# Socio-emotional and Behavior Issues of Children Separated from Military Parent

Christina F. Love

Arizona State University

## Abstract

**Introduction:** More than 1.2 million children in military families face long separations from a parent due to deployment or extended assignment, which can lead to significant family dysfunction as well as behavioral, emotional, and scholastic problems for the child. The purpose of *From Caring 2 Coping* is to identify and provide healthcare providers of military children tools to recognize and address maladaptive and externalizing behaviors of these children, while also assisting the nondeployed parent or caregiver to provide their children with the necessary support to reduce stress and increase their own coping skills.

**Materials and Methods:** After approval from Arizona State University IRB, children aged 4-11 years who are currently or forecasted to be separated from a military parent due to a deployment or extended assignment, were recruited from a military pediatric clinic along with their primary caregiver. An intervention was adapted from Bowen and Martin's (2011) Resiliency Model of Role Performance for Service Members, Veterans, and their Families to identify and improve individual assets and family communication skills, find support through social connections, and prepare for potential stressors by constructing a Roadmap of Life. The Parental Stress Scale (PSS) and Pediatric Symptom Checklist (PSC-17) were completed before and after the 4-week intervention along with a final caregiver survey to evaluate the caregiver's perceptions of *From Caring 2 Coping*.

**Results:** Four mothers and eight children completed the program for which Wilcoxon matched-pairs signed-rank test compared results from pre- and post PSC-17 surveys from the children showing significant improvement post-intervention ($p = 0.017$). The post PSC-17 results were compared to post PSS results with Spearman Correlation Coefficient, $r = 0.949$, that is statistically significant ($p = 0.05$). *From Caring 2 Coping* is rated as an effective program by parents in a postintervention survey that is easy to incorporate into daily activities. Parents ranked highest satisfaction through use of the Family Communication Plan and Family Timeline.

**Conclusions:** *From Caring 2 Coping* intervention tools improved family communication, use of individual assets and Roadmap of Life coping skills, thereby improving child and caregiver coping response as evidenced by improved PSC-17 and PSS scores. Basing the intervention on the Resiliency Model of Role Performance which has proven successful in the military population, improves the chances for success in this target population. However, the small sample size of four families requires further study with more families at all levels of the deployment cycle in order to refine the intervention.


*Keywords*: military, children, deployment, families, coping

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There is no perfect family nor is there a perfect definition of a family unit. Every family faces internal and external conflict, but each one deals with conflict differently, making both short and long-term ramifications different. While children in military families deal with these normal variables, they have additional stressors such as frequent moves, not living near extended family, and frequent changes in schools and peer relationships. What is likely to be one of the biggest stressors for these children is lengthy and often repeated separations from their military parent due to military duties and/or deployments. These children must deal with their own feelings related to the separation and changes in role performance within the home, while they are also influenced by how their remaining caregiver copes during this time. If the child and remaining caregiver do not have adequate coping skills, the child may exhibit socio-emotional evidence of their maladjustment. The goal of this project was to develop an approach for providers to recognize the risk for this vulnerable population, use appropriate, validated tools to screen for socio-emotional issues and provide appropriate interventions and resources to respond to these issues.

## Background and Significance

Lester and Flake (2013) state that 5% of all children in the United States (U.S.) are dependents of military personnel and only half of them receive healthcare at military treatment facilities. These children may be at a disadvantage due to their limited access to resources and personnel who are trained to recognize and manage their special needs. Another discrepancy Lester et al. (2012) highlight is a gap in research and treatment of military children under the age of six years who have experienced parental separation. Trautmann, Alhusen and Gross (2015) also recognized that this special population (comprising 40% of all U.S. military children) who

are the age group most dependent on their parents and going through a period of rapid physical and socioemotional development, need to be studied and their special needs addressed.

Sogomonyan and Cooper (2010) show that the rate of outpatient mental health visits for military children of deployed parents rose from 1 to 2 million between 2005 and 2008 and inpatient visits rose from 35,000 to 55,000. These increases are thought to be related directly to the wars in Afghanistan and Iraq. Bello-Utu and DeSocio (2015) emphasize that 42% of Active Duty military members are married with children and of those, 48% have deployed two or more times. The increased number and length of deployments strains healthy coping skills the family may already have.

Rodriguez and Margolin (2015) likened this type of separation to children separated from an incarcerated or migrant parent while emphasizing that resilience and coping behaviors of these children are influenced by the support system of the remaining parent/caregiver and community. Separation is considered an emotional trauma in most pediatric age groups. While some military deployments are short notice, others often follow a predictable pattern allowing the family to prepare for the separation. Siegel and Davis (2013) describe three stages of deployment (pre-deployment from notification to departure, deployment, and post-deployment/reintegration) that can have predictable patterns of family dysfunction, physical, psychosocial, and emotional stresses associated with them. Understanding this pattern allows healthcare providers to implement cognitive behavioral interventions such as teaching the child communication, self-regulation, problem solving and goal setting behaviors while teaching the parents listening and communication skills (Friedberg & Brelsford, 2011; Lester et al., 2016). The latter is especially important because the caregiver's emotional state and underlying depression/anxiety, parenting behaviors, and maternal sensitivity has been shown to directly

influence emotional and behavioral sequelae in their children (Bello-Utu & DeSocio, 2015; Lester et al., 2016; Rodriguez & Margolin, 2014).

**Internal Evidence**

Internal evidence was collected in a pediatric practice at an outpatient military medical facility. Providers use the Edinburgh Postnatal Depression Scale (EPDS) -to screen for postpartum depression in the pediatric clinic during well-child visits for infants. This tool is recommended in the Bright Futures Handbook by the American Academy of Pediatrics (2017). For older children, providers use questionnaires at all other visits to include the Patient Health Questionnaire (PHQ-2) a depression screening tool with a cutoff of ≥ 3 being 83-87% sensitive and 78-92% specific (American Academy of Pediatrics, 2010), as well as a question asking if the visit is related to a military deployment. Once the providers identify a problem, the parent/child may be directly referred to one of two psychologists in the Behavioral Health Optimization Program who can perform an in-depth assessment and follow-up with the child and parent for a total of three visits. If further psychological or psychiatric care is needed, an off-base referral is provided. Families also can be referred to the New Parent Support Program if they have a child under the age of 3 years or to the Airman and Family Readiness Center where there are some activities and counselors for deployed families. Per observation and discussion with staff and administrators at the local clinic, there is currently no process to track or monitor these families unless they present for a medical appointment. Evaluation of current interventions and internal evidence is intended to relate to the clinically significant PICO question: In U.S. children who are geographically separated from a parent in the military (P), how does training in coping strategies and parenting skills (I) compared to no training (O) affect behavior, social, and emotional issues in these children?

**Search Strategy**

Databases searched for a thorough literature review included Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, and PsycInfo. Keywords included the following MeSH terms; *military deployment* AND *children* AND *impact*; *military* AND *children* OR *families* AND *deployment* AND *coping*; *FOCUS* AND *military* AND *children*. The initial search yielded 300 results in PsycInfo which was reduced to 148 articles with the use of other key terms of *military deployment* AND *family life* AND *study* and limiting the search criteria to peer-reviewed studies between 2010-2017. Similar search terms yielded a return of 38-72 articles in CINAHL and 58 articles in PubMed.

Exclusion search criteria involved any studies outside of the U.S.- except for one study that included a military base in Japan. Articles were also excluded if they were not quantitative or qualitative studies, or if they were studies with children over the age of 17 years. Care was taken to only include studies after 2012, but there are several landmark studies published in 2010 and 2011 in response to the presidential initiative of 2010 that were included.

After a thorough review of evidence, 10 research articles were critically appraised for this study. Only one randomized control trial was found (level II evidence) while the remaining were level III to VI (Melynk & Fineout-Overholt, 2015). This is likely due to the sensitive nature of this topic and the ethical concerns involved in performing randomized control trials on this vulnerable population. Similar characteristics were noted while comprising a synthesis of the components of these studies, as a moderate amount of homogeneity was found. Six studies reported the mean age of the children in their populations which ranged from 2.71 to 13 years

old. Five studies reported that 50-80% of military parents in this population had deployed two or more times.

**Theoretical Framework**

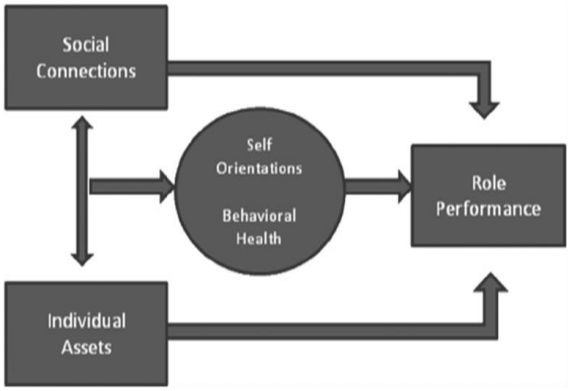


*Figure 1.* Resiliency Model of Role Performance for service members, veterans, and their families. (Bowen & Martin, 2011).

The intervention for this study is based on the conceptual model Bowen and Martin (2011) developed called the Resiliency Model of Role Performance for service members, veterans, and their families. They describe the military experience as "the road of life" where the individual and the family face risks or "potholes" which they can overcome by building "guardrails", ultimately adjusting to their redefined roles by using the *process* of building resilience to achieve the *outcome* of resiliency (p. 166). Four included concepts of theory are: social connections, individual assets, self-orientations, and behavioral health (Bowen & Martin, 2011). Each of these influence a child and family's ability to assess risk that help them construct safety "guardrails" to navigate stressors of daily life, perform their role functions, and ultimately build resiliency. In addition, elements of Families OverComing Under Stress (FOCUS) model as mentioned by Lester et al. (2013) were used to to help participants create a family timeline that

to tell the family story, plan for family activities, and provide visual cues as to what part of the deployment cycle the family was in.

## Methods

### Recruitment

Arizona State University IRB approval and site approval was obtained to recruit children aged 4-11 years (and their caregivers) who were already separated or forecasted to be separated from a military parent due to a deployment or extended assignment. Approved recruitment flyers were given to parents from eligible families at the Airman and Family Readiness Center (AFRC) and the investigator also attended AFRC social functions for recruiting efforts. After failed attempts to recruit from this site, IRB approval was obtained to similarly recruit eligible families in the pediatric clinic at an outpatient military treatment facility. Six families agreed to participate but only four completed the program, four mothers and eight children. Parents were consented, and children were assented.

#### *Procedures*

From Caring 2 Coping is a 4-week intervention program developed from the Resiliency Model of Role Performance and FOCUS model. The four mothers and their enrolled children met with the investigator in person for two sessions: an initial and a final 45-minute interview. At the first meeting after consent and assent were obtained, mothers completed a family demographics questionnaire along with a PSS questionnaire for herself and PSC-17 questionnaires for each of her enrolled children. A folder with the program material to include daily family logs was provided as were dog tags and motivational bracelets to be used as positive reinforcement for the children. During weeks two and three, the investigator called each mother

for a progress check and to introduce a new goal for the week. An accompanying website was provided with the following tools:

1) instructions to create a Family Communication Plan with daily logs, 2) Emotions Thermometer with coping skills for child, 3) Family Timeline example, and 4) a Roadmap of Life video. At the final meeting, mothers completed post-intervention PSS and PSC-17 assessments along with a qualitative survey about the program.

**Measures**

Child stress, anxiety, and behavior were measured pre- and post-intervention using the PSC-17. The 17-item scale uses a three-point Likert-like scoring system of 0 (never), 1 (sometimes), and 2 (often) with a cutoff score of 15. Higher scores indicate increased stess, anxiety and mood disorders, and attention deficits. Not completing four or more responses deems the tool invalid (Massachusetts General Hospital, 2017). Murphy et al. (2016) conducted a large retrospective study to determine the reliability of the PSC-17 since it was derived from a longer 35 question scale. Both scales were created by Jellinek et al. (1999) and the measures were found to have a high level of "internal consistency 0.89; test–retest 0.85" and validity was noted for a cutoff score of ≥ 15 (p. 1). Dieghton et al. (2014) conducted a review of several child mental health screening tools to determine goodness of fit for everyday use by clinicians and found validity in the PSC-17 as it "discriminates between children with and without diagnoses (ADHD, externalising, depression)" (p. 18). Reliability was found in internal consistency of 0.79-0.89 and in test-retest reliability of 0.86 when parents completed the tool. The consistency of reliability and validity in both studies demonstrates that the PSC-17 is an excellent questionnaire to identify children who score ≥ 15 as having emotional, behavioral, and/or psycho-social issues that need to be investigated further.

Parental stress was measured pre- and post-intervention with the PSS, an 18-item Likert-type questionnaire which measures parents' perceptions of how parenthood affects them both positively and negatively. Parents rate their responses as strongly disagree (1), disagree (2), undecided (3), agree (4), and strongly agree (5) and scoring can range from 18-90 with higher scores indicating more parental stress. Initial internal reliability was tested by the creators of the PSS tool and found to be 0.83 and test-retest reliability 0.81 with "convergent validity with various measures of stress, emotion, and role satisfaction" (Berry & Jones, 1995, p. 469). A more recent study by Agazio and Buckley (2012) rated reliability for PSS used in a general pediatric unit as moderate to high at 0.70 to 0.92 and states that the findings were validated.

## Results

Of the four caregivers, all were female with a mean age of 38.3, one was unemployed and three were Active Duty. Spouses were all male with a mean age of 39.3, one was Active Duty Marine Corps, two were Active Duty Air Force, and one was Air National Guard. Annual income was reported as less than $50,000 by one family, all others reported as more than $100,000. The mean age of the children was 5.4 with a range from 4 to 9 years. None of the mothers reported a personal history of mental health disorders, and two of the children had mild behavior problems.

Pre-intervention PSS scores for $n = 4$ mothers showed a mean score of 40 with a range of 39 to 47. The post-intervention mean score was 36.5 with a range of 29 to 47. PSS scores were well below the higher range of 80 which shows that these mothers already have good coping skills in place.

Pre-intervention PSC-17 scores for $n = 8$ children showed a mean score of 12.5 with a range of 6 to 17. A post-intervention mean score was 9.8 with a range of 6 to 12. A Wilcoxon-

Signed Ranks Test of pre- and post-intervention PSC-17 scores revealed statistically significant improvement with $z$= -1.857 and $p$ = 0.017.

A Spearman Correlation Coefficient ($r$ = 0.949) analysis between parental stress and child coping with a post-intervention PSS and PSC-17 was found to be statistically significant ($p$ = 0.05). From Caring 2 Coping is rated as an effective and feasible program by parents in a post intervention survey. Parents ranked highest satisfaction through creation and use of a Family Communication Plan and Family Timeline.

**Discussion**

There are many resources available to military families, but those facing separation are vulnerable and may not seek services or they may be geographically separated from a military installation where these services are provided. Identification, screening and interventions for this population may be used as a benchmark practice at other MTFs and perhaps even through other branches of service, and ideally by civilian healthcare providers of military dependants. Screening of eight children for this project revealed some pre-intervention PSC-17 scores that exceeded the cutoff range of 15, while no post-intervention scores exceeded a concerning score. Pre- and post-intervention parental stress scores (PSS) were well below the higher range of 80 which shows that these mothers already have good coping skills in place. Of note, all these families had more than 13 years each of military experience. Targeting newer military members or those parents who are younger with interventions such as *From Caring 2 Coping* may be more beneficial.

Another consideration for future studies includes targeting families in the pre-deployment cycle which would allow for *preventative* care, education, and training. Recruitment problems were encountered because most of the families approached were near the end of the deployment/seperation, so they did not perceive that there would be much benefit for their

family. Other parents desired inclusion of younger children and the two parents who dropped out of the program said that they had too much going on in their lives to participate.

**Limitations**

While there were limitations to this study, there were also several positive outcomes. From Caring 2 Coping supports the effectiveness of application of the Resiliency Model of Role Performance to military families. The accompanying website- militaryfamilyresilience.jimdo.com, is an excellent tool to supplement the program or to provide to families without access to a military installation. Both PSS and PSC-17 questionnaires are reliable and valid tools, which both military and civilian medical providers can use to screen this high-risk population. Positive screens can direct further evaluation, introduction of coping mechanisms, programs like *From Caring 2 Coping*, referrals to other appropriate care (e.g. behavioral health), and community and military resources that members may not have been familiar with.

## Conclusion

Children in military families experience more socio-emotional problems than their peers in civilian families, especially when dealing with military deployments. The number and length of these deployments is correlated with an increase in behavioral and psychosocial problems with these children as well as their remaining caregivers. Evidence shows that increased parental stress, anxiety, and depression increases the probability of externalizing and internalizing behaviors as well as conduct and mood disorders in their children. Familiarity with programs such as *From Caring 2 Coping* will allow military and non-military healthcare providers to identify children, parents, and families at risk of maladaptive coping behaviors and family dysfunction, while giving these families the tools and resources to not only build personal and family resiliency, but also to help them navigate all roads of life.

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