THE EFFECTS OF MILITARY DEPLOYMENT ON CHILDREN’S HEALTH
AND WELL-BEING

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The Effects of Parental Military Deployment on Children’s Health and Well-Being

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ABSTRACT

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Currently in the United States, nearly two million children are affected by military deployment of one or both of their parents. A review of current literature was conducted to answer the research question, “What are the effects of parental deployment on a child’s health and well-being?” Four common themes were discovered in the literature: 1) psychological and behavioral effects of parental deployment on children; 2) possible physiological effects; 3) academics and school performance; and 4) amplified risk of child maltreatment by the at-home parent when the other parent is actively deployed. This paper describes the research process, presents research findings as they relate to nursing practice, and identifies areas that need further research relating to the effects of parental deployment on children’s health and well-being.

Key Terms: “children” AND “deployment” AND “parent;” “children” AND “military”
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Chapter One

Introduction

In the United States, over two and a half million people are enlisted in the Active Duty and Ready Reserve branches of the military (Department of Defense [DoD], 2008). Of these personnel, 43.2% have dependent children. Since 2001, with the initiation of the Global War on Terror, almost two million children in the United States have been affected by military deployment of one or both parents (Flake, Davis, Johnson, & Middleton, 2009). As a result of increased recent deployment, the effects of parental separation on the children have become of amplified interest. Healthcare providers working with children may benefit from better understanding the effects of parental deployment on the health and well-being of children.

Research Problem

There is limited information available in the nursing literature that describes the relationship between parental military deployment and the health and well-being of their children. This paper describes a literature review undertaken to explore available evidence about the health effects on children whose parents are deployed, as well as to identify areas for further research on this topic. Nurses have the unique opportunity to work with military families not only in military hospitals, but also in civilian healthcare and community settings. As healthcare providers, there is a trusted relationship and bond between nurses and these families. Understanding the risks of children related to their parent's deployment can help nurses provide holistic care to these children and their families.

Almost two million children are affected by parental deployment in the United States today (Flake et al., 2009). In order for healthcare providers to offer holistic care and help children cope when they are affected by parental deployment, it is important to understand the
potential effects on the child. The information provided here will give healthcare providers an understanding of the effects of deployment on children and will help them improve their ability to assess children and their families and provide enhanced access to needed services.

Research Question

The research question that guided the development of this project was, “What are the effects of parental deployment on a child’s health and well-being?”
Chapter Two

Background and Literature Review

Nurses have the unique opportunity to work with military families not only in military hospitals, but also in civilian healthcare settings. Nurses enjoy a trusted relationship and bond with individuals and families (American Nurses Association, 2009). Understanding the risks of children related to their parent’s deployment can help nurses provide holistic care to children and their families. The purpose of this literature review was to examine current research about the effects of parental deployment on children, to identify common themes found within the research, and to highlight areas of research that will be needed in the future. The results of this literature review will be useful to those who might establish support programs for children and their families who are impacted by deployment and will provide much-needed information about the need for and focus of future research.

Search Strategies

Three databases were explored for research articles related to effects of parental military deployment on children. The Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycInfo, and PubMed databases were searched using the terms, “children,” AND “deployment,” AND “parent.” For the purpose of this search, research was defined as a study involving human subjects that used either qualitative or quantitative methodology, produced statistical data or qualitative commentary, and directly related to the effects of parental deployment on children.

Initially, all articles having a title related to the effects of parental deployment on children were selected. From this collection, each article abstract was scanned for specific article content. Articles were selected for inclusion in this literature review if the body of the article was found
to be directly related to the effects of parental deployment on children, and if it was written after 1995. This date was chosen because of the Gulf War that began in 1990. Research related to the Gulf War deployment appeared to be published in this time period. The CINAHL database search produced seven articles and six were selected for review. One article was discarded because it was not directly related to the topic of interest. The PsycInfo search produced 19 journal articles. Fifteen of these articles were different from previously discovered articles. From these, four articles were discarded because they were written in 1995 or before and five were found to be unrelated, leaving six articles that were retained for the literature review. Finally, the PubMed database was also searched using the above terms. Fifty-six articles were discovered with this search. Of these articles, 17 were found to be related to children and the effects of parental deployment. Eight of these articles had been discovered in the previous database search, two of these articles were written prior to 1995, and one of these articles was a commentary; therefore, six of these articles were retained for review.

Eighteen articles were obtained using the approach described above. All were directly related to the effects of parental deployment on children. Eleven of these articles were found to be reports of research, thus meeting the criteria for inclusion in this study. The references from each of these research articles were examined for other articles that were directly related to the topic of interest. From this examination, an additional seven articles were added for evaluation. This process resulted in a small but manageable collection of 18 articles that were available for initial review.

Findings from Literature

Four main themes emerged from the literature reviewed related to the effects of parental deployment on distinct aspects of children’s health and well-being. These included themes
related to school and educational effects, psychological and behavioral effects, physiological effects, and effects related to child maltreatment. The initial literature search revealed mostly information related to the psychological and behavioral effects experienced by children related to parental deployment. Additionally, there was significant crossover into other themes from the data, such as the effects on academic performance, child maltreatment, and physiological effects on children.

The initial literature search yielded an average of two research articles on three of the themes (academic performance, physiological effects, and child maltreatment related to deployment). Other articles within the initial search results focused primarily on psychological or behavioral aspects of deployment and also described related concepts such as depression seen in school children. In order to grasp a complete understanding of the effects on academic performance, physiological effects, and child maltreatment in relation to parental deployment additional literature searches were completed in the CINAHL, PubMed, and PsycInfo databases to allow a closer focus on these specific themes.

To locate a wider array of articles about the effects of parental deployment on children, the broad search terms of “children” AND “military” were used in the second database search. Any article title that appeared to be related to academic performance, child maltreatment, or the physiological effects on children related to parental deployment was selected for abstract review. If the abstract revealed that the article reported on human subjects’ research and related to the above topics, it was included in this literature for review. Further information was discovered related to the incidence of child maltreatment by the at-home parent during times of deployment; however, no supplementary information directly related to the physiological or somatic
symptoms experienced by children as a result of parental deployment or academic performance impact was found.

School and Educational Effects. Military children are often subjected to parental absence due to deployment as well as frequent school changes resulting from military relocations (Lyle, 2006). Not surprisingly, the consistency of education and the educational scores, of military children may be impacted by these stressors. Although limited, a review of literature revealing school stressors within the military children population has been explored for this literature review.

Chandra et al., (2010) conducted focus groups and telephone interviews with 148 school staff, including teachers, counselors, and administrators at 12 schools, working with children whose parents were serving in the United States Army. These 12 schools were chosen due to the high deployment rates of these children’s parents during the previous five years. Twenty-four focus groups and 16 telephone interviews were conducted during this qualitative study. The purpose of this study was to gather information and opinions from school staff working with children who had a deployed parent and to understand what effect this deployment has on the behavioral, social, and emotional dynamics of these children.

Participants were asked questions related to behavioral and emotional issues the participants had observed in their work with children of a deployed parent. They were asked to comment on children’s unique social and academic issues as they related to the deployment of a parent. School staff noted that some children coped quite well with deployment, while others displayed signs of difficulties related to parental absence. One common theme reported in this qualitative study was that school personnel indicated that parental deployment had an effect on the ability of children to function at school. Concerns seen by school staff related to these
children were (a) the uncertainty of the length of deployment, (b) a large amount of stress in the home environment, as well as (c) mental health issues of the non-deployed parent. School staff also indicated that parental deployment led to sadness and anger within these children. Boys more commonly than girls displayed this anger with aggression. Girls more often exhibited behaviors such as depression or somatic complaints. Staff also noted that as length of deployment was extended, or multiple deployments were encountered, children were losing their resiliency. Finally, school staff reported that children of deployed military personnel tended to have more responsibility at home, potentially contributing to the difficulties seen in school functioning.

Mmari, Roche, Sudhinaraset, and Blum (2008) conducted a qualitative study of 11 focus groups among adolescents from military families, their parents, and school personnel at five military bases. There were 39 students, 24 parents, and 35 school personnel involved in these focus groups. The purpose of this study was to develop an understanding of the consequences of parental deployment on adolescents and their families. Additionally, this study aimed to identify strategies that might help adolescents deal with parental deployment. The results indicated that families have a difficult time adjusting to the initial impact of parental deployment, as well as to reintegrating the parent upon their return from deployment. The parents and school personnel felt that part of the difficulty adolescents demonstrated as a result of parental deployment was in part caused by the youths’ inability to express their emotions. Adjusting to roles and responsibilities within the household was named as a major source of stress within the family. Parents reported that a major factor to their child’s reaction to parental deployment was affected by the at-home parent’s reaction to the absence of the other parent. At-home parents in this study described trying to establish “normalcy” and sticking to a routine or schedule during the deployment.
School personnel agreed that in part, children handle, or do not handle, deployments based on how well the family as a whole is coping with the deployment. This study also revealed that school teachers and counselors do not feel well equipped to handle the stressors of deployment experienced by their students. These authors suggest that school personnel need to receive additional training on working with children impacted by military deployment as well as offering opportunities for these children to discuss issues related to deployment with school staff.

Lyle (2006) suggested that the military relocates service members and their families without considering the affected children and their academic success and asserts that frequent relocation and parental absence leads to increased difficulties with academic performance. Using United States Army personnel data with children’s standardized math test scores from Texas, Lyle conducted an analysis of children between ages six and nineteen whose parents were in active duty military and who were stationed in Texas in 1997 or 1998. This analysis revealed that parental absence for three months or more had a negative effect on the children’s test scores by a tenth of a standard deviation, or approximately one point less than children whose parents were absent for less than three months. These findings were true for the enlisted service members’ children, but not the officers’ children. Test scores were more negatively affected in the enlisted service members’ children as the length of deployment increased. Household relocation also had a slight negative effect on children’s test scores. The combination of parental absence combined with moving or household relocation had the greatest negative effect on children from single parents, children with mothers in the army, children with lower ability parents, and younger children.

**Psychosocial and Behavioral Effects.** Research regarding the effects of military deployment on children overall is limited; however, several studies were located for this
literature review related to the psychosocial and behavioral consequences resulting from this experience. Understanding these effects could be quite useful to healthcare personnel working directly with these children. The following studies were reviewed in an effort to determine common themes related to the psychosocial and behavioral impact of parental deployment on these children.

Chandra et al. (2009) performed a computer-assisted telephone interview with 1507 military children. The ages of the children ranged from 11 through 17. The purpose of this study was to identify the health and well-being of children with a deployed parent from the home caregiver's perspective. The non-deployed caregivers of these children were asked to evaluate child well-being and difficulties seen in the children resulting from deployment. There were differences found with the results of this study based on the gender, age of the child, housing status, caregiver mental health, and the length of deployment. Overall, more emotional concerns were reported in military children by their parents than the average child living in the United States. Older children, those in middle or later adolescence, experienced more difficulties with school, family, and peers with parental deployment. Later, they experienced difficulties with reintegration of the deployed parent into the family unit upon their return. It was suggested that older children may take on more household responsibilities; therefore, the initial absence of the parent may compound these responsibilities and upon return of the parent, these older children may experience some role confusion. Girls tended to display more issues related to role confusion and reintegration than did boys in this study. The authors indicated that a compounding issue for teenage girls who participated in this study may have been difficulties relating to their fathers. This study found that children living in on-base housing showed fewer deployment-related challenges. This may be a result of living in a military community and
having closely available support systems. It was also reported that caregiver mental health could lead to increased childhood difficulties during deployment and reintegration of the parent when returning from deployment. Finally, the length of deployment was found to impact the children. The greater number of months a parent was deployed in the previous three years was related to greater stress in children.

Lester (2010) interviewed 272 children, 163 at-home civilian parents, and 65 active duty or recently returned active-duty parents, to examine the behavioral and emotional problems seen in children ages 6 through 12 resulting from parental deployment. As a result of information obtained in these interviews, Lester determined that parental distress in conjunction with the length of parental military deployment during the child's life predicted increased depression rates and externalizing symptoms in children with deployed parents. The depression levels of these children were found to be comparable to community norms; however, these children experienced much higher levels of anxiety in these deployment groups. This study found that spouses of recently deployed military personnel reported higher rates of parental distress than spouses of recently returned troops. This study suggested that length of deployment throughout the child's life has cumulative effects that remain even after the deployed parent reintegrates into the family unit.

Flake et al. (2009) studied 101 children, aged 5 through 12, to evaluate the psychosocial profiles of school-age children during parental deployment. The purpose of the study was to determine what predictors would make children “high risk” for psychosocial morbidity resulting from parental deployment. The parents were asked to complete a deployment packet which included psychosocial and demographic data. The Pediatric Symptom Checklist, the Parenting Stress Index-Short Form, and the Perceived Stress Scale were included in the packet. The results
of this study indicated that approximately one-third of children were considered to be “high-risk” for developing psychosocial morbidities. The non-deployed parent’s reports of stress were directly correlated with the child’s psychosocial functioning in this study. Parents with a college education and those receiving support from the military reported a decrease in child psychosocial morbidity. This study found that military support, family support, and community support resulted in decreased levels of family stress during times of parental deployment.

Applewhite and Mays (1996) conducted a study of 100 randomly selected military mothers living on the Fort Meade, Maryland, military base, and 100 male military counterparts matched to the military mothers by rank, for a total of 200 service members. These service members had a combined total of 288 children, aged 4 through 18, who comprised the initial study sample. This study examined differences related to maternal versus paternal military deployments on the psychosocial functioning of children. A questionnaire was developed for this study combining the Psychosocial Functioning Inventory (PFI) and the Family Stressors Index and was mailed to the study participants for data collection. A sample size of 110 surveys was used in the findings of this study due to a low response rate from initial participants, incomplete surveys, or surveys returned relating to children outside of the specified range of 4 through 18 years of age.

Initially, the findings from the PFI of this study showed the children with mothers in active duty military scored lower in their learning style. Children with a father in active duty military scored lower in peer relationships, learning demands, physical health, and expression of feelings. However, age of the child at the first extended separation from parent, birth order, number of moves, parents with whom the child currently lived, and the active-duty parent’s rank were statistically controlled in this study. Once the controls were applied to the data, the findings
concluded that children did not have different psychosocial outcomes based on whether their mother or father was deployed. Further research with larger sample sizes would be beneficial to ensure the initial findings of this study were truly not statistically significant.

To determine the effects of military deployment on children and their parents, Jensen, Martin, and Watanabe (1996) conducted a study comparing randomly selected children and families (with at least one child between the ages of 4 and 17) with a deployed parent during Operation Desert Storm to children and families without a deployed parent. Three hundred eighty-three children and their at-home caregivers completed an instrument relating to the functioning of the family and the child, as well as life stressors experienced by the family. Children of the deployed and non-deployed families were compared cross-sectionally as well as longitudinally against data that was collected prior to Operation Desert Storm. Both the children with one deployed parent and their at-home parent reported higher levels of depression in comparison to the families of non-deployed parents. No difference was found between the two childhood groups related to anxiety. The at-home parent group, with the deployed spouse, reported higher levels of life stressors than the comparison group. In this study, younger children and boys appeared to be at higher risk to the negative effects of deployment; therefore, the authors suggest that younger children may need more careful monitoring for stressors related to parental deployment.

Ryan-Wenger (2001) conducted a descriptive, comparative study of children from active duty, reserve, and civilian families regarding their perspective and fears related to war, anxiety, coping strategies, and projection of emotional problems. Structured interviews, using open-ended questions, were used to conduct this study which included sixty-nine children. One child per family, aged 8 to 11, parental consent and child assent to participate, and the child being in
school at the age-appropriate level were all inclusion criteria. This study found no significant differences among children of civilian versus military children on total or sub-total anxiety scores using a Revised Children’s Manifest Anxiety Scale. Children of active duty and reserve military parents were more likely to know details about Desert Storm; however, they often understood these details from explanations given by teachers or information presented in movies rather than from their parents. Military parents may not discuss war or the outcomes of war with their children in an effort to protect them, but this may be more damaging than beneficial. The children may develop misconceptions or fears much worse than understanding the actual facts about war. Children of active duty parents expressed more fears about war, or that they or their parent may die in the war. Civilian children and reserve children were more likely to feel the war was “not right.” Active duty and reserve children feared that their parents may go to war and that their parent may die. This study also suggested that children from the military are quite resilient.

Huebner, Mancini, Wilcox, Grass and Grass (2007) conducted a qualitative study using in-depth semi-structured focus group interviews with 107 participants (between the ages of 12 and 18 years) to determine the effects of “ambiguous loss” for these children related to parental deployment. Huebner et al. note that these adolescents did not permanently lose parents as a result of deployment because they were still living; however, the experience of loss at the absence of their parent was profound. The findings of this study suggested that adolescents that have lost a parent to deployment have a range of emotions such as not knowing what is going to happen, worrying about the future, concern for their personal welfare, or the welfare of the deployed parent. Adolescents spoke of behavior changes related to acting out toward others, and having a lower threshold related to emotional outbursts. Feelings of depression and anxiety were also common themes in the data, in part related to the fears of the “unknown.” Adolescents
expressed confusion related to family roles, as their roles were expanded with parental absence, then later decreased upon parental return, leading to role confusion in the family. It was noted that reintegration of the deployed parent back into the family unit was often more difficult than their absence. These adolescents also voiced concerns related to the physical and emotional state of the non-deployed parent. Commonly, increased emotional intensity was seen amongst the family members.

Chartrand, Frank, White, and Shope (2008) conducted a cross-sectional study in childcare centers on a Marine Corps base to explore the effects of parental deployment on young children and their behavior. Parents and childcare providers of children aged 1 1/2 to 5 years old were selected for this survey. One hundred sixty-nine people returned completed questionnaire packets and were included in the sample. This survey included the Child Behavior Checklist (CBCL), the Parenting Stress Index-Short Form, the Center for Epidemiologic Studies Depression screener (CES-D), and the CBCL-Teacher Report Form (TRF). The study participants were divided comparing children of deployed children versus children whose parents were not deployed. The results of this study showed that parents that had a deployed spouse and a child aged 3 and older reported higher scores of depression than parents with same-aged children who did not have a deployed spouse. Similarly, children age three and older with a deployed parent showed significantly higher scores on the CBCL and the CBCL-TRF than children of the same age without a deployed parent. In summary, children aged 3 and older with a deployed parent exhibit increased behavioral symptoms compared with peers without a deployed parent, when considering the CBCL externalizing score as well as the total score.

Gorman, Eide, and Hisle-Gorman (2010) conducted a retrospective cohort study reviewing the mental and behavioral health records of children of active-duty personnel during
2006 and 2007 in correlation with parental deployment. This study reviewed a total of 642,397 children and 442,722 military parents. Children ages in this study group ranged from three to eight years old. The results of this study found that mental and behavioral health outpatient visits increased by 11 percent when a parent was gone on deployment. This study also found that at-home parents saw a 19 percent increase in behavioral disorders as well as an 18 percent increase in stress disorders during times of deployment. Older children, children with their father in the military, and parents who were married had a larger increase in the rate of mental and behavioral health visits during times of deployment. In contrast, outpatient physician visits for other reasons unrelated to mental or behavioral health decreased when the parent was away on deployment. This may be the result of the at-home parent becoming more focused on the behavioral and mental health of their child, causing the typical well-child checks for these children to be overlooked.

Barker and Berry (2009) conducted a study surveying 57 families with at least one young child and one parent on active duty deployment. The definition of “young” was not defined in this study. The intent of this study survey was to examine the impact of parental deployment on young children. This survey was administered on two different occasions. The first was conducted three to four months into the parent’s deployment. The second was administered four to six weeks following the parent’s return home. The survey questions discussed the at-home parent’s observations of child behavior, as well as attachment behaviors, before deployment and during deployment. Both open and closed-ended questions were used in this survey. The results of these surveys showed, on average, that these parents were gone for one-half of their child’s lifetime on deployment. Survey results indicated that children of a deployed parent displayed more behavioral issues than they displayed during times both parents were present. Child
behavior issues were related to many child and family characteristics, such as child age, temperament, length of deployment for the parent, stressors reported by the at-home parent, and the number of moves endured by the family. Additionally, the study showed that as the number of deployments for the parent increased, the behavior problems seen in the child concurrently rose. There was also a mild correlation found between the length of parental deployment and the occurrence of child behavior issues. This is likely due to an increased amount of stress on the family and the child. Finally, this study showed there is a potential for disruption of the attachment process between deployed parents and their young children. Child attachment behaviors were found to be related to the length of parental deployment, repeated deployments, and stressors faced by the at-home parent. When the deployed parent did return home, in some cases, this reunion was confusing for younger children. In most cases the child adjusted quickly to the reappearance of their deployed parent. Overall, this study found there were increased behavior problems and issues with attachment in young children whose parent was absent as a result of military deployment.

Kelley et al. (2001) conducted a survey using the Child Behavior Checklist (CBCL) to determine if children of Navy mothers were experiencing an increase level of internalizing and externalizing behaviors in comparison to children of civilian mothers. A sample of 52 military mothers who were facing an upcoming deployment within the next 60 days and 75 navy mothers not being deployed anytime in the near future was used for this survey. Additionally, there was a control sample of 32 civilian mothers. Data collection from the mothers facing near deployment took place three to six weeks prior to deployment and three to six weeks after deployment ended. The majority of these participants experienced a deployment lasting five to six months. Data collection from the non-deploying military personnel completed the CBCL survey on two
occasions, eight to nine months apart. Data collection from the civilian control group was administered twice, approximately one year apart. The results of this study showed that Navy children whose mothers were deployed showed a greater incidence of internalizing behaviors than children whose mothers were not deployed; however, these results were not found to be pathological. Overall, the mean CBCL scores were still within the normal range, suggesting there is no greater risk of pathology in children of Navy mothers than their civilian counterparts. The authors cautioned that even in the face of these findings, it would be sensible to continue to monitor these children and provide supportive services.

Physiological Effects. The effects of stress or anxiety can lead to physical symptoms or complaints (Hoehn-Saric, McLeod, Funderburk and Kowalski, 2004). Although the research is limited, two articles were located that describe the physiological effects of parental deployment on children.

Eide, Gorman, and Hisle-Gorman (2010) conducted a study to determine if parental deployment had an effect on a children’s’ access to healthcare services. This study compared outpatient military healthcare claims of children under age 2 to parental deployment history during the 2007 fiscal year. A total of 169,986 children were identified using this data, of whom 32% (N= 54,396) had one parent actively deployed during the study timeframe. Of all the outpatient visits during the 2007 fiscal year, 27% were well-child visits. The findings from this study showed that children of single parents had fewer outpatient visits and well-child care visits during the time their parent was deployed. Conversely, children whose parents were married had a greater number of outpatient visits and well-child checks than before parental deployment. These findings suggested that children may not receive adequate routine well child care or acute care when a parent is deployed. This is concerning for healthcare workers, as children in these
single parent families who experience health complaints may not receive needed healthcare services as quickly as children with two at-home parents.

Barnes, Davis, and Treiber (2007) conducted a study to examine the self-reported psychological effects of family member deployment on adolescents with a family member serving in Operation Iraqi Freedom. This study compared the heart rate, blood pressure, and self-reported stress levels of three groups, including military dependents with a family member deployed in the 2003 Operation Iraqi Freedom, military dependents without a family member deployed, and a control group of civilians. The variables in this study included sex of the participant, ethnicity, age, height, weight, and Body Mass Index. In this study, 121 adolescents completed a survey exploring their perceived levels of stress and participated in blood pressure and heart rate screening at the onset of hostility during Operation Iraqi Freedom, in March 2003, and at the declaration of the end of major hostility, in May 2003. The group of adolescents that had a family member deployed had a higher heart rate at both points of evaluation. When examining differences in ethnicity, the group of European American adolescents with a deployed family member showed higher stress scores at the initial and subsequent evaluations. At the final evaluation, European American adolescents with a deployed family member had higher blood pressure readings than the other two groups.

**Child Maltreatment.** Stress and anxiety on the at-home parent increase with parental deployment (McFarlane, 2009). Increased levels of psychological distress on the partners/spouses of the deployed personnel are also of concern when there are children involved (Gewirtz, Polusny, Erbes, Forgatch & DeGarmo, 2011). Increased stressors and workloads of the at-home parent may lead to an increase in child maltreatment. Two studies from the initial literature search illustrate this important concern (Gibbs, Martin, Kupper & Johnson, 2007 &
Rentz et al. (2007). Due to the importance of child maltreatment, an additional literature review was conducted in the CINAHL and PsycInfo databases in an attempt to gain better insight and understanding related to this topic and one additional research article was located.

Gibbs et al. (2007), Martin, Kupper, and Johnson (2007) conducted a study analyzing data from two data systems, the Army Central Registry and the Army Human Resources Data, related to child abuse cases. These cases involved 1,771 different families, between September 2001 and December 2004, and were used to compare rates of children maltreatment during periods of deployment and non-deployment. The results of this study indicated that the rates of child maltreatment was higher when one parent was deployed compared with times when neither parent was deployed. Children, both female and males, were maltreated in equal numbers. The authors also reported that the incidence of moderate or severe child maltreatment cases increased during deployments by approximately 60 percent. The rates of child neglect were nearly twice as high during deployment periods versus time of non-deployment; however, the rate of physical child abuse was less during times of deployment.

Rentz et al. (2007) conducted a study using data related to the occurrence of child maltreatment in military and nonmilitary families before and after the Middle East military operations took place. This study aimed to determine if military deployment had an effect on the occurrence of child maltreatment during the study period of 2000-2003. Rentz et al. used Texas child maltreatment data and state-level population estimates to calculate rates of child maltreatment in military and non-military families. This study found that child maltreatment was similar across the genders in both the military and non-military data. Additionally, the rate of child maltreatment in military families increased by approximately 30 percent for every 1 percent increase in active duty military deployment, or military parents returning home from
deployment. It appears that both deployment and reintegration into the family unit after deployment were stressors for military families.

McCarroll, Fan, Newby, and Ursano (2008) analyzed the number of cases of child maltreatment of military children under the age of 18 from 1990-2004. During 1990-2004, two large scale deployments took place in the United States Military. Results from this study suggested there was increased child neglect rates during times of deployment. Child neglect was most commonly seen in children under the age of one. There was limited data in this study specifically relating to times of military deployment. Also important to note was information obtained from this study unrelated to deployment. Ninety percent of perpetrators of child maltreatment were the parents: 56% fathers, and 44% mothers. It was more common for men to severely physically abuse their child than women. Physical abuse rates were equal based on gender for children under two; however, after this age, boys were more likely to be abused than girls up until the teenage years, when again the rate of abuse reversed. Emotional abuse rates were similar for boys and girls up until 11 years of age. After that time, emotional abuse was higher in girls. Understanding these facts is important for healthcare providers working with children that may potentially be in a neglectful, emotionally or physically abusive situation.

**Literature Summary**

This chapter has reported on a review of the literature conducted to answer the question, "What is the effect of parental military deployment on children’s health and well-being?" To locate relevant, current research-based publications, a search of the CINAHL, PubMed, and PsychInfo databases was conducted. The initial search terms, “children” AND “parent” AND “deployment” were used. Eighteen articles were selected for literature review as a result of this search. One additional article relating to child maltreatment was identified after the initial search.
From these 19 research articles, four themes continued to emerge throughout the research while examining common childhood effects related to parental deployment: (a) school and educational effects on the children; (b) psychosocial and behavioral effects; (c) physical or somatic effects; and (d) increased risk of child maltreatment. Although the majority of the studies focused on just one of these areas, they touched on the other related areas, indicating the close interrelationship of the themes. For example, in the Chandra et al. (2010) article, the research focused on how children were coping in the school environment. It was mentioned by school staff that girls often exhibited signs of depression or had somatic complaints. Feelings of depression or anxiety could lead to somatic complaints, and any of these symptoms could cause troubles in schooling. This example shows how many of these effects seen with the children resulting from parental deployment can lead to multiple consequences. When analyzing the four themes found within the research, it was noted that common deployment-related issues were identified as they related to the stress of deployment. These included length of deployment, the psychological condition of the at-home parent, and the experience of reintegrating the service member into the family unit after active duty deployment. These issues will be further explained.

Several authors described the association between length of deployment and consistent redeployment and at least one of the four major themes of this literature review (Chandra et al., 2010; Chandra et al., 2009; Lester et al., 2010; Barker & Berry, 2009). In these studies, the longer the parent was absent from the day-to-day lives of the at-home spouse and their child, the more likely it became that deployment-related stressors increased for the at-home parent. These increased stressors were linked to the higher rates of stress, depression, and anxiety noted by some of the at-home parents. Additionally, length of deployment or continual redeployment was
also related to increased role responsibilities of older children in the home, increased amounts of child neglect, and increased concerns related to child behavior.

The psychological condition of the at-home parent was discussed in many of the studies as having an effect on the children when their other parent was deployed (Chandra et al., 2010; Lester et al., 2010; Flake et al., 2009; Jensen et al., 1996; Chartrand et al., 2008; Barker & Berry, 2009). Stress, anxiety, and depression were often cited by the at-home parents and were viewed as contributing to children’s difficulties. The psychological condition or increased stress of the at-home parent may also contribute to the increased risk of child neglect. Some authors whose studies were reviewed here noted when the at-home parent reported feeling overwhelmed by day-to-day activities there was an increased risk of child neglect (Gibbs et al., 2007; McCarroll et al., 2008; Rentz et al., 2007).

Older children commonly increased their responsibilities in the home while one parent was deployed. This led to another common issue seen throughout the research. Older children experienced role confusion when the deployed parent returned home and reintegrated into the family unit. Commonly, there was stress related to the initial deployment of the parent, but reintegration of this parent and redistribution of family responsibilities also led to role confusion and problem with integration of the parent back into the family structure (Mmari et al., 2008; Chandra, 2009; Huebner et al., 2007; Rentz et al., 2007).
Chapter Three

Discussion

This paper reports on a review of the literature intended to answer the question, “What are the effects of parental deployment on a child’s health and well-being? The review of this research has led to important implications for nursing practice as well as future research.

Implications for Nursing Practice

The literature review described here clearly illustrates that parental deployment affects many aspects of a child’s life. Psychological and physical symptoms, behavioral issues, and increased risk of exposure to child maltreatment are all concerns relating to these children when their parents are deployed.

School and Educational Effects. Lyle (2006) noted negative effects on children’s math test scores resulting from parental absence. As children were moved or relocated, or parental absence was increased, the greatest negative effect was shown. Additionally, teachers and counselors revealed they did not feel well equipped to handle the stressors of parental deployment on children (Mmari et al., 2008).

Implications for nursing practice. School nurses have the unique opportunity to work with children and their teachers, giving school nurses a window into a child’s life. School nurses may work collaboratively with teachers to help case manage children where concerns are present for the child (Bonaluto, 2007). The Centers for Disease Control and Prevention encourages schools to create partnerships within the faculty to help strengthen eight areas of health in children, including, health services, health education, physical education, nutrition, family and community, counseling and psychological services, environmental services, and staff wellness. School nurses have the distinctive chance to help case manage the children in their school.
system, working closely with children and other school faculty to address educational concerns, psychological concerns, as well as concerns of child maltreatment. Teachers, school counselors, and school nurses working with children whose parents are deployed need specialized training on working with these children. Schools should seek educational opportunities from groups, such as the National Guard (2011), to help provide additional training to the nurses, teachers, and counselors working with children of a deployed parent.

**Psychosocial and Behavioral Effects.** The research explored for this study describes the affect of parental deployment on behavior and describes the psychosocial issues that may result at times. These issues may include: emotional concerns; difficulties with school, family, and peers; increased levels of anxiety; higher levels of depression, fear, worry, and concern; behavioral issues; and behavior/feeling internalization, were found within the studies of this literature review. Nurses must be aware of these potential psychosocial and behavioral effects on children.

**Implications for nursing practice.** Whether working in a school, clinic, hospital, community health, or volunteer setting, nurses who are aware of the relationship between parental deployment and child mental health can incorporate routine screening and implement measures into their nursing practice to perform routine or specially individualized screening to identify these concerns.

As noted earlier, school nurses may have a unique opportunity while working with children on a daily basis to observe symptoms of psychosocial or behavioral concerns in children whose parents are deployed. Collaborating with other school faculty, such as counselors and teachers, may provide an even larger opportunity for school nurses to identify and refer children and their families to resources when needed. Nurses working in a pediatric setting, including a
clinic, emergency room, or hospital setting, may also have an opportunity to identify children who may benefit from counseling or other behavioral resources. An important role of the pediatric nurse would be to work with parents to assist them in obtaining counseling referrals for their children when there are concerns about behavioral or psychosocial issues. Of equal importance, nurses should be able to assist families to engage with resources and programs that could offer support and guidance during these stressful times. Providing families with a strong social network of support may help improve the outcomes for both the at-home parents and the children. These social support systems and referrals should focus on military families and their unique needs.

Physiological Effects. Eide et al. (2010) found that children of single parents away on deployment obtained fewer outpatient visits and well-child care visits to their provider. Barnes et al., (2007) findings suggest some adolescents may experience higher heart rates, blood pressures and perceived levels of stress during times of a family member deployment.

Implications for nursing practice. Office and hospital pediatric nurses should be aware of the decreased number of well-child visits and outpatient visits that children of single deployed parents may receive. Understanding this, it is possible that these children may not receive healthcare services as quickly as their health status requires. With this information in mind, nurses seeing these children during their visits should be sure they have answered any of the child’s or parent’s questions thoroughly, provided them with any needed resources, and educate parents about the importance of routine well-child checks. Nurses working on or near military bases may be able to offer at-home parents resources to help them keep appointments such as telephone reminders about upcoming visits, child care services for other children at home, or assistance with transportation. Additionally, nurses should closely monitor these children’s vital
signs during their routine visits for trends in blood pressure and heart rate. Any concerns related to vital signs should be forwarded to the healthcare provider by the nurse assessing these children.

**Child Maltreatment.** It is imperative that nurses be aware of signs of child maltreatment when working with children from every family; however, this concern should be heightened when working with military families, especially those that have a parent away on deployment. Understanding that child maltreatment is more than doubled during times of parental deployment, nurses must assess children for signs of neglect (Gibbs et al., 2007).

**Implications for nursing practice.** Nurses should be aware of the risks of child maltreatment during times of parental deployment. Parental deployment is a stressful time for families and their children. Klevens and Whitaker (2007) describe primary prevention as an important intervention in an effort to prevent abuse or maltreatment before it occurs. Nurses may be able to help parents find resources that will support them and their children during times of deployment which may be quite beneficial in preventing maltreatment before it even occurs. Nurses working with children should be aware of the common signs seen in children that may be experiencing child neglect or maltreatment: (a) frequent school absences; (b) begging or stealing food or money; (c) lack of medical care, such as immunizations, glasses, or dental care; (d) severe body odor or often appearing dirty; (e) child alcohol or drug use; (f) no parent home to provide care to the child or lack of adult supervision; (g) insufficient clothing that is weather appropriate; (h) showing extreme behavior; (i) delayed physical or emotional development; (j) suicide attempts; (k) lack of parental attachment; (l) sudden behavior changes; (m) has learning problems that are not related to physical or psychological causes; (n) the child has not received medical attention for a problem that has been brought to the parents attention; (o) the child is
watchful, as though they are prepared for something bad to happen; (p) the child comes to school early or stays late, and may not want to go home; (q) is overly compliant or withdrawn, and/or (r) does not act their age, such as showing adult like behaviors of parenting other children or infant like behaviors such as banging their head or rocking frequently (U.S. Department of Health and Human Services, 2007).

Additionally, nurses working with children of deployed parents should be aware of signs that could raise concerns about child maltreatment or neglect: (a) feelings of indifference about the child; (b) adult drug or alcohol use; (c) irrational or bizarre behavior; (d) signs of depression or indifference; (e) rejecting their child; (f) blaming or belittling the child; (g) the child and parent rarely touch or look at one another; (h) the parent views their relationship with the child in a negative light; (i) the parent openly states they do not like each other; and/or (j) the parent lacks concern about the child, possibly refusing offers of help for the child. Although this list is not all inclusive, it does provide some common signs of potential child neglect and maltreatment.

As with other areas of child health assessment, school nurses may have unique opportunities to identify children at risk for or affected by maltreatment. Children may be frequent visitors to the school nurse office, have somatic complaints, or show regressive behaviors (Kolar & Davey, 2007). Additionally, children may have frequent unexplained absences from school if experiencing maltreatment or abuse. School nurses who identify at-risk children may develop a trusted relationship with these children, giving them someone safe to confide in. Screening is the key to identifying children that may need assistance with domestic violence or maltreatment.

Nurses, by law, are mandatory reporters of suspected child neglect and/or maltreatment (U.S. Department of Health and Human Services, 2007). Depending on the severity of such
symptoms or the level of professional concern about child well-being, nurses must be prepared to intervene urgently if they believe that children may be unsafe, referring children to appropriate legal and social agencies as well as providing families with necessary resources to address family stressors related to parental military deployment.

Implications for Nursing Research

There is limited research available on how children are affected by parental deployment. The research reviewed here demonstrates the need for further exploration of this important topic. The existing literature reviewed here indicates that children experience academic or school-related issues, physical and psychosocial issues, and an increased incidence of maltreatment or neglect when a parent is deployed. Studies need to be conducted examining each of these items thoroughly. It is in the best interest of the children that we understand the effect of deployment and parental separation on their health and well-being. In addition, further studies should be undertaken to determine what programs or resources might have value in providing support for these children and their at-home parent or care provider while the other parent is deployed.

The findings from this literature review identified six potential areas for future research. First, research examining length of deployment and its relationship to the onset of negative responses by the child and/or the at-home caregiver would be important. Conducting this research could help determine at what length of deployment amplified negative effects are being seen in the child and at-home caregiver. Second, research examining the causes of increased rates of child neglect with military deployment would be beneficial in helping to inform prevention programs. Further, these findings may help lead to program development and support services to address child neglect during times of deployment. Third, exploring the role confusion that may characterize the development of older children and the response of older children to the
reintegration of the service member into the family unit would be beneficial. This research could help the reintegration process be less stressful on the family as a whole. Fourth, researching the physical and somatic effects of deployment on children would help healthcare providers and at-home caregivers understand these potential effects to children. It seems quite possible that children of deployed parents have the potential to experience many more physiologic complications than those reported to date. Future research on this area would be beneficial in order to gain a complete picture of the somatic experiences of these children. Understanding this data may help the at-home parent as well as the healthcare providers working with these children provide appropriate and individualized care. Fifth, research should be conducted to understand the relationship between deployment and the well-being of the at-home care giver, as well as the emotional well-being of the deployed service member. Being aware of the effects of deployment on the at-home caregiver and the deployed service member would help provide care and support to both individuals in hopes of keeping the family emotionally stable, as well as the service member stable, during times of deployment. And finally, research examining the relationship between deployment and frequent home relocation on the affects of children and their schooling. These research findings could help to ensure children of military families are obtaining the best education possible despite stressors such as deployment and frequent relocation.
Chapter Four

Summary and Conclusions

Limited studies have explored the effects of parental military deployment on the lives of children. This paper provides important evidence about the risks of parental deployment for children. Eighteen peer-reviewed research articles from current health sciences were analyzed for this study, revealing important themes about the health status of children whose parents were deployed in the military. These themes included increased risk of child maltreatment, psychosocial and physiological consequences seen in the children, as well as potential problems with school and academic performance. Nurses need to have an understanding of the current research that is available about military families and the effects of deployment on children. Given the lack of knowledge about these issues and the gravity of the risks facing the children of deployed parents, it is essential that additional research be undertaken to expand current knowledge about these important themes and to enhance nursing’s ability to provide appropriate care to children affected by parental deployment. Additionally, research exploring the family-related effects of deployment on the at-home care giver as well as the deployed service member would help to incorporate care and support to the entire family unit. Given the increased number of service members who are away from their homes due to deployment, it is imperative to understand how their absence affects every member of the military family. The service members on active duty deployment put their lives at risk daily. It is only right that every effort is made to keep their families safe while they are away.
REFERENCES


