

**Examining Well-Being Indicators of Adolescents in Military and Civilian Families:  
A Comparison Study**

by

Charlsey Paige Mahle

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Approved by

Francesca Adler-Baeder, Chair, Professor of Human Development and Family Studies  
Thomas A. Smith, Professor of Human Development and Family Studies  
Scott A. Ketring, Associate Professor of Human Development and Family Studies

## Abstract

Using data from a statewide education project for adolescent youth (N=2,430), this study explored the well-being indicators of coping, depressive symptoms and self-esteem in military and civilian youth. While the majority of prior research in this area has focused on the military only, this study compared outcomes of military youth who have experienced the deployment of a parent to those who have not and a civilian group of adolescents. Findings show evidence that military families have similar outcomes to that of youth in the surrounding civilian community. The results showed that the military adolescents (deployed or not deployed) did not differ significantly on two out of three measures of *Coping*, *Depressive Symptoms* or *Self-Esteem*. Examinations of demographics revealed no significant interactions between family type (military/nonmilitary) and gender, race, and parent marital status. However, there was a main effect found for gender on *Depressive Symptoms* such that males report lower *Depressive Symptoms* than females, and also for gender on *Coping* such that females reported higher coping than males. There was a main effect present for ethnicity on *Self-Esteem* such that African Americans report higher self-esteem than all other races. A main effect of parent marital status was found on reports of *Depressive Symptoms* in the three groups, such that adolescents in married families reported lower levels of depressive symptoms than adolescents in stepparent families and adolescents in single parent families; however, there were no significant differences between reports of depressive symptoms in step and single parent families. The findings of this study have important implications for the similarities between the current population of youth in

military, particularly those that are community-based, and civilian youth. It also demonstrates that demographic factors are influential in similar ways on outcomes of adolescents in both military and civilian communities.

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## **I. Introduction**

The wars in Iraq and Afghanistan have certainly changed the nature of military service in the United States. With the exception of Desert Storm and Kosovo, military service between 1980 and 2000 primarily consisted of training, humanitarian aid and peacekeeping missions. After the attacks on the World Trade Center, the military transitioned to a combat focused, highly mobile force, which is immersed in a global war on terrorism daily. The current operational tempo is unparalleled for the military's all volunteer force; deployments are longer, service men and women often redeploy multiple times, and breaks between deployments are often filled with training, resetting equipment and preparing for the next deployment. If compared to any previous war, today's war is somewhat likened to the Vietnam conflict, however there are still several differences. The wars share the similarity of the operational tempo, but differ greatly in the climate of the United States and the general public's perception of the war, and resources (including technology) provided to service members and their families.

Not only has the operational tempo and frequency of deployment increased for the military member, but it has also increased for their family members as well (Military Family Resource Center, March 2000). These changes have affected all types of service including Active Duty, Reserves and the National Guard, impacting families across the U.S. in many different communities. Although the war in Iraq is steadily decreasing in troop count and combat action, there are still over 150,000 troops (The Iraq and Afghanistan Index, 2011) from all branches and types of service deployed to active combat zones. Military families, including over a million military children, are facing multiple chronic and acute stressors. Indications are that the stress experienced by the children and adolescents in these families is high (Chandra, 2008; Huebner, 2007). Adolescents may be at a particular risk because these unique contextual

stressors are combined with the normal everyday stress of being an adolescent (Huebner & Mancini, 2005). Some of these normative stressors include physiological changes, social pressures, school demands, and general preparation for life after high school (Patterson & McCubbin, 1987). While much attention has been focused on providing resources for adolescents in military families, there has been limited research which clearly shows how they fare psychologically and socially. Several studies have shown that military children experience some mental and emotional problems due to the effects of deployment, but few recent studies compare these outcomes to that of a non-military population. More specifically, there is only one study that compares military adolescents who have experienced the deployment of a parent to civilian adolescents; and, very few studies consider other demographic characteristics of the youth. Statements of relative well-being of military vs. civilian adolescents are often implied, but cannot be asserted in the current context without further specific empirical study. The purpose of this study is to compare well-being indicators (i.e., reflective and reactive coping skills, depression and self-esteem) between a civilian group of adolescents and two groups of military adolescents (a group who has experienced a deployment and a group who has not). Further exploration will also include the interaction of family type (i.e. civilian, military with deployment, military without deployment) and gender, race, and parent marital status (i.e. single parent, married, stepfamily).

### **Mental Health Research on Adolescents in Military Families**

In the last decade, research on military families and military adolescents in particular, has certainly seen a dramatic increase. As expected, research in this field tends to ebb and flow with the prevalence of military combat involvement. Research previous to the year 2001 focused on the military's deployment to Desert Shield/Desert Storm and Vietnam, while much of the



research after that point has focused on the current conflicts in Iraq and Afghanistan. There are some studies, however, from prior to 2001 that offer some interesting conclusions about military families. Some of the research, particularly the early research, indicates negative outcomes for children in military families (Hillenbrand, 1976; Hiew, 1992; Jensen, 1996; Lagrone, 1978; Levai, 1995; Rosen, Teitelbaum, & Westhuis, 1993; Yeatman, 1981). One of the first studies about children in military families concluded that experiencing the military lifestyle created a “military family syndrome” in which children are out-of control, fathers are very authoritarian, and mothers are depressed (Lagrone, 1978). This study, using a very narrow perspective, has raised much debate and criticism. More recent studies which have focused on the mental health of children in military families challenge this idea, showing that children in military families may be as, if not more, mentally healthy than children in civilian families (Huebner & Mancini, 2005; Jensen, 1991, 1995) and, importantly, that there is variability in outcomes for military children. In addition, most studies include only the children of active duty service members. One recent exception is Huebner and Mancini’s (2005) qualitative study of younger children in Reserve and National Guard families which has shed some light on overarching themes regarding mental health for children in military families such as their resiliency, maturity and use of effective coping skills. In sum, the field is lacking current quantitative studies that are inclusive of military children from National Guard, Reserve and active duty service members, that compare their well being to those of the civilian population and that consider other characteristics of the military youth.

Recognizing that the specific socio-historical context of each war likely affects families differentially, the following summary will provide a brief review of mental health research on military adolescents in earlier timeframes (i.e. Vietnam Era and Operation Desert Shield/Desert

Storm Era). The remainder of the review will elaborate more thoroughly on the most current research in the field which draws from samples associated with the wars in Iraq and Afghanistan. The later portion of current research will be separated into two categories – studies that featured a sample entirely within the military and studies that featured a between group comparison of military and civilian adolescents.

### **Early Research – Vietnam Era & Desert Shield/Desert Storm**

Research from the Vietnam War suggested that military children were more likely to have clinical range of psychological problems than their civilian counterparts (Jordan et al 1992), and exhibit negative behavioral adjustment and increased emotional dysregulation (Hillenbrand, 1976). In the 1970's LaGrone (1978) coined the term "military family syndrome." He used this term to describe a set of traits typical of children growing up within autocratic military families and communities. This formulation was not based on valid empirical support and has been refuted repeatedly by more recent relevant evidence (e.g., Jensen, Gordon, Lewis, & Xenakis, 1986; Jensen et al., 1991; Morrison, 1981). Morrison (1981) challenged LaGrone's view of a military family syndrome by comparing data on 140 children of military families and 234 civilian children from his private psychiatric practice. There were no differences reported in the percentage of DSM-III diagnostic categories between the two groups except for a finding of fewer diagnoses of schizophrenia among military dependents. There are a few older studies that make comparisons which conclude that military adolescents have similar or lower rates of childhood psychopathology, lower rates of juvenile delinquency, lower likelihood of alcohol or drug abuse, better grades, and higher median IQs than do their civilian counterparts (Jensen, Xenakis, Wolf, & Bain, 1991; Kenny, 1967; Morrison, 1981).

Some of the research conducted during Operation Desert Shield/Desert Storm showed that military children may experience a range of internalized emotional problems when a parent is deployed, some of which included heightened anxiety, depression and increased emotional dysregulation (Jenson et al, 1996; Kelly et al, 2001; Levai, 1995). However, some studies have found similar findings regarding heightened psychological functioning, sadness and demand for attention, but noted that these levels were not to a degree that required counseling (Rosen et al, 1993). These studies did not include a comparison with a civilian sample of adolescents. One investigation from Desert Storm era research that did use a comparison of military and civilian, found greater problems among military children than among civilian children according to parental report but *not* according to the direct report of the children (Jensen et al., 1991). Further, although general comparisons have been made between Desert Shield/Desert Storm and the current wars, the nature of the Gulf War deployments for families given the timeline (i.e. service members were deployed once – for less than a year), and the comparatively limited amount of combat action seen by soldiers (i.e., the war was a conventional war mainly fought through political channels) calls any further comparisons into question (Wong, 2011).

### **Current Research – Iraq and Afghanistan**

***Within-group studies (Military only).*** A majority of the current research on military adolescents focuses on psychological outcomes that are a result of experiencing the deployment of a parent to Iraq and/or Afghanistan. Some of these outcomes include depression, anxiety, increased sadness and externalizing and internalizing behaviors. Several recent studies featured a within group study where the researchers looked at psychological functioning of adolescents in military families and did not compare to civilian adolescent samples, but did compare to published civilian norms for each psychological trait (Chandra, 2008; Flake, 2008; Lester, 2010;

Morris & Age, 2009). Additionally, there are studies in the within-group category that looked solely within the military population and did not compare to community norms (Chandra, 2010; Mmari, 2010;)

One of the most recent studies by Lester and colleagues (2010) found that military children experienced increased child depression and externalizing symptoms. Mmari (2008) found military children had increased stress and anxiety while having a parent deployed. As evidenced by these studies, some research points to the idea that military children are clearly affected psychologically by their parent deploying. Hutchinson (2006), however, compared risk-taking behaviors of adolescents from retired and active duty military families, and found that both groups had lower risk taking behaviors than civilian norms. Nonetheless, a few studies in this category that do report psychological problems in military children also note that their findings could have been influenced by the parent who reported on the child's health (Chandra, 2010; Chartrand, 2008).

There is also some recent evidence of the variability of adolescent well-being in military families. Flake et al (2008) concluded through measurements of internalizing, externalizing and attention scores that some children are at risk for psychosocial morbidity, but do not actually have problems that require diagnoses and treatment. Huebner and Mancini (2005) found in a qualitative study that some adolescents are able to adjust well and exhibit resilience when a parent is deployed. Along the same lines, in a quantitative study of 2,007 military families, Wong found that although repetitive deployments can have a detrimental effect on children's deployment stress - activities, communication and strong beliefs can offset the stress incurred during deployment (Wong, 2010). Clearly the research on the mental health of adolescents in military families has considerable variability as some studies conclude poor psychological

outcomes for military adolescents while others are either inconclusive or show positive psychological outcomes for some military adolescents.

*Between-group studies (military and civilian).* Only one recent study featured a between group study in which the researchers looked at psychological functioning of adolescents in military families as compared to civilian adolescents. Similar to the within group studies, this study that makes the comparison between both groups has varied conclusions. Ryan-Wenger (2001) found no difference in measures of anxiety in military adolescents when compared to civilian when studying a population of adolescents and their perception of the threat of deployment. The same study found that military children often referenced using poor coping strategies such as fighting and biting their nails. This study is the only study in the current research that uses a civilian sample for comparison, however, it does not use a robust population of adolescents who have or are currently experiencing the deployment of a parent. Rather, 13 of the 43 participants had parents who had been deployed.

### **Gaps in research**

Although research on the military population has increased in the last ten years, recent researchers note that there are still several gaps in the research as a whole. Even where studies have been completed on military populations, there are not enough studies that replicate the results. Many of the recent military family researchers call for more research on military adolescents and for more studies that incorporate the adolescents' report of their health (Chandra, 2010; Huebner & Mancini, 2005; Wong, 2010). The field is also limited by the amount of comparison studies that have been conducted between military children and their civilian counterparts. There are mixed findings as to whether adolescents in military families have psychological problems or other indicators of risk that are measurably different from their

civilian counterparts. Also minimally present in current research are studies that consider other possible differences based on such factors as gender, race, and parents' marital status. And finally, there has been limited study of adolescents in National Guard and Reserve families. This is such a distinct group of families as they are now experiencing extended deployments, something that was very uncommon before 9/11. Further, they are isolated from the resources of a military base, may experience a pay cut from their civilian jobs, and may have never defined themselves as “military families” and thus never accessed support systems (Park, 2010).

### **Current Study**

Nearly all of the recent studies on military families that explore the effect of deployment on adolescents call for increased attention to this topic and population in order to replicate and extend findings given the growing number of families affected by the current wars. A focus on the adolescent population in particular has become a recommendation due to the uniqueness of their developmental timeframe. The current study will use a diverse sample of adolescents who come from various counties in a Southern state – some that are close to and others that are not close to a military base.

In addition to this, the necessity of studies that use the adolescent self-report of their psychological health is warranted. There are only a handful of recent studies that incorporate the adolescent’s own perspective of their health – despite the fact that other studies have found parent report of adolescent health is often in conflict with the adolescent reports (Chandra, 2010). This study will utilize a survey that the adolescents completed on their own before a relationship education course. For the purposes of this study we will conduct secondary data analysis to explore the responses to the reflective coping, reactive coping, depression, and self-esteem scales and compare levels to those of a civilian population of youth, many of whom live in lower socio-

economic circumstances. Having a diverse population of youth will allow for a meaningful comparison of differing types of potentially stressful contexts.

The current study will also explore other demographic characteristics of military and civilian adolescents. It will first build on two recent studies that have explored gender differences within groups of military adolescents (Mmari, 2010; Morris and Age, 2009). Then, it will explore racial differences. There are no known studies that have looked at how African American teens deal with deployment as compared with European Americans. Indications are that African American youth may more easily transition through major life events and use adaptive family processes more readily than other races (McLanahan & Sandefur, 1994). For this reason, the current study will explore racial and gender differences as well as parental marital status. Additionally, in some samples family structure (i.e. single parent, married or stepfamily) has been found to affect child and adolescent outcomes (e.g. Cherlin, 2010), therefore differences by family structure will be explored as well.

This study will also address the need for more studies that use family members of the National Guard and Reserves. The current sample of adolescents is thought to be mainly from National Guard and Reserve Families who are somewhat isolated from large military bases. It is unique in the fact that the sample was drawn from the community as opposed to established military channels.

Finally, this study will use a military and civilian sample to add to the field in terms of comparison studies. Comparisons will be made between civilian adolescents and military adolescents who have experienced a deployment as well as military adolescents who have not experienced a deployment.

In summary, the following research questions will be explored:

Research Question 1: Controlling for participant age, SES, gender and race, are there differences in measures of coping and self-esteem based on family type (i.e., between youth in military families who have had a parent deployed, youth in military families who have not had a parent deployed and those in civilian families)?

Research Question 2: After controlling for participant age, SES, and race, will there be a gender by family type interaction effect?

Research Question 3: After controlling for age, SES, and gender, will there be a race by family type interaction effect?

Research Question 4: After controlling for age, SES, race, and gender, will there be a marital status by family type interaction effect?



## II. Review of Literature

### Overview.

Because the military family life differs based on socio-historical context, this chapter will not focus on the earliest studies referenced in the introductory chapter, but rather will examine and explain in greater detail the most current, and therefore most relevant, research regarding various aspects of military adolescents' experiences and some of the unique challenges that face this population. First, recent within-group studies of military youth will be detailed, and then information from a recent between-group (military vs. civilian) study of youth will be explicated. Following this, gaps in the literature and the purpose and focus of the proposed study will be presented.

### Current Research

*Within-group studies (military only).* The following four studies highlight several psychological symptoms that may be present in military adolescents including depression, externalizing and internalizing behaviors, anxiety, and increased stress.

Lester et al, 2011 examined behavioral and emotional adjustment problems in 163 children (aged 6 –12) from an active duty Army or Marine Corps parent *currently deployed* (CD) or *recently returned* (RR) from Afghanistan or Iraq. Child adjustment outcomes were examined in relation to parental psychological distress and how many months the parent was deployed. Parental distress (for both groups) and cumulative length of parental combat-related deployments during the child's lifetime independently predicted increased child depression and externalizing symptoms. Although behavioral adjustment and depression levels were comparable to community norms published in a Brief Symptom Inventory manual, anxiety was significantly elevated in children in both *current* and *recently returned* deployment groups. Findings indicate

that the effect of deployment on children is cumulative and remains even after the deployed parent returns home.

Mmari et al. (2010) studied the consequences of parental deployment for adolescents and their families, as well as identified some strategies within social contexts that may help adolescents better cope with a parent's deployment. The authors conducted a qualitative study in which they analyzed textual data from focus group discussions with adolescents in military families, parents and school personnel in military schools.

Participants were recruited by contacts at military bases identified by the Department of Defense in all four branches of service (Army, Navy, Air Force, Marines). To be included in the study, adolescents had to be enrolled in a public middle or high school serving the military base and have at least one parent stationed at the base. A total of 11 focus groups (four with students, three with parents and four with school personnel) were conducted at five different bases in Texas, Kansas, Colorado, New York and North Carolina. The mean age of the students was 14, with nearly half of the group reporting they had a parent deployed in the current war. Seventy-one percent of the parents that participated in the focus groups were female.

The focus groups consisted of 8 to 10 participants with a facilitator and a note taker who were trained on focus group techniques. Discussions were audiotape recorded and transcribed for analysis by someone not affiliated with the focus group. The focus group included questions that made participants feel comfortable while still providing the desired information. Topics for the questions were categorized into four domains: problems and challenges adolescents face during parental deployment, the changes that occur within the family, methods of coping with deployment and strategies for making deployment easier for adolescents.

To analyze the data, researchers coded the focus group transcriptions with statement-level responses organized into question-level categories. Constant comparisons between coders were made to ensure intersubjective agreement. Discrepancies were reviewed by the investigator until consensus was achieved. A matrix of themes was developed by the research team to analyze how a theme was constructed across the three groups of participants.

In the first area that the study wanted to address (impact of deployment on lives of adolescents and their families), the focus groups revealed three areas of concern to students, parents, and teachers. Though responses in the focus groups were kept separate during the study, the groups overlapped in their areas of concern. The first concern identified was regarding the adolescent's health and well-being. Parents and school personnel identified an inability to express their emotions as a chief factor governing why youth do not adjust well during deployment. Some adolescents engage in more externalizing behaviors as a way of coping with their emotions. Sources of emotional strain identified by the groups were sadness about a parent's departure, anxiety over losing a parent due to war and concern about the parent at home. An additional concern raised by parents was the higher likelihood of a child being bullied due to their parent's participation in the war. The second area of concern related to the changing family roles and responsibilities. According to both parents and adolescents, adolescents and the parent at home experience changes in roles; mothers now play mom and dad, while adolescents often have to serve as a second parent to siblings. While some adolescents claimed that they take pride in their second role, others expressed increased stress when added to their school and extracurricular activities. The third area of concern revolved around the change in family routine and process during the parent's return. When the deployed parent returns, adolescents now have to transition to a new parenting dynamic that is different from the parent at home, as

well as new household rules, organization, etc. Adolescents also indicate that it is extremely difficult to get reacquainted with their parent upon return from deployment; each person has changed considerably, causing stress on the relationship (especially for year-long deployments) and forcing both to spend time and energy to get to know each other again.

The second area that the study wanted to address was strategies within diverse social contexts to help adolescents cope. The focus groups identified four areas of concern including parental attitudes, schools and their preparedness, peer strategies and media and technology. In the first area (parental attitudes) the parent, teacher and adolescent groups each revealed the same conclusion - that at-home parents try to keep a positive outlook for their children while the other parent is deployed. In addition, focus groups noted that they also tried to maintain normal schedules and routines. School personnel seemed to believe that having a strong family and just being resilient (or having an “inner peace”) made the most difference for adolescents. The second area (schools and their preparedness), students and parents identified that teachers and school staff need more training to deal with military children. While some were a positive factor for the student, others were not helpful and sometimes even detrimental. The third area (peer strategies) students expressed they were better able to share their experiences with military peers than non-military peers. The fourth area (media and technology) was discussed by every focus group. Parents and school personnel viewed it as a negative influencing factor due to the graphic images, etc. On the other hand some school personnel and parents saw it as a positive factor due to the availability of communication outlets such as email and web camera programs.

Overall, this study identified the increased stress and anxiety experienced by the adolescents as well as the tremendous impact of the attitude of the parent at home. Additionally, changes in the roles and responsibilities of the family seem to place the most strain on the

adolescent. Finally the study offered several tactics for helping adolescents and their families cope with deployment.

Flake et al. (2009) conducted a study in which they examined the psychosocial effects of deployment on military children. This study aimed to identify the psychosocial profile of school aged children during parental deployment and predictors of children at “high risk” for psychosocial morbidity during wartime deployment. The researchers theorize that children experience predictable responses during various portions of the deployment cycle (Pincus et al., 2001) and provide literature that supports that some child populations, such as boys and early school age children, are more vulnerable to the effects of deployment (Jensen, 1996). They also theorize that multiple factors influence a child’s psychosocial functioning, including parental functioning, support systems, family resources and coping strategies (Drummet, 2003). In this study, they hypothesize that the psychosocial stress of military children and families experiencing wartime deployment is significantly higher than the psychosocial stress of military children and families who are not experiencing wartime deployment, but they do not include a sample of adolescents with a non-deployed parent. Rather, they compare the deployed sample to normative sample standards for their measurement.

Flake used a sample of Army spouses with a deployed service member and a child aged 5-12 at a large military base in the northwest United States. A total of 116 parents were recruited by convenience sample at community meetings and clinic posted flyers. A total of 101 spouses met the inclusion criteria and provided completed data during a recent 15 month deployment. Participants completed a packet that consisted of demographic and psychosocial questions from the Pediatric Symptom Checklist (PSC), the Parenting Stress Index-Short Form, and the Perceived Stress Scale. The PSC includes valid subscales for internalizing, externalizing and

attention behaviors. The Parenting Stress Index –Short Form assess the level of stress a parent is experiencing and includes three domains: level of parental distress, amount of parent-child dysfunctional interaction and dealing with a difficult child. Finally, the Perceived Stress Scale is a 4-question parent screen which assesses perception of global stress.

Researchers used linear and logistic regressions to help determine the specific factors predictive of psychosocial morbidity in children and families. The results indicated that 39% of children were “high risk” for internalizing symptoms, 29% for externalizing symptoms and 13% for attention concerns. Over half of the parents reported that their child had trouble sleeping while 14% had school related problems. Forty-two percent of families reported parenting stress, which was significantly higher than normative populations. The results also indicated that there were certain demographic variables that significantly predicted increased or decreased psychosocial functioning in children. At-home parents with less than a college degree, with a deployed spouse with less than a college degree, reported higher PSC scores for their children. Additionally, high levels of perceived stress predicted higher child psychosocial morbidity, while increased perceived support also predicted increased child psychosocial functioning. In the area of predicting children who were “high risk” for psychosocial morbidity, parents with at least a college education and who reported positive military support were less likely to have a “high risk” child, while those with high stress scores increased the likelihood of having a child who was “high risk” for psychosocial difficulties.

In general, this study helps reveal that educated parents as well as those who felt supported during the deployment had less parenting stress and were less likely to have children with psychosocial morbidity. Although this study provided some interesting findings, it is

somewhat limited by its cross-sectional representation from only active duty Army families who had access to the local military installation.

Wong (2010) investigated the effects that multiple deployments have on adolescents in Army families. He highlights the need for new research in this field as the nature of deployment has changed and morphed over the past ten years. Further, he highlights that the research that exists mainly relies on the response of the parent at home – disregarding the child’s perspective. He also asserts that the argument is no longer whether deployments cause stress in children, but rather, what are the ways that we can minimize that stress and under what conditions are they minimized. Specifically, his study focused on the effects of multiple deployments on adolescent children through the eyes of soldiers, spouses and children. Wong hypothesized that there are six key factors that might affect the stress levels experienced by adolescents during a deployment. These factors are: the cumulative effect of deployment, strong families, supportive mentors, participation in activities, frequent and deep communication and personal beliefs.

Participants were gathered by the use of personnel databases of soldiers stationed at larger Army bases and having at least one child between 11-17 years of age. Of the 34,500 soldiers who were asked to participate in the survey, 2006 responded. The sample consisted of a representative variety of races from several different installations across the country. The sample was also distributed in a way that satisfactorily represented the ranks of the military as well.

This study used an abbreviated version of the Child Stress Index and Screen for Child Anxiety Related Disorders to measure anxiety, nervousness, and worry in an online instrument that was made available to adults and children. Soldiers and spouses filled out the survey based

on their perception of their oldest child. Children were interviewed individually regarding the effects of deployments and how they coped with stress.

This study had some interesting findings regarding adolescents' ability to cope with multiple deployments. Seeking to identify the factors that predict the level of stress experienced by Army adolescents, the analysis showed that the factors that predict lower levels of stress are high participation levels in activities (sports), a strong family and the adolescents' belief that America supports the war. Possessing an overall ability to cope with deployments was predicted by having a strong non-deployed parent, the child's belief that America supports the war, a strong family, and the adolescent's belief that the soldier is making a difference. Keeping busy and having a strong family seem to mitigate the negative outcomes of deployment.

Morris and Age (2009) conducted a quantitative study that examined the coping, effortful control and mental health of sixty-five youth in military families. The purpose of the study was to understand the role of coping and effortful control in youth residing in military families. They examined coping (four different types: active, support seeking, avoidance and distraction), effortful control, maternal and paternal social support, emotional symptoms and behavior problems. Participants were youth that had parents who were currently not-deployed (though still military) or parents that had deployed in the past year. Researchers hypothesized that youth with deployed parents would report lower effortful control, less parental support, more negative coping strategies, fewer positive coping strategies and more symptoms of psychopathology compared to youth with non-deployed parents. They also hypothesized that active coping, low avoidance, high effortful control and parental social support would act as protective factors against the stress of having a parent in the military. Researchers also explored sex differences regarding adjustment and elevated adjustment difficulties among the youth.



Researchers recruited sixty-five youth and their parents from a charter school on a Naval Air Station. Parents answered basic demographic information including ethnicity, income and deployment history. All participants had at least one parent in the military, with five youth having two parents in the military. The youth ranged in age from nine to fifteen and were almost equally divided male and female. While 48% of the sample was European American, the sample also included a third African-American, and other ethnic groups. Only two participants had parents deployed at the time of the study, thus, deployment status was defined as one or more parents being deployed in the past year.

The study measured effortful control through a fourteen item scale of Early Adolescent Temperament Questionnaire-Revised, which looks at effortful control in domains of attention and inhibitory control. Parental support was measured separately for each parent through an eight item scale from the Social Support Appraisals Scale. The scale was modified to address families in particular with questions specifically for mothers and fathers separated. Coping was measured through the Children's Coping Strategies Checklist-Revision, which is a scale that addresses coping through smaller scales of active distraction, avoidance and support seeking. Finally, Adjustment was measured through the Strengths and Difficulties Questionnaire (SDQ), which measures children's behavioral adjustment and psychopathology.

The results of the study indicated that the military youth in this sample were faring well and that there were no differences between those with currently non-deployed parents and those with parents deployed within the last year. Their findings indicated that military youth are at a higher risk for symptoms of psychopathology, conduct problems specifically, as compared to established community norms for the SDQ; however, this comparison was not the focus of the study. Effortful control and maternal support are important protective factors against these

problems. Within the military sample, girls reported higher levels of emotional symptoms and lower levels of effortful control compared to boys. Among boys and girls, perceived maternal social support was associated with fewer conduct problems and less symptomatology overall. In contrast to this, support seeking was not associated with emotional symptoms or conduct problems and girls reported using it more than boys. This could indicate that the quality of the support received was more important than seeking support in general.

Overall, this study was significant in the fact that it is one of the first studies that examined youth in military families that are dealing with the current wars in Iraq and Afghanistan. This study replicated previous findings that youth in military families are at increased risk for psychopathology compared to established community norms for each of the measures. Nonetheless, more research is needed to understand the unique developmental and contextual characteristics of military youth and families and to examine the experiences of youth less connected to military family supports (i.e., those whose parent(s) serves in the National Guard or Reserves).

Chandra et al (2010) conducted a qualitative study that examined the effect of parental deployment on the well being of military children in terms of the behavioral, social, and emotional outcomes of children in a school setting. Chandra highlights a few studies that focused on how lower reading, math and standardized test scores are associated with children who experience parental absence more so than with children who do not. Her study specifically focused on social and emotional functioning of children and youth in the school setting and is the first to consider how the challenges of deployment may differ for various service components (i.e. Active Army vs. Army Reserve or National Guard).

Chandra and colleagues conducted focus groups that interviewed teachers, counselors and administrative staff at 12 schools which served two Army installations which had historically experienced high rates of deployment. A total of 24 focus groups were conducted in elementary, middle and high schools (12 teacher groups and 12 counselor groups). Phone interviews were also conducted with staff who served Army Reserve or National Guard children.

Two researchers conducted the focus group and interviews which were audio recorded. School staff commented on the following areas: 1) unique behavioral or emotional issues of the children, 2) unique social issues among children of deployed parents and 3) unique academic issues faced by children of deployed soldiers. The interviewers asked staff to differentiate between age, gender, Active, Reserve or National Guard parent, length of deployment and deployment cycle stage (predeployment, deployed or post deployment).

To analyze the interviews, researchers coded the taped conversations through the analytic tradition of grounded theory, reading sample transcripts and looking for processes, actions, assumptions and consequences. They then analyzed significant themes that were supported by multiple participants.

The results revealed that school personnel saw a significant number of children struggling with several deployment related issues. Researchers summarized the issues in three major categories: 1) parental deployments affect the ability of children to function at school, 2) students are losing resiliency as deployments continue, 3) schools are becoming the stable place or sanctuary for students. In the first category, staff reported that children experience uncertainty about deployment length, increased stress at home, and dealt with the perceived mental health of the parent at home, which all contributed to their functioning at school. National Guard and Reserve children are more isolated and, at least in this sample, did not have other families or

children in their school that were experiencing the same thing. Staff also reported that children experienced sadness and anger which influenced classroom activities and peer relationships. Anger and aggression appeared more prevalent for boys, while depression and somatic complaints were more prevalent for girls. Interestingly, some high school focus groups shared concerns that some adolescent female students were engaging in risk-taking behaviors such as cutting. In addition, children had increased responsibility at home, such as taking care of siblings and housework, which influenced their ability to function at school. They also became the emotional partners of their parent at home, sometimes to the point where they were kept out of school.

In the second category, children seem to lose resiliency as the deployments continue. Emotional resolve to get through the events of deployment such as separation and reintegration seems to have decreased over time. Families are less likely to get their children to school on time, and reintegration now challenges the family dynamics, where it once was an exciting time. One teacher noted an interesting observation – that if the foundation of a family is strong before the parent leaves, it generally stays the same with a parent gone.

In the third category, focus groups report that schools are becoming the stable place for students. Some students stay after school longer, while others are more clingy to teachers and staff members. This seems to affect the teacher's ability to focus on other students and academic instruction. This finding suggests schools may provide protective factors for children who are experiencing a parent deployed.

***Between-group studies (military and civilian).*** Ryan-Wenger (2001) is the only current published study that used a civilian comparison sample. She conducted a study that compared children of active-duty, Reserve, and civilian families with respect to their perceptions of war,

origin of fears related to war, levels of manifest anxiety, coping strategies, and projection of emotional problems in human figure drawings. One distinction about this study as compared with several others presented in this review is that this study was not conducted during a time when the country was currently at war, i.e. Desert Storm or Iraq. This was a descriptive, comparative study of the impact of living with the threat of war on children in active-duty and reserve military families. To avoid the assumption that findings from a military sample are exclusive, civilian children served as a comparison group.

Sixty-nine participants were recruited for the sample. Military nurses and research assistants helped to recruit children from schools, military installations, and reserve units across the United States. Complete data were collected from children from active-duty (N=18), reserve (N=25), and civilian (N=48) families, for a total sample size of 91. There were 50 boys and 41 girls; 81 were white, five black, two mixed, two Hispanic, and one unknown (i.e., not reported). Research assistants conducted 20-30 minute individual, audio taped interviews with the children in their homes. The children completed two questionnaires and a drawing during that time. The interviews were transcribed verbatim for inductive content analysis. The interview consisted of 17 open-ended questions, beginning with items about things that make children happy, sad, or afraid; followed by their ideas and fears about war; and moving on to the origin of those ideas and fears.

Manifest anxiety was measured by the Revised Children's Manifest Anxiety Scale (RCMAS), a 37-item self-report measure of the level and nature of trait, or manifest, anxiety in children and adolescents, 8-19 years old (Reynolds & Richmond, 1985). Emotional indicators on Human Figure Drawings (HFD) were used as another measure of emotional status. Coping strategies were measured by the 26-item self-report Schoolage Children's Coping Strategies

Inventory (SCSI) (Ryan-Wenger, 1990). Children indicate how frequently they use each coping strategy (frequency scale) and how much the same coping strategies help them to feel better (effectiveness scale) on a scale of 0-3.

This study reported no significant differences among children of civilian, active-duty, and reserve families on manifest anxiety total or subscale scores. Findings from these two measures of anxiety and emotional problems provide no evidence of a “military family syndrome,” i.e., more psychopathology in the children of reserve or active-duty families, compared to the children of civilians. A few coping strategies stood out among the military children. Significantly more active-duty children used “fight with someone,” “bite my nails,” and “daydream” to cope with stressors ( $\chi^2=5.8-7.0$ ,  $p=0.05$ ), while reserve children were more likely to “do something about it.”

The authors state that while the literature to date has focused primarily on negative effects of war or threat of war on child development, it is important to acknowledge that many military children are quite adaptive and resilient in spite of this potentially chronic stressor. Military children in this sample are not inordinately preoccupied with the threat of war, are not unusually anxious, and cope quite effectively. They also noted that much more research from the children’s perspective is needed, including phenomenological studies.

### **Gaps in research**

Although some research on the current military family population exists, there are still several gaps in the research as a whole. Even where studies have been completed on military families, there are not enough studies that replicate the results providing the justification for policy changes and program design and implementation. Many of the recent military family researchers call for more research on military children, and adolescents in particular, due to their

unique stressors (Chandra, 2010; Huebner & Mancini, 2005; Wong, 2010,). There are also very few studies that incorporate the adolescent's perspective. Studies that use multiple reports often find that parent perspectives are in conflict with the adolescent's own experience of the deployment (Chandra, 2010; Morris and Age, 2009). The field is further limited by the number of comparison studies that have been conducted between military children and their civilian counterparts. There are mixed findings as to whether adolescents in military families are measurably different from their civilian counterparts. Also minimally present in current research are studies that consider other possible differences based on such factors as gender, race, and parents' marital status or family structure. And finally, there has been limited study of youth in National Guard and Reserve families.

### **Current Study**

Nearly all of the recent studies on military families that explore the effect of deployment on adolescents call for increased attention to this topic and population in order to replicate and extend findings given the growing amount of families affected by the current wars. A focus on the adolescent population in particular has become a recommendation due to the uniqueness of their developmental timeframe. Whereas younger children gauge most of their responses to the deployment on the stay at home parent, teenagers are highly influenced by the people and media around them (Huebner & Mancini, 2007). For this reason, the further study of adolescents and how they respond to the increased stress of deployment in addition to the normative stressors they experiences is necessary. The current study will use a diverse sample of adolescents who come from various counties in a Southern state – some that are close to and others that are not close to a military base.

In addition to this, the necessity of studies that use the adolescent self-report of indicators of their psychological health instead of parent and teacher reports is warranted. There are only a handful of recent studies that incorporate the adolescent's own perspective of their health. Some include parent, teacher and adolescent perspective, while others just use the adolescent and their parent. Studies that use other (parent, teacher) reports are often in conflict with the adolescent reports (Chandra, 2010). This study will utilize a survey that the adolescents complete on their own before a relationship education course. The students are asked to report on a variety of indicators of interpersonal skills and well-being. For the purposes of this study we will explore the responses to the reflective coping, reactive coping, depression, and self-esteem scales and compare levels to those of a civilian population of youth, many of whom live in lower socio-economic circumstances. Having a diverse population of youth will allow for a meaningful comparison of differing types of potentially stressful contexts.

The current study will also build on two recent studies that have explored gender and differences within groups of military adolescents. Mmari (2010) noted that there are differences in the ways that girls and boys deal with the deployment in terms of internalizing and externalizing behaviors, while Morris and Age (2009) found that girls had higher emotional symptoms and lower effortful control.

There are no known studies that have looked at how African American teens deal with deployment as compared with European Americans. Scholars outside of the military research field find that African American youth may be more accustomed to transitions and exposed to adaptive family processes that help them persevere through some situations such as divorces and parental separation (McLanahan & Sandefur, 1994). For this reason, the current study will explore racial and gender differences as well as parental marital status within and between



groups of military and civilian adolescents. In addition, a large body of literature supports the notion that family structure (i.e. single parent, married or stepfamily), may affect child and adolescent outcomes (e.g. Cherlin, 2010), therefore differences by family structure will be explored as well.

This study will also address the need for more studies that use family members of the National Guard and Reserves. The National Guard and Reserve soldiers are often isolated from military bases and lack the social support networks that those on base are afforded (Park, 2011). This isolation from bases and the mainstream media could also be the reason for limited research on this population. Too often, this group is too dispersed, difficult to study and thus largely ignored. The current sample of adolescents will be mainly from National Guard and Reserve Families who are – for the most part unaffiliated with a local military base. The sample is unique in the fact that it was gathered through the community and not military channels.

Finally, this study will use a military and civilian sample to add to the field in terms of comparison studies. Comparisons will be made between civilian adolescents, military adolescents who have experienced a deployment and military adolescents who have not experienced a deployment. To date, there are no published studies that feature a comparison of these three groups. Using these three groups could highlight some similarities between military adolescents and civilians that have previously been overlooked due to not differentiating between the two types of military adolescents.

In summary, the following research questions will be explored:

Research Question 1: Controlling for participant age, SES, gender and race, are there differences in measures of coping and self-esteem based on family type (i.e., between youth in

military families who have had a parent deployed, youth in military families who have not had a parent deployed and those in civilian families)?

Research Question 2: After controlling for participant age, SES, and race, will there be a gender by family type interaction effect?

Research Question 3: After controlling for age, SES, and gender, will there be a race by family type interaction effect?

Research Question 4: After controlling for age, SES, race, and gender, will there be a marital status by family type interaction effect?

### **III. Methods**

#### **Sample and Procedure**

Secondary analyses will be conducted using data from a statewide relationship education project. The original data were collected from participants who were part of the project during the fourth and fifth year (2009 - 2011) (N=2,430) since youth completing this survey answered questions related to their parents' military service involvement. The data used for the original study were collected using self-reports both prior to and after implementation of a relationship education intervention and were matched by participant code. The current study will utilize only pre-program data collected prior to participation in the program.

All data collection procedures were approved by a university Institutional Review Board. Data were collected by family resource centers (FRC) located in eight counties in a Southern state. Three of those counties are considered rural, while the others are considered urban. Each FRC was responsible for recruiting youth to participate in the relationship education classes that were held in both school-based and non-school-based settings. Data were collected from various sites including middle or high schools, churches, after school programs, and summer camps. The surveys were administered by relationship/marriage educators trained in evaluation and data collection procedures.

Prior to participation in the study, adolescents and their guardians were informed of the purposes of the study, and each signed informed consent forms indicating their agreement to participate and release information for research purposes. Informed consent letters, master code lists containing participant information, and completed surveys were mailed to the university and processed by the project research team.

The sample for this study was drawn from 2,430 adolescent youth, with 654 adolescents completing surveys in project year 4 and 1776 adolescents completing surveys in project year 5. The sample was grouped into three categories based on their parents' military service. 74% (n=1789) reported not having a parent that served in the military; 16% (n=398) reported having a parent who served in the military but did not experience a deployment; and 10% (n=243) reported having a parent who served in the military and experienced a deployment.

In this sample, 53% identify as European American youth (n=1245), 39% African American youth (n=931), 3% Hispanic/Latino (n=69), 3% Bi-Racial, 1% Asian American (n=19), 1% Native American (n=21) and .5% Other (n=12). Gender composition is 58% female (n=1389) and 42% male (n=1013). The average age of participants is 16 (Range = 9, SD = 1.17). Participants were asked about their parent's education. For mothers, 13% did not complete high school (n=301), 26% completed high school only (n=614), 21% completed some college (n=497), 10% completed a 2-year college program (n=228), 19% completed 4 years of college (n=446) and 10% had post college education (n=242). For fathers, 17% did not complete high school (n=390), 35% completed high school only (n=782), 18% completed some college (n=411), 10% completed a 2-year college program (n=220), 12% completed 4 years of college (n=277) and 8% had post college education (n=172).

## **Measures**

### **Independent Variables**

**Demographic Variables.** Participants completed items on the survey indicating demographic information. Adolescents were asked to separately fill in or circle the options that described their age, gender and ethnic background. Educational level of both the participant's mother and father was obtained and used as a proxy for *socio-economic status*. Adolescents were

asked to circle one of the following in regards to their parent's education level: less than high school, completed high school, some college, 2 year college/Technical school degree, 4 year college degree, or post college degree (e.g., Master's, Ph.D., M.D., Ed.D.). Responses were coded as a continuous variable from 1 to 6; higher values indicates a higher level of education and relatively, higher socio-economic status. *Age* was coded as a continuous variable and represents the actual age in years reported. *Gender* was dummy coded with 1 indicating girls and 0 indicating boys. *Ethnic background* was also dummy coded, with 1 indicating European American and 0 indicating African American. *Parent marital status* was limited to those reporting living in single parent, married, or stepfamilies. Codes were devised based on responses to the "who is in your family" question on the survey.

***Family type groupings.*** Participants were classified based on whether their parent has served in the military and whether or not they have deployed in their lifetime. A participant was coded as being military if they respond to the question "Have either of your parents served in the military?" with "Yes". A participant was coded as being civilian if they responded "No" to the item "Have either of your parents served in the military?" In the sample, 74% (n=1789) were coded as being in a civilian family. Further, adolescents in military families were coded as "military deployed" they responded with "Yes" to the question, "Since they had you, have either of your parents been deployed for over a month?" In the sample, 10% (n=243) were classified as being in a military family who had experienced a deployment. Adolescents in military families were coded as "military not deployed" if they responded with "No" to this question. In the sample 16% (n=398) were classified as being in a military family that did not experience a deployment.

## **Dependent Variables**

The current study utilized measures of reflective coping, reactive coping, depression and self-esteem as indicators of adolescent well-being. The majority of recent research looking at military adolescents who have experienced a deployment has focused on psychological outcomes (e.g. Chandra, 2010, Lester, 2010, Mmari, 2010, Wong, 2010). In order to extend these findings, this study aimed to examine indicators of psychological health.

**Coping.** The Problem-Focused Style of Coping (PF-SOC; Heppner et al., 1995) (Appendix A) is an 18-item multidimensional measure of problem solving (i.e., an indicator of social skills) consisting of three subscales: Reflective Style, Reactive Style, and Suppressive Style. Only the Reflective Style (e.g., “I consider the short-term and long-term consequences of each possible solution to my problems”), and Reactive Style (i.e., “my old feelings get in the way of solving current problems”) were collected and used in this study. Respondents were asked to rate how often they engaged in each of the six items across a 5-point Likert-type scale ranging from 1 (almost never) to 5 (almost all of the time). Responses for Reactive Coping were reversed scored. In general, higher scores on Reactive and lower scores on Reflective Style indicate greater problem-solving deficits. Evidence for the construct validity and utility of the PF-SOC scales has been reported in Heppner et al. (1995) ( $\alpha = .77$  for Reflective;  $\alpha = .73$  for Reactive). The Chronbach’s alpha reliability for the current study is  $\alpha = .60$ . While reliability of .70 or higher is generally most desirable, values between .60 and .70 are not unacceptable (DeVellis, 1991).

**Depressive Symptoms.** Three items from the CES-D (Radloff, 1977) scale was used to measure depressive symptoms. This scale is a short self-report scale designed to measure depressive symptomatology in the general population. Respondents were asked to rate how often they felt the statement in each item across a 5-point Likert scale ranging from 1 (rarely or

none) to 5 (most of the time). The item is scored by adding all responses. A low score on these three items would indicate the adolescent reported less symptoms of depression, while a high score would indicate that the adolescent reported more symptoms of depression. The reliability for the current study is  $\alpha = .74$ .

***Self-Esteem.*** Three items from Rosenberg's Self Esteem Scale (RSE) (1989) were used to measure self-esteem. This scale was originally created specifically for measuring adolescent self-esteem. Respondents are asked to rate how much they agreed with the statement in each item across a 5-point Likert-type scale ranging from 1 (strongly agree) to 5 (strongly disagree). The items were scored by adding all responses. A low score on these three items indicates the adolescent had lower self-esteem, whereas a high score indicates higher self-esteem. The RSE demonstrates a Guttman scale coefficient of reproducibility of .92, indicating excellent internal consistency. This measure also demonstrates concurrent, predictive and construct validity using known groups. The RSE correlates significantly with other measures of self-esteem, including the Coopersmith Self-Esteem Inventory. In addition, the RSE correlates in the predicted direction with measures of depression and anxiety (Rosenburg, 1979). The reliability for the current study is  $\alpha = .73$ .

### **Plan of Analysis**

In order to test differences in measures of coping, depressive symptoms, and self-esteem between youth based on family type groupings of military non-deployed, military deployed and civilian (RQ1), SPSS 17.0 was utilized and univariate analysis of covariance (ANCOVA) was conducted for each outcome using the whole sample. Race, gender, SES and age were controlled. In order to test for gender by family type interactions (RQ2), 2(gender) X 3(family type) factorial models were tested using the whole sample while controlling for race, SES, and age. The three

groupings of family type based on parents' service in the military were used. In order to test for race by family type interactions (RQ3), 2(race) X 3(family type) factorial models were tested using the original sample, excluding all races except European and African American while controlling for SES, gender and age. In order to test for parent marital status by family type interactions (RQ4), 3(parent marital status) X 3(family type) factorial models were tested using the whole sample while controlling for race, SES, gender and age.



## IV. Results

*Preliminary Analyses.* Prior to testing specific research questions, initial descriptive statistics for the outcomes were computed and assessed and are presented in Table 1. Preliminary assumption testing was also conducted to check for normal distribution, skewness, kurtosis,

Table 1.  
*Descriptive Statistics*

Scale	Descriptive Statistics							
	N	Min	Max	M	SD	Skewness	Kurtosis	Reliability
Coping	2420	1	5	3.19	.78	-.162	-.207	.60
Depressive Symptoms	2416	.33	4	1.63	.70	1.33	1.4	.49
Self-Esteem	2404	1	5	4.07	.80	-1.18	1.99	.64

independence, normality, and sphericity/equality in variance, reliability and homogeneity. Assumptions were supported for all analyses. For each hypothesis or research question, the inclusion of covariates was guided by the relationship between covariates and the outcomes, which was determined using the Pearson Correlation procedure (see Table 2). Only those significantly correlated with the outcome measure of focus were included as covariates.

Table 2.  
*Pearson Correlations for Covariates and Outcomes*

		Coping	Self-Esteem	Depressive Symptoms
Gender (1=female, 0=male)	Pearson Correlation	.070**	-.006	.120**
	Sig. (1-tailed)	.000	.386	.000
Race (1=EA, 0=AA)	Pearson Correlation	-.036**	.002	.020
	Sig. (1-tailed)	.000	.459	.166
Age	Pearson Correlation	.059*	.027	.024
	Sig. (1-tailed)	.002	.093	.119
SES	Pearson Correlation	.126**	.086**	-.087**
	Sig. (1-tailed)	.000	.000	.000

Note. ~  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Research Question 1: Differences by family type. A one-way between groups analysis of covariance (ANCOVA) was conducted to compare the differences in measures of coping, depressive symptoms and self-esteem between three groups of adolescents based on their family type (military not deployed, military deployed and civilian) (Table 3).

Table 3.  
*Between-Groups Analysis of Covariance of Outcomes on Family Type grouping*

	Civilian (N=1681)		Military Not Deployed (N=367)		Military Deployed (N=220)		F	Sig
	M	SD	M	SD	M	SD		
Coping	3.19	.78	3.28	.78	3.11	.81	2.79	.062
Depressive Symptoms	1.61	.69	1.69	.72	1.68	.73	3.11	.045
Self-Esteem	4.07	.80	4.08	.83	4.09	.80	.778	.913

After controlling for gender, race, age, and SES, there was a difference between family types on *Coping* that approached significance,  $F(2, 2265) = 2.79, p = .062$ , partial eta squared = .002. Further examination of the least significant difference (LSD) post hoc tests revealed a significant difference ( $p = .024$ ) between adolescents in military families that have not deployed ( $M = 3.28, SD = .78$ ) and adolescents in military families who have deployed ( $M = 3.11, SD =$

.81). On average, adolescents in military families who have not deployed reported better coping than adolescents in military families who had deployed.

After controlling for SES there was a significant difference between family types on *Depressive Symptoms*,  $F(2, 2298) = 3.11$ ,  $p = .045$ , partial eta squared = .003. Further examination of the least significant difference (LSD) post hoc tests revealed a significant difference between adolescents in civilian families ( $M = 1.61$ ,  $SD = .69$ ) and adolescents in military families who have not deployed ( $M = 1.69$ ,  $SD = .73$ ). On average, adolescents in military families who have not deployed reported higher levels of depressive symptoms than adolescents in civilian families.

After controlling for gender, and SES, there was not a significant difference between family type groups on *Self-Esteem*,  $F(2, 2302) = .778$ ,  $p = .913$ , partial eta squared = .000. On average, adolescents in military and civilian families report similar levels of self-esteem.

The results of RQ1 showed that the military adolescents (deployed or not deployed) did not differ significantly on two out of three measures of *Coping*, *Depressive Symptoms* or *Self-Esteem*; thus, the two groups were combined to create only two family types – military or civilian – when conducting the interaction tests in order to enhance parsimony.

Research Question 2: Interactions between family type and gender. In order to test for interactions of family type and gender (RQ2), 2(gender) X 2(family type) full factorial models were conducted (See Tables 4-6).

Table 4.  
Interaction of Family Type and Gender for Coping

	SS	dF	MS	F	Partial Eta Squared
FamilyType	.291	1	.291	.484	.000
Gender	6.37	1	6.37	10.59**	.005
FamilyType*Gender	.031	1	.031	.051	.000
Error	1362	2261	.602		
Total	1398	2267			

\*\* $p < 0.05$

After controlling for all relevant covariates, there was no significant gender by family type interaction effect for *Coping*,  $F(1, 2261) = .051$ ,  $p = .822$ , partial eta squared = .000.

Additionally, there was no significant gender by family type interaction effect for *Depressive Symptoms*,  $F(1, 2261) = .235$ ,  $p = .628$ , partial eta squared = .000 or *Self-Esteem*,  $F(1, 2282) = .147$ ,  $p = .701$ , partial eta squared = .000. However, there was a main effect found for gender on *Depressive Symptoms* such that males report fewer *Depressive Symptoms* than females ( $p=.013$ ), and also for gender on *Coping* ( $p=.000$ ) such that females reported better coping than males.

There was not a main effect found for gender on measures of *Self-Esteem* ( $p=.801$ ).

Table 5.  
Interaction of Family Type and Gender for Depressive Symptoms

	SS	dF	MS	F	Partial Eta Squared
FamilyType	2.66	1	2.66	5.61**	.002
Gender	14.14	1	14.14	29.74**	.013
FamilyType*Gender	.112	1	.112	.235	.000
Error	1362	2261	.475		
Total	1119.4	2300			

\*\* $p < 0.05$

Table 6.  
*Interaction of Family Type and Gender for Self-Esteem*

	<i>SS</i>	<i>dF</i>	<i>MS</i>	<i>F</i>	Partial Eta Squared
FamilyType	.015	1	.015	.024	.000
Gender	.041	1	.041	.063	.000
FamilyType*Gender	.094	1	.094	.147	.000
Error	1458	2282	.639		
Total	1469.8	2286			

\*\* $p < 0.05$

Research Question 3: Interactions between family type and race. In order to test for interactions of family type and race (RQ3), 2(race) X 2(family type) full factorial models were conducted. After controlling for all relevant covariates, there was no

Table 7.  
*Interaction of Family Type and Race for Coping*

	<i>SS</i>	<i>dF</i>	<i>MS</i>	<i>F</i>	Partial Eta Squared
FamilyType	.843	1	.843	1.39	.001
Race	14.14	1	.125	.206	.000
FamilyType*Race	.112	1	.004	.006	.000
Error	1259.8	2073	.608		
Total	1295	2079			

\*\* $p < 0.05$

significant race by family type interaction effect for *Coping*,  $F(1, 2073) = .006$ ,  $p = .939$ , partial eta squared = .000. Additionally, there was no significant race by family type interaction effect for *Depressive Symptoms*,  $F(1, 2071) = .445$ ,  $p = .505$ , partial eta squared = .000 or *Self-Esteem*,

Table 8.  
*Interaction of Family Type and Race for Depressive Symptoms*

	<i>SS</i>	<i>dF</i>	<i>MS</i>	<i>F</i>	Partial Eta Squared
FamilyType	2.26	1	2.26	4.82	.002
Race	.630	1	.630	1.34	.001
FamilyType*Race	.209	1	.209	.445	.000
Error	972.2	2071	.469		
Total	999.9	2076			

\*\* $p < 0.05$

$F(1, 2069) = .043, p = .836$ , partial eta squared = .000. In addition, there were no main effects of race on reports of *Coping* ( $p = .650$ ) or *Depressive Symptoms* ( $p = .247$ ). However, there was a main effect present between race and *Self-Esteem* ( $p = .000$ ) such that African Americans report higher self-esteem than all other races.

Table 9.  
*Interaction of Family Type and Race for Self-Esteem*

	<i>SS</i>	<i>dF</i>	<i>MS</i>	<i>F</i>	Partial Eta Squared
FamilyType	.069	1	.069	.111	.000
Race	9.43	1	9.43	15.1**	.007
FamilyType*Race	.027	1	.027	.043	.000
Error	1291	2069	.624		
Total	1317	2073			

\*\* $p < 0.05$

Research Question 4: Interactions between family type and parent marital status. In order to test for interactions of family type and parent marital status (married, stepfamily or single) (RQ4), 3(parent marital status) X 2(family type) full factorial models were conducted (see Tables 10-12). After controlling for all relevant covariates, there was no significant parent marital status by family type interaction effect for *Coping*,  $F(2, 2067) = .429, p = .651$ , partial eta squared =

Table 10.  
*Interaction of Family Type and Parent Marital Status for Coping*

	<i>SS</i>	<i>dF</i>	<i>MS</i>	<i>F</i>	Partial Eta Squared
FamilyType	.258	1	.258	.433	.000
Parent Marital Status	2.26	2	.1.13	1.90	.002
FamilyType*PMS	.511	2	.255	.429	.000
Error	1230	2067	.595		
Total	1266	2076			

\*\* $p < 0.05$

.000. Additionally, there was no significant parent marital status by family type interaction effect for *Depressive Symptoms*,  $F(2, 2098) = .954$ ,  $p = .385$ , partial eta squared = .001 or for *Self-Esteem*,  $F(2, 2100) = .304$ ,  $p = .738$ , partial eta squared = .000.

Table 11.  
*Interaction of Family Type and Parent Marital Status for Depressive Symptoms*

	<i>SS</i>	<i>dF</i>	<i>MS</i>	<i>F</i>	Partial Eta Squared
FamilyType	1.35	1	1.35	2.88	.001
Parent Marital Status	7.60	2	3.79	8.08**	.008
FamilyType*PMS	.897	2	.449	.954	.001
Error	987	2098	.470		
Total	1023	2105			

\*\* $p < 0.05$

Main effects of parent marital status was found on reports of *Depressive Symptoms* in the three groups, such that adolescents in married families reported lower levels of depressive symptoms than adolescents in step-parent families ( $p=.046$ ). There were no significant differences between reports of depressive symptoms in step and single parent families ( $p= .081$ ). There were no main effects found for parent marital status on measures of *Coping* or *Self-Esteem*.

Table 12.

*Interaction of Family Type and Parent Marital Status for Self-Esteem*

	<i>SS</i>	<i>dF</i>	<i>MS</i>	<i>F</i>	Partial Eta Squared
FamilyType	.136	1	.136	.215	.000
Parent Marital Status	7.43	2	3.72	5.89**	.006
FamilyType*PMS	.384	2	.192	.304	.000
Error	1324	2100	.630		
Total	1347	2106			

\*\* $p < 0.05$



## **V. Discussion**

The country's involvement in two wars in the past ten years has brought much attention to the military and their families. Despite this attention and increase of research in this field, there are still areas that lack conclusive evidence of certain trends. There are mixed findings as to whether adolescents in military families are measurably different from their civilian counterparts on indicators of well-being. Some studies show that military adolescents are equally as mentally healthy as their civilian counterparts, while others show that adolescents have worse mental health than their civilian counterparts (Huebner & Mancini, 2005; Jensen, 1991, 1995). However, there is only one recent study that makes this comparison between military and civilian. Many scholars and practitioners seem to be using old findings or speculation when asserting risks for military youth. Thus, the purpose of this study was to take a closer look at the outcomes of military adolescents as compared to civilian adolescents. Specifically, it aimed to understand the differences between military youth who have experienced the deployment of a parent, those that have not, and civilian youth in terms of coping, depressive symptoms and self-esteem. This study stands alone in its use of a diverse sample of military and civilian youth. This, along with its use of specific demographic moderators of differences based on family type makes this study very unique in this field.

### **Research Question 1 -- Differences Between Civilian and Military Adolescents**

#### *Coping*

The results of the study have offered some interesting conclusions regarding the outcomes of both civilian and military adolescents in this population. The first look at the differences between coping, depressive symptoms, and self-esteem in the three groups of

adolescents, revealed that there is little evidence supporting that adolescents in military families who *have experienced a deployment* are different from their *civilian counterparts*. There is some evidence, however that they may differ in comparison to their military counterparts who have not experienced a deployment in terms of coping. Adolescents who have not experienced a deployment show evidence of coping better than those who have experienced a deployment. This finding is not too surprising as it replicates several other studies that have compared these two types of military adolescent groups. Chandra and her colleagues (2009) recently found similar findings regarding emotional difficulties in general. And from earlier Desert Storm research, researchers noted other heightened problems such as anxiety and depression. However, Huebner's (2005) findings are in contrast to these as she found that adolescents exhibited good coping skills when faced with a parent deployed. Nonetheless, it is important to consider that though these findings were approaching significance, the coping means as a whole were not exceptionally low, rather, they fell on the higher side of the scale average.

The other finding, however, that military adolescents who have experienced a deployment and civilian adolescents do not differ in terms of coping was a surprising result. This could be explained by the recent finding by Wong (2010) that states that the best predictor of an adolescent's ability to cope well with deployment is their belief that the deployed parent is making a difference. In a state where military service is highly regarded as a part of the culture, and in a region of the country (southern states) where recruiting numbers are in abundance for military service, it is possible that this positive climate is felt among adolescents as well (Segal & Segal, 2004). This positive climate could be influencing their belief that their deployed parent is making a difference and helping them to cope with deployment more effectively.

### *Depressive Symptoms*

The initial analysis also revealed a difference that between civilian adolescents and military adolescents who have not experienced a deployment in terms of depressive symptoms. There was evidence that the military adolescents who have not experienced a deployment report more depressive symptoms than civilian adolescents. This is an interesting finding given that a more expected conclusion might be that the deployment group would have more depressive symptoms. This finding could be in part due to the stress associated with being in a military family. Some research has indicated that father absence, not necessarily related to a deployment, but military service in general is related to poor mental health such as depression (Hillenbrand, 1976). It is important to note, however, that the mean depressive symptom scores of the adolescents in all three groups were still on the low end of the scale – all averaging below 2 on a scale that ranges as high as 5. While the CES-D does not indicate a cutoff for low and high scores, the point could be made that all three groups have relatively low depressive symptom scores across the board.

### *Self-Esteem*

The outcome of the comparison of military and civilian adolescents revealed that military adolescents (both deployed and not deployed) and civilian adolescents are not significantly different in terms of self-esteem. This lack of findings could be a good one – showing again that military adolescents are not so affected by the deployment of a parent that it affects their self-esteem. It could also be validating some of the findings of recent military researchers – that military support systems are a protective factor for adolescents. This is somewhat speculative, however, given that the study did not have measures in place to validate these ideas. All of the mean self-esteem scores, nonetheless, only differed by .01 – showing that these self-esteem scores were both close in number and on the higher side of the scale.

## General Discussion of Research Question 1 Findings

One of the main aims of this study was to compare military adolescents who had experienced a deployment and civilian adolescents. The outcomes of this comparison in Research Question 1 clearly showed that adolescents who have experienced a deployment are not significantly different than civilian adolescents. There were no differences identified between the civilian group of adolescents and the military deployed group – in any of the three outcome measures of coping, depression and self-esteem. This finding is not consistent with several recent studies that compared military adolescents to set civilian norms (Chandra, 2008; Flake, 2008; Lester, 2010; Morris & Age, 2009) which found the opposite findings – military adolescents who have experienced a deployment had more negative outcomes on indicators of well-being. This is an important finding as it may parallel the growing body of research that shows that military adolescents are able to persevere through challenges and are actually able to be resilient as a result of family support and other protective factors (MacDermid, 2008). On the other hand, this finding could point to a more realistic picture of the mental health of the civilian population, particularly, levels of well-being indicators among a primarily lower-income and rural civilian population of youth. The interpretation can be that these adolescents are functioning at comparable levels to youth experiencing the challenges that may accompany life in the military. In other words, the amount of stress and challenges may be similar; the *nature* of the stress and challenges are likely the difference. However, the point can be made again, that there are not indications of severe dysfunction for any of the groups.

The Family Adjustment and Adaptation Response (FAAR) Model (Patterson, 1988) could be a partial theoretical explanation of this finding. The FAAR Model is comprised of four major constructs: family demands, family capabilities, family meanings and family adjustment or

adaptation. It suggests that families use these capabilities and meanings to adjust to major stressors or life events (demands). In this study, this theory may help explain why adolescents in military families did not show many differences from civilian adolescents. In today's military context that includes explicit value and support at the local and national levels for the military's contributions and sacrifices, youth may have greater opportunities for using community resources and their own family processes to persevere through life events and appear either minimally affected by the deployments and military family lifestyle or comparable to the outcomes of youth who face other types of stressors and challenges. This idea is supported by Huebner & Mancini's (2005) findings that though deployment can be a negative event in their lives, adolescents exhibit numerous adaptive responses. Furthermore, a majority of research in this field aims to gather data to create programs and resources to help military families. There are several current efforts in place to give military families the resources they need to adjust to the challenges of deployment. Further explanation of this outcome in the study could be that military adolescents are resilient and minimally disadvantaged in the broader community context. They are able to use resources of family, friends and other supports to their advantage and may be stronger because of the challenges they face (MacDermid, 2008). Additionally, the mental health of the parent who is at home with the child can often have much more of an impact on the child's well-being than the separation from the other parent. Mmari suggests that the attitude of the parent at home influences the child's attitude (Mmari, 2008).

## **Research Question 2 – Examining the Influence of Race on Adolescent Outcomes**

### *Interaction findings*

The current study aimed to add to the field more research on demographics and how they might influence the outcomes of an adolescent population within the military and the civilian population. There was reason to expect that African Americans could be advantaged in the military due to the “village” concept of raising a child that is a more evident norm among African American communities. More specifically, suggestions are that African American youth may be more accustomed to inclusivity of other family members and that African American youth are more accustomed to transitions and may be exposed to adaptive family processes that are more accepting of new members in the family system (Adler-Baeder et al., 2010; McLanahan & Sandefur, 1994; Crosbie-Burnett & Lewis, 1993). If an African American family experiences the deployment of a parent, it is possible that the effects are less detrimental as other family members and changes in family dynamics are more readily accepted. Results indicate that African American youth are not more advantaged in the military than in the civilian context (i.e., there were no interaction effects of family type and race). Main effects; however, highlight distinctions by race that occur in both the military and the civilian population of youth.

#### *Main effect findings for race*

While no race by family type interaction was seen for coping, depression, or self-esteem, further analysis showed a main effect relationship between race and self-esteem. African Americans reported the higher self-esteem than European American. This finding is consistent with others that show evidence that African American self-esteem is often higher than European American self-esteem, especially in the Southern region of the United States. This is commonly explained by the concept called stigma as self-protection, whereby membership in a disadvantaged group serves as a protective factor for self-esteem, typically initiated by explicit efforts in parenting (Twenge & Crocker, 2000).

### ***Research Question 3 – Examining the Influence of Gender on Adolescent Outcomes***

#### *Interaction findings*

There were no interactions found between gender and family type on any of the outcome measures. Thus, this study shows that, in this population of adolescents, gender does not have an differential influence on adolescents' ability to cope well in the military vs. the civilian population. Additionally, there was no evidence present for a relationship between gender and family type on the adolescents' reports of depressive symptoms and self-esteem level. Main effects; however, highlight distinctions by gender that occur in both the military and the civilian population of youth, consistent with some research in the military community that says that there are differences in the ways that males and females cope with deployment and that they differ in other measures of well-being (Morris & Age, 2009; Mmari, 2010).

#### *Main effect findings for gender*

While there were no evident interaction effects of gender on coping depressive symptoms, or self-esteem, there was a main effect of gender on depression. Males reported lower depression symptoms than females, which is also in concert with findings outside of military research that find that adolescent females between the ages of 13-15 experience higher depressive symptoms than males (e.g., Cyranowski, 2000). This is also in agreement with research indicating that during early adolescence, females experience lower levels of emotional well-being compared to males, particularly in terms of internalizing problems (Ruble, Martin, & Berenbaum, 2006). It is important to note, however, that while these levels of depressive symptoms were statistically significant, they do not appear to be meaningfully different. Both genders' average depressive symptom score still falls on the lower half of the scale.

#### ***Research Question 4– Examining the Influence of Marital Status on Adolescent Outcomes***

##### *Interaction findings*

From the findings of this study, there were no differential influences of marital status on the outcomes of military vs. civilian adolescents. Similar to the other examinations of demographics, main effects were found for parent marital status in both the military and the civilian population of youth. Investigating the effects of parent marital status on youth outcomes in a military population is novel, as there are no known studies that have published information regarding the parent marital status and military youth.

##### *Main effect findings for parent marital status*

A main effect trend indicated that youth of married families reported higher self-esteem than those of stepparent and single families in both civilian and military families. This finding is consistent with several studies that have shown that parent marital status is often a predictor for adolescent self-esteem (Mandara, 2000). Amato (2010) also found evidence for this outcome in his meta-analysis, reporting that children of divorce experience a lower level of well-being than do children living in continuously intact families. He notes specifically that research during the last decade continued to show that children with divorced parents, compared with children with married parents, score lower on a variety of emotional, behavioral, social, health, and academic outcomes, on average (Amato, 2010).

#### **General Discussion of Demographic Influence (Race, Gender, Marital Status) Findings**

Overall, the results highlight the value of considering other demographics when examining outcomes for youth in both military and civilian families. This has historically not



been done in examinations of military youth development. The practice of looking at demographics is an important one. Instead of controlling for sample diversity as most research approaches do, taking an eco-cultural perspective when studying the military population would be more helpful (Phenice et al, 2009). Understanding when and how demographics can affect the outcome of interest is essential research for both its empirical and practical implications.

## **Limitations**

Although this study offers some valuable conclusions about military adolescents, there are some limitations. Many of the limitations stem from the overarching fact that this study was conducted on data that was already gathered, thus questions were not necessarily tailored to the initial vision of the researcher. Nonetheless, this sample, taken randomly from a population across the state of Alabama still yielded a sample of adolescents, with over a quarter being military.

The first major limitation of the study is that the military sample is comprised of a wide variety of adolescent experiences. Some adolescents may have a parent who was in the military recently, while others may have experienced their parent in the military at a younger age. The study does not question at what point in time the adolescent's parent is in the military. Nonetheless, capturing a comparison of military and civilian adolescents in general is an important addition to the very few comparison studies that exist over the past ten years.

A second limitation is the comparatively small number of military adolescents that were in the sample as compared with the civilian group. Unfortunately, military personnel are often hard to study when not associated with a military base. This sample was taken separate from a military post and is thought to contain mostly National Guard and Reserve members, although

this is not conclusive. That the study could not distinguish between National Guard, Reserve and Active Duty families is also a limitation.

One final limitation is that the study is unable to discern how much time has elapsed between when the family experienced the deployment and when they took the survey. Some research indicates that some effects of deployment dissipate over time, while other symptoms continue to get worse as the family experiences more deployments (Pincus et al 2001, Lester, 2010). A more precise measurement of type of service and timing of deployment could have revealed important differences between subsamples.

### **Conclusion/Future Directions**

Given that our military population has experienced many deployments and challenges over the past ten years, further research on the experiences of their families is necessary. Adolescents in these families seem to be most affected by war and parental separation due to the compilation of normative stressors as well. Although it is clear that adolescents in military families are sometimes negatively affected by deployments and parental separation, the picture does not appear to be as bleak as often proposed. In contrast, military adolescents are often resilient, mentally strong and able to adapt to their changing lifestyle (Huebner, 2005). Future studies in this field would benefit from focusing on how to predict the resilience of military youth instead of identifying their deficiencies. Understanding what factors allow some to experience better outcomes than others could potentially help improve program development and implementation within military communities.

Future research could benefit the field by using more explicit measures for military families such as ones that factor in deployment lengths, number of times deployed and other

factors related specifically to military families. Not accounting for characteristics of deployment and military families could be a crucial deficit in most of the current research in the field.

Demographic factors are another aspect that cannot be overlooked in future research, as this study demonstrates. Specifically, understanding the differences in how various ethnicities respond to the military family culture is necessary. The military boasts that its population is representative of the variety of American cultures and ethnicities. It also includes a variety of family structure types. Thus, the research in this field must not ignore the differences that occur when these culturally and structurally different families face the challenges of deployment and military life. Another demographic that often gets overlooked is the various challenges of families at each rank/SES level in the military. Presumably, adolescents in low SES military families face the same trials that those in civilian families, but this picture is still unclear due to the lack of studies that give SES in military populations due attention. Indications in some existing research in this field are that SES can be a factor that serves as a protective factor for some, and a risk factor for others (Jensen, 1991).

Furthermore, studies that are able to capture adolescents from families in each service (Reserve, National Guard and Active duty) are warranted. These service types differ greatly in their intensity of work and also in the amount and type of support networks they have at their disposal. These factors could be influencing the outcomes of their adolescents.

There is also a necessity for more studies that compare military and civilian adolescents to build this area of research. The findings often contrast one another, and a clear picture of this comparison has yet to be established. Most of all, however, the need in this area is for more research that helps practitioners understand the variability of outcomes within the military. In

other words, understanding why some adolescents in the military are doing well and why others are not is necessary. This could help establish treatment and programs that will help mitigate existing problems and prevent problems for future military populations.

Americans have seen the fallout of our Vietnam veterans and the insufficient support they and their families received in the years during and after the Vietnam war. Only now are we starting to compensate for lack of support these veterans received early on. Understanding the challenges and triumphs of the current military families through dedicated research is bound to prevent us as a society from making the same mistake twice.

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