

# **Educational/Academic Outcomes in Relation to Transition and Deployment Experiences of Military Children**

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## Introduction

Periodic transitions and disruptions are common to military life. In addition to military members themselves, their families, and in particular, their school aged children face these transitions and disruptions. Reliable information about the educational/academic outcomes of military children is vital to support military families and schools. This report documents the results of a literature review and analysis conducted in support of efforts by the Military Child Education Coalition (MCEC) to identify and track academic outcomes for military children.

## Approach

For this literature review a total of 43 articles published between 1976 and 2010 were selected. There was a focus on more recent literature (i.e., 10-15 years) but exceptions were made to include older references that were cited and appeared to be highly relevant. Both empirical studies and literature reviews were collected from scholarly peer-reviewed journals and technical reports. The vast majority were gathered by browsing through Temple University's library system via the internet and gaining access to online databases such as Academic Search Primer and PsycARTICLES. The primary goal was to find articles discussing the academic outcomes of military children. Seven articles were found that addressed academic achievement specifically among military children or among civilian children who experienced similar factors that affect academic performance, such as frequent moving. Standardized test scores were the most used measurements of academic performance. Given the scarcity of literature directly relevant to educational or academic outcomes, the review was expanded to include additional areas that were noted as relevant for military children. Based on the primary research goal, Table 1 presents the categories used to organize this literature review together with the article count by category.

**Table 1. Categorization of Literature Reviewed**

Category	Number of Articles
Academic Outcomes	7
Geographic Mobility	5
Deployment	23
Military Families	3
Socio-Emotional Factors	5

By far, the category of deployment was found to be the most abundant, followed by geographic mobility. Appendix A provides a more detailed snapshot of the literature reviewed. Appendices, B through F contain annotated bibliographies for the cited literature by identified categories, respectively.

## **Findings**

### **Academic Outcomes**

Few studies directly assess the effects of the military family lifestyle on academic achievement among military children. Such paucity of research does not so much reflect a lack of interest, but rather is likely attributable to logistic and methodological difficulties that plague such investigation. Access to appropriate participants and academic measures is hampered by the mobility and geographic dispersion of military families. Furthermore, military children experience a variety of school environments (e.g., public, private, military-sponsored, home school, etc.) Requirements with regard to protecting human subjects also complicate research design and resulting data. Sample representativeness is a major confounding factor that threatens the ability to generalize findings. Further, criterion measures may lack direct comparability across samples and may be otherwise deficient and contaminated. Given such impediments, conflicting results (Lyle, 2006) should come as no surprise.

Concern with regard to the effects of school transitions or disruptions on academic performance is not unique to the military. A study of civilians in Denver, CO showed uniform negative effects of geographic mobility on student achievement – especially at earlier grade levels and particularly within the school year (Ingersoll, Scamman, & Eckerling, 1989). Likewise, a study of 1<sup>st</sup> through 6<sup>th</sup> grade children from the Baltimore, MD public schools in 1982 showed that frequent movers had the lowest average on academic achievement. Children who move most often are often at risk academically for other reasons (Alexander, Entwisle, & Dauber, 2001), thus it is important to disentangle these facets. Based on data from high school youth who were continuous participants of the National Educational Longitudinal Study from 1988 through its 1992 follow up, movers were found to perform less well in school than non-movers. Even after controlling for background factors (e.g., parent's education, income, race, and student sex) and other disadvantages (e.g., parental divorce, parent job loss, death of parent) the decline in test scores was robust. No benefit from moving was found (Pribesh & Downey, 1999). These are conservative findings as sample members who did not remain in the sample between 1988 and 1992 and hence who had higher moving rates were not included. Studies within the military context with its high moving rates are necessary extensions of this line of research.

To assess the effect of parental Gulf War deployment Pisano (1996) compared standardized reading, math, and language scores between 1990 and 1991 (the year of the Gulf War) among 158 7<sup>th</sup> grade children within the Fort Bragg area. This study, limited to only two data points, found small but significantly lower reading scores for girls only. Math and language scores were consistent between 1990 and 1991.

An analysis of Texas standardized math test scores of 13,000 children (ages 6-19) of active duty Army parents serving in Texas in 1997/1998 found small but significant declines in standardized math test scores as obtained from the Texas Assessment of Academic Skills (TAAS) as the duration of parental absence increased. The decline in math was more problematic for children whose parents scored in the lower half of the ability distribution. Children who experienced more moves (5 or more) scored lower than children who experienced fewer than 3 moves. Moves had a more deleterious effect if the Army parent was the mother. The researchers cautioned that the modest effects may not hold for longer, recurrent and hazardous deployments (Lyle, 2006). Such modest effects were found to hold within the context of parental deployments to Iraq and Afghanistan in the period from 2002 to 2005. That is, deployment status and length of deployment showed modest negative effects on test scores in multiple domains for 56,000 children attending DoDEA schools (Engel, Gallagher, & Lyle, 2009). The magnitude of score decline was greater for math and science than for language arts, social studies, and reading.

Geographic mobility and deployment are the substantive factors that have been implicated to affect the academic performance of military children. Thus, the next sections of this review highlight the findings of studies regarding these aspects of the military lifestyle.

### **Geographic Mobility**

Research on the effects of geographic mobility on military children is scant and lacks methodological rigor. With this caveat, findings suggest that harmful effects of multiple moves may be moderated by family well-being and social support. Based upon standardized questionnaires completed by a convenience sample of 86 mother-child dyads from traditional military families, school aged children with residence stability tend to experience fewer difficulties in peer relationships and less loneliness than those students who experience mobility. It was not moving per se that was associated with deleterious effects; rather, maternal functioning and family relationships were keys to psychosocial adjustment and behavior (Kelly, Finkel, & Ashby, 2003). A survey regarding the effects of school transitions was administered to a sample of military children ages 10 to 18 from 16 installations within the U.S. and 6 installations outside the continental U.S., representing all branches equally. Although there were 6,382 respondents, this represented less than a 20 percent response rate from the original sampling frame. Similar to the dyad study above, results from the group administered survey suggested that transitions can strengthen or weaken academic achievement depending upon the family and social support system (Strobino & Salvaterra, 2000). Parental involvement and a

caring school environment can overcome negative effects of changing schools. While the prescriptions offered by this study are difficult to argue with, the success reported for respondents in terms of academic achievement and participation in extracurricular activities may be influenced by response bias. Not only was the response rate low, but respondents reported grades of A and B for the most part. This suggests that non-respondents likely had lower grades and may have reported less success. Yet another convenience sample of 40 Army families from Fort Jackson whose children attended one of the three elementary schools on base yielded positive results. Mobility showed no negative, and in some cases positive effects with regard to measures of well-being, social competence, or academic achievement (Marchant & Medway, 1987).

Moving in military families is associated with many negative outcomes including decreased marital satisfaction, financial hardship, disruptions in spousal employment, and reduced social support. However, moving can be a positive experience. It offers opportunities for travel, new experiences, and career growth for the military member (Burrell, 2006).

Indeed, there are likely to be benefits resulting from military transitions. Further, the support services available for military families may mitigate the negative effects of multiple moves on children (Simpson & Fowler, 1994). However, reliable and valid information regarding the effects of multiple moves and key characteristics of moves that affect military children are sorely needed.

## **Deployment**

Military life is characterized not only by frequent moves to new duty stations but by deployment of the military member. Whereas deployment is associated with the relocation of the military member in response to an operational mission, family members may or may not move in response. Regardless of whether member deployment leads to residence relocation and school transition for military children, stress, disruption, and developmental challenges may result (McFarlane, 2009).

Studies have found increased levels of reported stress among adolescents whose parents were deployed. Further, higher reported stress levels were correlated positively with physiological symptoms of stress such as elevated blood pressure and heart rate (Barnes, Davis, & Treiber, 2007). More disturbing than physiological symptoms is the positive relationship found between deployment rate and child maltreatment statistics for military families in Texas (Rentz, Marshall, Loomis, Casteel, Martin, & Gibbs, 2007) and nationally (Gibbs, Martin, Kuppa, & Johnson, 2007). Although child maltreatment rates in general and neglect in particular among military families are lower than in the overall state population, they rose as deployment rates rose.

Parents tend to report that deployment has a negative effect on their school-aged children's psychological and social functioning as well as on their school performance. For

example, in a small study of 126 children of Marine Corps fathers deployed during 1968/69, parents and teachers reported gains in responsibility yet declines in school work among 6<sup>th</sup> grade children in a school located on a Marine Corps base in Quantico, VA (Hillenbrand, 1976). Aggressiveness and irritability were noted among boys whereas lower quantitative ability was noted among girls. Parental reports of children's adjustment to the 1991 deployment in connection with Operation Desert Storm were similar (Rosen, Teitelbaum, & Westhuis, 1993). However, the 1991 study found that boys more so than girls, and older more so than younger children, were reported to perform more poorly in school in reaction to deployment. Further, it is important to note that although existing or previously reported emotional problems were reported to flare with deployment, such problems were not thought to be serious enough to require counseling. Although the sample size in this study was quite a bit larger (i.e., n = 1,274) and included parents with children ages 18 and younger, sample bias remains a concern that detracts from the generalizations that can be drawn from the results.

Despite the likelihood of sample and response biases that call into question the reliability and validity of deployment related findings, there are common findings. Regardless of methodological shortcomings and variation in eras, studies consistently find parental deployment to be a family stressor that can negatively affect school adjustment. Deployment has been found to exacerbate pre-existing emotional and behavioral problems (Lemmon & Chartrand, 2009). There are conflicting findings with regard to the ages at which children are most vulnerable to the effects of parental deployment. In contrast to the warnings that older children are at greater risk (Chandra, Lara-Cinisome, Jaycox, Tanielian, Burns, Ruder, & Han, 2010; Rosen et al., 1993), other studies suggest that younger children are at greater risk of mental health difficulties (Lemmon & Chartrand, 2009) and still others suggest that the children's age is unrelated to psychosocial effects (Flake, Davis, Johnson, & Middleton, 2009). Whereas a number of studies reviewed reported that boys were more susceptible to school and social difficulties (Hillenbrand, 1976; Lemmon & Chartrand, 2009; Rosen et al., 1993), girls also have been found to have more school, family, and peer difficulties (Chandra, et al., 2010). And in yet another study, gender of child was found to be unrelated to risk of psychosocial problems (Flake, et al., 2009).

Increased stress and psychosocial difficulties in connection with deployment do not necessarily suggest that military children exhibit psychopathology or school failure. In fact, while deployment has been reported to have negative effects as reported above, the general health and positive characteristics of the military population may mitigate such stress with deployment not provoking pathological levels of behavioral and emotional difficulties (Jensen, Martin, & Watanabe, 1996; Kelley, Hock, Smith, Jarvis, Bonney, & Gaffney, 2001; Rosen, et al., 1993).

Studies of family stress in response to deployment indicate that mental health levels and emotional responses of the non-deployed parent as well as pre-deployment mental health levels have a substantive effect on children's academic, emotional, and behavioral levels or symptoms

(Flake, et al., 2009). Deployment status and the length of deployment correlate with the mental health of the non-deployed parent (Mansfield, Kaufman, Marshall, Bradley, Morrissey, & Engel, 2010). However, the higher levels of stress compared to normative levels experienced by Army spouses and the concomitant psychosocial effects on military children have been shown to be lessened by parents' use of military support (Flake, et al., 2009). Further, a supportive environment including a positive school climate was related to higher academic, emotional, and behavioral functioning for military children, ages 5 to 12 (Flake et al., 2009).

Qualitative studies provide potential for detailed descriptive detail of perceived deployment effects for military children. Focus groups with adolescents representing all services indicate that there are changes in mental health with such youth experiencing uncertainty, loss, relationship conflict, and boundary ambiguity (Huebner, Mancini, Wilcox, Grass, & Grass, 2007). Recent interviews regarding academic, behavioral, and emotional issues of "deployed" military children were conducted with 148 teachers, counselors, and administrators of elementary, middle, and high schools serving two Army installations (Chandra, Martin, Hawkins, & Richardson, 2010). Results suggest that deployment is associated with negative academic, social and emotional outcomes, especially among boys, that are exacerbated by coping problems experienced by non-deployed parents. As with findings related to geographic mobility, school social and emotional support can promote resilience. It is important to note that academic engagement (e.g., attendance, homework completion) rather than achievement was assessed. The study's recommendation, to increase vigilance for behavioral signs of stress among children of deployed soldiers, is hard to dispute. However, the degree to which perceptions of teachers, counselors and administrators accurately reflect the mental health of military family members is questionable.

Some have suggested that the negative effects of deployment may be transient (Chandra, et al., 2010; Pierce, Vinokur, & Buck, 1998). Furthermore, positive aspects of deployment such as pride, development of responsibility and increased dependability have been noted in passing (Chandra, et al., 2010; Hillenbrand, 1979; Mmari, Roche, Sudhinaraset, & Blum, 2008). However, the focus has been on the negative aspects of deployment. Together with other methodological deficiencies, this negative focus confounds findings regarding the effects of parental deployment on military children.

## **Military Families**

A few studies pertaining more generally to military families in contrast to sole focus on military children deserve comment. In one study, the effects of caring for a disabled child within the military context were examined. The results of questionnaire responses from 253 Army, Navy, Marine Corps, and Air Force families with disabled children show that less than 10 percent reported lack of adjustment to military life (Fallon & Russo, 2003). Unfortunately, the results focused only on correlations of stress and satisfaction with military family programs, showing greater satisfaction for parents with higher stress levels. Comparisons with families

without disabled children were not conducted, and educational or academic outcomes were not included.

In a review of the literature on military families, Ender (2006) noted that military demands, social structure, and culture represent both vulnerabilities and strengths. The equivocal findings regarding the effects of geographic mobility on military children were highlighted as was the likely influence of parental attitude and guidance during moves. Another review recognized that research was limited on critical, stressful military experiences—relocation, separation and deployment, and reunion (Drummet, Coleman, & Cable, 2003).

### **Socio-Emotional Factors**

Relatively few studies of military children directly assess educational or academic outcomes. While hardly abundant

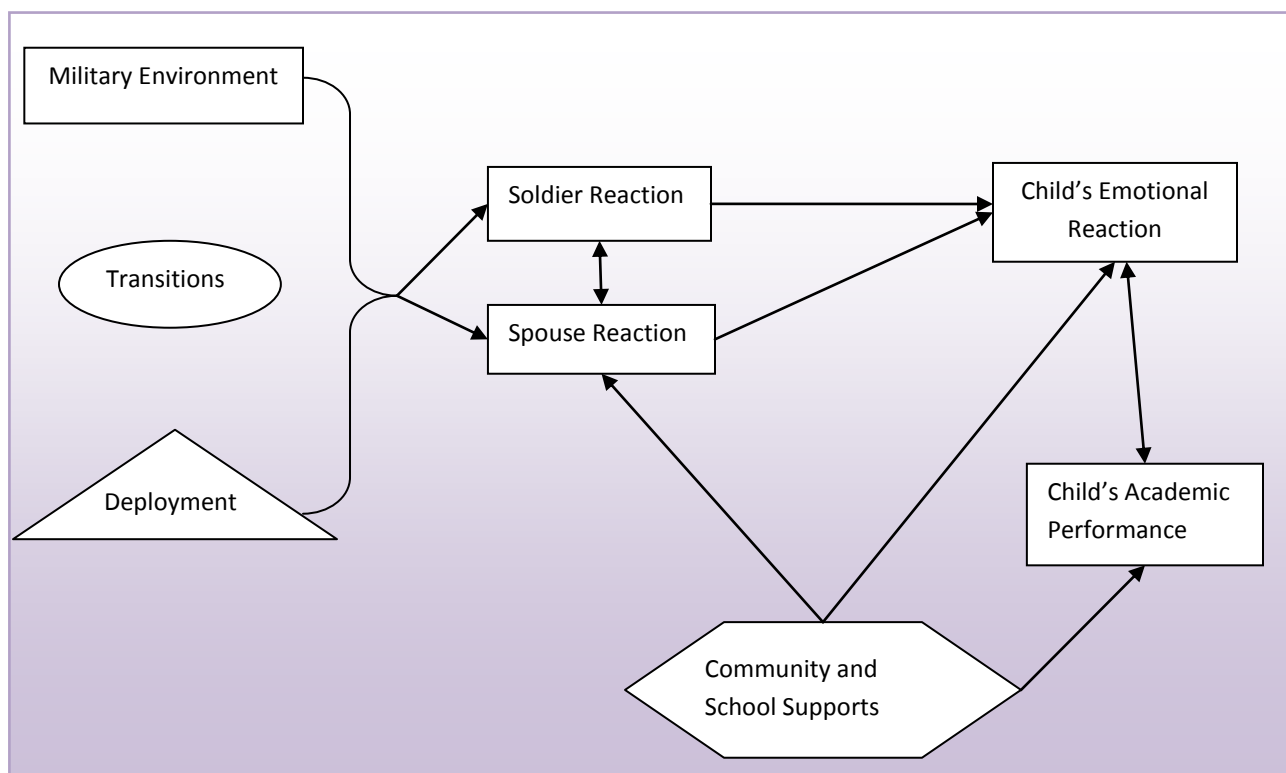
and not without confounds, studies focusing on socio-emotional outcomes are more common. There is evidence, albeit indirect, that such studies are relevant to questions regarding the school related effects of military transitions. The civilian education literature shows that emotional and behavioral disorders coincide with academic deficiencies in reading, arithmetic, and writing (Trout, Nordness, Pierce, & Epstein, 2003). Even short of a diagnosis of a disorder, emotional and behavioral adjustment has been found to be related to subsequent school success (McClelland, Morrison, & Holmes, 2000; Raver, 2002). Owing to such factors as being harder to teach, missing out on opportunities to work with others and avoiding school, children with emotional difficulties tend to lose academically. Social skills—interpersonal and work-related—have been shown to be related to learning (McClelland, Morrison, & Holmes, 2000).

Supporting emotional and behavioral adjustment is important for school readiness and performance. Teacher-child relationships affect school adjustment and academic attainment (Baker, 2006). Social support, especially from teachers, has been found to be related to academic achievement and school performance among disadvantaged children (Becker & Luther, 2002).

## **Discussion and Recommendations**

There is a paucity of rigorous research addressing the effects of geographic mobility and deployments on educational and academic outcomes among military children. Existing studies are deficient and contaminated by confounds, thus compromising generalizations that can be drawn. Powerful, random samples across military subgroups (e.g., Service and component), school environments (e.g., public schools, private schools, Department of Defense Education Activity (DoDEA) schools), and geographic regions are lacking. Rather, small and highly select samples of children of active duty parents attending DoDEA schools are typical. Thus, the knowledge base to inform policy is unstable.

Tentative conclusions from the extant literature suggest that geographic mobility and deployment have detrimental effects on the emotional and academic growth of military children. There are conflicting results with regard to whether such effects are moderated by gender or age; that is, findings vary as to whether boys or girls, or older or younger children are more at risk. Although such military transitions have been shown to be associated with negative impacts, evidence does not indicate that conclusions of egregious academic deficiencies and psychopathology are warranted. Findings that family and curricular disruptions are stressful, even for highly select military families, are not surprising. Further, reports that prior emotional problems and parental reaction and functioning in the face of moves and deployment influence outcomes among children are expected. Figure 1 provides a hypothetical model of the basic factors affecting outcomes for military children as gleaned from the literature.



**Figure 1. Hypothetical Model of Factors Affect Academic Outcomes among Military Children**

A few studies casually mentioned the possibility of positive effects of geographic mobility and deployment for military children. However, the underlying hypothesis or assumption is that of a negative impact, with children likely to experience anxiety, depression, feelings of isolation, resentment, and academic difficulties or decline. A focus on coping and resiliency among military children is sorely needed.

Clearer evidence is needed to design appropriate prevention and intervention services to support the mental health and academic needs of military children. Studies must go beyond risk and decline. Characteristics, situations, and experiences associated with emotional and academic maintenance or growth should be examined. In addition to the inclusion of positive outcomes in

research hypotheses, longitudinal designs are needed to explore the effects of deployment and relocations over time. Such designs would go beyond the concurrent, cross sectional studies conducted heretofore and promote causal inferences.

The extant literature can serve as a useful pilot study suggesting pertinent characteristics of military children and aspects of transition, family situation, and school context to include. Among the myriad of characteristics and circumstances suggested for inclusion as potential moderators of risk and resilience are age and gender of the military child and parent; deployment status and phase; military service and component; type and location of school; housing status; frequency of moves; and military rank. Furthermore, contextual or ecological factors such as peace or wartime setting, operational tempo, and circumstances of the transition and deployment may prove elucidating.

The academic and emotional/behavioral health needs of military children in schools are understudied. We lack solid evidence regarding who is at risk and what can promote resiliency. Thus, the evidence base for selecting appropriate prevention and intervention strategies is deficient. We must understand the stressors and sources of strength (resources) that influence educational and academic outcomes for military children. Understanding the mechanisms by which socio-emotional and academic outcomes are linked would inform efforts aimed at resiliency. Support for military families should include the pursuit of educational quality. Quality research is needed to design and match appropriate intervention/prevention strategies in accordance with the diverse population of military children.

## References and Bibliography

- Applewhite, L.W., & Mays, R.A., Jr. (1996). Parent-child separation: A comparison of maternally and paternally separated children in military families. *Child & Adolescent Social Work Journal*, 13, 23-39.
- Alexander, K.L., Entwisle, D.R., & Dauber, S.L. (2001). Children in motion: School transfers and elementary school performance. *The Journal of Educational Research*, 3-11.
- Baker, J.A. (2006). Contributions of teacher-child relationships to positive school adjustment during elementary school. *Journal of School Psychology*, 44, 211-229.
- Barker, L.H., Berry, K.D. (2009). Developmental issues impacting military families with young children during single and multiple deployments. *Military Medicine*, 174(10), 1033-1040.
- Barnes, V.A., Davis, H., & Treiber, F.A. (2007). Perceived stress, heart rate, and blood pressure among adolescents with family members deployed in Operation Iraqi Freedom, *Military Medicine*, 172, 40-43.
- Becker, B.E., Luther S.S. (2002). Socio-emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Educational Psychologist*, 37(4), 197-214
- Burrell, L.M. (2006). Moving military families: The impact of relocation on family well-being, employment, and commitment to the military. In C.A. Castro, A.B. Adler & T.W. Britt (Eds.). *Military Life: The psychology of serving in peace and combat, vol. 3: The military family* (p.39-63). Westport, CT: Praeger Security International.
- Chandra, A., Martin, L.T., Hawkins, S.A., & Richardson, A. (in press). The impact of parental deployment on child social and emotional functioning: perspectives of school staff. *The Journal of Adolescent Health*.
- Chandra, A., Sandraluz, L.C., Jaycox, L.H., Tanielian, T., Burns, R.M., Teague, R. & Bing, H. (2010). Children on the homefront: the experience of children from military families. *Pediatrics*, 125(1) 13-22.
- Drummet, A.R., Coleman, M., & Cable, S. (2003). Military Families under stress: implications for family life education. *Family Relations*, 52(3), 279-287.
- Ender, M.G. (2006). Voices from the backseat: Demands of growing up in military families. In C.A. Castro, A.B. Adler, & T.W. Britt (Eds.). *Military life: The psychology of serving in peace and combat, vol. 3: The military family* (p.138-166). Westport, CT: Praeger Security International.
- Engel, R.C., Gallagher, L.B. & Lyle, D.S. (in press). Military deployments and children's academic achievement: evidence from Department of Defense Education Activity schools. *Economics of Education Review*.

- Faber, A.J., Willerton, E., Clymer, S.R., MacDermid, S.M., & Weiss, H.M. (2008). Ambiguous absence, ambiguous presence: a qualitative study of military reserve families in wartime. *Journal of Family Psychology, 22*(2), 222-230.
- Fallon, M.A. & Russo, T.J. (2003). Adaptation to stress: An investigation into the lives of United States military families with a child who is disabled. *Early Childhood Education Journal, 30*, 193-197.
- Flake, E.M., Davis, B.E., Johnson, P.L., & Middleton, L.S. (2009). The psychosocial effects of deployment on military children. *Journal of Developmental and Behavioral Pediatrics, 30*(4), 271-278.
- Fitzsimons, V.M., Krause-Parello, C.A. (2009). Military children: when parents are deployed overseas. *The Journal of School Nursing, 25*(1) 40-47.
- Gibbs, D.A., Martin, S.L., Kupper, L.L., & Johnson, R.E. (2007). Child maltreatment in enlisted soldiers' families during combat-related deployments. *Journal of American Medical Association, 298*(5) 528-535.
- Hillenbrand, E.D. (1976). Father absence in military families, *The Family Coordinator, 25*(4), 451-458.
- Horton, D. (2005). Consultation with military children and schools: a proposed model. *Consulting Psychology Journal: Practice and Research, 57*(4) 259-265.
- Huebner, A.J., Mancini, J.A., Bowen, G.B., & Orthner, D.K. (2009). Shadowed by war: building community capacity to support military families. *Family Relations, 58*, 216-228.
- Huebner, A.J., Mancini, J.A., Wilcox, R.M., Grass, S.R., & Grass, G.A. (2007). Parental development and youth in military families: Exploring uncertainty and ambiguous loss. *Family Relations, 56*, 112-122.
- Horton, D. (2005). Consultation with military children and schools: A proposed model. *Consulting Psychology, 57*(4), 259-265.
- Ingersoll, G.M., Scamman, J.P., & Eckerling, W.D. (1989). Geographic mobility and student achievement in an urban setting. *Educational Evaluation and Policy Analysis, 11*(2), 143-149.
- Jensen, P.S., Martin, D., & Watanabe, H. (1996). Children's response to parental separation during operation desert storm. *Journal of American Academy of Child and Adolescent Psychiatry, 35*(4), 433-441.
- Kelly, M.L., Finkel, L.B., & Asby, J. (2003). Geographic mobility, family, and maternal variables as related to the psychosocial adjustment of military children, *Military Medicine, 168*(12) 1019 – 1024.

- Kelley, M.L., Hock, E., Smith, K.M., Jarvis, M.S., Bonney, J.F., & Gaffney, M.A. (2001). Internalizing and externalizing behavior of children with enlisted mothers experiencing military-induced separation. *Journal of American Academy of Child and Adolescent Psychiatry*, 40, 464-471.
- Lemmon, K.M. & Chartrand, M.M. (2009). Caring for America's children: military youth in time of war. *Pediatrics in Review*, 30(6), 42-48.
- Lincoln, A., Swift, E., & Shorteno-Fraser, M. (2008). Psychological adjustment and treatment of children and families with parents deployed in military combat. *Journal of Clinical Psychology*, 64(8), 984-992.
- Lyle, D.S. (2006). Using military deployments and job assignments to estimate the effect of parental absences and household relocation on children's academic achievement. *Journal of Labor Economics*, 24(2), 319-350.
- Mansfield, A.J., Kaufman, J.S., Marshall, S.W., Bradley, G.N., Morrissey, J.P., & Engel, C.C. (2010). Deployment and the use of mental health services among U.S. Army wives. *The New England Journal of Medicine*, 362(2), 101-109.
- Marchant, K. & Medway, F. (1987). Adjustment and achievement associated with mobility in military families. *Psychology in the Schools*, 24, 289-294.
- McClelland, M.M., Morrison, F.J., & Holmes, D.L. (2000). Children at risk for early academic problems: The role of learning-related social skills. *Early Childhood Research Quarterly*, 15(3), 307-329.
- McFarlane, A.C. (2009). Military deployment: the impact of children and family adjustment and the need for care. *Current Opinion in Psychiatry*, 22, 369-373.
- Mmari, K., Roche, K.M., Sudhinaraset, M., & Blum, R. (2008). When a parent goes off to war: exploring the issues faced by adolescents and their families. *Youth and Society*, 40(4), 455-475.
- Pierce P.F., Vinokur, A.D., & Buck, C.L. (1998). Effects of war-induced maternal separation on children's adjustment during the gulf war and two years later. *Journal of Applied School Psychology*, 28, 1286-1311.
- Pisano, M. (1996). Implications of deployed and non-deployed fathers on seventh graders' California achievement test scores during a military crisis. *Paper presented at the annual meeting of school psychologists*. 19p.
- Pribesh, S. & Downey, D.B. (1999). Why are residential and school moves associated with poor school performance? *Demography*, 36(4), 521-534.
- Raver, C.C. (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. *Social Policy Report*, 16(3), 3-18.

- Rentz, E.D., Marshall, S.W., Loomis, D., Casteel, C., Martin, S.L., & Gibbs D.A. (2007). Effect of deployment on the occurrence of child maltreatment in military and nonmilitary families, *American Journal of Epidemiology*, 165(10) 1199-1206.
- Rosen, L.N., Teitelbaum, J.M., & Weshuis, D.J. (1993). Children's reactions to the Desert Storm deployment; initial finding from a survey of Army families. *Military Medicine*, 158, 465-469
- Simpson, G.A. & Fowler, M.G. (1994). Geographic mobility and children's emotional/behavioral adjustment and school functioning. *Pediatrics*, 93(2), 303-309.
- Strobino, J., & Salvaterra, M. (2000). School transitions among adolescent children of military personnel: a strengths perspective. *Social Work in Education*, 22(2), 95-107.
- Trout, A.L., Nordness, P.D., Pierce, C.D., & Epstein, M.H. (2003). Research on the academic status of children with emotional and behavioral disorders: A review of the literature from 1961 to 2000. *Journal of Emotional and Behavioral Disorders*, 11(4), 198-210.
- Yeatman, G.W. (1981). Paternal separation and the military child. *Military Medicine*, 146, 320-322.

## Appendix A

### Summary of Literature by Category

## Appendix A

### Summary of Literature by Category

	Topic	Citation	Method	Sample Info/ Military Service	Findings
1	Academic Outcomes	(2009) Military deployments and children's academic achievement: evidence from DOD Education Activity Schools - Engel, R.C., Gallagher, L.B., & Lyle, D.S. <i>Economics of Education in Review (in press)</i>	Comparison of Terra Nova Exam Scores	56,000 school-aged children Army	A child whose parent deploys during the current school year scores .42% points, or 3% of a standard deviation, lower on his or her Terra Nova score than a child whose parent does not deploy. - A 1 month increase in the length of a parent's deployment reduces a child's total NCE (normal curve equivalent) score by .11% - A child whose parent is deployed during the month of the exam experiences a .92% point reduction in his or her MATH score relative to a child whose parent is not deployed at that time. - For all five subjects and the total score, we observe a statistically significant negative effect, indicating that these children experience a decline in academic achievement that results from deployments as far back as 5 years. (Penalty associated with deployments dissipates quite slowly) - These findings show that the effects of a parental deployment during the school year are relatively modest and tend to dissipate after a parent's return
2	Academic Outcomes	(1996) Implications of deployed and nondeployed fathers on 7 <sup>th</sup> graders' California Achievement Test scores during a military crisis - Pisano, M.C. <i>Paper presented at Annual Meeting of NASP</i>	Questionnaire by parents and CAT percentile scores were compared	Army - 158 children 7 <sup>th</sup> graders (82 females, 76 males)	The results showed a decrease in the average reading score for females for both deployed and nondeployed parents from 1990 to 1991. A statistically significant decrease was noted in average reading scores for the females of deployed fathers; however, there was no statistically significant difference in CAT scores for any other area among males or females.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
3	Academic Outcomes	2006 - Using military deployments and job assignments to estimate the effect of parental absences and household relocations on children's academic achievement - Lyle, D.S <i>Journal of Labor Economics</i>	Used Army's records of HFP to identify those with deployed parents and a rich set of descriptive statistics	13,000 observations on military children ages 6 - 19 whose parents serving in active duty in Texas in 1997 or 1998.	Race, gender, parent's gender, military parent's marital status, education level, and AFQT scores - Based on children's TAAS scores (Texas Learning Index) Math scores only. Officers' children score 5 – 6 points higher on the math section and have a smaller standard deviation in test scores than enlisted soldier's children. A child's math scores decline as the duration of the parental absence increases. Correlations are statistically significant, but their magnitudes are small. There is no significant decline in academic achievement for children with parents in the 40% of AFQT distribution who experience a parental absence, yet there is a significant negative effect for children with parents in the bottom 60% of the AFQT distribution. This finding further supports the army's use of the AFQT score as a measure of potential success in the armed forces: the households of soldiers who have higher AFQT scores are better able to handle the parental absences associated with a military vocation. At first glance, the fairly small magnitude of the negative effects found in this study suggests that parental absences and household relocations had little impact on the educational achievement of military children in the late 1990's. A longitudinal study to explore how absences and relocations affect children's academic achievement over time is recommended.
4	Academic Outcomes	(1999) Why are residential and school moves associated with poor school performance - Pribesh, S. & Downey, D.B. <i>Demography</i>	Longitudinal Study - Questionnaire	14,929 civilian school aged children - National Educational Longitudinal Study of 1988	We believe the association between moving and school performance is not spurious because it is robust across a wide range of subgroups. We found that even children living with both biological parents in high income families tended to experience a decline in test scores if they moved. Indeed, we were unable to identify any group that consistently benefited from moving.
5	Academic Outcomes	(1989) Geographic mobility and student achievement in an urban setting - Ingersoll, G.M., Scamman, J.P., & Eckerling, W.D. <i>Education Evaluation and Policy Analysis</i>	Scores from a database	5 groups taken from 60,000 civilian students in Denver public school system	Geographic mobility aversive effects are most notable in the more unstable populations and persist even under attempts to control for socioeconomic status.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
6	Academic Outcomes	(1996 )Children in motion: School transfers and elementary performance - Alexander, K.L., & Entwisle, D.R. <i>The Journal of Education Research</i>	Followed each child from 1st - 6th grade and tracked how often and what type of move each did -	Civilian - 767 children from Baltimore public schools - assigned to three categories, "movers," "stayers," "exiters"	The higher SES and the Whites moved out of the school city system while the poor and minorities moved within the school system. Frequent movers had the lowest average on all four measures of academic achievement, whereas exiters had the highest average. The children who move most often are 'at risk' academically for other reasons as well.
7	Academic Outcomes	(2005) Consultation with military children and schools: A proposed model - Horton, D. - <i>Consulting Psychology</i>	A model for counseling military children	Military children	Reported - Guidance counselor at Fort hood Texas – “75% of seniors have already dropped out or skipped to much school to graduate on time” – Barbara Critchfield – Called School district they are refuting her comments. ( <b>Although a reference, the statement is not true and can be proven with data from Killeen ISD</b> )
8	Geographic Mobility	(2003) Geographic mobility, family, and maternal variables as related to the psychosocial adjustment of military children - Kelley, M.L., Finkel, L.B., Ashby, J. <i>Military Medicine</i>	Questionnaire to assess family cohesiveness, family adaptability, marital satisfaction, depression, and stress.	86 (not specified military service) Mothers also completed questionnaire assessing children's psychosocial development	Although rate of mobility was not related to child or maternal reports of children's adjustment, the longer the children had lived in their current residence, the fewer difficulties they experienced in peer relationships and fewer symptoms of loneliness they reported. These findings should be considered preliminary; similar to previous research, moving per se may not be as important as other aspects of maternal functioning and family relationships for the psychosocial adjustment and behavior of military children.
9	Geographic Mobility	(2000) School transitions among adolescent children of military personnel: A strengths perspective - Stobino, J. & Salvaterra, M. <i>Social Work in Education</i>	Questionnaire was administered in group settings	All branches - 6,382 children (w/a low response rate) - potential biases in data	These data are consistent with finding of Pittman and Bowen (1994) who wrote that transitions may either strengthen or weaken academic achievement, depending on the support systems available. Academic grades for the majority were reported at the A or B level. 75% reported teacher instruction is good; > 50% of parents had more than high school education; on average students participated in two activities (ranging from 0 to more than 10); 66% of parents were actively involved in child's education; 68% attended a school function

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
10	Geographic Mobility	(1994) Geographic mobility and children's emotional/behavioral adjustment and school functioning - Simpson, G.A., Fowler, M.G. <i>Pediatrics</i>	Data from the 1988 National Health Interview Survey - parent responded BPI Index	Civilian - 10,362 school aged children and their families	This article cites (Marchant & Medway, 1987) and (Whalen, 1973) who note that “multiple moves are reported to have had no negative impact on children in military families.....because the military has support services to facilitate moving”
11	Geographic Mobility	(2006) Military families: The impact of relocation on family well-being, employment, and commitment to the military - Ender, M.G. <i>Military Life: The psychology of serving in peace and combat, vol. 3: The military family</i>	Review of the Literature	Military families	The most fundamental point from the research findings is that moving is associated with many negative psychological outcomes. However, it should be noted that moving can also be a positive experience that allows the military family to make friends in many different places, gives them the opportunity to travel and learn about different cultures, and allows for potential career growth for service member. The findings also imply that while certain aspects of the move (e.g., previous experience, with moving, the timing and the location of the move) and certain aspects of the individual (e.g., personality, spouse employment) can influence the outcomes; the effects are always tied to just one person. The spouse, the service members, the children, military, and civilian communities all are likely to affect how the move is perceived and how the family copes with the process.
12	Geographic Mobility	(1987) Adjustment and achievement associated with mobility in military families - Marchant, K.H., & Medway, F.J. - <i>Psychology in the Schools</i>	Metropolitan Achievement Test (MAT) which measures reading comprehension, mathematics, language, social studies, and science.	40 military families living on Fort Jackson Army Base – in all cases except four the service member was male; 90% enlisted and average years in military was 13.	Contrary to expectations, the more a child had moved the greater his or her participation in social activities. The frequent mover is likely to take part in more activities and organizations than the less frequent mover and participation in such activities is positively related to school achievement.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
13	Deployment	(2009) The impact of parental deployment on child social and emotional functioning: Perspectives of school staff - Chandra, A., Martin, L.T., Hawkins, S.A., Richardson, A. <i>Journal of Adolescent Health</i>	Focus groups & semi-structured interviews	148 School Staff near Army base	Some children cope well with deployment; positive aspects of deployment are increased camaraderie, sense of family pride, and financial benefits; still, school staff felt that some children experience anxiety related to parental absence, increased responsibilities at home, poor mental health of nondeployed parents, and difficulty accessing mental health services. School staff reported that some children have displayed exceptional resiliency in the face of the deployments. Staff members shared that although there might have been a decline in academic performance when the parent was initially deployed, these children were able to organize themselves to perform well in future.
14	Deployment	(1976) Father absence in military families - Hillenbrand, E.D. <i>The Family Coordinator</i>	Questionnaire (completed by children, mothers, and teachers)	Marine - 73 boys and 53 girls (77 officers and 49 enlisted)	For boys - absence beginning earlier in life was associated with greater aggressiveness, irritability, depression, and impulsiveness. Perceived maternal dominance was positively related in boys to verbal ability and quantitative ability, and to Full Scale I.Q. For girls - earlier beginning absence was related to lower quantitative ability. A correlation was found between increased mathematical ability and paternal absence in eldest boys - Perhaps eldest son fills the role vacated by his father as a way to cope. Mothers reported they felt stress lowered their children's schoolwork, but many also reported their children appeared to gain responsibility and "grow up"
15	Deployment	(2007) Perceived stress, changes in heart rate and blood pressure among adolescents with family members deployed in Operation Iraqi Freedom - Barnes, V.A., Davis, H.D., & Treiber, F.A. <i>Military Medicine</i>	Questionnaire	Army - 121 students (20 with deployed parent, 53 without a deployed parent and 48 civilian (All attended same school near Fort Gordon in Georgia. 74% were non-Caucasian	Adolescent offspring of military personnel reported higher levels of stress and showed higher SBP compared with civilian adolescents. Several limitations in study, however. Trying to show link heart rate and blood pressure to conduct disorder, major depression, and separation anxiety

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
16	Deployment	(2007) Effect of deployment on the occurrence of child maltreatment in military and nonmilitary families - Rentz,E.D, Marshall, S.W., Loomis,D., Casteel,C., Martin,S.L., Gibbs,D.A <i>American Journal of Epidemiology</i>	Review of 2000 - 2003 Child Files for the Texas National Child Abuse and Neglect data system	All branches - Child victims of reported maltreatment (1,399 military and 146,583 non military)	These findings indicate that both departures to and return from operational deployment impose stresses on military families and likely increase the rate of child maltreatment. Intervention programs should be implemented to mitigate family dysfunction in times of potential stress. There is no consensus in the literature on how military rates of child maltreatment compare with nonmilitary rates. However, this study suggests that the rate of occurrence of substantiated child maltreatment is generally lower in military families but may increase as military families are threatened by war
17	Deployment	(1993) Children's reactions to the Desert Storm deployment: initial findings from a survey of Army families - Rosen, L.N. <i>Military Medicine</i>	Questionnaire	Army - 1601 children and parents filled out questionnaires	Certain symptoms such as sadness were common, but very few parents considered their children's problems serious enough to require counseling. The strongest predictor of children's receiving counseling during ODS was a previous history of being in counseling for emotional problems. Reported by parents as doing poorly in school: 13 to 18 years old boys (25%) and girls (15%); 10 to 12 years old boys (24%) and girls (10%); 6 to 9 years old boys (16%) and girls (2%)
18	Deployment	(2009) Military deployment: the impact on children and family adjustment and the need for care - McFarlane, A.C <i>Current Opinion in Psychiatry</i>	Review of the Literature - summarizes recent findings	Military families	The deployment of parents confronts children with a series of developmental challenges and stresses. At times there is a need for emotional detachment, adoption of differing family responsibilities and roles, and later, reintegration of the returning parent with the challenges of re-establishing old models of discipline and caretaking. Limitations in current literature: little research has been done on nontraditional families, families of female veterans, dual-career families, and single parent service members. Interventions involving family and children are less stigmatized than treatment seeking by veterans who are identified as the patients.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
19	Deployment	(2007) Child maltreatment in enlisted soldiers' families during combat related deployments - Gibbs, D.A., Martin, S.L. & Kupper, L.L. <i>Journal of American Medical Association</i>	Linked data from ACR and Army human resources data	1771 Army families who had at least one reported incidence of child maltreatment	Overall rate of child maltreatment was higher during the times when the soldier-parents deployed compared to the times when they were not deployed; however, the rate of physical abuse was lower during deployments. These findings are consistent with Rentz (2007) and McCaroll (2006)
20	Deployment	(2007) Parental deployment and youth in military families: exploring uncertainty and ambiguous loss - Huebner, A.J., Mancini, J.A., Wilcox, R.M., Grass, S.R., & Grass, G.A. <i>Family Relations</i>	Semi-structured focus groups from study participation via free camp sponsored by 4-H Military Liaisons	107 (12-18 yr old) Army - 39% Navy - 10% Marine - 23% Air Force - 10% NG & Reserve - 13%	1. Overall perceptions of uncertainty and loss: emotional interpretation of adolescent adaptability is individual; conflicting feelings; missing parent in everyday life, homework, activities, guidance. 2. Boundary ambiguity: changes in roles and responsibilities; routine changes at reintegration of returning parent. 3. Changes in mental health: 33% made statements reflecting changes in mental health. 4. Relationship conflict: 34% increased family emotional intensity; changes in parent-child relationship and reunion and integration; 52% reported difficulty.
21	Deployment	(1996) Children's response to parental separation during operation desert storm - Jensen, P.S., Martin, D., & Watanabe, H. <i>Journal of American Academy Child Adolescent Psychiatry</i>	Questionnaire (completed by children and parents)	383 military families - of deployed personnel (were compared cross-sectionally as well as longitudinally, using data collected prior to any knowledge of ODS.	Children of deployed personnel experienced elevated self-reported systems of depression, as did their parents. Families of deployed personnel reported significantly more intervening stressors, compared with children and families of nondeployed personnel. For children showing more persistent or pervasive psychopathology, factors other than simple deployment should be considered. However, deployment per se rarely provoked pathological levels of symptoms in otherwise healthy children. Boys and younger children appear to be especially vulnerable to deployment effects.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
22	Deployment	(1998) Effects of war-induced maternal separation on children's adjustment during the gulf war and two years later - Pierce, P.F., Vinokur, A.D., and Buck, C.L. <i>Journal of Applied School Psychology</i>	Retrospective Survey	263 Air Force Mothers - 2 years after Gulf War	The main predictors of children's adjustment problems at time of war were mothers' difficulties in providing for the care of the children, mother's deployment in the theatre of war (vs. deployed elsewhere) and degree of changes in children's lives. Most important: war-adjustment problems were not related to children's adjustment 2 years later, suggesting that the effects of maternal separation during the war were transient. Also found in this study: parental strain that accumulates from feelings of guilt and responsibility for inadequate arrangements for the care of the children contributes to poor mental health of the mother, which in turn, adversely affects the children's well-being.
23	Deployment	(2010) Deployment and the use of mental health services among U.S. Army wives - Mansfield, A., Kaufman, J.S., & Engel, C.C. <i>New England Journal of Medicine</i>	Data from electronic medical records	256,626 Wives of Army soldiers (18-48 yr old)	The deployment of spouses and the length of deployment were associated with mental health diagnosis; received more diagnosis of depressive disorders: sleep disorders, and anxiety; the longer the deployment the more excessive the symptoms.
24	Deployment	(2001) Internalizing and externalizing behavior of children with Navy mothers experiencing military-induced separation - Kelly, M., Hock, E., Smith, K.M., Jarvis, M., Bonney, J. & Gaffney, M.S. <i>Journal of American Academic Adolescent Psychiatry</i>	Mothers completed measures assessing children's behavior before and after deployment	52 Navy mothers (deployed) and 75 (nondeployed) and 32 civilian mothers	Navy children with deployed mothers exhibited higher levels of internalizing behavior than children with nondeployed Navy mothers. Navy children whose mothers experienced deployment were more likely to exhibit clinical levels of internalizing behavior than Navy children with nondeployed mothers or civilian children. Group differences, however, were modest and overall mean scores were in the normal range. These findings do not suggest greater pathology in children of Navy mothers; however, findings do indicated we should be particularly attentive to deployed mothers and their children.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
25	Deployment	(2009) Shadowed by war: Building community capacity to support military families - Huebner, A.J., Mancini, J.A., Bowen, G.L., & Orthner, D.K. <i>Family Relations</i>	Suggests a new approach to support military families - implementing community capacity-building model	Military families	The community (larger context), power of informal and formal networks, are endemic to a community perspective as partner in support of military families. Connect potentially isolated families to areas of support - strengthen informal networks of support for military families. 4-H/Army Youth Development Project, Operation: Military Kids, (recreational, social, and educational programming, camps, The AF Community Readiness Consultation model, Essential Life Skills for Military Families (program - ELSMF)
26	Deployment	(2009) Caring for America's children: Military youth in time of war - Lemmon, K.M., & Chartrand, M.M. <i>Pediatrics in Review</i>	Review of the literature and recommendations for pediatricians when treating military children	Military families	Younger children, boys, children with pre-existing emotional or behavioral problems, and children whose nondeployed parent evidenced psychopathology were at higher risk for mental health difficulties. The attempts of the military member to assume predeployment roles may lead to family conflict as roles are renegotiated; 78% of battle-injured soldiers who screen positive for PTSD or depression at 7 months post deployment had screened negative for these conditions 1 month after return. Successful adaptation to these stresses is an essential feature of healthy development and most military youth tolerate this stress well, as do other children who experience relocation and parental absences.
27	Deployment	(2009) The psychosocial effects of deployment on military children - Flake, E.M., Davis, B., Johnson, P.L., Middleton, L.S. <i>Journal of Developmental and Behavioral Pediatrics</i>	Questionnaire - Pediatric Symptom checklist, Parenting Stress-Index and Perceived Stress Scales	Army - 116 Spouses with a deployed service member and at least one child aged 5 - 12 years old	Parenting stress significantly predicted an increase in child psychosocial morbidity - Parents utilizing military support reported less child psychosocial morbidity - Parental college education was related to decrease in child psychosocial morbidity - The effects of military rank, child gender, child age, and race did not reach statistical significance - Positive school climate has been shown to impact not only academic performance but also positively influence emotions and behaviors of students - Children of younger-aged parents, shorter duration of marriage, and lower SES were at higher risk for having psychosocial symptoms in this sample - The majority of parents (64%) felt supported by the military.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
28	Deployment	(2009) Children on the home front: The experience of children from the military families - Chandra, A., Cinisommo, S.L., Jaycox, L.H., Taneilian, T., Burns, R.M., Ruder, T. & Han, B. <i>Pediatrics</i>	Computer assisted telephone interview with children(11-17 yr old) and primary caregiver	1507 military families 57% - Army 20% - Air Force 16% Navy	Length of parental deployment and poorer nondeployed caregiver mental health were significantly associated with a greater number of challenges for children both during deployed and deployed-parent reintegration. Family characteristics were also associated with difficulties from deployment. Older youth and girls of all ages reported significantly more school, family, and peer related difficulties with parental deployment.
29	Deployment	(2009) Military Children: When parents are deployed overseas - Fitzsimons, V.M., & Krause-Parello, C.A. <i>The Journal of School Nursing</i>	Literature Review & Guidelines for School Nurses	Military families	Pincus, et. al (2007) Children with deployed parents experience emotional cycle through the five stages of deployment. Failure of school community and family to identify and help the child cope with emotional needs in the school setting can lead to conflict and risk of poor educational outcomes. Ryan-Wenger (2001) compared children of active-duty, reserve, and civilian families' perceptions of war and its psychosocial manifestations (91 children total – 48(civilian) 25(reservist) and 18(active) the statistically significant finds indicated that children from military families are adaptive and resilient in response to the stress of war. The results suggest that military children are not overly anxious and are able to effectively cope with negative effects of war or the threats of war. However, these findings are not generalizable and more research from the children's perspective is needed.
30	Deployment	(2009) Developmental issues impacting military families with young children during single and multiple deployments - Barker, L.H., Berry, K.D. <i>Military Medicine</i>	Surveys for during deployment and after - also survey for nondeployed families	Army and National Guard - 57 families	About one quarter parents responded that thought they were depressed during the deployment and nearly half reported depression upon return/reunion. Results suggest that children with deployed parent showed increased behavior problems at deployment and attachment behaviors at reunion with children whose parents had not recently deployed. This is consistent with finding by (Chartrand, 2008 et al) which described elevated behavior problems in young children with a deployed parent that were not accounted for by other variables. Children in this study seem confused and distressed by the sudden reappearance for their parent; though most adjusted quickly.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
31	Deployment	(2008) Ambiguous absence, ambiguous presence: A qualitative study of military Reserve families in wartime- Faber, A.J., Willetton, E., Clymer, S.R., MacDermid, S.M., & Weiss, H.W. <i>Journal of Family Psychology</i>	Interviewed a year after returning from Iraq - 7 waves of interviews (home and telephone)	16 Reservists (14 male, 2 female) 87 % white, 13% black	Not much mentioned on children; Reservists described feeling disconnected psychologically and many families experienced boundary ambiguity in the form of ambiguous presence. Although the reservist was physically present, family members said it seems as if the reservist was psychologically absent. Family members had experienced ambiguous absence throughout the deployment characterized by the reservist's psychological presence but physical absence within the family; the biggest concerns were safety, redistribution of roles and responsibilities and rejoining the family.
32	Deployment	(2009) When a parent goes off to war: Exploring the issues faced by adolescents and their families - Mmari, K. Roche, K.M., Sudhinarest, M. & Blum, R. <i>Youth and Society</i>	11 Focus groups - 3 different perspectives (parents, youth, and school personnel)	All branches - military youth (39 students), parents (24) , and school personnel (35) -	Students reported 3 sources of emotional strain: 1 – Pre-deployment sadness about a parent's departure. 2 - Anxiety regarding a parent's death in war. 3 - Concern for the stress and worry of the parent remaining at home. Adolescents also remarked about having changing responsibilities (i.e., housework, care of younger siblings) both NEGATIVE AND POSITIVE consequences. Some report stress on top of already busy schedules while others noted that these responsibilities enabled them to grow up faster and be more responsible and dependable. Students also described the parent's return from deployment as posing great stresses and challenges to the family. In Iraq and Afghanistan long deployments of separation, parent might be a new person; confusion about adjusting to new parenting styles, new rules, getting reacquainted with returned parent as THE MOST DIFFICULT; takes a great deal of time, energy, and stress to get to know each other again. Feeling pressured to spend all their free time with returned parent. The students were witnessing negative changes to their parents' marital relationship.
33	Deployment	(1996) Parent-child separation: A comparison of maternally and paternally separated children in military families - Applewhite, L.W. & Mays, R.A. - <i>Child and Adolescent Social Work Journal</i>	Mailed surveys; 110 instruments were collected; telephone interviews conducted	Army - 55 children of active duty fathers and 55 children of active duty mothers (aged 9 - 10 years old)	The analysis provides evidence those children who must separate from their mothers for extended period do not develop less effective psychosocial functioning than children who separate from their fathers.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
34	Deployment	(2008) Psychological adjustment and treatment of children and families with parents deployed in military combat - Lincoln, A., Swift, E., & Shorteno-Fraser, M. <i>Journal of Clinical Psychology</i>	Review of the literature and case vignettes	Military families	Most children are resilient to the effects of deployment of at least one of their parents but children with preexisting psychological conditions, such as anxiety or depression, may be particularly vulnerable, as well as children with specific risk factors, such as child abuse, family violence, or parental substance abuse.
35	Deployment	(1981) Paternal Separation and the military dependent child - Yeatman, G.W. <i>Military Medicine</i>	Questionnaire	159 wives of servicemen and 33 servicemen - Army	Though readjustment problems were usually mild and of a transient nature, they were sometimes more severe and long-lasting than problems during separation. Although most children seem to recover from the effects of sudden paternal separation, some children seem to be at risk for severe permanent behavior disorders. Separation may constitute institutional neglect.
36	Military Families	(2003) Military families under stress - Drummet, Coleman, Cable, <i>Family Relations</i>	Literature Review & Guidelines for FLE's (Family Life Educators)	Military families	Military family syndrome is suggested to be time limited (Jensen, 1999) and some research (Merchant & Medway) suggest that military children are less affected by relocation than non-military because the military provides a structured environment. Some children use move as an opportunity to change behavior (1987). Unfortunately, helping professionals continue to believe in MFS leading many to stigmatize military families. Understand boundary ambiguity (family becomes unclear about which roles each member plays)
37	Military Families	(2003) Adaptation to stress: An investigation into the lives of United States Military Families with a child who is disabled - Fallon, M.A., & Russo, T.J. <i>Early Childhood Education Journal</i>	Questionnaires consisting of 101 items	253 Military families (all branches)	Military families who have a child that is disabled are not different from any other family in using family cohesion to adapt to new levels of stress. Supports the current literature that families learn over time to adapt to the stress in their lives. Perceived social supports were important in buffering the effects of stress on a family with a child who is disabled.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
38	Military Families	(2006) Voices from the backseat: Demands of growing up in military families - Burrell, L.M. <i>Military Life: The psychology of serving in peace and combat, vol. 3: The military family</i>	Review of the Literature and perspectives of adults who grew up in military families	Military families	Watanabe and Jensen (2000) conclude in their review of the research that military children have equal adjustment or are even less psychopathological on the whole when compared to their civilian peers. Given the divergence of opinion about the psychological consequences of growing up in military family, acknowledging the potential for both positive and negative outcomes is necessary. Cold War era research showed better than average College Board scores from DoDEA school students in all four major testing areas (Walling, 1985). Another study that followed high school students beyond graduation found positive affects associated with the experience of studying in an overseas school when compared to civilian peers in U.S. (U.S. DOD, 1980)
39	Socio-Emotional Factors affecting Academic Outcome	(2002) Emotions matter: Making the case for the role of young children's emotional development for early school readiness - Raver, C.C. <i>Social Policy Report</i>	Review of the Literature	Civilian	Young children's emotional and behavioral problems are costly to their chance of school success; these problems are identifiable early, are amenable to change, and can be reduced over time. Children who have difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress do less well in school; this link may be causal. and bidirectionally related; children with emotional difficulties are likely to “lose out” academically, in a number of ways:1. Disruptive children are hard to teach and get less positive feedback, spend less time on time on task and receive less instruction (Harmre & Pinata, 2001) 2.Emotionally negative, angry children may lose opportunities to work on projects together, help each other with homework, and provide each other with support and encouragement (Berndt & Keefe, 1995; Ladd et al. 1999). 3.Children who are disliked by teachers have low school attendance.
40	Socio-Emotional Factors affecting Academic Outcome	(2000) Children at risk for early academic problems: The role of learning-related social skills - McClelland, M.M., Morrison, F.J., and Holmes, D.L. <i>Early Childhood Research Quarterly</i>	Selected from sample of 450	450 children based on low-work related skills scores on Cooper-Farran Behavioral Rating Scales	Children with poor work-related skills (n=82) were found to differ from the overall sample on a number of children, family, and sociocultural variables including: significantly lower IQ's, more behavior difficulties, and more medical problems such as hearing and language problems. Children with low work-related skills scored lower on academic outcomes at the beginning of kindergarten and at the end of second grade.

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	Topic	Citation	Method	Sample Info/ Military Service	Findings
41	Socio-Emotional Factors affecting Academic Outcome	(2002) Social-Emotional factors affecting achievement outcomes among disadvantaged students: closing the achievement gap - Becker, B.E., & Luther, S.S. <i>Educational Psychologist</i>	Four critical socio-emotional components that influence achievement performance are discussed	Civilian children	Four critical social–emotional components that influence achievement performance: 1.Academic and school attachment- school characteristics 2.Teacher support and expectations- student’s perceptions of teacher support have been consistently linked with increased achievement motivation, academic success, and feelings of well being. 3.Peer values- attention to peer group values should be valuable in understanding whys some students pursue goals of achievement whereas others disparage academic perseverance 4.Mental health – (important and often neglected) - evidence shows that 12- 30% of all school-aged children have emotional disorders damaging enough that eventually these children will suffer severe education problems.
42	Socio-Emotional Factors affecting Academic Outcome	(2003) Research on the academic status of children with emotional and behavioral disorders - Trout, A.L., Nordness, P.H., Pierce, C.D., Epstein, M.H. - <i>Journal of Behavioral and Emotional Disorders</i>	Review of the Literature	Civilian children	Of the reports obtained from the 16 data sets in which the academic status of students with EBD (Emotional Behavioral Disorder) was described, none reported that the students had performed above grade or age level; 91% reported that students with EBD were academically deficient (i.e., below grade level or years behind peers), 89% in reading and 92% in arithmetic; both of the reports on written expression reported that these students presented academic deficits.
43	Socio-Emotional Factors affecting Academic Outcome	(2006) Contributions of teacher-child relationships to positive school adjustment during elementary school - Baker, J.A. - <i>Journal of School Psychology</i>	Permission forms sent to students' home; teachers completed study measures as part of a larger battery	1310 Kindergarten through fifth grade students from four elementary schools and 68 teachers	Reading composite scores from the either the Iowa Test of Basic skills or the Stanford Achievement Test Series (9th ed) were used as a measure of academic attainment. - Children experiencing behavioral or learning problems showed poorer school outcomes and were less able to benefit from a closer teacher relationship when compared to peers without such problems.

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Appendix B  
Academic Outcome Literature

Engel, R.C., Gallagher, L.B. & Lyle, D.S. (in press). Military deployments and children's academic achievement: evidence from Department of Defense Education Activity schools. *Economics of Education Review*.

Military Service: Army

Sample Size Information: 56,000 school aged children enrolled in DoDEA schools between 2002 and 2005. Equally divided between boys and girls; 66% are Black; more than 90% of parents are married; 26% had a parent deployed in the current school year; 17% had a parent deployed at time of exam.

Method: To each child's Terra Nova exam score the study merged the child's gender and race, as well as military parent's gender, marital status, education level, occupational specialty, rank, and AFQT score. Deployment status was inferred from a form of supplemental compensation called hostile fire pay (HFP) which soldiers receive when deployed to hostile environments; previous research has used family separation allowance to classify absences (which can be schooling and could introduce bias)

- The primary threat to the validity of our identification assumption is the possibility that a soldier's deployment may be correlated with other potential determinants of his or her child's academic achievement. For example, although unlikely, the Army may select certain soldiers to deploy based on characteristics that could be correlated with low academic expectations for their children. That is certain occupational specialties with high deployment rates may be associated with lower educational or aptitude levels.
- We control for all observable characteristics that the Army could use to assign soldiers to deployments. For example, the Army could weigh AFQT scores of soldiers when making the decision to deploy and the AFQT score of a military parent could be correlated with his or her child's academic performance during the parent's deployment.
- Same information used in study as Army uses to make deployment decisions, therefore, the controls in our regression strengthens the case of a causal interpretation.

Findings: A child whose parent deploys during the current school year scores .42% points, or 3% of a standard deviation, lower on his or her Terra Nova score than a child whose parent does not deploy.

- A 1 month increase in the length of parent's deployment reduces child's total NCE (normal curve equivalent) score by .11%
- A child whose parent is deployed during the month of the exam experiences a .92% point reduction in his or her MATH score relative to a child whose parent is not deployed at that time.
- For all five subjects and the total score, we observe a statistically significant negative effect, indicating that these children experience a decline in academic achievement that results from deployments as far back as 5 years; penalty associated with deployments dissipates quite slowly
- These findings show that the effects of a parental deployment during the school year are relatively modest and tend to dissipate after a parent's return.

Recommendations: The need for schools, especially those serving students who are prone to parental absences, to consider programs that mitigate the effects of parental absences of children's educational attainment.

Limitations:

- May consider these estimates as a lower bound on parental deployments since DoDEA schools are likely more equipped to manage deployments than non-military schools.
- May also consider these estimates an upper bound on the work-related parental absences literature, since military deployments may induce more stress and anxiety than the typical parental absence.

Pisano, M. (1996). Implications of deployed and non-deployed fathers on seventh graders' California achievement test scores during a military crisis. *Paper presented at the annual meeting of school psychologists*. 19p.

Military Service: Army

Sample Size Information: 158 children Junior High 7<sup>th</sup> graders– Ft. Bragg (82 females, 76 males)

Method: CAT percentile scores from 1990 and 1991 were obtained in reading, math, and language and a questionnaire was completed by parents to identify those students who had a parent deployed in the Middle East for Operation Desert Storm.

Findings: Generally unaffected when compared to their scores from the previous year. Another finding, though not significant, was that both groups of girls scored lower in reading from 1990 to 1991

- Cites (Hill, 1949 and Boulding, 1950) only two studies of families' reactions to separation and reunion during WWII; found that wartime separations causes families to establish new routines and new roles and that reunion adjustment is poor for families with larger number of children, those who had limited contact with friends and relatives, and those who had experienced separation in the past.
- Father absence is related to lower scores on intelligence and achievement tests (Deutch & Brown, 1964; Santrock, 1972; Sutton-Smith, Rosenburg, & Landy 1968)
- A review of 54 studies on the cognitive effects of father absence in nonmilitary settings indicates significant decreases in IQ and school achievement (Shinn, 1973.)
- A review of the research prior to 1969 from E. Herzong and Sudai (1973) concluded that the father's absence from the home makes no difference to the child's school achievement.
- A review of the four available studies suggests that increasing length of father absence due to military assignment and earlier child's age at absence onset result in higher verbal than math scores on standardized achievement tests. These effects may be mediated by the child's sex, ordinal position, and number of siblings. (Carlsmith, 1964, Funkensten, 1963, Hillenbrand, 1976, Oshman, 1975)

Lyle, D.S. (2006). Using military deployments and job assignments to estimate the effect of parental absences and household relocation on children's academic achievement. *Journal of Economics*, 24(2), 319-350.

Military Service: Army

Sample Size Information: 13,000 observations on military children ages 6 – 19 whose parents served in active duty stationed in Texas in 1997 or 1998

Method: used Army's records of hostile fire pay to identify those with deployed parents and a rich set of descriptive statistics. (Race, gender, parent's gender, military parent's marital status, education level, and Armed Forced Qualification Test (AFQT) score. Based on children's TAAS scores (Texas Learning Index) Math scores only.

Findings: Officers' children score 5 – 6 points higher on the math section and have a smaller standard deviation in test scores than enlisted soldier's children. A child's math score declines as the duration of the parental absence increases. Correlations are statistically significant, but their magnitudes are small.

- The practice of deployed units leaving a small detachment of soldiers at the home station to care for families and process administrative actions may explain why soldiers with more education are deployed less often than soldiers with less education. Unexpected deployments often cause soldiers to lose tuition money for college courses – they are likely candidates for stay-back personnel.

- These estimates suggest that boys score slightly lower than girls for enlisted soldiers children but not for officers; whites score higher than non whites; children with a male parent in the army score higher than children with a female parent in the army; children with less educated parents score lower than children with more educated parents; and children with high-ability parents, as measured by the AFQT, score higher than children with low-ability parents.
- The Ordinary Least Squares (OLS) regression estimates indicate that children whose parents are absent for 3 months or more score approximately one point lower than children whose parents are absent fewer than 3 months.
- There is no significant decline in academic achievement for children with parents in the top 40% of AFQT distribution who experience a parental absence; there is a significant negative effect for children with parents in the bottom 60% of the AFQT distribution. This finding further supports the army's use of the AFQT score as a measure of potential success in the armed forces: the households of soldiers who have higher AFQT scores are better able to handle parental absences associated with a military vocation.
- Military deployments have an adverse affects on younger children, similarly found in Jensen, et al (1996) for the Gulf War.
- Children who move 5 or more times score 1.5 points lower than children who move fewer than three times.
- Children with a mother in the army who move 5 or more times score 2.6 points lower than children who move fewer than three times.
- Children with parents who score in the top 40% on the AFQT experience no significant effect from an increased in number of moves; children whose parents score in the bottom 60% on the AFQT score nearly two points lower when they move five or more times.

Recommendations: Little is known about how these children will respond to longer, widespread, recurrent and increasingly hazardous deployments of their military parents.

At first glance, the fairly small magnitude of the negative effects found in this study suggests that parental absences and household relocations had little impact on the educational achievement of military children in the late 1990s. A longitudinal study to explore how absences and relocations affect children's academic achievement over time is recommended.

Limitations: While a detailed analysis of differences between children of enlisted soldiers and those of officers is beyond the scope of this article, these finding suggest that some dimension of an officers family, perhaps greater parental education or higher income mitigates the adverse effects of relocations

Results are empirically striking but difficult to interpret.

#4

Pribesh, S. & Downey, D.B. (1999). Why are residential and school moves associated with poor school performance? *Demography*, 36(4), 521-534.

Military Service: None

Sample Size Information: 14,929; National Educational Longitudinal Study (NELS) of 1988; students who remained in study until 1992 and answered two mobility related questions on the 1992 questionnaire

Method: Two questions "How many times have you moved and how many times have you changed schools?"

Also measured was social capital by gauging student-school connections through student self report in extracurricular activities and parent-child connectivity through parent self report. Many stressful life events may occur in conjunction with moving, making it difficult to discern whether moving per se affects academic

performance, or simply its association with other life events. The NELS allowed control for some of these experiences. (Divorce, parent loss of job, parent died, etc.) This study also controlled for parent's education, family income, race, and student's sex.

Findings: 8% experienced a school only move, 16% a residential only move, and 16% a combined, residential and school move. 60% did not move.

- Movers perform less well in school than non-movers in large part because the kinds of families that tend to move are also likely to have other disadvantages, i.e., poor families and those who do not live with both biological parents.
- Similarly, families low in social capital are probably the most likely to move because they are less integrated into the community. The social capital explanation survives our rigorous change model, supporting the claim that moves lead to a loss in social ties, which in turn affects school performance.
- We believe the association between moving and school performance is not spurious because it is robust across a wide range of subgroups. We found that even children living with both biological parents in high income families tended to experience a decline in test scores when they moved. Indeed, we were unable to identify any group that consistently benefited from moving.

Recommendations: Data containing multiple data collection points over an even longer period than we studied might reveal the reciprocal effects of moving and social capital.

Limitations: The students who did not remain in our sample between 1988 and 1992 had higher moving rates than those who remained in the study. Because our study disproportionately excludes students who are most likely to move (and arguably are most affected by moving), our results probably represent a conservative test of the effects of moving.

Our understanding of the effects of moving on school performance would benefit from knowledge of the geographic distance the student moved, information that was lacking in our data.

Studied high school youth; may not generalize to younger children to the extent that social capital plays a larger role in the academic adjustment of teenagers

# 5

Ingersoll, G.M., Scamman, J.P., & Eckerling, W.D. (1989). Geographic mobility and student achievement in an urban setting. *Educational Evaluation and Policy Analysis*, 11(2), 143-149.

Military Service: None

Sample Size Information: Five groups selected from student database of the Denver (CO) Public Schools (DPS) a multiethnic urban school system of more than 60,000 students (K-12)

Method: Elementary grades are given (ITBS) Iowa Tests of Basic Skills & high schools are given (TAP) Tests of Academic Progress – Dependent Variables.

Findings: The results of the analyses show a nearly uniformly negative impact of geographic mobility on student achievement; the most negative effects of geographic mobility were found at earlier grade levels, particularly within the school year

Geographic mobility aversive effects are most notable in the more unstable populations and persist even under attempts to control for socioeconomic status (though the index was not the most ideal measurement of SES)

Schaller (1976) and Blane (1985) warn against making too general an assumption that mobility is a causal contributor to achievement.

#6

Alexander, K.L., Entwisle, D.R., & Dauber, S.L. (2001). Children in motion: School transfers and elementary school performance. *The Journal of Educational Research*, 3-11.

Military Service: None

Sample Size Information: 767 children from Baltimore public schools in 1982

Method: Followed each child from 1<sup>st</sup> grade thru 6<sup>th</sup> grade school year – tracked how often and what type of move each did in that time. Three categories found, “movers”, “stayers”, and “exiters”.

Findings: The well-to-dos and the Whites moved out of the school city system while the poor and minorities moved within the school system. Frequent movers had the lowest average on all four measures of academic achievement, whereas exiters had the highest average.

- The children who move most often are at risk academically for other reasons as well.
- The transition from *home child* to *school child*, are times of special challenges. Patterns of good or poor school performance, work habits, interest in things academic, and the child’s sense of self as student all take form during this period. Prospects for success are much better when children get off to a good start than when they have to recover from a shaky one, so the circumstances that either complicate or smooth this transition deserve special attention. School moves during the elementary years are a likely candidate for complicating students’ problems in making the home-to-school transition.

Recommendations: The data at least hint at negative consequences surrounding school moves; the evidence seems sufficient to encourage further inquiry.

Limitations: Did not find reasons for why the upper SES children had a hard time transferring among schools. Do their moves involve family break-ups? Divorce? Custody arrangements? Is there something else going on

#7

Consultation with Military Children and Schools – A proposed model (2005) *Consulting Psychology Journal*

By supporting the mental and emotional health of children, the academic work could be more consistent.

Stages of deployment cycle - services developed at each stage

Grief training for counselors

A deployment newspaper for children could be developed that passes on information about their parents in language they understand.

A class is needed to explain the impact of trauma and stress reactions to educate family about returning soldier; children need an understanding that that they did not cause changes in parents.

Appendix C  
Geographic Mobility Literature

Kelly, M.L., Finkel, L.B., & Asby, J. (2003). Geographic mobility, family, and maternal variables as related to the psychosocial adjustment of military children, *Military Medicine*, 168(12) 1019 – 1024.

Military Service: doesn't specify.

Sample Size Information: 86 mother-child dyads; typical couple was Caucasian, between 30 and 40 years old, had attended college and had two to three school-age children; families were recruited through a letter sent home from child's school, a notice in the newsletter, an ad in local military paper, or a notice placed in local girl scout office.

Method: Mothers completed standardized questionnaires that assess family cohesiveness, family adaptability, marital satisfaction, maternal depression, and stress. Mothers also completed a questionnaire assessing children's sadness, anxiety, withdrawn behavior, aggressiveness, noncompliant behavior, and family demographic information.

Findings: Although rate of mobility was not related to child or maternal reports of children's adjustment, the longer the children had lived in their current residence, the few difficulties they experienced in peer relationship and the fewer symptoms of loneliness they reported.

Although these findings should be considered preliminary, similar to previous research, moving per se may not be as important as other aspects of maternal functioning and family relationships for the psychosocial adjustment and behavior of military children in traditional military families.

These findings support considerable research demonstrating the importance of family relationships and the family environment for children's psychosocial adjustment.

Strobino, J., & Salvaterra, M. (2000). School transitions among adolescent children of military personnel: a strengths perspective. *Social Work in Education*, 22(2), 95-107.

Military Service: Army, Navy, Air Force, Marines

Sample Size Information: 6,382 children (age 10 – 18) at installation in U.S. and overseas; equal number of respondents from each branch; 32,738 adolescents and their parents were identified as part of the sample; 6,382 participated for an overall response rate of 19.5%. This low response rate raises questions about potential biases in the data.

52% female, 48% male; 50% White, 14% Black, 30% Other

Median age 13.4; range from 1 to >10 for number of school transitions; average = 5 school transitions from K through 12<sup>th</sup> grade

60% attended public school away from military installations; 19% attended public school on base; 12% attended DoD school outside U.S.

Method: descriptive study that used a cross-sectional design; standardized procedure; packets were sent to houses; research assistants administered the questionnaire in group settings of students ages 10 – 12, 13-14 and 15 – 18; 5,726 children (90%) took 45 to 90 minutes to complete the survey; 656 students who couldn't take the survey in person were told to mail back the questionnaire (10%)

Findings:

- 75% reported teacher instruction is good; >50% of parents had more than high school education; on average students participated in two activities (ranging from 0 to more than 10); 66% of parents were actively involved in child's education; 68% attended a school function

- These data are consistent with finding of Pittman and Bowen (1994) who wrote that transitions may either strengthen or weaken academic achievement, depending on the support systems available
- Academic grades for the majority were reported at the A or B level.

Recommendations: Social workers in school refocus their assessments from a deficit or problem model to one in which the abilities of the individual as well as the resources in the environment are emphasized.

- Recognize new students in school and expedite classroom processes to enhance integration thereby enhancing learning
- Long term strategies needing commitment to the strengths perspective (Saleebey, 1996)
- Identify strengths as cultural experiences of various geographic locations and the ability to make friends quickly and to adjust to new surroundings
- Link new students with other new students – peer relationships as an environmental resource

Limitations: Self Report, especially on grades; tables are hard to understand; would like to see specific grade stats for number of moves: was there a big difference in the grades of those who moved 8 or more times than those who moved 5 or fewer?

10

Simpson, G.A. & Fowler, M.G. (1994). Geographic mobility and children’s emotional/behavioral adjustment and school functioning. *Pediatrics*, 93(2), 303-309.

Military Service: None (Civilian)

Sample Size Information: 10,362 school aged children and their families

Method: Data from the 1988 National Health Interview Survey; parent responded. BPI (Basic Personality Inventory) Index

Findings: Older children and poor children are more likely to move; 46% of mothers who had <12 years of education moved three or more times compared with 36% who had more education

53% of women who were widowed, separated, or divorced had moved three or more times compared with 43% of mothers who had never married, and 36% of who were currently married

This article cites Marchant & Medway (1987) and Whalen (1973) who note that “multiple moves are reported to have had no negative impact on children in military families.....because the military has support services to facilitate moving”

Recommendations: Researchers, educators, and pediatricians need to be made aware that children who move frequently may be more vulnerable to school and emotional problems, and thus require additional support within the new community.

Limitations: The survey was cross-sectional; thus the associations found in these analyses do not necessarily imply causality.

Burrell, L.M. (2006). Moving military families: The impact of relocation on family well-being, employment, and commitment to the military. In C.A. Castro, A.B. Adler & T.W. Britt (Eds). *Military Life: The psychology of serving in peace and combat, vol. 3: The military family* (p.39-63). Westport, CT: Praeger Security International.

### Literature Review

The way in which the impending move is perceived by the military member and the family is dependent upon:

- Timing
- Location
- New job details
- Spousal employment opportunities

Two models in literature that help to explain the impact that moving has on service members and families

1. Gaylord, & Symons, 1986: Four stages of moving that result in a wide array of emotions for each stage
2. ABC-X model (Hill, 1971) family systems model: members affect each other's thoughts, feelings, and actions; a crisis may occur if the family is unable to restore stability to their lives given their exposure to stressors (A), their coping resources (B) and their appraisals of the stressors (C)

Unfortunately neither of these theoretical models has been tested with the military and expatriate communities.

### Impact of Moving (can all become cycles if not treated)

- Family Well being (decreased marital satisfaction)
- Financial hardship
- Spousal employment
- Social support (family readiness group)

### Factors that moderate the impact of moving

- Personality
- Family composition and developmental stage (4 major family life stages)
- Military experience

The most fundamental point from the research findings is that moving is associated with many negative psychological outcomes. However, it should be noted that moving can also be a positive experience that allows the military family to make friends in many different places, gives them the opportunity to travel and learn about different cultures, and allows for potential career growth for service member.

The findings also imply that while certain aspects of the move (e.g., previous experience with moving, the timing and the location of the move) and certain aspects of the individual (e.g., personality, spouse employment) can influence the outcomes; the effects are always tied to just one person. The spouse, the service members, the children, military, and civilian communities all are likely to affect how the move is perceived and how the family copes with the process.

Marchant, K. & Medway, F. (1987). Adjustment and achievement associated with mobility in military families. *Psychology in the Schools*, 24, 289-294.

Military Service: Army

Sample Size: 40 military families living on Fort Jackson Army Base; in all except four cases the service member was male; 90% enlisted; average years in military was 13

Method: Several instruments were given to the parents and children in military families including the Metropolitan Achievement Test (MAT) which measures reading comprehension, mathematics, language, social studies, and science.

Findings:

- Correlational and chi-square analyses were used to examine the relationships between children's total life moves, location, distance, and recently of latest move and school achievement ratings
- Contrary to expectations, the more a child had moved the greater his or her participation in social activities
- The frequent mover is likely to take part in more activities and organizations than the less frequent mover; participation in such activities is positively related to school achievement.

Appendix D  
Deployment Literature

Chandra, A., Martin, L.T., Hawkins, S.A., & Richardson, A. (in press). The impact of parental deployment on child social and emotional functioning: perspectives of school staff. *The Journal of Adolescent Health*

Military Service: Army

Sample Size Information: 148 School Staff

Method: Focus groups and semi-structured interviews were conducted with teachers, counselors, and administrative staff, about the academic, behavioral, and emotional issues faced by children of deployed soldiers. Attention given to differences between active and reserves.

Findings: Some children cope well with deployment; positive aspects of deployment are increased camaraderie, sense of family pride, and financial benefits; still school staff felt that some children's anxiety related to parental absence, increased responsibilities at home, poor mental health of nondeployed parents, and difficulty accessing mental health services.

- A limited number of studies have demonstrated an associated between parental deployment and academic outcomes.
- School staff reported that some children have displayed exceptional resiliency in the face of the deployments. Staff members shared that although there might have been a decline in academic performance when the parent was initially deployed, these children were able to organize themselves to perform well in future.
- The return home is a stressful time for children as reported by school staff.
- Important factors seem to be the value placed on education by the parent responsible for child during deployment, parental mental health, and level of supervision at home and in community.
- "Normal range" of functioning from beginning, then it stays that way while parent is gone, but if there are issues before the deployment, it may unduly magnify these problems.
- There have been transformations in the school environment response to deployments from proactive interest to more subdued and seen as normal life; students are sharing less of their emotional state.
- Elementary and middle school are relying on school staff for social and emotional support – 33% focus group members responded and find it overwhelming at times

Recommendations: future research should examine factors related to youth outcomes during parental deployment and assess the effects of deployment on other measures such as school engagement and academic performance.

Focus efforts on identifying quickly the children who are struggling the most with deployment of a parent and improve exchange of information between school and military and improve the linkage between community and mental health services

Limitations: All findings are reported from the perspective the school personnel; given the scope of this study no attempt was made to validate the findings with information gathered directly from the student or parents.

Hillenbrand, E.D. (1976). Father absence in military families, *The Family Coordinator*, 25(4), 451-458.

Military Service: Marines

Sample Size Information: 73 boys and 53 girls; 77 were offspring of officers and 49 enlisted

Method: Parents answered a questionnaire which included history of military absence and parent's observations of reactions to father absence. Teachers also rated using rating scale for pupil adjustment and children filled out questionnaires.

Findings: A majority of the Marine families accepted the father's frequent absence with stoicism. Many believed the absences had been stressful for their children, especially when combat was involved.

- While they often felt stress negatively impacted their children's schoolwork, many also mentioned that their children appeared to gain in responsibility and "grow up" during the father's time away.
- For boys, absences beginning earlier in life were associated with greater aggressiveness and irritability and more depression and impulsiveness
- For girls, the earlier beginning absence was related to lower quantitative ability except those girls with older brothers
- The qualities of mothers who rear competent children and how they encourage autonomy in their offspring are of equal importance. Identification of these functioning characteristics will enable us to spot the more vulnerable parents and children.

# 15

Barnes, V.A., Davis, H., & Treiber, F.A. (2007). Perceived stress, heart rate, and blood pressure among adolescents with family members deployed in Operation Iraqi Freedom, *Military Medicine*, 172, 40-43.

Military Service: Army

Sample Size Information: 149 students - Military adolescents with (34) and without (64) a deployed parent and civilian adolescents (59)

Method: completion of questionnaires

Findings: Adolescent offspring of military personnel reported higher levels of stress and showed higher SBP and HR compared with civilian adolescents.

# 16

Rentz, E.D., Marshall, S.W., Loomis, D., Casteel, C., Martin, S.L., & Gibbs D.A. (2007). Effect of deployment on the occurrence of child maltreatment in military and nonmilitary families, *American Journal of Epidemiology*, 165(10) 1199-1206.

Military Service: All active duty branches

Sample Size Information: 1,399 military and 146,583 non military child victims of reported maltreatment

Method: 2000-2003 Child Files for the state of Texas from the National Child Abuse and Neglect Data System.

Findings: These findings indicate that both departures to and return from operational deployment impose stresses on military families and likely increase the rate of child maltreatment. Intervention programs should be implemented to mitigate family dysfunction in times of potential stress.

- There is no consensus in the literature on how military rates of child maltreatment compare with nonmilitary rates. However, this study suggests that the rate of occurrence of substantiated child maltreatment is generally lower in military families but may increase as military families are threatened by war.

- In general, the risk factors for child maltreatment are not as prevalent in military families as nonmilitary families. Military families receive health care and housing at least partially funded by the government, and all are financially supported by at least one employed family member. Soldiers are required to pass aptitude tests and may be discharged if severe drug or alcohol use is discovered.

# 17

Rosen, L.N., Teitelbaum, J.M., & Weshuis, D.J. (1993). Children's reactions to the Desert Storm deployment; initial finding from a survey of Army families. *Military Medicine*, 158, 465-469

Military Service: Army

Sample Size Information: 1601 children of soldiers

Method: Profiles were obtained from reports of parents who stayed at home with the children; questionnaires were mailed to spouses; 1,274 spouses completed the questionnaire.

Findings: Certain symptoms such as sadness were common, but very few parents considered their children's problems serious enough to require counseling. The strongest predictor of children's receiving counseling during Operation Desert Storm was a previous history of being in counseling for emotional problems.

Reported by parents as doing poorly in school:

- 13 – 18 year old boys, 25%; girls, 15%
- 10 – 12 year old boys, 24%; girls, 10%
- 6 – 9 years old boy, 16%; girls, 2%

# 18

McFarlane, A.C. (2009). Military deployment: the impact of children and family adjustment and the need for care. *Current Opinion in Psychiatry*, 22, 369-373.

#### A Review of the Literature

- The deployment of parents confronts children with a series of developmental challenges and stresses.
- At times there is a need for emotional detachment, adoption of differing family responsibilities and roles, and later, reintegration of the returning parent with the challenges of re-establishing old models of discipline and caretaking.
- Impact of combat on the returning parent
- Patterns and rates of child maltreatment
- Families of US troops deployed to Middle East
- The age of children
- Role confusion with a deployed parent
- Vietnam veterans – reactivity to stress (prolonged) via physical assault and psychological aggression

# 19

Gibbs, D.A., Martin, S.L., Kupper, L.L., & Johnson, R.E. (2007). Child maltreatment in enlisted soldiers' families during combat-related deployments. *Journal of American Medical Association*, 298(5) 528-535.

Military Service: Army – enlisted soldiers' families

Sample Size Information: 1771 families who had at least one reported incidence of child maltreatment by parent in the Army Central Registry.

Method: Linked data from ACR and Army human resources data; provide descriptions age, sex, race, drug/alcohol use.

Findings: Overall rate of child maltreatment was higher during the times when the soldier-parents were deployed compared with the times when they were not deployed, however the rate of physical abuse was lower during deployment.

These findings are consistent with Rentz (2007) and McCaroll (2006).

# 20

Huebner, A.J., Mancini, J.A., Wilcox, R.M., Grass, S.R., & Grass, G.A. (2007). Parental development and youth in military families: Exploring uncertainty and ambiguous loss. *Family Relations*, 56, 112-122.

Military Service: Army (39%), Navy (10%), Air Force (4%), Marines (23%) NG and Reserve (13% all branches)

Sample Size Information: N = 107 12 – 18 year old youth; focus groups from study participation from adolescents via attendance at one of several free camps sponsored by the National Military Family Association and through State 4-H Military Liaisons; deployed parent required for admission to camp.

Method: data was gathered in an in-depth semi structured focus group interview that lasted 90 minutes; groups divided according to age; participants interacted with each other.

Findings: four main categories of results

- Overall perceptions of uncertainty and loss; emotional interpretation of adolescent adaptability is individual; conflicting feelings; missing parent in everyday life: homework, activities, guidance
- Boundary ambiguity; changes in roles and responsibilities; routine changes; reintegration of returning parent
- Changes in mental health; 33% made statements reflecting changes in mental health
- Relationship conflict; 34% increased family emotional intensity; changes in parent-child relationship and reunion and reintegration; 42% reported difficulty

Adolescents were acutely aware of changes in the nondeployed parent including their emotional state and personal resilience.

Recommendations: help adolescents realize that life is sometimes unfair but not always; life is about absoluteness (right or wrong) with this age group; help adolescents to recognize situations they have control over and those they do not; can't control length of deployment but can control how they react to it.

Adolescents are still in the process of honing communication and social skills; organize support networks rather than crisis only networks.

# 21

Jensen, P.S., Martin, D., & Watanabe, H. (1996). Children's response to parental separation during operation desert storm. *Journal of American Academy of Child and Adolescent Psychiatry*, 35(4), 433-441.

Military Service: doesn't specify

Sample Size Information: 383 military families

Method: 383 children and the nondeployed caretaking parent completed self report instruments concerning child and family functioning and life stressors. Children of deployed and nondeployed personnel were compared longitudinally and cross-sectionally using data collected prior to any knowledge of Operation Desert Storm.

Findings: Generally, the factors shaping differential outcomes among children of deployed personnel do not differ from the variables affecting outcomes of children of nondeployed parents. However, boys and younger children appear to be especially vulnerable to deployment effects. Also found in other research regarding divorce.

The availability of social support systems and like-minded persons with similar values, life experiences, and socioeconomic status likely provide additional psychological supports and buffers during stressful times. Levels of psychopathology in peacetime military families appear consistent with or even below national norms (Jensen, 1991); all these factors probably serve or mitigate stress responses under many conditions.

Recommendations: Increasing monitoring of children at risk is warranted. Adequate treatment of children requires treatment of the effects of the deployment on other family members.

# 22

Pierce P.F., Vinokur, A.D., & Buck, C.L. (1998). Effects of war-induced maternal separation on children's adjustment during the gulf war and two years later. *Journal of Applied School Psychology*, 28, 1286-1311.

Military Service: Air Force

Sample Size Information: 263 Air Force mothers 2 years after the Gulf War

Method: Using a retrospective survey

Findings: The main predictors of children's adjustment problems at time of war were mothers' difficulties in providing for the care of the children, mother's deployment in the theater of the war vs. deployed elsewhere and degree of changes in children's lives. Most importantly, war-adjustment problems were not related to children's adjustment 2 years later, suggesting that the effects of maternal separation during the war were transient.

Also found in this study, parental strain that accumulates from feelings of guilt and responsibility for inadequate arrangements for the care of the children contributes to poor mental health of the mother, which in turn, adversely affects the children's well-being.

# 23

Mansfield, A.J., Kaufman, J.S., Marshall, S.W., Bradley, G.N., Morrissey, J.P., & Engel, C.C. (2010). Deployment and the use of mental health services among U.S. Army wives. *The New England Journal of Medicine*, 362(2), 101-109.

Military Service: Army

Sample Size Information: 250,626 wives of Army soldiers 18 to 48 yr. old whose members who had been active duty service for a minimum of 5 years

Method: data from electronic medical records

Findings: The deployment of spouses and the length of deployment were associated with mental health diagnosis; received more diagnosis of depressive disorders including sleep disorders, and anxiety; the longer the deployment the more excessive the symptoms.

- 36.6% of women with a deployed husband were diagnosed with a mental illness.
- Psychosocial burden on families of deployed military personnel is less well understood and perhaps not comparable to that of previous deployment, given current service conditions. Spouses face fear of losing a loved one, maintaining a household, coping as a single parent; past studies show increased rate of marital dissatisfactions, unemployment, divorce, and declining emotional health.

Kelley, M.L., Hock, E., Smith, K.M., Jarvis, M.S., Bonney, J.F., & Gaffney, M.A. (2001) Internalizing and externalizing behavior of children with enlisted mothers experiencing military-induced separation. *Journal of American Academy of Child and Adolescent Psychiatry*, 40, 464-471.

Military Service: Navy

Sample Size Information: Navy mothers (n=52 deployed) (n=75 non deployed); mean age was 27.9; 49% were married; 57% white, 32% black, 4% Hispanic

Method: Navy mothers completed a measure assessing children's internalizing/externalizing behavior before and after a deployment; data collection took place between 1996 and 1998

Compared CBCL (Child Behavior Checklist) data across three groups: Navy children with deployed mothers, Navy children with non-deployed mothers, and children with civilian mothers

Findings: Navy children with deployed mothers exhibited higher levels of internalizing behavior than those children with non deployed parents; findings suggest that very young children with deployed parents may be susceptible to anxiety and sadness; findings do not suggest greater pathology in children in Navy mothers; however, findings do indicate we should be particularly attentive of deployed mothers and their children.

Research is similar to previous findings in that the majority of very young children with Navy mothers exhibit levels of internalizing and externalizing behavior within normal limits.

Limitations: not all children were in the same stage of development

Huebner, A.J., Mancini, J.A., Bowen, G.B., & Orthner, D.K. (2009). Shadowed by war: building community capacity to support military families. *Family Relations*, 58, 216-228.

Explores issues of separation, reunion, short and long term effects and suggest a new approach to building support systems; a capacity-building framework is introduced; 4 diverse and innovative social action programs are discussed.

Connect potentially isolated families to areas of support.

Lemmon, K.M. & Chartrand, M.M. (2009). Caring for America's children: military youth in time of war. *Pediatrics in Review*, 30(6), 42-48.

A review of the literature and recommendations for pediatricians when treating military children.

- Younger children, boys, children with pre-existing emotional or behavioral problems, and children whose nondeployed parent evidenced psychopathology were at higher risk for mental health difficulties
- The experiences of today's military children are significantly different than those of Operation Desert Storm.
- The attempts of the military member to resume predeployment roles may lead to family conflict as roles are renegotiated.

- 78% of battle-injured soldiers who screened positive for PTSD or depression at 7 months postdeployment had screened negative for these conditions 1 month after return.
- National Guard and Reservists screened positive for mental health concerns at slightly higher rates than did active duty soldiers.
- Successful adaption to these stresses is an essential feature of healthy development, and most military youth tolerate this stress well, as do other children who experience relocation and parental absences.

# 27

Flake, E.M., Davis, B.E., Johnson, P.L., & Middleton, L.S. (2009). The psychosocial effects of deployment on military children. *Journal of Developmental and Behavioral Pediatrics*, 30(4), 271-278.

Military Service: Army

Sample Size Information: 116 Spouses with a deployed service member and at least one child aged 5 – 12 years old.

Method: Spouses completed a deployment packet consisting of demographic and psychosocial questions; the PSC (Pediatric Symptom Checklist), the Parenting Stress-Index-Short Form, and the Perceived Stress Scales-4.

Findings:

- Parent stress significantly predicted an increase in child psychosocial morbidity.
- Parents utilizing military support reported less child psychosocial morbidity.
- Parental college education was related to a decrease in child psychosocial morbidity
- The effects of military rank, child gender, child age, and race or ethnic background and length of separation did not reach statistical significance.
- Positive school climate has been shown to impact not only academic performance but also positively influence emotions and behaviors of students (Lynne MB, 2007).
- 6% of parents are considered at risk for neglect or maltreatment according to PSI.
- Children of younger-aged parents, shorter duration of marriage, and lower socioeconomic status were at higher risk for having psychosocial symptoms in this sample.
- The majority of parents (64%) felt supported by the military.

Recommendations: Assessment of specific family variables focusing on parenting stress levels and perceptions of supports will assist providers in recognizing “high risk” children during a deployment cycle.

Limitations:

- PSC is just a screening tool; being “high risk” does not necessarily connote high levels of psychopathology.
- Use of cross sectional representation from active Army families who had access to local military installations (a convenience sample)
- All participants were actively supporting a deployed service member; their personal stress may have influenced their perceptions of distress observed their child.
- Lack of concurrent nondeployed control group precludes attributing increased rates of stress in the sample to deployment alone.
- Cohort is suspected to be older, more educated, feel more secure, and integrated than younger parents who are new to military; those who return to their hometown may be experiencing even more stress than what was found in our sample populations.

# 28

Chandra, A., Sandraluz, L.C., Jaycox, L.H., Tanielian, T., Burns, R.M., Teague, R. & Bing, H. (2010). Children on the homefront: the experience of children from military families. *Pediatrics*, 125(1) 13-22.

Military Service: All branches

Sample Size Information: 1507 Military families

Method: Computer assisted telephone interviews with children 11 – 17 years old and primary caregiver. Most of the families (95%) had experienced at least one deployment and 38% were currently experiencing a deployment.

Findings: Older youth and girls of all ages reported significantly more school, family, and peer difficulties. Length of parental deployment and poor non-deployed parent mental health were significantly associated with a greater number of challenges both during deployment and reintegration phase.

# 29

Fitzsimons, V.M., Krause-Parello, C.A. (2009). Military children: when parents are deployed overseas. *The Journal of School Nursing*, 25(1) 40-47.

The purpose of this article is to promote understanding of the mechanism by which children of military personnel and their significant caregivers cope with the emotional cycle through the five stages of deployment: Predeployment, deployment, sustainment, redeployment, and post deployment; implications for school nurses.

### Literature Review

Huebner and colleagues (2007) used focus groups to examine uncertainty, loss, resilience, and adjustment of children whose parents were deployed to a war zone. This study found a range of emotions, including acting out, emotional outbursts, and self-reported manifestations of depression and anxiety.

Ryan-Wenger (2001) compared children of active-duty, reserve, and civilian families' perceptions of war and its psychosocial manifestations (91 children total – 48 civilian, 25 reservist, and 18 active duty dependents); the statistically significant finds indicated that children from military families are adaptive and resilient in response to the stress of war. The results suggest that military children are not overly anxious and are able to effectively cope with negative effects of war or the threats of war. However, these findings are not generalizable and more research from the children's perspective is needed.

Kelley (1994) 61 mothers of children 5 – 13 yr. old; husbands completed a 6 to 7 month Navy deployment in the Gulf War; completed self-reported instruments. The study indicated that separation is especially disruptive for families with school-age children. Families with younger children reported less family organization and self-sufficient children. Separation also results in less nurturance and cohesiveness and more internalizing and externalizing behaviors in school age children.

Horton (2005) studied student changing schools during deployment; frequent school changes may cause an inner struggle for adaption and peer acceptance; school changes may also affect school performance.

Lemmon and Stafford (2007) findschool failures can be a significant cause of stress for military families.

Pincus, et. al (2007) Children with deployed parents experience emotional cycle through the five stages of deployment. Failure of school community and family to identify and help the child cope with emotional needs in the school setting can lead to conflict and risk of poor educational outcomes.

Parental deployment risks the appropriate transition of psychosocial development stages of Erickson. Deployment of a parent is highly individualized and varies according to student's developmental stage:

Preschool (Initiative vs. guilt) School Age (industry vs. inferiority) Adolescents (identity vs. role confusion)

Coping strategies are needed during times of uncertainty; children who see their environment as unstable may be less confident than peers who see their environment as stable; DeRanieri, et al, (2004) – relationships with friends

and other significant attachment figures are important to a child's social development – Krause-Parello (2008). Pets can also be important attachment figures – children who experience positive feelings about pets have increases self esteem and confidence and can be safe recipients of a child's secrets and positive thoughts, have an easier time establishing and maintaining relationships with peers AACAP (2008)

#### School Nurse Implications:

Hoge et al, (2007) there is a positive relationship between combat duty and mental health disorders after military deployment to Iraq and Afghanistan. School nurses should be mindful of these and provide appropriate referrals to military parents. Prompt counseling and referrals by school nurse are essential to help students cope.

Media may exacerbate children's fear of dangers associated with war.

School nurses should work with caregivers and encourage them to keep family routines and schedules.

Answer questions regarding deployment briefly and to the point to prevent child's overactive imagination or potential reality

School nurses can encourage sports, activities, clubs; students may need to establish new forms of social support.

Huenber et al, (2007); Be aware of somatic complaints. Suggest a personalized wellness plan for coping with stress and anger, or counselor or support group

School nurses can assist lonely students to develop new relationships or strengthen existing ones; increase school connectedness, religious.

# 30

Barker, L.H., Berry, K.D. (2009). Developmental issues impacting military families with young children during single and multiple deployments. *Military Medicine*, 174(10), 1033-1040.

#### Military Service: Army and National Guard

Sample Size Information: 57 families with at least one young child; mostly men deployed with some college experience

Method: 2 surveys; most completed only one of the two; SDG (single deployment group) and MDG (multiple deployment group) were asked relationships, age, gender, education of respondent, dates and locations of deployments, primary caregiver; 1<sup>st</sup> survey completed during deployment and 2<sup>nd</sup> survey completed during reunion of soldier. A no-deployment survey was also used with 14 families.

Ratings about OBR (Child Observed Behavior Responses) and IAB (Intense Attachment Behaviors) were rated on a Likert Scale format.

Findings: About one quarter parents responded that thought they were depressed during the deployment and nearly half reported depression upon return/reunion. Results suggest that children with deployed parent showed increased behavior problems at deployment and attachment behaviors at reunion compared with children whose parents had not recently deployed. This is consistent with finding by Chartrand, et al (2008) which described elevated behavior problems in young children with a deployed parent that were not accounted for by other variables.

Children in this study group had a parent who was deployed, on average, half of their lifetime.

Children in this study seem confused and distressed by the sudden reappearance for their parent, though most adjusted quickly.

Several of the most common child behavior problems reported by parents appeared to be attachment behaviors: clinginess, needing attention, asking questions about the parent's absence.

3 Factors that may ameliorate (or when absent, may accentuate) the impact of stress on children:

- personality dispositions
- Parent support
- Community support

Recommendations: Continued investigation of effects of deployment on child attachment and developmentally critical milestone for older children would be helpful (i.e., impact of parent deployment on school-aged children's school performance)

Limitations: The comments here cannot be generalized to all participants or to all Army families. They do describe how individual families are affected by deployment and how they cope.

Study weakness, such as small number of subjects, use of a non-standardized behavior scale, lack of correction for child age, and or groups that were not well matched. Our nonrandom sampling is also a potential limitation and could have been subject to selection bias. It is possible that the attendance at the FRG (Family Readiness Group) meetings where recruiting took place was associated with existing child and parent distress.

# 31

Faber, A.J., Willerton, E., Clymer, S.R., MacDermid, S.M., & Weiss, H.M. (2008). Ambiguous absence, ambiguous presence: a qualitative study of military reserve families in wartime.

Military Service: Reserves

Sample Size Information: 16 Reservists; 14 male, 2 female; 87% white and 13% black; 56% had children; 18 family members were selected for participation.

Method: In-home and telephone interviews a year after deployed soldier returning from Iraq; 7 waves of interviews; questions regarding stressors, coping mechanisms, marital relationships, parent-child relationship, social support.

Findings: Family members had experienced ambiguous absence throughout the deployment and were characterized by the reservist's psychological presence but physical absence within the family; the biggest concerns were safety, redistribution of roles and responsibilities, and rejoining the family.

Used FSG (Family Support Group), a military sponsored group for family members in the unit; struggled to find sources of accurate and timely information; the FSG was reported as helpful because others are going through the same stressors

Reservists described feeling disconnected psychologically and many families experienced boundary ambiguity in the form of ambiguous presence. Although the reservist was physically present, family members said it seems as if the reservist was psychologically absent.

Deployment forced family members and their reservist to live without one another for an extended period of time and as a result each individual had become more closed in communicating thoughts and actions.

Recommendations: During deployment clinicians should recommend FSGs; pay attention to boundary ambiguity that families may be experiencing and address this through discussion of each person's expectations in terms of roles, responsibilities, and relationships.

It seems that Reservists and their families confront these issues with less experience and with less support than do active duty soldiers.

Limitations: Small sample from only one reserve unit; some dropped out of study early, which suggests that retained sample may have been better adjusted than was the entire pool.

These studies should evaluate how family adjustment is impacted by external family contexts. Although families have little control over these contexts, they nonetheless play a role in family's resiliency and perception of boundary ambiguity.

# 32

Mmari, K., Roche, K.M., Sudhinaraset, M., & Blum, R. (2008). When a parent goes off to war: exploring the issues faced by adolescents and their families. *Youth and Society*, 40(4), 455-475.

Military Service: Army, Navy, Air Force, Marines, Reserves, National Guard

Sample Size Information: Military Parents, Youth, and School Personnel

4 Student Groups; n = 39 students, 12 - 18 yr. old; 56% White, 20% Black, 12% Hispanic; Mean age = 14; 61% female; 46% had a parent who had been deployed in current war; 88% had a parent who had at some time been deployed.

3 Parent Groups; n = 24; 67% White, 12% Black, 12% Hispanic; 71% Female

4 School Personnel Groups; n = 35; 73% White, 26% Black; the majority had counseled or taught both military and nonmilitary students - 61% Female

Total for study: n = 98

Method: 11 Focus Groups; 3 different perspectives/group categories: Parents, Youth, and School Personnel; increased homogeneity allowed for better conversation flow; 8 to 10 participants in each focus group with a facilitator and a note taker. Semi structured interview guide designed to learn about the challenges of having a parent or parents deployed and how schools and parents can help adolescents cope with deployment, particularly during time of war. Data analysis followed the constant comparison method.

Findings: Students reported 3 sources of emotional strain:

- 1 – Pre-deployment sadness about a parent's departure.
- 2 - Anxiety regarding a parent's death in war
- 3 - Concern for the stress and worry of the parent remaining at home.

Adolescents remarked about having changing responsibilities such as housework, care of younger siblings; both negative and positive consequences. Some report stress on top of already busy schedules while others noted that these responsibilities enabled them to grow up faster and be more responsible and dependable. Students also described the parent's return from deployment as increasing stresses and challenges to the family. In Iraq and Afghanistan: long deployments and separation; parent might be a new person; confusion about adjusting to new parenting styles, new rules, getting reacquainted with returned parent as the most difficult; takes a great deal of time, energy, and stress to get to know each other again; feeling pressured to spend all their free time with returned parent. The students were witnessing negative changes to their parents' marital relationship. The deployed parent was missing important events. Adolescents reported that discussing stress related to deployment with a school counselor is a "joke;" while it is good to talk with someone, they reported it's easier to talk with their friends in the military. Thus, it was reported that living on base was easier because there was access to more social supports. Media and Technology: parents and school personnel discussed the media coverage of war can be cause of anxiety and stress and felt it was important that news not be on when students at home; however, media technology create new opportunities for making the deployed parent closer to home: create DVDs, Web cams, E-mails; parents identified the anti war sentiment at schools and in their larger community as threatening to both youth and parents; living in civilian communities may pose real source of stress

Recommendations:

- Some of the students have started their own "deployment support groups;" need specific training for counselors and teachers of military students who are struggling with a deployed parent (for example, John Hopkins Bloomberg School of Public Health); those children who live in a mostly nonmilitary community and school, like the Guard, and Reserves, lack access to peer supports and resources; this can create a higher sense of social isolation.
- Families need to discuss how the imminent deployments going to change "family life;" family routines facilitate the organization of daily life and provide both structure and family cohesion for the developing young person; need to provide developing adolescent with a sense of self-efficacy and skills in self-regulation.
- Schools need to provide extra opportunities for homework help or counseling and make them available for all students, not just military, to avoid singling them out.
- School staff needs to be alerted when a student's deployed parent is returning and be sensitized about the family stresses that often accompany the return.
- Parents and children need to discuss with each other also

Limitations:

Recruitment locations were selected by Department of Defense; it is unclear the extent to which findings can generalize to other families living in other military bases or to Reserve families.

It is possible that responses in study were biased because focus groups were conducted on a military base.

# 33

Applewhite, L.W., & Mays, R.A., Jr. (1996). Parent-child separation: A comparison of maternally and paternally separated children in military families. *Child & Adolescent Social Work Journal*, 13, 23-39.

Military Service: Army

Sample Size Information: 55 children of active duty fathers and 55 children of active duty mothers; average age 9 – 10 years old.

Method: mailed surveys telephone interviews; 110 instruments were collected; a total of 151 child questionnaires

Findings: The analysis provides evidence of those children who must separate from their mothers for extended periods do not develop less effective psychosocial functioning than children who separate from their fathers.

# 34

Lincoln, A., Swift, E., & Shorteno-Fraser, M. (2008). Psychological adjustment and treatment of children and families with parents deployed in military combat. *Journal of Clinical Psychology*, 64(8), 984-992.

Identify several key factors that relate to psychological risk, adjustment, and outcome. Most children are resilient to the effects of deployment of at least one of their parents but children with preexisting psychological conditions such as anxiety and depression may be particularly vulnerable as well as children with specific risk factors such as child abuse, family violence, or parental substance abuse.

Case vignettes with review of literature

Coping resources of remaining parent may be compromised by his or her own distress and uncertainty.

APA established a Task Force on Military Deployment Services for Youth, Families, and Service Members.

Adolescent children (Huebner & Mancini, 2005) may be particular risk for emotional and behavioral difficulties associated with parental deployment due to increased awareness from media coverage.

# 35

Yeatman, G.W. (1981). Paternal separation and the military child. *Military Medicine*, 146, 320-322.

Military Service: Army

Sample Size Information: 159 wives of servicemen and 33 servicemen

Method: Questionnaires given to parents bringing their children to pediatric clinic at Martin Army Hospital, Georgia.

Findings: Though readjustment problems were usually mild and of a transient nature, they were sometimes more severe and long-lasting than problems during separation.

Although most children seem to recover from the effects of sudden paternal separation, some children seem to be at risk for severe permanent behavioral disorders.

Separation may constitute institutional neglect.

Appendix E  
Military Families Literature

Drummet, A.R., Coleman, M., & Cable, S. (2003). Military Families under stress: implications for family life education. *Family Relations*, 52(3), 279-287.

Our purpose is to generate interest in the development, implementation, and evaluation of family life education programs for military families. Military families cope with these stressors in a structured environment that pressure families to behave a certain way; military spouses and children informally carry the rank of the spouse or parent, which includes guidelines for behavior and pressure to conform.

Fewer than half of participants in programs for families sponsored by the army rated the programs as helpful or beneficial.

Summary of the limited research on three uniquely stressful experiences of military families

- 1) Relocation – Military Family Syndrome: children and adolescents of military families are believed to experience high levels of psychopathology because of frequent moves ( Jensen, 1999). However, Jensen concluded these effects are greatly understudies and the problems related to relocation are probably time limited. Some research (Merchant & Medway, 1987) suggest that military children are less affected by relocation than non-military because the military provides a structured environment that provides job security, standard school curriculum in base schools, and comparable base housing.

Positive effects on children’s academic achievement – some children use a move as an opportunity to change behavior and become more active in their educational environments (Marchant & Medway, 1987) and if the new environment provides a better education system or offers more valuable connections with teacher, coaches (Jensen, 1995).

Unfortunately, helping professionals often continue to believe in the Military Family Syndrome, leading many to stigmatize military families as inherently prone to behavior problems.

Brown & Orthner (1990) – Girls seem to have more difficulty adjusting than boys, perhaps due to more importance on social relationships; adjustment period begins as children anticipate their new home and school environment, grieve losses related to familiar school and community, and fear the unknown; likely to experience or perceive social rejection (Vernberg, 1990; Vernberg et. Al. 1994).

Frequency and distance of moves – International moves isolate children more and increase their vulnerability which may be exacerbated by challenge of having to more deal with unfamiliar culture.

- 2) Separation (Deployment) – symptoms depend somewhat on the nature of the separation, with severity being positively correlated with a combat situation (Kelley, 1994). If mother’s reaction is depression then children may mirror. The longer the separation the greater the magnitude of feelings experienced (Figley, 1993, Riggs 1990, Vombrock, 1993). The deployed parent may also experience overload of feelings, (Hogancamp & Figley, 1983).

Boundary ambiguity – family becomes unclear about which roles each member plays; financial decisions for example, physically absent but psychologically present; the goal for families is to stretch the family boundary enough to retain psychologically the military services member as a viable family member, while temporary reassigning that person’s responsibilities to others.

- 3) Reunion – Six reunion factors
  1. Roles and Boundary issues – individuals may be reluctant to give up new responsibilities, resulting in family frustration and sometimes dissolution.
  2. Household management – nondeployed spouse may be proud to have handled more responsibility during partner’s absence; others may be embarrassed or anxious if household was not run smoothly; returning spouses may feel an intense need to return to normal but things have changed while they were away.

3. Honeymoon effect – family cohesiveness; old and new problems can soon surface; older problems not resolved before now become substantial.
4. Social Support – families must negotiate a balance between independence and attachment to individuals in the support network they utilized during separation.
5. Parent rejection and anxiety – the child rejects the parent or is anxious in his or her presence, an experience similar to separation anxiety; returning spouse must adjust to new rules in house for example in the case of infant to a child or an infant a father has never seen.
6. Physical and mental condition – adjustment to life altering injuries, PTSD, detachment from others.

FLE (Family Life Education) – need to address the following specific areas:

- Culture affects how military families handle military family stressors, and their willingness to access supportive family services; establish self help groups; informal groups may appear more acceptable than formal counseling; emphasize educational nature to avoid stigma – *Army Family Support Group Leader Handbook* .
- Separation is complicated by diversity in family structure (e.g., single mothers and fathers, dual-military families, military mother-civilian father, military father-civilian mother) and will require that family life educators individualize programs.
- Methods of communication that promote family cohesion and provide honest, direct communication within families and between families and military representatives are essential during separation.
- Spouses’ employment needs and job self-efficacy in the civilian sector should be recognized and facilitated.
- Military families should be assisted in making relocation decisions, such as living on or off base, choosing schools, and maintaining and renegotiating family boundaries.
- Programs need to be developed for relocated children to help them adjust to their new educational system. “buddy system” can provide at least one social connection
- FLEs need to assist military families with adjustment and reorganization during the reunion period.

# 37

Fallon, M.A. & Russo, T.J. (2003). Adaptation to stress: An investigation into the lives of United States military families with a child who is disabled. *Early Childhood Education Journal*, 30, 193-197.

Military Service: Army, Navy, Air Force, Marines

Sample Size Information: 253 military families with a child who was diagnosed with a medical, education, or mental health disability; of the 10,691 in overall study, only 253 were self-identified as having a disability; 94% were married; 69% female respondents; 25% of children in this survey were age 3 or younger; 75% were ages 4 – 6 years.

Method: Questionnaires consisting of 101 items was sent to each participant in overall sample

Findings: Military families who have a child that is disabled are not different from any other family in using family cohesion to adapt to new levels of stress. This article supports the current literature that families learn over time to adapt to the stress in their lives.

- Perceived social supports were important in buffering the effects of stress on a family with a child who is disabled. The parents in this study reported high levels satisfaction with military and educational and medical support programs.
- Difference between rank and family cohesion: noncommissioned officers and commissioned officers report more life and career satisfaction. Rank is associated with commitment to the military and identification to the military community (Jensen, 2000). Lower rank = lower income = higher stress

Recommendations: Identification of families at risk for maladaptation should be the focus of quality services.

# 38

Ender, M.G. (2006). Voices from the backseat: Demands of growing up in military families. In C.A. Castro, A.B. Adler, & T.W. Britt (Eds.). *Military life: The psychology of serving in peace and combat, vol. 3: The military family* (p.138-166). Westport, CT: Praeger Security International.

## Literature Review

Three primary contextual areas that combine to influence both psychological vulnerabilities and strengths associated with growing up in military families:

- 1) Military demands
- 2) Social structure
- 3) Culture

There is a divergence of opinions about the psychological consequences of growing up in a military family.

Social demands of military lifestyle:

- Risk of injury or death
- Geographic mobility – contradicting research on the impact of moving (Teens on the move) Later research noted both positive and negative outcomes associated directly with parental attitude and guidance during moves (Nice & Beck, 1978).
- Foreign residence – study found impact more likely to compound the problems of already dysfunctional families.
- Separation time – Father absence may be especially positive for female adolescents, as the masculine culture of military services appears to frustrate the maturing feminine identity.
- Masculinity, normative constraints, and counterculture kids
- Early retirement and transition to civilian life – There is little research on post-high school social behaviors and adjustment of military youth and their transitions to civilian society.

Watanabe and Jensen (2000) conclude in their review of the research that military children have equal adjustment or are even less psychopathological on the whole compared to their civilian peers. Given the divergence of opinion about the psychological consequences of growing up in military family, acknowledging the potential for both positive and negative outcomes is necessary.

Cold War era research showed better than average college board scores from DoDEA students in all four major testing areas (Walling, 1985). Another study that followed high school students beyond graduation found positive effects associated with the experience of studying in an overseas school when compared to civilian peers in U.S. (U.S. DOD, 1980) Taking care of military personnel, sustaining their satisfaction with military life, and supporting combat readiness means the military organization and its leaders must confront, at least to some extent, the issue of children growing up in the military family

## Appendix F

### Socio-Emotional Factors Literature

Raver, C.C. (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. *Social Policy Report*, 16(3), 3-18.

### Literature Review

Children's emotional and behavioral adjustment is important for their chances of early school success.

Children, who have difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress do less well in school than other students; this link may be causal and bidirectionally related

There is a need for longitudinal evidence for the importance of social and emotional adjustment for children's success in early academic contexts.

Children with emotional difficulties are likely to "lose out" academically, in a number of ways

- 1- Disruptive children are hard to teach, get less positive feedback, spend less time on task and receive less instruction (Harmre & Pinata, 2001)
- 2- Emotionally negative, angry children may lose opportunities to work on projects together, help each other with homework, and provide each other with support and encouragement (Berndt & Keefe, 1995; Ladd et al. 1999).
- 3- Children who are disliked by teachers and classmates grow to like school less, feeling less love for learning, and avoid school more often, lower school attendance (Berndt & Keefe, Birch & Ladd, 1997, Murray & Greenberg, 2000)

Researchers consistently identify "family adversity" or "cumulative risk" and parenting practices as major environmental influence on young children's development of later emotional or behavior disorder (e.g. parents' problems with mental illness, illegal activity, low educational attainment, alcohol/drug abuse.)

McClelland, M.M., Morrison, F.J., & Holmes, D.L. (2000). Children at risk for early academic problems: The role of learning-related social skills. *Early Childhood Research Quarterly*, 15(3), 307-329.

Method: Children were selected from a sample of 540 children based on low work-related skills (Social Behavior) on the Cooper-Farran Behavioral Scales, (a teacher-related scale)

Findings: Children with poor work-related skills (n=82) were found to differ from the overall sample on a number of children, family, and sociocultural variables including significantly lower IQ's, more behavior difficulties, and more medical problems such as hearing and language problems. Children with low work-related skills scored lower on academic outcomes at the beginning of kindergarten and at the end of second grade.

### The profile of the at-risk child

This child is either a boy or girl who is younger than his/her classmates, has a lower IQ, has behavior problems, has more medical risk factors present; this child also comes from a disruptive and poor home environment classified by living with only one parent and whose parents have lower levels of education and occupational statuses.

There is growing evidence that social behavioral characteristic of children contribute to adjustments to school and subsequent academic performance.

Becker, B.E., Luther S.S. (2002). Socio-emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Educational Psychologist*, 37(4), 197-214

## Literature Review

### Four critical social–emotional components that influence achievement performance

1. Academic and school attachment – school characteristics
2. Teacher support and expectations – student’s perceptions of teacher support have been consistently linked with increased achievement motivation, academic success, and feelings of well being.
3. Peer values – attention to peer group values should be valuable in understanding why some students pursue goals of achievement whereas others disparage academic perseverance
4. Mental health – (important and often neglected) – Evidence shows that 12–30% of all school-aged children have emotional disorders damaging enough that eventually these children will suffer severe education problems

Many researchers theorize that social support and belonging in the classroom may be one of the most important factors involved in disadvantaged students’ achievement motivation and engagement (Bowen, Richman, Brewster, & Bowen, 1998, et. others)

# 42

Trout, A.L., Nordness, P.D., Pierce, C.D., & Epstein, M.H. (2003). Research on the academic status of children with emotional and behavioral disorders: A review of the literature from 1961 to 2000. *Journal of Emotional and Behavioral Disorders*, 11(4), 198-210.

## Literature Review

Academic domains measured: arithmetic, reading, and writing expression.

Of the reports obtained from the 16 data sets in which the academic status of students with EBD (Emotional Behavioral Disorder) was described, none reported that the students had performed above grade or age level; 91% reported that students with EBD were academically deficient (i.e., below grade level or years behind peers)

89% – presented academic deficits in reading

92% – presented academic deficits in arithmetic

And both of the reports on writing expression reported that these students presented academic deficits.

Compared to students without disabilities (N=23), students with EBD performed less well academically

Compared to students with Learning Disability (N=34), students with EBD performed similar in arithmetic and writing expression

Compared with students with ADHD (N=16), students with EBD performed similarly in all three academic domains.

Compared with students with Mental Retardation (N=11), students with EBD performed better in arithmetic and written expression.

## Limitations

Diverse academic subject areas and specific skill sets within the primary academic domains, specific student characteristics, and specific ongoing measures of students’ academic abilities warrant further study.

This review further supports the notion that students with EBD are often academic underachievers.

# 43

Baker, J.A. (2006). Contributions of teacher-child relationships to positive school adjustment during elementary school. *Journal of School Psychology*, 44, 211-229.

## Literature Review

Permission forms were sent to students' home; teachers completed the study measures as part of a larger battery.

1310 Kindergarten through fifth grade students from four elementary schools and 68 teachers

Reading composite scores from either the Iowa Test of Basic skills or the Stanford Achievement Test Series (9th ed.) were used as a measure of academic attainment. Children experiencing behavioral or learning problems showed poorer school outcomes and were less able to benefit from a closer teacher relationship when compared to peers without such problems.