirability, biases, and retroactively recalling and rating potentially difficult experiences. It is also hard to discern a causal relationship between deployment stress and parental self-efficacy. More importantly, this study was conducted during the COVID-19 pandemic, and it is unclear how an unprecedented health crisis impacted the way respondents answered questions. Because many mothers were hit severely hard by the pandemic, further research is needed on whether spousal job security and health benefits during a time of uncertainty served as a mediator for perceived stress and parental self-efficacy in military spouses. Furthermore, there were limitations in the measures used for parental self-efficacy. The SEPTI was standardized for children between the ages of 5 and 12 and our study was used for military spouses with children between the age ranges of 5 and 18 in their household. Therefore, the measure may not have been sensitive to the various developmental stages of that may influence perceived stress or parental self-efficacy past the age of 12. At the time of this publishing, parental self-efficacy measures have been normed for different age stages. Finally, omitted from this study were military spouses who had children under the age of 5 in the household. Inclusion of all development stages of childhood may have yielded different results.

Summary and Recommendations

Based on our findings, interventions and programs directed at promoting military spouse's well-being may be important to the family unit. Results indicate that some military spouses experience a variety of stresses and difficulties with parenting in the absence of the deployed spouse. Overall, data did not support a relationship between deployment stress and parental self-efficacy. However, the number of deployments showed a significant relationship on parental self-efficacy in relationship to providing nurturance and empathic responses to children. Number of deployments also yielded a significant relationship in how military spouses reported

feeling competent, restricted, conflicted, supported, and/or depressed in their role as a parent. Supporting or engaging in recreational activities with child/children had a significant adverse relationship to spousal satisfaction; military spouse's interpersonal relationships and social support were positively correlated with the relationship between military spouses and servicemembers.

Self-esteem, self-reliance, seeking social support and psychological acceptance of deployment event helped in reduction of stress which affected parental self-efficacy and lowered levels of parental stress. Developing supportive relationships and engaging in behaviors of self-development also helped in reduction of stress and tension from the deployment and helped increase parental belief in ability to support cognitive and socio-emotional adjustment of their child/children. Among covariates, family income showed a significant relationship in the way military spouses maintain family integrity, develop self-reliance and self-esteem, develop interpersonal relationships and social support, believe in the value of the military's mission, and manage psychological tension and strain during servicemember's deployment. Race and marital status had an effect on parental self-efficacy in the domain of academic achievement. Race also had a small effect on parental self-efficacy in the discipline domain.

To mitigate the financial burden many military spouses experience during deployment cycle, expanding employment opportunities for military spouses that extend beyond federal agencies or military bases and address interview biases that impede military spouses from being hired and or are excluded from veteran preference programs (Dunham, 2020) may help. Furthermore, military spouses who have to move every two to three years and are engaged in careers with professional licenses, are likely to be overburdened by differing state licensure policies of their profession. Enacting nationwide policies that grant temporary licensure or

exempt licensure under specific military clauses may relieve financial burdens while supporting the mission of the military unit. Likewise, the multiple moves and the parental pressure military spouses face to support their children's academic achievement may be eased with a federally recognized high school graduation diploma for military children. At the time of this study, an Interstate Compact on Educational Opportunity for Military Children that aims to remove educational barriers military children encounter due to multiple moves was drafted in 2016. Although all 50 states participate in the interstate compact, it is unclear how many families are familiar with the interstate compact and the process in which school districts manage and honor the interstate compact. A graduation diploma with a military distinction would help keep track of the number of military children who successfully graduate high school while supporting the mission of the United States. Likewise, childcare resources such as childcare grants to working military spouses or military spouses who want to pursue an education may decrease financial burdens that could potentially alleviate parental pressure and increase emotional care and empathy for their children while balancing the demands deployment presents to the family unit.

Because our data identified spousal optimism had a greater effect on parental self-efficacy than the adverse effects of tension and strain, promoting opportunities that focus on optimism and well-being of the spouse can facilitate effective engagement with adverse experiences military spouses encounter during the deployment cycle. These opportunities can include but are not limited to, introduction of Acceptance Commitment Therapy pre deployment and post deployment as a natural step to the deployment cycle. The results of our study found that military spouses that disclosed psychological acceptance of deployment endorsed high levels of self-esteem and self-reliance and engaged in behaviors that helped in reduction of stress and tension, tended to report higher levels of parental self-efficacy and lower levels of parental stress.

Finally, the military may consider limiting the number of deployments per enlistment cycle servicemembers are allowed to serve. At the time of this study there are no policies by the department of defense limiting the number of deployments per enlistment military members can partake in. In addition, drafting and enforcing guidelines and standard operating procedures that allow at least a six month notice before the next duty station may help with long term retention of military families.

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Appendix A

Curriculum Vitae

Luisa Miller, M.S., M.A.

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EDUCATION

- George Fox University — 8/17 – Present
  Graduate Department of Clinical Psychology
  Expected Graduation Date: Fall 2022
  Dissertation: Relationship Between Deployment Stress and Parental Self-Efficacy Among Military Spouses
  Committee: Rodger Bufford, PhD, (Chair), Kenneth Logan, PsyD, & Amber Nelson, PsyD
- George Fox University, Newberg, OR — 8/17 - 5/19
  M.A. Clinical Psychology
- George Fox University, Newberg, OR — 8/06 - 5/09
  M.S. School Psychology
- Park University, Distance Learning, Camp Pendleton, CA — 8/00 - 8/03
  B.S. Social Psychology
- Miami Dade College, Miami, FL — 8/96 - 8/98
  A.A. Degree in Education

INTERNSHIP EXPERIENCE

James H. Quillen Veterans Affairs Medical Center — **7/01/2021 - Present**
Pre-Doctoral Psychologist Intern — **Mountain Home, TN**
Training Director: Myra Elder, Ph.D.

<u>Major Rotation: Post-Traumatic Stress Clinic</u> — **7/2021 – 10/2021**

- Conduct PTSD intakes using the CAPS-5, PCL-5, and PHQ-9 as well as other assessment measures.
- Write intake reports for the evaluation and treatment of Post-traumatic Stress Disorder.
- Provide evidence-based treatments (CPT and PE) with Veterans who meet diagnosis of PTSD.

- Participate in psychotherapy group facilitation for PTSD 101, a psychoeducational course to help Veterans understand PTSD symptoms and how it impacts their life and relationships with significant others.
- Participate in weekly PTSP interdisciplinary (psychiatrist, nurse practitioner, social worker, psychologists) staff meetings.
- Provide crisis risk assessment and safety planning to Veterans who present to the clinic with emergent needs.
- Coordinate care with Veteran' health care teams.
- Provide Tele-Health Services in response to COVID-19.
- Participate in weekly individual and group supervision.
- *Supervisor*: Andrew Presnell, PhD

Major Rotation: Oncology/Palliative Care/Hospice **11/2021 – 3/2022**

- Consult with patients facing serious and/or life-threatening illness, their families, and medical center staff.
- Conduct comprehensive interdisciplinary assessment of patient decisional capacity.
- Participate in pre-surgical psychological evaluations.
- Provide complicated grief and bereavement support to veterans and families.
- Explore spiritual values and engage in meaning-centered therapy with veterans and families.
- Participate in interdisciplinary team patient care and biomedical ethics consultation. Conduct mental health assessments, provide diagnosis, and facilitate development of evidence-based interventions.
- Maintain strict confidential client files and adhere to clinical documentation requirements.
- Chart progress in Computerized Patient Record System (CPRS) in a timely manner.
- *Supervisor:* Chris Adler, PhD

Major Rotation: Psychosocial Residential Rehabilitation Treatment Program
Anticipated: 3/2022 – 6/2022

- Provide individual therapy to veterans diagnosed with severe mental illness.
- Co-facilitate the anger management group, PTSD survival guide group, and life with purpose group.
- Engage in interdisciplinary treatment team meetings.
- Explore spiritual values and engage in meaning-centered therapy with veterans and families.
- *Supervisor:* Dr. Sam Nekvasil, PsyD

Minor Rotation: Whole Health: Integrative Mental Health **7/2021 – 12/2021**

- Work in an Interdisciplinary team that includes Psychologists, Acupuncturist, Chiropractors, Physical Therapists & Physical Therapy Assistants, Social Worker, Chaplain, Functional Medicine Registered Dietitian, and Health Coaches.
- Participate in integrative mental health approaches that included: Mindfulness, HeartMath biofeedback, and CBT-I.
- Developed and implemented pilot Mindful Self-Compassion group classes to veterans with chronic pain.
- *Supervisor:* Julie Culligan, PhD

Minor Rotation: Residential Substance Use Disorders Program
***Anticipated:* 1/2022 – 6/2022**

- Provide individual therapy to veterans diagnosed with various substance use disorders
- Cofacilitate coping skills group and meaning making group
- Engage in interdisciplinary treatment team meetings.
- Supervisor: Dr. Jerome Cook, PhD

Long Term Therapy: Outpatient Mental Health Clinic **7/2021 – 6/2022**

- Facilitate individual counseling sessions for veterans with mental health and co-occurring disorders in an outpatient mental health setting.
- Conduct mental health assessments, provide diagnosis, and facilitate development of evidence-based interventions.
- Manage ongoing case of Evidence Based Practices to address PTSD which includes Cognitive Processing Therapy, Prolonged Exposure and Cognitive Behavioral Therapy for Insomnia.
- Maintain strict confidential client files and adhere to clinical documentation requirements.
- Schedule and manage client appointments and chart progress in Computerized Patient Record System (CPRS) in a timely manner.
- *Supervisor:* Mandi Deitz, PhD

GRADUATE STUDENT EXPERIENCE

Practicum II & Pre-Intern: Behavioral Health Provider **7/19 – 5/2021**
Providence Medical Group North Portland **Portland, OR**

- Work within a fully integrated, multidisciplinary model in a primary care clinic.
- Provide brief assessments, intervention and onsite consultation to medical doctors and physicians regarding psychosocial concerns and health related behaviors.
- Participate in warm hand offs and assess and deliver interventions in real time.
- Provide clinical interventions according to empirically supported treatment modalities.

- Participate in case staffing and team meetings as requested.
- Provide crisis risk assessment and safety planning to patients who present to the clinic with emergent needs.
- Coordinate care with patients' health care teams
- Provide Tele-Health Services in response to COVID-19
- Participate in weekly individual and group supervision
- Supervisor: Nate Engle, PsyD

Practicum II: Linfield College **9/19 – 3/20**
McMinville, OR

- Administered cognitive, achievement, and behavioral assessments to college level students; interpreted, summarized, and reported findings to determine special education eligibility in accordance with state and federal guidelines.
- Helped implement academic, behavior, and social goals on Individual Education Plans (IEP).
- Supervisor: Joel Gregor, PsyD

Practicum I: Community Mental Health Provider **10/18 – 6/19**
George Fox University Behavioral Health Clinic **Newberg, OR**

- Facilitated individual and couples counseling sessions for clients with mental health and co-occurring disorders in a community mental health setting.
- Conducted mental health assessments, provided diagnosis, and facilitated development of evidence-based interventions.
- Participated in collaborative clinical teams to consult and provide best care for clients.
- Maintained strict confidential client files and adhered to clinical documentation requirements.
- Scheduled and managed client appointments in conjunction with management of clinic's billing fees.
- Supervisor: Joel Gregor, PsyD

Pre-practicum, Student Therapist Trainee **1/18 - 4/18**
George Fox University Graduate School of Clinical Psychology **Newberg, OR**

- Provided 10 therapy sessions for two undergraduate students using Person-Centered therapy
- Completed treatment plan, including diagnosis, as well as weekly session documentation
- Received weekly supervision
- Supervisor: Glena Andrews, PhD, MSCP

PROFESSIONAL EXPERIENCE

School Psychologist **8/15 – 6/17**
Intermountain Education Service District **Pendleton, OR**

- Administered cognitive, achievement, and behavioral assessments to students; interpreted, summarized, and reported findings to determine special education eligibility in accordance with state and federal guidelines.
- Met evaluation deadlines according to district, state, and federal guidelines.
- Developed Functional Behavior Assessments (FBA) and implemented Behavior Intervention Plans (BIP) for students with behavioral, emotional, and academic difficulties.
- Established and maintained amicable and professional relationships with parents, co-workers, and students in multiple school districts from K-12.
- Helped implement academic, behavior, and social goals on Individual Education Plans (IEP).
- Participated with the Special Education Team to develop interventions for students' behavior and academic concerns prior to considering a Special Education evaluation.
- Continually strived to improve professional knowledge and skills by attending workshops, joining school psychologist organizations, and completing graduate level continuing education courses.

School Psychologist **8/10 – 6/13**
Forest Grove School District **Forest Grove, OR**

- Administered bilingual cognitive assessments and behavioral assessments to culturally diverse students; interpreted, summarized, and reported findings to determine special education eligibility.
- Conducted weekly group counseling meetings to address social, emotional, and behavioral concerns for middle-school students.
- Taught Psycho-Educational classes once a week to students identified as "Emotionally Disturbed" that addressed peer pressure, problem solving, interpersonal relationships, and social-emotional conflict.
- Met evaluation deadlines according to district, state, and federal guidelines.
- Worked as a part of a team to develop Functional Behavior Assessments (FBA) and implement Behavior Intervention Plans (BIP).
- Consulted and collaborated with parents, school personnel, and outside agencies regarding students' behavioral, educational, and mental health concerns.
- Established and maintained amicable and professional relationships with parents, co-workers, and students while addressing student needs and parent and teacher concerns at the elementary and junior high level.
- Helped implement appropriate academic, behavior, and social goals on Individual Education Plans (IEP).
- Participated with the Special Education Team to develop interventions for student's behavior and academic concerns prior to considering a Special Education evaluation.

- Continually strived to improve professional knowledge and skills by attending workshops, joining school psychologist organizations.
- Provided training to school personnel for professional development opportunities.
- Served as a Spanish Interpreter for native Spanish speakers in the School Community

School Psychologist **8/09 – 6/10**
Lake Oswego School District **Lake Oswego, OR**

- Administered appropriate cognitive and behavioral assessments to students; interpret, summarize, and report findings to determine special education eligibility.
- Met evaluation deadlines according to district, state, and federal guidelines.
- Worked as a part of a team to develop Functional Behavior Assessments (FBA) and implement Behavior Intervention Plans (BIP).
- Consulted and collaborated with parents, school personnel, and outside agencies regarding students' behavioral, educational, and mental health concerns.
- Established and maintained amicable and professional relationships with parents, co-workers and students while addressing student needs and parent and teacher concerns at the elementary and junior high level.
- Helped implement appropriate academic, behavior, and social goals on Individual Education Plans (IEP).
- Participated with Intervention Team (I-Team) to develop interventions for student's behavior and academic concerns prior to considering a Special Education evaluation.

School Psychologist Intern **8/08 – 6/09**
Portland Public School District **Portland, OR**

- Administered appropriate cognitive, achievement, and behavioral assessments to students; interpreted, summarized, and reported findings in order to determine special education eligibility.
- Met evaluation deadlines according to district, state, and federal guidelines.
- Worked as a part of a team to write Functional Behavior Assessments (FBA) and create Behavior Intervention Plans (BIP) to help replace inappropriate behaviors with desired behaviors.
- Consulted and collaborated with parents, school personnel, and outside agencies regarding students' behavioral, educational, and mental health concerns.
- Established and maintained amicable and professional relationships with parents, co-workers and students while addressing student needs and parent and teacher concerns.
- Helped implement appropriate academic, behavior, and social goals on Individual Education Plans (IEP).
- Provided group and individual counseling for students who have social-emotional and social-behavioral goals on their Individual Education Plan (IEP) as part of their special education related services.
- Participated with Building Screening Committee (BSC) and developed behavioral and academic interventions.

- Served as an interpreter in the school community for Spanish-speaking families.

MILITARY EXPERIENCE

United States Marine Corps - Logistics Clerk **9/98-9/02**

- Analyzed trends of vehicles, radios, and weapons under repair to interpret personnel and equipment needs for military units.
- Created comprehensive computer reports to generate statistical readiness data.
- Prepared desktop procedures for personnel turnover to implement accurate work practice.
- Maintained a library of publication manuals for proper military guidance and procedures.

SUPERVISION EXPERIENCE

Fourth Year Student Mentor **8/2020 – 4/2021**
George Fox University Graduate School of Clinical Psychology **Newberg, OR**

- Mentorship of 2 Practicum-I students
- Oversee clinical work, provide mentorship, guide professional development

Second Year Student Mentor **8/18 – 7/19**
George Fox University Graduate School of Clinical Psychology **Newberg, OR**

- Mentorship of a Pre-Practicum student during their transition period to graduate school, as well as professional development and support with initiating clinical training.

ACADEMIC LEADERSHIP & VOLUNTEER WORK

Fall, 2020 **Teaching Assistant**
PSYD 552 Cognitive Behavioral Psychotherapy
Graduate School of Clinical Psychology
George Fox University, Newberg, OR
Professor: Joel Gregor, PsyD

Spring, 2020 **Virtual Guest Speaker**
PSYD 541 Multicultural Psychotherapy
Graduate School of Clinical Psychology
George Fox University, Newberg, OR
Provided 2nd year students with brief historic and cultural understanding of Latin American communities residing within the United States.

Fall, 2017 – Fall, 2019 **Serve Day Volunteer**
George Fox University
Juliette's House

CLINICAL FOUNDATIONS **8/17 – 5/18**
George Fox University Graduate School of Clinical Psychology Newberg, OR
Participated in vertical clinical team that consisted of 4 students and a master's level student supervisor
Presented case conceptualizations and provided peer-feedback
Identified relevant legal and ethical issues of practice, discussed implementation of psychotherapy relevant to identified patient goals, outlined trainee roles and scope. Reviewed necessary elements of case management and record keeping
Provided five sessions of simulated psychotherapy with peer cohort members to facilitate, understand, and develop Rogerian psychotherapy skills

CLINICAL TEAM **8/17-Present**
George Fox University Graduate School of Clinical Psychology Newberg, OR
Actively participate in yearly teams of first, second, third-, and fourth-year graduate students
Present and discuss clinical case conceptualizations, relevant interventions based on theoretical orientations, and ethical and legal concerns to a team of approximately 6 students and a licensed clinical psychologist
Actively receive, discuss, and provide consultation and feedback in order to improve skill sets in clinical work and assessment
Work collaboratively as a group to further clinical skills, professional development, and growth.
Group Supervisor:
Fall, 2017 – Spring, 2018: Joel Gregor, PsyD
Fall, 2018 – Spring, 2019: Marie-Christine Goodworth, PhD
Fall, 2019 – Spring, 2020: Kenneth Logan, PsyD
Fall, 2020 – Present: Mary Peterson, PhD, ABPP

PROFESSIONAL PRESENTATIONS/TRAININGS ATTENDED

Lee, J. (2020, October 14). *Pediatric Cancer and Epilepsy.* Grand Rounds presentation at George Fox University, Newberg, OR.

Forster, C. (2019, October 16). *Intercultural Prerequisites for Effective Diversity Work.* Grand Rounds presentation at George Fox University, Newberg, OR

Marlow, D. (2019, March 20). *Foundations of Relationship Therapy – The Gottman Model*. Grand Rounds presentation at George Fox University, Newberg, OR.

Safi, D., & Millkey, A. (2019, February 13). *Opportunities in Forensic Psychology*. Colloquium presentation at George Fox University, Newberg, OR.

Worthington, E. (2019, September 25) *Promoting forgiveness*. Colloquium presentation at George Fox University, Newberg, OR.

Pengally, S. (2018, October 10). *Old pain in new brains.* Grand Rounds presentation at George Fox University, Newberg, OR.

McMinn, M., & McMinn, L. (2018, September 26). *Spiritual formation and the life of a psychologist: Looking closer at soul-care*. Grand Rounds presentation at George Fox University, Newberg, OR.

Taloyo, C. (2018, February 14). *The history and application of interpersonal psychotherapy*. Grand Rounds presentation at George Fox University, Newberg, OR.

Sordahl, J. (2017, November 8). *Telehealth.* Colloquium presentation at George Fox University, Newberg, OR.

Gil-Kashiwabara, E. (2017, October 11). *Using community based participatory research to promote mental health in American Indian/Alaska Native children, youth, and families.* Grand Rounds presentation at George Fox University, Newberg, OR.

LANGUAGES

- Spanish – Native Language: Speak, Read, Write Fluently

MEMBERSHIP

- American Psychological Association