

# Adolescents in Wartime US Military Families: A Developmental Perspective on Challenges and Resources

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**Abstract** Adolescents in wartime US military families are a unique group of young people who are experiencing the usual milestones of adolescent development, including establishing their identities and becoming autonomous, while they face the challenges of military life such as multiple frequent moves, relocation, and parent deployment to combat settings. This paper reviews research on adolescents in wartime US military families, within the context of adolescent development, to identify their behavioral, emotional and academic risk status, and challenges and resources. Recommendations for future research and interventions to foster the healthy development of these adolescents are also provided.

**Keywords** Adolescents · Military families · Development · Risk · Resilience

The US military has been actively engaged in recent years in a number of wartime conflicts including Operation Desert Storm, Operation Iraqi Freedom, Operation Enduring Freedom, and Overseas Contingency Operation. Nearly, two million children in the US live in a household

with a military parent (Department of Defense 2012). Almost 44 % of military families have children, with a quarter of their children being between the ages of 12 and 18 years (Department of Defense 2012). These military families have experienced the most frequent, longest, and most cumulative number of wartime deployments in US history (Tanielian and Jaycox 2008). Current wartime conflicts are stressful for military families due to longer and more frequent deployments (Lemmon and Chartrand 2009; Park 2011). During deployment, service member parents serving in combat settings experience traumatic events (e.g., death or injury of fellow service members, being attacked, etc.) and emotional problems (e.g., depression, anxiety, etc.) (American Psychological Association 2007). Caretaker parents who remain at home also report emotional problems (e.g., anger, depression, anxiety, etc.), physical problems (e.g., sleep disturbances, etc.), and problems in daily living (i.e., keeping up with the responsibilities of running a household, such as the finances or maintenance of a house) (American Psychological Association 2007). Adolescents in these wartime US military families are a unique group of young people who are simultaneously coping with the developmental milestones of adolescence, such as establishing identity and autonomy (Drummet et al. 2003; Erickson 1950, 1968; Huebner et al. 2007; Park 2011; Piaget 1950; Reed et al. 2011a, b; Sheppard et al. 2010), while they are adjusting to the challenges of wartime military life that can influence development including multiple moves, relocation, and the deployment of a service member parent to a combat setting (DePedro et al. 2011; Laurence and Cleary 2010; Esposito-Smythers et al. 2011; Bradshaw et al. 2010; Lemmon and Chartrand 2009). Some of these adolescents report high levels of emotional and behavioral problems as well as substance use (e.g., Gilreath et al. 2013).

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This paper examines how the experience of being part of a military family during wartime conflict can influence the developmental milestones of adolescents, aged 11 to 18 years old, in US military families who have at least one parent who is serving or has served in one of the branches of the US military (Army, Navy, Air Force, Navy, Marine Corps, Coast Guard, Reserve and National Guard). These developmental milestones are the physical, cognitive, and emotional changes that occur during adolescence including entering puberty, learning to think abstractly, forming a distinct identity, and becoming more independent and autonomous (American Psychological Association 2002). Understanding how the context of military family life in wartime relates to the development of adolescents in military families is an important step in expanding research on military families to be part of the body of research in “mainstream psychology” (Park 2011; p.65).

A military family can be comprised of the service member, his/her spouse/partner, his/her child(ren), and/or other relatives (e.g., grandparents, etc.). Consequently, our definition of US military families is broad in order to adequately reflect the expansiveness of who can be included within the family of a service member parent in current times. This broad definition takes into account diverse family configurations, such as a single parent, children, and a grandparent, that are increasing in number in the US military (Park 2011). The definition also includes all branches of the military as the experiences of adolescents in National Guard and Reserve families may be different than those of adolescents in families in other branches of the military. National Guard and Reserve families have less access to resources and are more geographically isolated than military families in other branches who live on or near military installations (Lemmon and Chartrand 2009).

The literature on children in US military families has predominately focused on school-age children, with the investigation and discussion of adolescents given less attention. There are few studies published that focus specifically on military adolescents (Huebner and Mancini 2005). In this paper, we review the research on adolescents in US military families, from an adolescent development perspective, in order to identify the risk status, and behavioral, emotional, and academic challenges associated with multiple moves and relocation, and the deployment of a service member parent experienced by these youth as well as the social support and resources available for them. We conclude with recommendations for future research and interventions to foster the healthy developmental trajectories of adolescents in US military families.

While there have been a number of studies that have examined children in military families (see Maholmes 2012; Park 2011 for reviews of this literature), our review is limited to conceptual and empirical work related to US

military families that include adolescents, and research, for the most part, which applies to recent wartime conflicts (e.g., Operation Desert Storm, Operation Iraqi Freedom, etc.). This is an emerging literature as greater attention has only just begun to be given to the impact of frequent, multiple wartime deployment on military families and their children (e.g., Maholmes 2012; Park 2011), and adolescents in military families have been under studied (Maholmes 2012). Reviews that focus on adolescents in wartime conflicts are clearly needed (Bradshaw et al. 2010).

Our review builds upon recent reviews of children and youth in military families; specifically, the work of Maholmes (2012), Park (2011) and Palmer (2008). For example, Maholmes’ review (2012) focuses on understanding the impact of deployments on children from infancy to adolescence using a developmental approach that relies on attachment and stress theories. Our review targets adolescents, aged 11–18 years, and examines the impact of multiple moves and relocation in addition to deployments within the context of developmental milestones. Park’s review (2011) addresses the strengths and challenges of military families, including adolescents in these families, but pays less attention to developmental issues. Our review, however, expands Park’s (2011) work by adding a developmentally appropriate perspective which she acknowledged was needed in future work on military families indicating “a developmental perspective should be utilized in understanding the effect of deployment on children” (Park 2011; p.69). Palmer (2008) provides a comprehensive review of research on military families that relies on a risk and resiliency and family systems theoretical approach to examine challenges that include relocation, deployment, combat exposure and post-traumatic stress disorder (PTSD), and reunion. Her review does not, however, fully distinguish between the experiences of families in wartime and peace time. Our review focuses on wartime experiences. Relocation or moving during peace time to a new assignment where the military family remains intact is different than relocation during a wartime conflict when the service member parent is deployed and at risk of injury or death. There is a critical need to begin to identify how wartime relocation impacts adolescents in military families within the context of adolescent development given that military families are currently experiencing wartime conditions in their lives.

### Adolescent Development and US Military Families

A number of developmental theorists have influenced and informed our current understanding of the magnitude and complexity of adolescent development (e.g., Piaget 1950;

Kohlberg 1973; Erickson 1968; Bronfenbrenner and Morris 2006; Mead 1950; Bandura 1975). Each of these theories approaches the understanding of adolescence from a different perspective and each contributes to refining our understanding of adolescent development. While the theories explicate particular aspects of adolescent development, such as Kohlberg's focus on moral development or Piaget's focus on cognitive development, healthy adolescent development includes predictable physical, cognitive, emotional, and social milestones. Further, adolescent development must be understood in the context of the family, neighborhood, school, and community. For adolescents in US military families, this context also includes the unique challenges indicative of military life, including multiple moves and parental deployment. First, we will provide the developmental context for discussing the risk statuses, challenges, and resources posed by parental military service by reviewing the developmental milestones typical of adolescence and explore how these tasks may be shaped by being part of a military family.

The most obvious development changes in adolescents are physical, such as the development of breasts and first menses for girls, and deepening voices and broadened shoulders for boys. The sequence of physical changes is predictable although the age of onset and the pace of these changes are quite variable (Kipke 1999). Concerns about physical appearance, such as acne, weight, and facial features, become increasingly important and drive psychological challenges such as disordered eating (Field et al. 2008). Girls also typically experience an earlier onset of puberty and other physical changes in comparison with boys (Santrock 2010). Physical changes are a marker for a very stressful time in adolescence, when young people become very concerned about their appearance and struggle with creating a unique personal "style" while still adhering and conforming to the norms of their peer groups (American Psychological Association 2002).

Physical development may be stressful for adolescents in US military families. Communication with parents about physical changes is important as it can prepare adolescents and help them better cope with the changes they are experiencing (Koff and Rierdan 1995), allow adolescents to keep concerns about physical changes in perspective and identify solutions to problems posed by their changing bodies (American Psychological Association 2002). Discussions about physical and sexual development are difficult for many parents (McNeely et al. 2002). For adolescents with parents in the military, however, access to their parents to communicate about physical changes can be influenced by the service member parents' deployment. Given current communication technology, adolescents often have access to their deployed parent via email or phone (Huebner and Mancini 2005; Palmer 2008; Lemmon

and Chartrand 2009), which can ensure the ability of the adolescent to discuss their experiences. However, these conversations are often opportunistic, driven by an event at school or interaction with a friend, making the availability of the parent particularly important (Guilamo-Ramos et al. 2006; Laible and Carlo 2004). Therefore, there may be some instances when the service member parent is away and not readily available to talk when an issue presents itself. These physical transformations mark just a fraction of the developmental changes experienced by adolescents.

Even more dramatic than the physical changes are the developments in the way adolescents think, reason, and understand. Cognitive development is characterized during adolescence as a movement from concrete, "black and white" thinking to abstract thought, moral reasoning, and metacognition that includes the use of hypothetical situations, metaphors, and logic (Piaget 1950). Research has found few significant differences between the cognitive development of adolescent boys and girls; however, adolescent girls tend to feel more confident with their social and reading skills whereas boys feel more confident about their math and athletic skills (Eccles et al. 1999). This higher-level thinking allows adolescents to think about the future, weigh options, and plan for the future. The development of abstract thinking and observation allows for idealistic thinking, where adolescents consider the ideal characteristics of themselves, others, and the world. While becoming more attuned to other people, adolescents also encounter new social and emotional difficulties, particularly when comparing themselves to their peers. There is a great deal of variability in cognitive development, and it can be impacted by factors such as family environment, school, medical conditions, or emotional or physical trauma (American Psychological Association 2002).

The cognitive development of adolescents in military families indicates that they understand the dangerous consequences of their parent's military service and/or deployment and how their life is changed because of it (Huebner and Mancini 2005). In several qualitative studies, adolescents have reported worry, fear, and anxiety concerning a parent's deployment (Huebner et al. 2007; Mmari et al. 2009; Huebner and Mancini 2005; Reed et al. 2011a, b). Higher prevalence of psychological stress during parental deployment has also been reported by adolescents in military families (Barnes et al. 2007). An almost constant media exposure to the details of combat because of today's technology coupled with their still developing cognitive abilities can disrupt the adolescents' ability to cope with and adapt to parental deployment (Chartrand and Seigel 2007; Reed et al. 2011a, b).

Emotional development is closely intertwined with cognitive development. Emotional maturity is demonstrated by the ability to express emotional affect appropriately and

demonstrates positive coping responses to stress. Adolescent emotional development is characterized by the establishment of a realistic and coherent sense of identity while learning to cope with stress and manage rapidly fluctuating emotions (Santrock 2010). Erickson (1968) posited that establishing a sense of self was the central task of adolescence. Identity includes one's self-concept and self-esteem. Self-concept refers to the set of beliefs, qualities, and abilities one has about oneself, whereas self-esteem involves a value judgment by evaluating how one feels about one's self-concept. Adolescents emerging cognitive skills allow them to make generalizations about the self. Achieving a realistic sense of identity is accomplished through experimenting with different ways of behaving, appearing, and sounding. This experimentation is normative and an indication that the adolescent feels safe and secure enough to explore the unknown. As adolescents, however, try to assert their individuality and exercise independence, conflict with parents is common (Spear 2000). In addition, adolescents may not communicate about or discuss sensitive topics with parents for fear of getting in trouble. Consequently, it becomes increasingly important for parents to empathetically listen to their adolescent's feelings without prematurely offering solutions or "laying down the law."

For adolescents in US military families, in particular, communication with parents about emotional issues may be difficult due to the military culture of stoicism, where one is expected to deal with problems without complaint (Hall 2011), and the difficulty adolescents have in discussing sensitive topics with parents (Spear 2000). This may be exacerbated by the employment of a coercive or authoritarian parenting style, in which parents give orders, make demands, set rules, and reward obedient behavior (Hall 2011). Adolescents in military families, however, may also develop specific coping strategies through their experience with the military culture and lifestyle, such as sense of agency and additional responsibilities that foster maturity (Huebner and Mancini 2005). These adolescents often take on more responsibilities at home and become "another parent" for younger siblings (Huebner and Mancini 2005). These challenges and facilitators are likely to impact adolescents' ability and success in navigating their emotional development.

It is not surprising that as adolescents' thoughts, emotions, and identities are becoming more complex, their social relationships also become more complicated. Adolescents' social development is characterized by a shift in orientation to peer relationships. In order to establish independence and autonomy, this orientation toward peers is necessary. During adolescence, social networks greatly expand to include more and different types of relationships. Peers also serve as a reference point for the adolescent's

emerging identity. Adolescents strive to understand how they differ from their parents and develop their own moral judgment and values. Advances in communication technology [e.g., text messaging, social media (Facebook), Skype, and online gaming] enable young people to create and maintain social relationships in a number of different ways. Romantic relationships, intimacy, and initiation of sexual behavior are typical during adolescence. Healthy social development includes being able to achieve balance and satisfaction with interpersonal relationships despite the increasing complexity of those relationships. Adolescent's success in developing healthy social relationships is influenced by their parents. When parents are emotionally unavailable, adolescents may have difficulty forming intimate relationships later in life (Hall 2008). Therefore, as indicated earlier, the accessibility of the parent is important to successful adolescent development.

As illustrated above, all adolescents embark on a number of developmental tasks. For adolescents in military families, a number of unique issues can impact their development. We have provided an overview of adolescent development and included the potential influences that the military context may exert. There are a number of risk statuses, specific challenges, and social support and resources experienced by adolescents in US military families. While maintaining a lens of adolescent development, we now move our discussion to the risks experienced by these youth and the unique and specific contexts that challenge adolescents in military families.

### **Risk Status of and Challenges Experienced by and Adolescents in US Military Families: Relation to the Attainment of Development Milestones**

#### **Risk Status of Adolescents**

The findings on the risk status of adolescents in US military families have been mixed. More recent research suggests adolescents in US military families are undergoing problems in their emotional development, reporting high levels of emotional and behavioral problems as well as substance use (e.g., Mmari et al. 2009; Gilreath et al. 2013). Ethnicity, parent deployment, age, and service branch are associated with risk status. Barnes et al. (2007) found European American adolescents with a deployed family member reported the highest levels of post-traumatic stress and loss of psychosocial support (e.g., control, hope, support, optimism, etc.) at pre- and post-deployment compared to non-European American adolescents with a deployed family member, non-European adolescents with a non-deployed family member, and civilian adolescents. They

also had higher blood pressure than all the other adolescents at post-deployment.

Reed et al. (2011a, b) in a sample of adolescents from a state survey that compared adolescents with a deployed service member parent, adolescents with a non-deployed service member parent, and adolescents with non-military parents found several risk behaviors, and a significant impact on emotional development was associated with parent deployment and/or having a service member parent. Adolescents with deployed parents were more likely to report binge drinking than their counterparts with non-military parents. Girls with deployed parents were more likely to report binge drinking than their counterparts with non-deployed parents. Among 8th grade boys and girls, those with deployed parents were more likely to report thoughts of suicide and depressed mood than their counterparts with non-military parents. Among older adolescents, 10th and 12th grade boys with deployed parents were more likely to report thoughts of suicide and depressed mood than their counterparts with non-military parents. Older boys with a non-deployed parent were also more likely to report thoughts of suicide than their counterparts with non-military parents. Older girls with deployed parents were more likely to report depressed mood than their counterparts with non-deployed parents.

Gilreath et al. (2013) examined whether having a deployed family member related to substance use in a statewide survey of children. They found adolescents who had a family member who had deployed at least once within the past 10 years were more likely to report they had used alcohol, tobacco, marijuana, and other drugs within their lifetimes and recently, within the past 30 days, than their counterparts.

Esposito-Smythers and her colleagues suggest that older adolescents may be at “greater risk for negative health consequences” from deployment than younger adolescents (Esposito-Smythers et al. 2011). Moreover, adolescents in National Guard and Reserve families may be most at risk because their families lack access to services offered on installations and may be more isolated from other military families (Esposito-Smythers et al. 2011).

Other research suggests that adolescents in military families do not report high levels of emotional and behavioral problems. Jensen et al. (1995), in one of few epidemiologic studies to randomly sample military families on an installation and use standardized assessments for community-based samples such as DIS-C, found older military children, from 10.5 to 17.8 years, do not differ significantly from younger children in anxiety disorders, attention-deficit hyperactive disorder (ADHD), depression, oppositional defiant disorder, and conduct disorder. ADHD was the most frequently reported disorder for military children and oppositional defiant disorder the least

frequently reported. Moreover, military children, with the exception of reports of ADHD, had levels of pathology that were similar to other community-based samples of children. Military children were not more pathological and may have fewer disorders than the other samples of children. For example, 40.8 % of military children, aged 6–17 years, had a disorder (and this was not significantly higher than other community-based samples that used similar measures). These researchers suggest three categories for viewing military children’s risk status: those at risk have a disorder and no impairment (40.8 %); those with impairment but no need for or use of services (as reported by parents and teacher and someone else knowledgeable about the child); and those with impairment and in need of or use services (15.8–26.3 % and mostly ADHD and anxiety disorder).

Military adolescents have been found to engage in fewer risk behaviors than their peers in the general adolescent population (Hutchinson 2006). Comparing military adolescents from clinics that served military families, both active duty and retired, to adolescents from the Youth Risk Behavior Surveillance survey (YRBS) that collects national data on adolescents in high schools, military adolescents were less likely to report ever engaging in sexual intercourse (30.7 vs. 46.7 %), current alcohol use (20.8 vs. 44.9 %), current cigarette use (5.4 vs. 21.9 %), and marijuana use (7.8 % vs. 22.4 %) than their non-military counterparts. Other studies have also found military adolescents engage in fewer risk behaviors (e.g., Wickman et al. 2010). More research is needed to determine whether adolescents are more vulnerable to risk and stress during certain developmental milestones and how this vulnerability is affected by individual characteristics such as gender and military factors such as branch of service or living on or off a military installation or in a civilian community with few or many military families (Bradshaw et al. 2010).

### Challenges Experienced by Adolescents

As alluded to earlier, adolescents in US military families experience a number of challenges such as multiple relocations, being separated from a service member parent, the deployment of a service member parent to a war zone, “changing peer groups,” and fear of death/injury of a service member parent (Hutchinson 2006). How these challenges impact developmental milestones among adolescents in US military families are not fully clear from previous work. Most military families, however, cope well with challenges such as relocation and deployment (see Aronson and Perkins 2013 for a review). While findings are somewhat inconclusive, overall, most adolescents in military families seem to be healthy with positive



developmental outcomes. A few of these adolescents, however, do seem to be stressed. It is important to understand who is stressed and who is not to determine what type of intervention, if any, is warranted for adolescents in military families. Some studies suggest that these challenges can undermine adolescents' healthy development or lead to a developmental pathway that is not healthy such as engaging in risky behaviors such as using substances (e.g., marijuana or alcohol) (Gilreath et al. 2013) or high levels of attention-seeking (i.e., Fitzsimons and Krause-Parello 2009). Much of this research examines the psychosocial impact (e.g., depression, trouble in school, etc.) of these challenges, which can be expected to have an impact on the adolescents' development. Other studies suggest that the challenges of military life promote resilience in adolescents and do not undermine adolescent development or promote unhealthy paths to achieving developmental milestones (e.g., Weber and Weber 2005).

### *Multiple Relocations*

Multiple frequent moves or relocations are one challenge that has been viewed as potentially stressful for adolescents in US military families, but the work in this area has been inconclusive. Further, most of the work on relocations has been done with samples of non-military adolescents (Bradshaw et al. 2010). The research that has been done with samples of military adolescents has been inconclusive. Some studies suggest that adolescent behavior and positive healthy development are adversely affected by multiple frequent relocations, while other studies suggest that behavior and development are not negatively affected (see Weber and Weber 2005 for a review of the limited research). For example, the relocation during adolescence can be disruptive for adolescents in military families if peer relationships are lost (Park 2011).

Weber and Weber (2005) found that relocation was not detrimental to military adolescent development. They surveyed military families with adolescents, aged 13–19 years, using the National Health Interview Survey on Child Health from four branches of the US military (Army, Navy, Air Force and Marine Corps). This was a sample of active career service members and their families. The response rate was 51 %. Families had on average 4.89 (SD = 2.41) relocations or moves with an average 17.9 years (SD = 3.84) of service. More relocations were positively correlated with parents' perceptions that moving was an advantage for their adolescent—that moving had “a positive influence on their child's development.” School problems, which were defined as being asked to come in for a “non-routine” school conference about the child, were inversely related to relocations. The more moves the family had, the fewer problems were experienced by the

adolescent. One weakness of this research is that the findings are based on the parents' perceptions of their adolescent children's development. The perceptions of the adolescents were not provided. One cannot assume that adolescents, aged 13–19 years, and their parents have congruent perceptions of relocations and how relocations impact the adolescent's development. Other research suggests they may not (e.g., Crow and Seybold 2013).

A qualitative study of adolescents, parents, and teachers conducted by Bradshaw et al. (2010) on relocation and school transitions conducted at eight installations representing all branches of the military (e.g., Army, Air Force, Marines, Navy, National Guard and Reserves) identified the stressors experienced by adolescents during relocation, how adolescents cope with relocation, and school strategies for helping adolescents better adapt to relocation. Adolescents ranged in age from 12 to 18 years. Stressors included unpredictability of moves (i.e., timing was not good for adolescent); increased tension in the family (i.e., adolescent becomes angry or runs away from home); disrupted social support (e.g., hard to establish and maintain friendships, always the “new kid,” friends behave differently toward them because they are moving, etc.), adjusting to new school environment both physical and cultural context, especially if relocation is not at the beginning of the school year or a good transitional time such as beginning of middle or high school; meeting expectations of parents and teachers to readily assimilate into the new school; gaps in learning required educational topics; not meeting state requirements for high school graduation in four years; difficulty in getting appropriate services for special needs (e.g., learning disabilities, gifted/talented, etc.); and hard to engage in extracurricular activities (e.g., sports and student government). Ways that adolescents cope with these stressors include learning to “blend in,” developing good communication skills, enjoying and learning from exposure to new cultures when relocation is outside of US, becoming more self-sufficient and independent, talking with a trusted teacher, having a parent who communicates with teachers about the emotional and academic effects of relocation and deployment issues on the adolescent, making friends with other adolescents in military families, and connecting with peers versus teachers or counselors or school psychologists in school.

These findings suggest that multiple moves over time may promote resilience and not undermine adolescents' development, especially when US military families have resources to support these moves (e.g., family services on the installation, teen centers, etc.), which may lessen the impact of multiple frequent moves and relocations on the healthy developmental trajectories of their adolescent children. What is missing, however, in this research, and other research on multiple moves and relocations, are more

data on the timing of these moves. What is not known is whether multiple moves promote resilience when they come at key transitional points such as early adolescence and puberty or when many adolescents are shifting in school such as the beginning of middle school or the beginning of high school? What happens when multiple moves and relocations occur in late adolescence? What happens when moves occur in the middle of middle school or the middle of high school or multiple times in high school? What happens during the formation of important social relationships and development? Adolescents do report that moves are stressful when the timing is not good for them (Bradshaw et al. 2010).

### *Deployment of Service Member Parent*

Deployment of a service member parent to combat settings and the resulting separation from a service member parent that families experience during deployment is the aspect of US military family life that has received a great deal of attention in recent research literature. More recent and current conflicts involving the US military have been characterized by multiple and long deployments for service members. Deployment can be a very emotional time for adolescents with ups and downs (Sherman and Sherman 2009). Deployment is an ongoing process for military families that involves phases that include the predeployment period when the family is anticipating the service member parent leaving the family, to the deployment period when the service member parent is away and the family shifts to adjust to the absence of the service member parent, to the reunion when the family prepares for the service member parent's return, and the post-deployment period when the service member parent returns and the family must readjust to having the service member parent back with the family (Esposito-Smythers et al. 2011; Sheppard et al. 2010; Sherman and Sherman, 2009; American Psychological Association 2007).

Many studies with adolescent samples have found a negative association between deployment and healthy development, such as emotional development, and behavior suggesting that deployment of the service member parent may undermine the healthy attainment of developmental milestones. Barnes et al. (2007) investigated military adolescents, pre- and post-Operation Iraqi Freedom, who had an average age of about 15 years at one high school. A civilian comparison group at the same school was included in the investigation. The effects of deployment of a family member such as mother, father, or sibling on stress and health outcomes were examined. The results showed that military adolescents reported higher levels of post-traumatic stress and had higher heart rates than civilian adolescents at pre- and post-deployment (Barnes

et al. 2007). Similarly, a qualitative study of 107 adolescents in US military families, aged 12–18 years, who attended camps for military children conducted by the National Military Life Association suggests that deployment of the service member created “ambiguous loss” and “uncertainty,” “boundary ambiguity,” mental health changes, and family conflict for adolescents (Huebner et al. 2007). Adolescents who had experienced a deployed parent reported the deployment created feelings of loss that were ambiguous and uncertain (e.g., not sure what would happen to the service member parent, had alternating denial and acceptance about the service member parent's deployment, etc.). This finding was not surprising given the cognitive development that occurs during adolescence. Boundaries around roles and responsibilities became less clear as adolescents reported taking on expanded roles in their families with additional responsibilities such as caring for younger siblings or doing household chores that the deployed service member parent used to do. Adolescents also reported symptoms associated with depression (e.g., changes in eating behaviors, changes in sleep patterns, feeling sad, and crying, etc.) and were anxious about the safety of their deployed service member parent. Adolescents also reported being more visibly emotional and concerned about their caretaker parent and siblings, and had difficulties in interactions with the deployed service member parent when he/she returned home. Given the emotional development of adolescents, the deployment of the parent created additional stress.

Chandra et al. (2009a) in a sample of adolescents, aged 11–17 years old, also from the camps for military youth and their caregivers found that parental deployment was related to emotional difficulties, academic engagement, and social engagement. Older and female adolescents had more of these challenges when parents were deployed and when parents returned. These adolescents also had more emotional difficulties than their counterparts in the general population. There are some limitations in this study including that the cross-sectional design and the low response rate (slightly <50 %) for the pool of eligible respondents in a sample that was already selective. The sample only represents US military families who sent their children to the camps for military youth. Chandra et al. (2009b) conducted focus groups with school personnel that targeted the social and emotional functioning of children and youth. School staff reported deployment had a negative impact on the social and emotional functioning of some children and youth. School personnel reported that boys exhibited anger and aggression, while girls had somatic complaints and seemed depressed.

The negative impact associated with service member parent deployment, such as mental health diagnoses (e.g., pediatric behavioral disorders, adjustment disorders,

depression, etc.), has been found among both male and female military adolescents (Mansfield et al. 2011). This relationship was more pronounced for older youth, 13–17 years old, and boys. The relationship was also more pronounced for longer deployments, those more than 11 months. Adolescents in military families, aged 11–16 years, were surveyed via primary care practices in a military treatment facility (Aranda et al. 2011). Youth with a deployed service member parent reported more internalizing problems, externalizing problems, and school problems than their counterparts with a non-deployed parent.

Recent work by Card et al. (2011) has attempted to systematically review the various studies on the impact of service member parent deployment on US military children including adolescents, to determine whether deployment does indeed have an effect on child development that is meaningful. This meta-analysis of previous research suggests that deployment does not have a significant effect on the internalizing and externalizing behaviors or academic outcomes of adolescents. Moreover, Card et al. (2011) observed that previous research on the effects of service member parent deployment on adolescent development is flawed by the lack of a consistent definition for deployment, small samples, the lack of longitudinal designs and scant studies on adolescents in US military families. Their findings suggest that we do not adequately know whether and how the deployment of a service member parent can undermine the attainment of developmental milestones among adolescents in US military families.

How deployment affects adolescents in military families may be more nuanced than previous research has suggested. The effects of deployment on adolescents may be indirect—if the parents are stressed, the adolescent will be distressed (Palmer 2008). Research has demonstrated that adolescent reports less stress when the caretaker parent is functioning (e.g., communicating, etc.) and copes well (e.g., Mmari et al. 2010; Lester et al. 2010).

Parents and adolescents often have different perceptions of family functioning and the impact of deployment. Differences in these perceptions have been linked to poor outcomes for adolescents such as depressive symptoms and lower levels of psychological well-being (see Crow and Seybold 2013 for review). How these differences in perception relate to parent deployment has been examined. Crow and Seybold (2013) in a convenience sample of early adolescents, aged 11 to approximately 15 years, with fathers who were on active duty in the Army found that there was more discrepancy between parents and adolescents in ratings of family functioning (e.g., communication and cohesion), social support (e.g., someone to listen when they have problems, someone to be with when they are

lonely, etc.), frequency of adolescent anger, and concerns for the adolescent (e.g., “dealing with change/new situations,” “difficulty controlling anger,” “receiving one or more failing grade,” “loss of a loved one,” and “test anxiety”; p.5) among families who had experienced one deployment. Parents were more positive than the adolescents. Parents reported better functioning and more social support, and less frequent anger and fewer concerns for the adolescents than the adolescents reported. The discrepancies decreased with more deployments. Among families who had two deployments, the only difference in reporting among parents and adolescents was for family functioning. Among families with three deployments, the only difference was in adolescent anger. In both situations, parents were again more positive, reporting better family functioning than adolescents and less frequent anger than adolescents.

Adolescents report the hardest part of deployment cycle is when service member parent returns—post-deployment—and having to readjust to parent being back and parent having to adjust to how adolescent has grown and changed or parent has missed major important life events such as birthdays, performances in school plays, or concerts, etc. (Mmari et al. 2010). Roles also have to be readjusted for adolescents who have taken on parenting roles (Palmer 2008). Parentification of the adolescent may occur in military families with multiple relocations and a deployed service member parent, wherein the adolescent takes on increased responsibilities and more of an adult, as opposed to a child, role in the family (Bradshaw et al. 2010). The adolescent is no longer the parent figure once the service member parent returns—parentification is no longer necessary, but adolescent may not want to relinquish the role of “parent.”

Longitudinal research is needed to fully understand how deployment impacts adolescent development. Most research examines the number of deployments in cross-sectional samples (e.g., Crow and Seybold 2013). Nonetheless, research findings suggest that before the first deployment may be the optimal time to intervene (e.g., Crow and Seybold 2013) to improve developmental outcomes for adolescents.

#### Social Support and Other Resources for Adolescents in US Military Families

Research suggests adolescents in US military families can positively adapt to the challenges, such as relocation and parent deployment that they may experience. Social support and other resources can facilitate this positive adaptation. Camps have been established for military children and adolescents to build social support. Adolescents who participated in Operation Purple Camp ( $N = 44$ ,  $n = 17$



aged 13–15 years), an intervention program for military children to foster the development of positive connections and social support, reported an increase in social acceptance (e.g., perception of being liked by peers, popularity among peers, etc.) and athletic competence (e.g., ability to participate in outdoor activities, etc.) (Chawla and MacDermid Wadsworth 2012).

As suggested from clinical practice with military adolescents and other adolescent populations (Sherman and Sherman 2009), extended family and/or friends that can take on parental “roles” or “activities” so that adolescents in military families can engage with a parent-like adult in pivotal life events that are linked to healthy development such as having an aunt attend a parent/child lunch or an older family friend attend sports events. Extended family and/or friends would provide this assistance when the caregiver parent could not participate. This engagement can help adolescents in military families cope with the loss that may occur when a parent is deployed.

Participating in a peer support group with other adolescents in military families is another way of coping with relocations and parent deployment, and is particularly important for developing adolescents where social connections are becoming important. Participating in this type of group wherein adolescents in military families can help other adolescents who are similar to them and accept being helped by others, and have the shared identity of being part of a group of adolescents who are similar can build the sense of efficacy and identity that is important for adolescents developmentally (Mmari et al. 2009; Sherman and Sherman 2009). These peer groups can be formed in schools, for example, and facilitated by school psychologists (Bradshaw et al. 2010). Identifying as a “military brat” can be a good thing and fits well within the formation of peer relationships that is critical for healthy adolescent development and is viewed as a positive identity (Park 2011). Being part of military culture, “a military brat” is protective. Adolescents and their parents perceive it makes them more independent, mature, social, and able to adapt well to new situations (Mmari et al. 2010). Being a “military brat” can, however, be positive and negative. Positive for identity development but negative if other students treat military adolescents differently (e.g., isolate them, etc.) (Bradshaw et al. 2010). Clubs are one extracurricular activity military adolescents can get involved in when they relocate because clubs are on-going and not exclusive. This is also a good mechanism for building social networks in a new school (Bradshaw et al. 2010).

Adolescents that are in US military families in the Army, Air Force, Marines, and Navy on active duty who often live on military installations may have access to the most resources for coping with challenges compared to National Guard and Reserve families. These military

families are perceived as being in a supportive environment that provides a sense of community, resilient peers for all family members including the caretaker non-service member parent, and job security for service member parents (Hutchinson 2006). Living on military installations is one way of coping for adolescents in military families. Being part of military culture provides “safety, security, and social support” (Mmari et al. 2010, p. 359). For example, adolescents are often allowed to be independent and go wherever they want without a parent when they are on a military installation. Military installations also provide a lot of activities for adolescents to engage in such as shopping (i.e., the Base Exchange) and other recreation (i.e., the pool at the Officer’s Club) where they can connect with other adolescents. One question is how does this type of support and other resources apply to Reserve and National Guard families? Most of these military families are not on military installations. Reserve and National Guard families in geographic areas with larger numbers of military families such as the Washington, DC metropolitan area or the San Diego metropolitan area may have access to similar resources and support which their adolescent children may benefit from. Most adolescents in military families in the National Guard and Reserve who are not living in military communities have limited access to the resources and support from peers who are like them which can be stressful (Mmari et al. 2009).

Social connections are important for adolescents in military families to cope with relocation and deployment (Mmari et al. 2010). Additional research is needed to determine how social connectedness mitigates the effects of relocation and deployment on adolescent development. Do adolescents in military families with strong social connections have better developmental outcomes than their counterparts with weak social connections? Most of the work with adolescents in military families has been with adolescents living on military installations. Little is known about how adolescents in National Guard and Reserve families who do not live on military installations build social connections (Mmari et al. 2010). How do the social connections of adolescents in military families in the National Guard and Reserve compare to those of their counterparts in the other branches of the military? Do these adolescents have weaker social connections and are they at greater risk for negative developmental outcomes related to deployment? Or do they have stronger social connections because they have not relocated as much as their counterparts in the other branches of the military and they have long-term peer friendships and close connections to extended family, and are at less risk for negative developmental outcomes?

Schools, a primary social institution, for developing adolescents are not always a resource for adolescents in US

military families. Adolescents in military families that attend school on military installations or in civilian communities with more military families are perceived to be less stressed than their counterparts (Bradshaw et al. 2010), however, there is little support for this assumption. Mmari et al. (2009) conducted focus groups with adolescents in military families, parents, and school personnel in schools on military installations. They noted that even these schools are ill equipped to deal with the needs of adolescents in military families when a parent deploys. Schools often lacked knowledge of military culture, and teachers and other school personnel were sometimes insensitive to the experiences of these adolescents. For example, teachers do not understand military culture or how to handle deployments to provide the best support for military students, but they would like in service training to learn more about military culture (Bradshaw et al. 2010). Nonetheless, schools can facilitate connections for adolescents. For example, schools can build programs where adolescents attending a new school are paired with other students so they can learn the physical context of the school environment (e.g., classroom layouts, scheduling, etc.) (Bradshaw et al. 2010).

### Conclusion and Recommendations

Clearly, more empirical studies are needed on adolescents in US military families. Adolescents in the population of military children have been vastly understudied. Further, some studies rely on parent reports of adolescent behaviors and developmental social, emotional, and academic outcomes. (e.g., Weber and Weber 2005). More studies with adolescent self-report of their behaviors and developmental experiences and outcomes are needed. Adolescent perspectives of their developmental experiences have been largely overlooked in previous research. Research that has been done is very limited as has been noted previously in this paper. For example, longitudinal studies are sorely needed. The healthy trajectories of adolescents in US military families cannot be understood without them.

Research on the effect of having a parent who is the service member and the primary caregiver on the developmental trajectories of adolescents is needed; specifically, how to prevent negative developmental outcomes. What happens to adolescents when the parent who is the most involved in child-rearing deploys, and how individual, family, and community factors can deter negative outcomes has been under investigated.

A more nuanced approach is needed to really understand how being part of a military family impacts the developmental trajectory of military adolescents. More needs to be known about differences due to military branch, for

example, such as National Guard and Reserves versus the other branches. Research has also not taken into account emerging areas for research on adolescents such as the role of social media and how adolescents stay connected. The role of social media has implications for the impact of geographic relocation and deployment on healthy adolescent development as adolescents in military families can use social media to stay connected with other military adolescents or communicate with deployed service member parents.

More research is necessary to fully identify interventions that are needed for adolescents in US military families. The best methods for screening and identifying the adolescents in this population who are most in need of mental health services and treatment are not clear. In addition, identifying the appropriate intervention targets and type requires additional research. It appears that some adolescents in military families experience psychological distress and school problems; however, additional work is needed to determine the best ways to reach those adolescents who are depressed or experiencing anxiety. However, given that we know these problems exist for some adolescents, those that interact with these young people (parents, teachers, coaches, etc.) should be educated about the possible problems adolescents in military families are experiencing. This knowledge and awareness would facilitate and assist adults to “keep an eye out” and actively monitor for young people who may be distressed. Once identified, these young people can be connected to mental health services when needed or at the very least be provided an outlet for communicating and discussing their distress.

Adolescents in US military families have a number of resources available to them. They live in supportive communities, have peers who understand their struggles and a maturity that allows them to cope with changing family dynamics and responsibilities. These resources could be more formally leveraged for interventions to support these adolescents. For example, schools, a primary social institution for healthy adolescent development, have been overlooked in intervention efforts. Formal peer support and school-based interventions that target school personnel, students, and parents are needed. However, adolescents in military families are likely to benefit from peer support groups that allow them to discuss their challenges and emotions with regard to their parent’s deployment. Given the physical, cognitive, emotional, and social developmental changes, these adolescents are experienced, creating a space to discuss these issues with peers is important. One suggestion is to use social media to create space for social support. Further, social media can be used to help these adolescents stay connected to peers as they move around, as well as foster identity by enabling these adolescents to represent themselves virtually.

In conclusion, all adolescents experience monumental changes in every aspect of their lives as they have transition from childhood to adulthood. Adolescents are forming their identities, developing the ability to think more critically, learning to express and cope with emotions appropriately, and establishing independence. For adolescents in US military families, adolescent development can have additional challenges and tensions. As we have noted in this paper, the findings have been mixed with regard to the type and degree of challenges that adolescents in the military face and how these challenges impact their healthy developmental trajectories. Nonetheless, it seems clear that some adolescents in military families may require some additional support and treatment. Moreover, the resources of the military community can also be leveraged to provide support these adolescents and their normal developmental progression.

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