

**Maternal deployment and maternal resilience: Effects on parenting stress and resilience
building strategies for children**

by

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DEDICATION

I dedicate this to my fiancé, Richard, and daughter, Sadie. With their love and support I have succeeded further than I ever expected. To my major professor, Kere Hughes-Belding, and my committee members, Diana Baltimore and Tera Jordan, I owe you all a BIG thank you. I would not have been able to put together such an important piece of research without your guidance.

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ABSTRACT

Since the beginning of Operation Iraqi Freedom in 2003, more than 170,000 mothers have experienced a military deployment. A mother's deployment can have significant effects on a child's mental, physical, and socio-emotional well-being (Ginsburg, 2011), so many military children are at increased risk for poor developmental outcomes. Family-resilience literature suggests, however, that with appropriate support, children can cope with such adverse experiences and end the deployment cycle with a positive outcome. The aim of this paper is to further understand the development of resilience in military children whose mothers have deployed, with emphasis on the resilience-promoting behaviors of such mothers with respect to their children. The overall results of the study indicate that a causal relationship may be established between maternal stress levels and internal stress levels. The study suggests that lower levels of maternal stress after deployment are related to higher intrinsic levels of inner resilience.

CHAPTER I

INTRODUCTION TO RISKS OF MILITARY LIFE

Negative Impact of Deployment on Military Children

Military children have long been considered to be an at-risk population. First and foremost, this is mainly due to the extended periods of time that military children are separated from their primary caregivers. Separations include actual deployments and annual training, along with other intervals of time related to military duties (Chawla & Solinas-Saunders, 2011). Deployments can be either stateside (within the U.S.), outside of the United States, or to a combat zone (usually outside the United States). The deployment cycle is often described as encompassing three main stages: predeployment (3-6 months before the actual deployment), deployment (lasting anywhere from 1-15 months), and postdeployment (Johnson & Ling, 2012). For the purposes of this paper, the focus will be on postdeployment, also referred to as the “reintegration” or “reunion” part of deployment; this may last for days or even months (Johnson & Ling, 2012).

During the past decade, many military mothers have decided to join the battles represented by Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). More than half of the 355,904 women in the military are mothers (Military OneSource, 2012). Many such mothers, often the primary caregivers in families, have chosen to serve their countries as well as their families, and doing so has resulted in roughly two million children experiencing lengthy and frequent separations from their primary caregivers (Glynn, 2013). This represents a far greater dislocation than mother-child relationships have

experienced in past wartimes, and with this separation has come risks with respect to the development of military children.

Vulnerability associated with military families comes in many forms; isolation, neglect, abuse, and reduced finances are just a few of the documented potential impacts on military children. Military families tend to relocate every 2-4 years (Johnson & Ling, 2012), and isolation resulting from frequent moving can produce detrimental socio-emotional impact on children. Relocation can impose a period of social withdrawal or isolation for military children because they must attend new schools and make new friends after each move. Depression, acting out, impulsivity, and irritability are also listed as possible outcomes resulting from the vulnerability that accompanies being a military child (Huebner, Mancini, Wilcox, Grass, & Grass, 2007). However, not all military children experience such negative outcomes; instead, resilience can be fostered along with the stress associated with maternal deployment.

Resilience

Because of the focus on the negative effects of deployment on military families, there are few researchers who have taken on the topic of resilience as a major component of study. The reason for this lack of study has been attributed to researchers' fears of re-traumatizing soldiers and their families following months of trauma they may already have experienced (Masten & Narayan, 2012). Situations in which primary caregivers are asked to leave their children behind to fight a battle in an underdeveloped land imbued with terrorist mentality may place a heavy burden on the parent-child relationship, particularly when dealing with mother-child relationships.

Fortunately, military families have also been found to be resilient. Resilience can be defined as a person's aptitude for adapting, recovering, and functioning during times of adversity (Smith, et al., 2008). A person's ability to utilize effective coping strategies during stressful life events promotes resilience. Resilience can be studied as both a response to adversity and as a protective factor. For children, resilience is a learned behavior, meaning that environment, resources, and relationships may combine to foster resilience in children's lives (Easterbrooks, Ginsburg, & Lerner, 2013).

The purpose of this study is to explore the relevance of resilience-building strategies that military mothers are encouraged to use with their young children after deployment. Based on theoretical perspectives, parenting stress and a mother's own resilience are included among predictors of her endorsement of these strategies. From this strength-based perspective, military deployment can be viewed as an opportunity for growth and strengthening of military children, rather than a possible detriment to their development.

CHAPTER II

LITERATURE REVIEW

Significance

Of the 3.6 million service members currently serving today, women represent a total of 14.6% (202,876) of active-duty forces, 18.2% (154,346) of reservists, and 81.8% of National Guardsmen (Military OneSource, 2012). Roughly half of these women (43.9% Active Duty and 43% Reservists/Guardsmen) are parents (Military OneSource, 2012). There is thus a total of two million dependents directly affected by military life and related factors associated with maternal deployment (Glynn, 2013). By definition, a military dependent is a child aged 22 years or younger who relies on the income, living privileges, or other benefits of men and women subject to Active Duty, Reserve, or National Guard orders from any of the five branches of the military (Clever & Segal, 2013).

Military families are both unique and diverse (Clever & Segal, 2013). They are unique in that they experience long periods of separation from family members, frequent moves (on average every 2-4 years), and unpredictable periods of risk and ambiguity. Military mothers are themselves unique in their ability to function as both caretakers of their children and caretakers of the country they have sworn to protect. These women are also diverse in age, educational background, and family structure, yet they come together as (comrades) to fight for freedom. Military children openly share their mothers with a country full of people; these mothers must give up days/weeks/months of quality time in service to their country while experiencing a great deal of uncertainty. There are diverse types and amounts of community support available to military children, including alternate caregivers

who take care of them during times of separation and a variety of other available informal or formal support systems (Clever & Segal, 2013). Such support is very important because of the high level of parenting stress experienced by many military parents (Clever & Segal, 2013).

Stress

There is ample evidence associating maternal military deployment with negative outcomes for children. Many researchers have taken the time to document the angst, stress, and withdrawal characteristics usually attributed to deployment of military mothers. Stress experienced by one family member can produce lasting effects on other family members (Lester, et al., 2013). Deployment stress can result from a number of sources - internally and individually, ranging from other family members, from society, and from the media (Ginsburg, 2011). These sources are especially relevant with respect to the impact they can have on military children. Familial stress often stems from physical distance between military families and their extended family members. Societal and media sources also often have a tendency to focus on the risk, like terrorism and even death, associated with military missions.

There are two primary forms of stress: “direct” and “indirect” (Lester, et al., 2013). “Direct stress” is the internalized form of stress, while “indirect stress” stems from external influences such as family, community, and society (Lester, et al., 2013). Both types have been shown to be highly prevalent in the lives of military families, especially with respect to the mother-child relationship. Multiple deployments over a short times, into ambiguous settings, have characterized the previous decade of U. S. military conflict (Lester, et al., 2012). Sending military mothers into these areas has both directly and indirectly impacted

children. The mere idea of having a mother in harm's way may cause a child to fear her death and permanent separation; this may lead to internalized direct stress (Ternus, 2010). Issues such as Post-traumatic Stress Disorder (PTSD) and other emotional, physical, and cognitive problems that mothers may experience upon their return from deployment can cause both direct and indirect stress on their children (Masten & Narayan, 2012). In addition, media attention and other community-based negative interactions associated with military deployment may further increase the indirect stress on military children (Ternus, 2010). Research has identified a "dose" of adversity as having impact on the level of resilience we find in children (Masten & Narayan, 2012). The word "dose", in this context, refers to the severity and chronicity of stress experienced by children, with higher dosage being related to more negative outcomes and less resilience. For military children, both the severity and the chronicity of stress from separation, ambiguous loss, and long-term maternal physical and mental health problems can produce enduring effects that may last years after a deployment has ended (Ternus, 2009). There may also be a "sleeper effect" whereby families do not notice effects of stress from deployment until a year or two after reintegration with their loved one (Ternus, 2009).

In an effort to refocus the deployment experience into one that can be more tolerable, the military has adopted a resilience perspective. The very qualities that make for a good soldier have been reinforced to promote strong postdeployment parent-child relationships. In this way, mothers are encouraged and supported in maintaining their own resilience focus on also promoting resilience in their children.

Theoretical Framework

A resilience framework can be used to understand how military children are able to cope with adverse conditions such as maternal deployment and its associated risk factors. This theoretical framework was derived from the area of positive psychology that focuses on protective factors that enable resilience through adversity (Rutter, 2012). Risk factors are no longer thought to clash with perseverance (Vanderbuilt, Adriance & Shaw, 2008), but seem to be a necessity in achieving capability to rise above adversity through resilience.

Resilience research has emphasized an “inoculation effect” whereby children who have been exposed to a regular, minimal amount of risk can build resistance to larger doses of adverse conditions (Rutter, 2012). A child’s personal ability to find happiness, amidst risks and trials, leads to stability in the social and emotional areas of their lives; these become known as “protective factors” (Rutter, 2012). When children have a capacity for understanding and appreciating daily stressors as a positive challenge to their functioning, they develop strategies for coping (Vanderbuilt-Adriance & Shaw, 2008). In addition to the cognitive skills required to reframe negative experiences, the ability to self-regulate expression of emotions is imperative (Vanderbuilt-Adriance & Shaw, 2008). Self-regulation is one of the many skills that children acquire to create a buffer that in turn may filter a child’s attitude and reactions in risk contexts (Rutter, 2012; Vanderbuilt-Adriance & Shaw, 2008).

A child may display a balance among qualities of competence, confidence, character, connection, contribution, coping, and control (Easterbrooks, et al., 2013). Each serves as a potential protective factor and is nurtured through external support systems, family

cohesiveness, and (most important) parental attitudes and values that lend to the development of his or her resilience with respect to adversity (Easterbrooks, et al., 2013; Rutter, 2012).

When positive parental attitudes and values are present, parents can identify positive strategies to be used in developing a solid parent-child relationship. Such parental attitudes and values include positive strategies of responsiveness, connection, and consistency throughout daily activities, all maintained through times of separation (Vanderbuilt-Adriance & Shaw, 2008). Just as a soldier parent wears a uniform with honorary insignia, they must also provide their children with positive mental and emotional insignia they can “wear” during times of service so they can also experience the honor of serving those around them (Easterbrooks, et al., 2013). Parents that show value by having a positive attitude toward their jobs (as soldiers) can provide meaning that is valuable to children at moments of adversity (Easterbrooks, et al., 2013). Encouraging children to find mentors and role models who seek to add to their well-being and happiness is directly related to parents’ respect directed towards their own mentors and role models (Easterbrooks et al., 2013).

In addition, parental actions/behaviors can signify their availability to a child (Easterbrooks, et al., 2013). Physical presence is often difficult to achieve for parents with jobs that require lengthy separations; therefore, when they are able to be home, physical presence is important. The ability to be fully available to their children when not on active duty communicates to the child that they are valued (Easterbrooks, et al., 2013). Parents that focus on children’s self-efficacy (Rutter, 2012), by affirming their strengths and focusing on what the child brings to the table, are likely to have resilient children (Easterbrooks, et al., 2013).

A group of researchers investigated the topic of “risk factors” and identified five corrosive risk factors that can prohibit a successful reintegration of military mothers with their children; these include a.) mental health problems and frequent emotional outbursts by the soldier, b.) a family’s inability to repair ineffective communication strategies, c.) unresponsive parenting due to internalized distress, d.) ambiguity with respect to family roles, and e.) negative feelings of isolation and lack of comprehension with respect to the mother’s deployment (Saltzman, et al., 2011). These tendencies may not be the primary causes of unsuccessful reunions of military families, but they often represent the root of the problem. Therefore, the presence of risk in this context is more like a negative chain reaction than a single cause-and-effect phenomenon.

Through the lens of resilience, a better understanding of how to prevent or mitigate this negative chain reaction can be determined (Saltzman, et al., 2011). Individual adaptation to adverse conditions and the interaction of the many outside forces present throughout a deployment work together to foster resilience both during and after traumatic events such as deployments (Masten & Narayan, 2012). It is the process of developing resilience that buffers the risk factors discussed in Risk and Resilience Framework (Masten & Narayan, 2012). Recognizing the potential for negative outcomes of deployment in young children may enable a mother to intentionally foster resilience within her child.

The concept of the resilient military child has evolved through interpretive explanation. Beginning with the idea of “invulnerability” due to fortitude, perseverance, and competence, a resilience framework was conceptualized when investigating the resilience fostered between a military mother and her child (Saltzman, et al., 2011). It was found that a central drive motivates a resilient attitude during times of separation and ambiguity from

loved ones. Research then focused on the notion that military children were working within proximal contexts where familial encouragement and social acceptance worked to foster their inner resilience (Saltzman, et al., 2011). This update introduced the idea of shared motivation for resilience between an internal drive within the child and external encouragement by those around the child.

Werner and Smith (1992) began a search to understand what true resilience looked like in high-risk children. This allowed other researchers to expand on their ideas and to focus on the military parent-child relationship that enhances the resilience fostered within the military child (Curtis & Cicchetti, 2003). Increasing the understanding of deployment and its characteristics, highlighting the fortitude and resilience existing within an individual mother and her child, and ensuring effective coping skills after deployment all have shown significant impact upon the quality of reintegration between mother and child (Lester et al., 2012).

Resilience of the Mother and Child

While many studies have focused on the vulnerability, depressive, and negative consequences associated with the deployment cycle, many have forgotten the benefits of resilience that can be fostered within mothers and children throughout the deployment process. The resilience found within both these agents (mother and child) is rooted in a strength-based approach, centering on their individual characteristics that combine to form a cohesive bond that can remain strong throughout risks and adversity.

By highlighting the importance of inner coping mechanisms (of both mother and child) found in the Risk and Resilience Framework, this study will examine what resilience factors and ability to foster resilience within her children a mother may exhibit. Military

branches strive to instill in their soldiers a sense of leadership and reliability. For a military mother, these values hold true both with respect to her service and to her role as a primary caregiver. In raising her right hand and promising to uphold the Constitution and protect U.S. liberties, she is also swearing to uphold implicit promises to keep her greatest treasure, her children, alive and well. She should understand that the impact she makes as a soldier has a direct impact on her child (Paley, Lester, & Mogil, 2013). Through this expectation mothers are held accountable and expected to be knowledgeable and prepared, not only with respect to the mission at hand (the actual deployment), but to the mission to which they will return after the deployment, i.e., successful reunification with their children (Military OneSource, 2012). Because of the fact that they will experience an interval of separation, military mothers are often forced to make decisions ahead of the time that they would normally be expected to make; these might include writing wills, developing family-care plans, or learning how to function as a caregiver from a thousand miles away. Fortunately, they are also surrounded by supportive entities such as family-readiness programs and behavioral-health resources upon their return from deployment (Goodman, et al., 2013). Such programs work to ensure the return of a healthy soldier so she can focus on her relationship with her child.

There next arises the question as to what attributes military children exhibit that will allow them to remain resilient through adversity. What makes them different from any other child? In short, military children are known for their malleability. Compared to other children, military children may experience many trying times, filled with risk factors, yet are expected to emerge with a positive outlook and an increased sense of familial gratitude (Saltzman, et al., 2011). This is because of the grit, or tenacity to endure, that is expected in

a military child. It is the combination of this grit within the child and resilience fostered through their mother's resilience that should enable the mother-child relationship to thrive during reintegration (Ginsburg, 2011). Many mothers and children that have experienced the risks associated with a deployment process have found that they emerge from the situation stronger, more resilient, and with more appreciation for the clarity of the bond that is shaped between them during such adversity.

Resilience Strategies used by Mothers

As stated before, a mother's ability to foster resilience within a child can have significant impact on the outcome of the child's experience of a maternal deployment. The military mother can begin nurturing resilience before she leaves for deployment, can continue to foster it through contact maintained with the child during deployment, and can support continued resilience during reintegration.

Dr. Kenneth Ginsburg has spent a great deal of time advocating for the resilience that can be supported within a child during times of adversity such as maternal deployment (Ginsburg, 2011). He developed the 7 C's of resilience: Confidence, Character, Connection, Coping, Contribution, Competence, and Control. Parental psychological health, positive parent-child relationships, effective co-parenting throughout the deployment process, and environmental encouragement all work together to build these 7 characteristics in the child (Lester, et al., 2013). He wanted to examine the two-way interaction between the individual and the environment prominent in the investigation of resilience fostered between mother and child (Easterbrook, et al., 2013). It is the related mothering strategies that foster much of the resilience within a child after deployment.

Competence is the basis for Confidence (Ginsburg, 2011), so it is important to build competence in a variety of daily living skills prior to deployment. These skills should be learned early to contribute to success later in life (e.g., school, jobs, starting a family of their own) (Easterbrooks, et al., 2013). Helping children to make sound decisions and allowing them to make “safe mistakes” promotes Competence (Ginsburg, 2011). These various tasks should to be put into context by age with regard to developmental stages. A two-year-old child will be substantially different in competence than a twelve-year-old child . Social competence is a dynamic process that, while at age two is rooted in independence, is yet largely dependent on caregivers (Newman & Newman, 2007). Therefore, children must be willfully guided; they should feel independent in their choices but within safe limits. Adolescents, between three and five years of age, then move into a stage of persistence in which they want to lead those around them (especially younger siblings and peers) (Newman & Newman, 2007). These children want to be allowed to show their creativity and resourcefulness; they need answers in order to formulate their own plans. True competence is formed in children aged six to twelve years (Newman & Newman, 2007). This is the time when they most require support from those around them to gain security in their own abilities (Curtis & Cicchetti, 2003).

Given the unique opportunity, that other children may not have, for military children to make independent decisions and practice skills, military mothers can encourage and build upon the social-emotional, educational, and stress-relieving skills their children have begun to develop (Ginsburg, 2011). It is of course critical that the mothers and other caregivers maintain developmentally-appropriate expectations for their children and that they scaffold

Competence in a sensitive and responsible way and allow children an appropriate level of independence without overburdening him/her (Easterbrooks, et al., 2013).

Confidence refers to a child's acknowledgement of his/her ability to do anything he/she may put his/her mind to (Ginsburg, 2011). If confidence is lacking in a child, incompetence is likely to overcome their capability for having a positive mentality with respect to their behavior (Easterbrooks, et al., 2013). Mothers foster Confidence by refocusing a child's sense of guilt, for being able to function on a daily basis without mom being present, toward focusing on his or her ability to do so with a sense of pride (Ginsburg, 2011). A mother can particularly accomplish this during reintegration by emphasizing all the wonderful things that were accomplished during her deployment.

Military personnel are in a somewhat unique position to instill **Character**, another one of the 7 C's, in their children. Soldiers are taught that a mission cannot be accomplished without a foundation of responsibility, values, and belief in community. After spending months in the mindset of accomplishing a greater good, military mothers may consequently return home with the same mentality and encourage that kind of Character in their children. "Grit", or tenacity for goal accomplishment, is an attribute that mothers can instill as a component of their children's character (Easterbrooks, et al., 2013). They can teach their children to strive for honorable paths, even when times get tough and war is in your backyard (Ginsburg, 2011).

Connection is a critical "C" in military life (Easterbrooks, et al., 2013). Military families must be able to connect with diverse people, without bias or stereotypes, because of the nature of the communities in which they are embedded (Easterbrooks, et al., 2013). Having the skills to positively interact with diverse perspectives and cultures will improve

children's abilities to effectively navigate their own interpersonal environments and to garnish resources both from within and from outside the military community. Connecting with community organizations and providing families and children with educational, medical, and social/emotional resources are functions needed both during and following maternal deployment.

Contribution occurs when children come to the conclusion that they can have a unique impact on the world just by being in it (Ginsburg, 2011). Successfully equipping military children with Competence, Confidence, Character, and Connection, opens up the lines of Contribution a child can make on those around them, especially within their family unit (Easterbrooks, et al., 2013). Military mothers can acknowledge the impact their children have on the functioning of their families by recognizing individual contributions that each child has made.

Coping is the process of adaptation to and acceptance of an adverse situation while also making it a positive learning opportunity. Military mothers can foster Coping within their children by keeping a daily routine, adjusting it when necessary, and responding to signs of stress (e.g., joining support groups to talk about difficulties and validating both their own and their children's feelings) (Ginsburg, 2011). Overcoming fears and emotions associated with risky situations requires a two-step process. The first step is primary prevention in which coping overcomes the situation before it becomes a problem; if worry overcomes such primary prevention then secondary prevention in which worries are replaced with stress-reduction strategies can be executed (Easterbrooks, et al., 2013).

Control is the ability of the child to make independent decisions within developmentally-appropriate boundaries. Children with a deployed parent can often gain a

heightened sense of Control as they discover more decision-making opportunities. Mothers can encourage and facilitate their children's Control by giving them appropriate opportunities to make decisions and reinforce them through responsible actions (Ginsburg, 2011). In doing so children can become more resilient during times of stress (Easterbrooks et al., 2013).

Resilience Fostered by Alternate Caregivers

More than just a mother-child relationship is required to foster resilience after a military deployment. The role transition from a mom as the primary caregiver to that of an alternate primary caregiver is often a very difficult experience for children. Alternate caregivers may serve as buffers during adversity and represent an additional protective factor during times of primary-caregiver separation or absence (White & Klein, 2008). An alternative or temporary caregiver may play a large part in establishing the independence that a child fosters in to overcoming separation from a mother. In the absence of the mother, the alternate caregiver becomes a safe haven for the child; he or she may build upon and encourage resilience in the child throughout the deployment cycle.

If a child is unfamiliar with the alternate caregiver, feelings of angst or worry could create a difficult transition from one primary caregiver to another temporary primary caregiver. Encouraging the alternate caregiver to get to know the child through personal or technological visits and correspondence before deployment will support a smoother period of adjustment (Ginsburg, 2011). Effective communication and respect between an alternate caregiver and a deployed mother is critical for building continuity for children (Ginsburg, 2011).

Theoretical Model and Research Questions

A primary purpose of this study is to investigate the relationships between maternal deployment (e.g., length, hazard level, and alternate caregiver arrangements), mother and child demographics, maternal resilience, parenting stress, and mothers' use of resilience-promoting strategies. I anticipate that, after controlling for demographic and deployment characteristics, the mother's level of parenting stress will be negatively related to her endorsing the use of resilience-building strategies in her children (i.e., higher levels of maternal resilience will decrease levels of maternal parenting stress). I further hypothesize that her own self-reported resilience will moderate this relationship. Specifically, the negative effects of parenting stress of use of resilience strategy will be lower for mothers with higher self-reported resilience (See Figure 1 for a conceptual model).

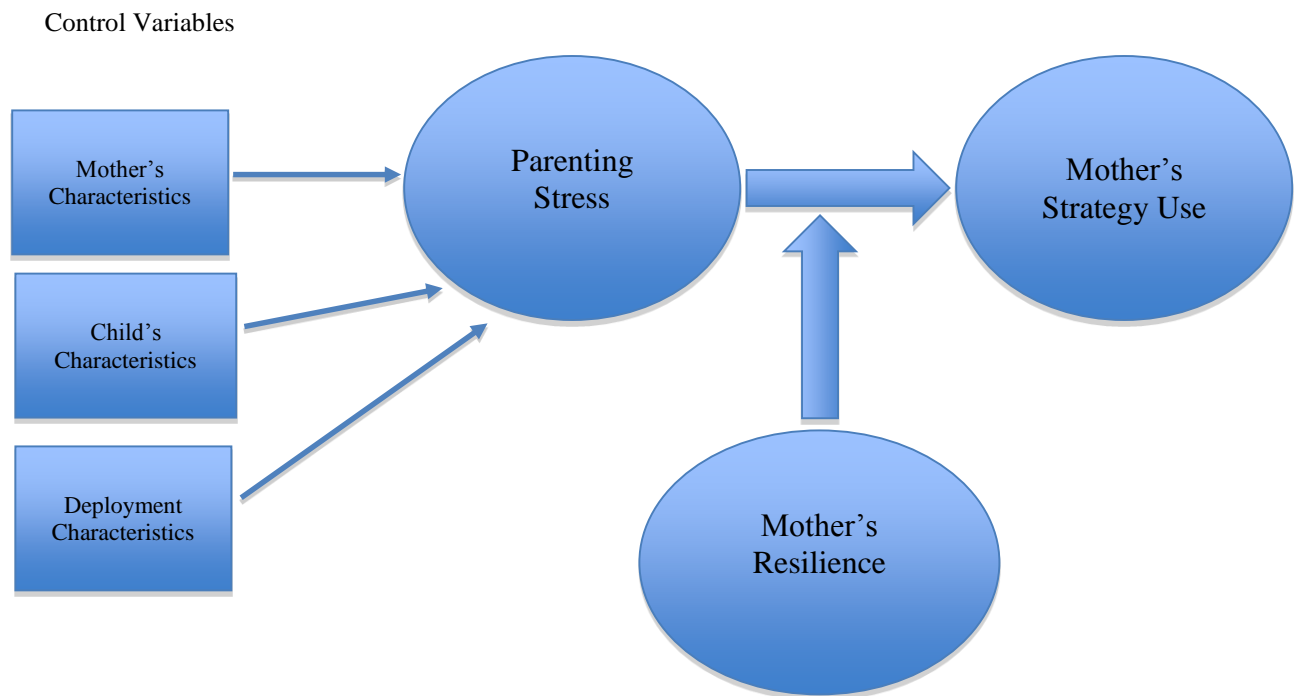


Figure 1. Conceptual Model

CHAPTER III

METHODOLOGY

Participants

Participants were recruited using a combination of personal contacts, snowball sampling, advertisements posted on the Iowa State University campus, and Facebook posts. By contacting previous coworkers from the Iowa Army National Guard Headquarters, I was able to disperse a mass email to female soldiers (both past and present).

All participants were women currently or formerly enlisted in a branch of the military. Forty-eight participants responded to the survey and 33 of the surveys were fully completed. Demographic information regarding mothers and children were based on information at the time of deployment. We did not restrict or otherwise exclude mothers based on length since her last deployment. While most of the women were Active Duty Air Force enlistees, there were women in the study representing eight components of the United States Military. Most were stationed in the Middle East but representation was spread across the globe. Because of the nature of the conflicts, most women received hazard pay during deployment.

Procedures

A survey link was posted to Facebook, shared via a mass email to military connections (see Appendix A), and posted via recruitment fliers around the Iowa State campus. The link directed participants to Qualtrics, a secure online survey software tool. All members of the study were recruited at random and on a volunteer basis. Surveys were taken at the convenience of the participants, but all were completed in one sitting. All documents,

fliers, and methods of recruitment were approved by the Institutional Review Board of Iowa State University.

An initial consent page was displayed when first accessing the link to the study survey. This consent page outlined the intention of the survey, the participation eligibility requirements, and participant rights. When beginning the survey, all participants verified that their characteristics matched the criteria of the survey: a female soldier, had experienced a deployment, and a mother to a child between the ages of two and twelve years during the deployment. Once a participant read through the initial consent page, she was asked to select an acknowledgement box that began the survey.

The survey opened with demographic questions about the soldier, her deployment process, a selected dependent, and an alternate caregiver. Remaining portions of the survey were derived from questions from the Parenting Stress Index, the Connor-Davidson Resilience Scale, and a newly comprised scale from Dr. Ginsburg's 7 C's of Resilience.

Upon completing the survey, participants were asked to select a completion tab and all answers were forwarded to the Qualtrics database. All data were transferred in aggregate from Qualtrics into Microsoft Excel and ultimately into SPSS. Descriptive analyses were conducted, along with investigation into correlations to determine whether any relationships existed among the variables. Several regression and ANOVA were performed to answer major research questions and post-hoc questions.

Measures

Demographics

Demographic information was gathered at the beginning of the survey. Information included maternal characteristics, child characteristics, and deployment characteristics. All demographic questions were asked retrospectively to the time of the most recent deployment.

Parenting Stress Index

The Parenting Stress Index (Short Form) was one of the three major scales this study utilized. Parents of children between the ages of two and twelve years were expected to complete the 36-item form; it is valid for analysis of children aged three months to twelve years (Loyd & Abidin, 1985). Responses were rated on a Likert-scale (“strongly agree,” “agree,” “not sure,” “disagree,” and “strongly disagree”). This is a well-established measure containing three subscales: parent distress, parent-child dysfunctional interactions, and difficult child (Loyd & Abidin, 1985). Psychometric properties of the PSI- Short Form have been established and found to be especially high in test-retest reliability and factorial validity (Loyd & Abidin, 1985). For this study, I used the total Parenting Stress Index score.

Connor-Davidson Resilience Scale

A Connor-Davidson Resilience Scale was created because of interest in clinically understanding and assessing resilience (Connor & Davidson, 2003). This is a 25-item scale evaluated through a Likert scale (“true nearly all the time,” “often true,” “sometimes true,” “rarely true,” and “not true at all”). The Connor-Davidson Resilience Scale has been authenticated as psychometrically sound through statistically significant productions of internal validity between 0.30 and 0.70 for total item correlations, including a 0.87 correlation coefficient total for test-retest reliability, comparable to other resilience scales,

identifying areas of resilience and outlining positive coping mechanisms (Connor & Davidson, 2003). For this study, I used the total resilience score as a determinant for positive reintegration. Resilience, an anticipated determinant of positive reintegration, was expected to represent a repeated measure of mothers' survey data (Connor & Davidson, 2003).

7 C's of Resilience

This exploratory study served as a perfect opportunity to use a study not featured as a measurement tool in previous literature, the 7 C's of Resilience. Dr. Kenneth Ginsburg designed the 7 C's of Resilience as a measurement tool following his long-time work in aiding children to develop solutions to their social, emotional, and behavioral problems (Children's Hospital of Philadelphia, 2014). It encompassed questions that can draw links between the resilience fostered by a mother and within her child, as well as a child's personal resilience tendencies.

A combination of the demographic questions, the Parenting Stress Index, the Connor-Davidson Resilience Scale, and the 7 C's of Resilience comprised a theoretical framework focusing on the mother's Parenting Stress Index interacting with her personal resilience (established through the Connor-Davidson Scale) that is expected to result in her resilience strategies found within the 7 C's of Resilience. This exploratory study was hypothesized to provide a link between the demographics and the scales measurements to show statistically-significant correlations between the two.

CHAPTER IV

RESULTS

Descriptive Statistics

Descriptive analyses of all variables were conducted. Correlations between maternal characteristics (age, education), child characteristics (age, sex), deployment characteristics (rank, hazard pay, length, and alternate caregiver) and independent variable (PSI) were conducted to determine whether these characteristics should be included as control variables within the regression models. Finally, multivariate regressions were conducted to answer the research questions. Table 1 shows descriptive statistics and correlations of model variables.

Table 1
Descriptive Statistics for Regression Model

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	
				Potential	Actual
PSI- Short Form	33	74.12	18.24	36-180	50-132
Connor-Davidson	32	103.25	12.61	25-125	72-120
7 C's of Resilience	28	222.57	27.73	56-280	144-262

Maternal, Child and Deployment Characteristics

Mothers' ages were grouped using five ordinal categories. Twelve mothers were 25 years or younger, 9 were between 26-30 years, 9 were between 31-35 years, 13 were between 36-40 years, and 2 were over 40-years-old. ANOVA was used to determine whether parenting stress was related to maternal age.

Mothers' education level was grouped into 4 ordinal categories. Two mothers had high school or GED achievement, 15 mothers had some college work, 8 mothers had a BA/BS degree, and 23 mothers reported having degrees higher than a BA/BS. ANOVA was used to determine whether there were differences in PSI based on maternal education level; $F(3, 29) = 2.39, p = .09$, indicating no statistically-significant differences in PSI based on education level, so maternal education was not included as a control variable.

Bivariate correlation was used to determine whether there was a relationship between a child's age at the time of deployment ($M = 9.50, SD = 4.39$) and maternal parenting stress ($M = 74.12, p = 18.24$). No significant relationship between child's age and parenting stress was found, so this factor was not included as a control in the regression model ($r = .09, p = .59$).

Independent t-tests were performed to determine whether differences in parenting stress were related to child sex (24 female, 18 male, 6 missing) and hazard pay status (35 yes, 9 no, 4 missing). No significant differences were found $t(31) = .05, p = .960$, and $t(31) = .93, p = .358$, respectively, so neither of these characteristics were included as control variables in the regression model. All mothers happened to report information about their eldest child, so this variable was also not included in the model. The potential differences in stress due to length of deployment (20 less than 6 months, 19 between 7-12 months, 6 over 12 months, and 3 missing) and branch of service (22 Air Force/Air Guard, 17 Army/Army Guard/Army Reserves, 1 Marine, 10 Navy/Navy Reserve, 0 Coast Guard) were examined with ANOVA. The results showed no significant differences, with $F(2, 30) = .11, p = .90$ and $F(5, 27) = 2.33, p = .07$, respectively, so this factor was also not included as a control variable in the

model. After preliminary analyses, it was decided that only maternal age would be used as a control in the final model.

Model Results

A moderated linear model was used for the purposes of this paper. Results indicated that Parenting Stress Index ($b = -1.46$, $SE = 3.49$, $p < .01$) and the Connor-Davidson resilience index ($b = -.98$, $SE = 2.62$, $p < .01$) were not associated with the use of the 7 C's of Resilience. The interaction between PSI and Connor-Davidson was also not significant ($b = .01$, $SE = .04$, $p < .01$). Table 2 shows the moderated regression analysis.

Table 2

Moderated Linear Regression for 7 C's of Resilience

Variable	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>P</i>
PSI- Short Form	-1.47	3.49	-.42	.678
Connor-Davidson	-.98	2.62	-.37	.713
<i>Interaction Term (PSI*CD)</i>	.01	.04	.37	.740

R Squared = .02

Adjusted R Squared = -.10

CHAPTER V

DISCUSSION

Understanding risks and protective factors centered on military family life can help both family members and professionals to better understand and support mother-child relationship resilience after a maternal deployment. The intent of this study was to take an exploratory glimpse into factors that could contribute to resilience transferred from mother to child. Through an understanding of the very real existing risk factors, when investigating the lives of military families I wanted to bring light to the protective factors and resilience that may build a relationship between mother and child. The Risk and Resilience Framework introduced the basic idea of thriving through adversity (White & Klein, 2008; Rutter, 2012).

Initially, there was an assumption that a mother's lack of parenting stress would be related to her tendency to use resilience-based strategies when interacting with her children after deployment. I also hypothesized that a mother's internal resilience buffers parenting stress associated with deployment. Although I was not able to include the desired number of participants, this study still proved to be a valuable endeavor with respect to understanding resilience associated with a mother's deployment and her relationship with her child. Mothers reached out from almost every branch of service, with contributions from both officers and enlisted personnel. Many of the mothers were identified as being well educated, mindful, and appreciative of their dual roles as "mother" and "soldier".

Several trends were prevalent throughout the data collection process. With regard to maternal parenting stress, both negative and positive situations were witnessed. Some of the negatives that were documented were "they had to give up more of their life than expected

for their child's wants and needs," "they experienced relationship problems," and "found themselves with fewer friends than before they were parents." This negativism was often due to their child's "moody reactions" to "bad situations." Fortunately, such events were experienced by only a small proportion of the mothers. In contrast, a large majority of the mothers found a willingness to experience new situations, and also found themselves usually able to handle those situations in a positive and proactive manner. Almost all the mothers reported a positive attitude with respect to their mothering abilities.

Resilience within the mother (as shown by the Connor-Davidson scale) fostered personality traits such as an aptitude for acclimating to new situations because they had perseverance, determination, and pride in their accomplishments, both as mothers and as soldiers. In doing so, they found themselves able to establish better relationships with fellow soldiers, community members, and their families. In all, the mothers identified their own ability to "give it their all" and knew that they had additional support to lean on.

Due to the novelty of the 7 C's of Resilience scale, it was difficult to determine a true index on which to base the mothers' rating for fostering resilience in their child after a deployment. Luckily, there were apparent trends throughout the survey data that supported several useful assumptions. Mothers identified a strong habit of instilling such factors as competency, confidence, character, and control in their children. In doing so, these young warriors were able to contribute to their communities, to cope in a positive manner, and to connect with those around them in forming meaningful relationships. These trends demonstrated their personal feelings of importance before, during, and after maternal deployments. A need need for an established 7 C's of Resilience scale is therefore imperative to highlight just how mothers might use a deployment to foster resilience in their children.

In essence, this study not only highlighted soldier-mothers' abilities to remain resilient both during and after a deployment; it also broke ground for a new measure for determining the mother-child dyad resilience after such deployment. Military life is not always experienced with ease, but can be manageable and rewarding.

There were several limitations to this study. The first was that not all participants provided completed surveys, meaning solid answers regarding child and deployment demographics could not be derived from the data collected. In essence, this provided only a limited view into how either the children and or actual deployment were influential in affecting a mother's resilience. Second, there was no standardized scoring system for the 7 C's scale because it had not been used before in a data-collection survey. These issues limited our ability to accurately find a connection between a mother's resilience and use of resilience strategies for a child's inhibition with respect to resilience. Mothers were asked to answer survey questions in a retrospective manner, often after a large amount of time had elapsed between their last deployment and the time of the survey. Inaccuracies with respect to feelings, attitudes, and behaviors could have played a significant role on the retrospective responses.

Furthermore, additional research should focus on the impact of the at-home caregiver during the deployment, and how he/she can positively influence the relationship of the mother and child upon reunification. Each caregiver presents a unique and important aspect to the lives of military children in establishing a protective buffer for adversities that accompany maternal separation. Instead of focusing only on the relationship between mother and child, further research could highlight the impact of an alternate caregiver on the maternal reintegration success. Theory and assumptions from this study posit that such

caregivers would bring additional support to both mother and child if a strong bond is established among the triad.

Resources and supportive environments must be continually developed and maintained to make this happen. Communication was shown to be an important aspect of all participants' successful deployment and reintegration with their children. The ability to call, Skype, or just write a simple letter to their children reinforced the resilience of the deployed mothers. Encouraging them to keep lines of communication open upon reunification creates an open door policy through which children feel safe to express their worries and doubts.

Continuation of readiness programs such as Yellow Ribbon Events is important because such events ready the family in virtually every aspect of the deployment process. We encourage the creation of more support groups for military families, for mothers during deployment, or for the deploying parent and children at home. Each such program seeks to unify military families that may be only beginning the deployment process and to make them a solid, resilient unit upon reintegration.

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APPENDIX A

APPROVED MASS EMAIL FOR RECRUITMENT

Hello and good evening,

I am writing to you to ask for help in spreading the word about my current research interests. I am in the Human Development and Family Studies Master's program at Iowa State and collecting information for my thesis. I am seeking participants to take an online survey (link is included at the bottom of this email). The topic is military mothers fostering resilience in their children after a deployment and their parenting stress. To participate, they can go directly to the link and take the survey.

Eligibility criteria for the survey include:

- Women current or past enlisted in the military (can be Active Duty, Reservists, and/or National Guard).
- Experienced a deployment after becoming a mother.
- Experienced a deployment while having a child between the ages of 2 and 12.

There is no time limit for the survey but you cannot save information so you will need to complete it in one session. The survey should take approximately 20 minutes to complete. All information collected from the survey will go directly to a secure database (Qualtrics) and all data will be anonymous with no identifiable information asked throughout the survey. If you or the person(s) you know have any questions regarding the survey, please feel free to contact me via email @ brittniw@iastate.edu.

Thank you for your time and help in contacting women that can make a difference in sharing the resilience associated with maternal deployment.

Very respectfully,
Brittnei Wessner Blais