

EMOTION SOCIALIZATION IN MILITARY FAMILIES: ASSOCIATIONS WITH
PARENT PTSD SYMPTOMS AND CHILD PSYCHOSOCIAL FUNCTIONING

by

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ABSTRACT

EMOTION SOCIALIZATION IN MILITARY FAMILIES: ASSOCIATIONS WITH PARENT PTSD SYMPTOMS AND CHILD PSYCHOSOCIAL FUNCTIONING

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George Mason University, 2022

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Among the many difficulties that military families face are the experience of a parent deploying to a warzone and the subsequent risk of that parent returning with symptoms of posttraumatic stress disorder (PTSD). Symptoms of PTSD are associated with parenting difficulties and, in some cases, children's negative psychosocial outcomes. On the other hand, many children in military families show high levels of strength and resilience. The ways that parents teach children about emotion (emotion socialization; ES) may play a key role in child outcomes in these families, but supportive ES may be more difficult in the context of PTSD symptoms. This dissertation presents two studies that address the need for more empirical information regarding ES behaviors in deployed and non-deployed parents, how ES may be related to PTSD symptoms, and how child outcomes may be influenced by ES in the context of PTSD. Both projects use existing data collected from 224 National Guard/Reserve (NG/R) families, with deployed fathers, non-deployed mothers, and a child between the ages of 4 and 13. Questionnaires were

collected regarding demographic and deployment information, deployed father's PTSD symptoms, and children's psychosocial adjustment (internalizing problems, externalizing problems, strengths). Families engaged in parent-child discussions, which were videotaped and coded for observed ES behaviors.

The first manuscript used latent profile analyses to identify five profiles of parental ES: Balanced/Supportive (28 fathers, 24 mothers), Disengaged/Unemotional (71 fathers, 71 mothers), Unsupportive/Distressed (37 fathers, 30 mothers), Unsupportive/Positive (40 fathers, 39 mothers), and Involved/Angry (29 fathers, 37 mothers). Initial multinomial logistic regressions of each parent's profile membership on fathers' PTSD symptoms alone revealed no significant associations. Subsequent multinomial logistic regressions predicting profile membership from PTSD symptoms while simultaneously accounting for other family factors (child age, sex, and emotions, and deployment length) showed that increased father PTSD symptoms were associated with a greater likelihood of mothers being in the Balanced/Supportive profile compared to the Disengaged/Unemotional profile, only when children displayed average or below-average emotions in discussion tasks. No other significant associations with PTSD symptoms were detected. Overall, in contrast to a priori hypotheses, the majority of these findings showed that PTSD symptoms did not play a major role in parental ES behaviors.

The second study further examined how PTSD symptoms and ES profile membership related to children's internalizing symptoms, externalizing symptoms, and strengths. Mother, father, and teacher reports of child outcomes were modeled to generate a factor score for each of these three outcomes for each child. I then evaluated

relationships of those outcomes to (a) fathers' PTSD symptom severity (via correlations and then structural equation modeling [SEM]), (b) fathers' and mothers' ES parenting profiles (via two separate MANOVAs), and (c) the interactions among these variables (via two multi-group SEMs, using each parents' profiles as a grouping variable). In both bivariate and multivariate analyses, PTSD symptom severity was significantly, positively related to internalizing problems and significantly negatively related to children's strengths. MANOVAs revealed significant child outcome differences by mothers' profiles only, with children whose mothers were in the Unsupportive/Distressed profile showing significantly higher externalizing scores. The final set of analyses revealed that the significant associations among PTSD symptoms and children's internalizing problems were primarily present for fathers in the Angry/ Emotive profile, and the negative relationship between PTSD symptoms and strengths was maintained primarily when fathers were in the Involved/Angry profile or when mothers were in the Balanced/Supportive profile. There was also a significant positive relationship between PTSD symptoms and externalizing problems when fathers were in the Involved/Angry profile or when mothers were in the Balanced/Supportive profile. Together, the results of both papers suggest that PTSD symptoms are negatively associated with child outcomes, but effects are small, and ES parenting behaviors function fairly independently of PTSD symptoms. These patterns suggest there are likely many inter-connected factors in the family system beyond the experience of PTSD symptoms (which is commonly a sole focus of research in this area) that warrant consideration when trying to understand what contributes to risk and resilience in NG/R families.

INTRODUCTION

Military families face multiple difficulties. Deployment takes a toll on at-home family members as they cope with a loved one's absence and uncertainty about a service member's safety (DeVoe & Ross, 2012; Huebner et al., 2007). Re-integration brings new stressors of re-negotiating household roles and often caretaking and adjusting to service members'/veterans' (SM/Vs') physical and psychological injuries (Yablonsky, Barbero, & Richardson, 2016). Therefore, it is unsurprising that children in military families are at higher risk for internalizing, externalizing, and social problems (Lester et al., 2010; review by White et al., 2011).

Children with a parent who has posttraumatic stress disorder (PTSD) are at even greater risk for such problems, both in the military (review by Link & Palinkas, 2013) and in the general population (review by Leen-Feldner et al., 2013). Thus, families in which a parent deploys and then develops PTSD symptoms represent a particularly high-risk environment. The scope of this problem is substantial, as over 2 million service members have deployed in the past 15 years, and rates of PTSD among SM/Vs are estimated around 23% (see meta-analysis by Fulton et al., 2013). Furthermore, a recent review of Veteran's Affairs medical records showed that Veterans with dependent children were almost twice as likely to be diagnosed with PTSD as Veterans without dependent children (Janke-Stedronsky et al., 2015).

At the same time, many children in military families experience healthy adjustment, even when a parent is diagnosed with PTSD (Easterbrooks, Ginsburg, & Lerner, 2013). This project aims to identify factors that contribute to healthy adjustment in military children in relation to parental PTSD symptoms.

Parenting plays a key role in both positive and negative child adjustment (Luthar, 2006), but little is known about specific parenting processes that may be affected by PTSD. One key process that may be particularly important in the context of PTSD is emotion socialization (ES; Denham et al., 1997; Eisenberg et al., 1998, 1999). Parents' ES behaviors, which foster children's ability to process, express, regulate, and understand emotions, are linked with a range of aspects of child psychosocial functioning (Denham et al., 2003; Eisenberg et al., 1999).

When parents experience their own emotional difficulties, they might engage in more unsupportive ES (i.e., parenting behaviors that provide unhealthy messages about emotions to children) and less supportive ES (i.e., parenting behaviors that provide adaptive and healthy messages about emotions to children; Breaux et al., 2016; Eisenberg et al., 1999). Given that PTSD symptoms disrupt the emotions of SM/Vs with PTSD, as well as those of their romantic partners (e.g., Lambert et al., 2012), parental ES might play a key role in the association of PTSD symptoms with children's risk for psychosocial problems. At the same time, it is also possible that some partners may actually compensate for SM/Vs' parenting difficulties by *increasing* helpful parenting behaviors in the context of SM/Vs' PTSD symptoms (e.g., Giff, Renshaw & Allen, 2019; Nelson et al., 2009), which has the potential to offset effects of the SM/V's negative

parenting. Identification of factors that promote such compensation would inform prevention programs.

The overarching goal of this project is to evaluate the role of parental ESs in the adjustment of children in military families, particularly in the context of SM/V PTSD. This dissertation consists of two empirical studies that address the need for additional information about ES processes in military families. In the first project (Paper 1), I used observational coding to assess ES behaviors in both fathers and mothers in all key domains: parental contingent responses to children's emotions, parent's emotion coaching, and parents' emotion expression. I then used person-centered analyses to identify profiles of these behaviors, and investigated how PTSD symptoms of deployed fathers may relate to both the deployed fathers and non-deployed mothers' parenting profiles. In the second project (Paper 2), I investigated how the combination of PTSD symptoms and ES parenting profile may relate to children's internalizing problems, externalizing problems, and strengths.

Both of these projects use data from 224 intact National Guard/Reserve families, with a father who deployed to Iraq or Afghanistan since September 11, 2001, a mother who has not deployed since then, and a target child between 4-13 years old. Participants were recruited as part of a larger NIDA-funded randomized control study of a parenting intervention for military families. Baseline data was used in the current project, prior to any intervention. Families were recruited through a variety of methods, including flyers posted at VA medical centers, social media posts, and word of mouth. Parents completed online questionnaires and engaged in an at-home visit, where families were instructed to

engage in a series of structured parent-child dyadic discussion tasks. The current studies used data specifically from the discussions of a conflict at home and the child's experience of parental deployment. Videotapes of the discussions were coded using three separate coding schemes that map onto each of the three types of ES (contingent responses to children's emotion, emotion coaching, and parental emotion expression). This project represents one of the most comprehensive and rigorous assessments of parenting in military families, as one of the only known studies to use observational coding of all three types of ES behaviors, and the first study to investigate ES behaviors in military families in relation to PTSD symptoms and child outcomes.

PAPER ONE: PARENTAL PROFILES OF EMOTION SOCIALIZATION AND ASSOCIATIONS WITH POST-TRAUMATIC STRESS DISORDER SYMPTOMS

Introduction

Military families encounter many challenges, including frequent moves, deployments, reintegration, and higher likelihood of parental physical and emotional injuries (Yablonsky, Barbero, & Richardson, 2015; Drummet, Coleman & Cable, 2014). Throughout these stressors, military couples with children are faced with the additional challenge of helping their children adapt and cope with the complex emotions that may arise through these types of events. The way parents do this is important, as children in military families are at increased risk for negative psychosocial outcomes, such as increased substance use, behavioral problems, and academic difficulties (Acion et al., 2013; Macdermid Wadsworth, Bailey, & Coppola, 2017), and supportive parenting behaviors play a key role in whether or not children in military families develop the emotional competence and regulation skills to adapt in healthy ways (Palmer, 2008; Zhang et al., 2018).

One important way that parents influence children's emotional development is through *emotion socialization*, which is defined as how caregivers shape children's ability to identify, regulate, and express their own emotions (Eisenberg et al., 1998). According to the foundational heuristic model of Eisenberg and colleagues (1998), parental ES consists of three primary behaviors: 1) reactions to child emotions (*contingent responses*), 2) discussions of causes, consequences, and regulation strategies of emotions, (*emotion coaching*), and 3) parents' own emotional expression (*modeling*)

(Denham, Zoller, & Couchoud, 1994; Eisenberg et al., 1998). The importance of emotion socialization (ES) for children's psychosocial adjustment has been widely demonstrated (Eisenberg et al., 1998; Eisenberg, 2020). ES behaviors that are categorized as *supportive* (e.g., validating emotion, teaching about healthy coping with emotions, modeling a range of healthy emotions) are more often linked to children's healthy emotional development, while ES behaviors that are categorized as *unsupportive* (e.g., dismissing emotions, avoiding discussing emotions, modeling suppression or dysregulation of parent's own emotions) are usually linked to more negative child outcomes (Blair et al., 2014; Denham, 2007; Eisenberg, 1999; Eisenberg et al., 1998; Fabes et al., 2001; Godleski et al., 2020; Price & Kiel, 2022).

Unsurprisingly, families in contexts of high stress have difficulty with supportive emotion socialization (Belsky, 1983; Havighurst & Kehoe, 2017). In addition to the stressors of moves, deployments, and other factors related to military life, some service members and their partners also deal with symptoms of PTSD. Rates of PTSD are high among those returning from recent conflicts in the Middle East (approximately 23%, Fulton et al., 2015). Symptoms of PTSD, which include intrusive distressing memories of trauma, avoidance of trauma reminders and difficult emotions, feeling distant from loved ones, and increased irritability/emotional dysregulation, may make it difficult for a service member with PTSD to socialize emotions with children in an adaptive way. In fact, higher PTSD symptoms have been linked empirically with other types of parenting difficulties, such as poorer parental functioning, more inconsistent discipline, poorer supervision, less positive engagement, and more coercive behavior (Brockman et al,

2016; Cohen, Zerach & Solomon, 2011; Gewirtz, Polusny, DeGarmo, Khaylis, & Erbes, 2010; Giff et al., 2019; Sherman et al., 2016; Snyder et al., 2016). Service members with PTSD have also been found to struggle in their parent-child interactions and to engage in behaviors representative of unsupportive ES, such as ignoring a child who is upset, avoiding discussion of emotions, and showing angry outbursts and increased harsh discipline (Brockman et al., 2016; Giff et al., 2019; Sayers et al., 2009; Sherman et al., 2015).

In addition to the impacts of symptoms of PTSD on service members, those symptoms may also be related to the parenting behaviors of service members' partners. Some research suggests that greater service member PTSD symptoms may be related to poorer parenting in partners (e.g., Blow et al., 2013; Gewirtz et al., 2018); however, contrasting findings demonstrate that, in the context of greater PTSD symptoms, partners may show *more positive* parenting behaviors, possibly to compensate for parenting difficulties of the person with PTSD (e.g., Giff et al., 2019). Research on relationships between mental health symptoms and ES behaviors in civilian families follows a similar pattern, with some parents showing more unsupportive ES behaviors when their partner has increased mental health difficulties (Breux et al., 2016), and other parents showing *fewer* unsupportive ES behaviors in relation to a partner's mental health symptoms (Breux et al., 2016; van der Pol et al., 2016). It seems likely, then, that partners' ES behaviors may be related to service members' PTSD symptoms, but the possible direction of this relationship is less clear.

Our understanding of how ES operates in the entire military family system is constrained by several methodological limitations of the existing research. Within the vast number of studies on ES and on parenting behaviors in military families, most rely on self-report data, with few exceptions (see Brockman et al. 2016; Snyder et al., 2016), raising the possibility of reporting bias. Furthermore, almost all studies have focused on a single category of ES behavior (contingent responses, emotion coaching, and modeling) in isolation from the others (but see Baker, Fenning, & Crnic, 2010; Denham & Kochanoff, 2002; Stocker et al., 2007; Miller, Dunsmore & Smith, 2015). In one attempt to consider behaviors holistically, Baker and colleagues (2010) found differences across mothers and fathers in terms of the interrelationships among the three ES behaviors. Moreover, not all supportive behaviors were related for all parents, suggesting that parents' ES behaviors may be more complex than simply being supportive or unsupportive, when considered in tandem. Similarly, some researchers who have examined self-reported ES in civilian samples using a person-centered approach rather than a variable-centered approach have found that parents did not always cleanly fit into primarily supportive or unsupportive types of behaviors (e.g., Miller et al., 2015; Miller-Slough et al., 2018), whereas others identified profiles that were primarily supportive, primarily unsupportive, moderate on both behaviors, and generally disengaged (McKee et al., 2022; Miller-Slough et al., 2018; Sosa-Hernandez et al., 2020; and Wang et al., 2019).

Given the numerous stressors military families face, it is important to identify how parents socialize emotions while coping with these stressors. An approach that

captures a full range of possibilities of ES behaviors, relies on observations of parent behavior, and accounts for both mothers and fathers would be optimal to address the limitations of prior research and capture the inter-connected nature of family systems. The goals of the present study were to 1) identify patterns of the full range of ES behaviors in military families comprised of recently-deployed fathers and non-deployed mothers, and 2) investigate how deployed fathers' PTSD symptoms related to these behaviors in both fathers and mothers. Due to the limited research on ES in military families, I did not make specific hypotheses about the number and nature of ES profiles I expected to find. I did hypothesize that deployed fathers' PTSD symptoms would be significantly associated with parenting profiles that represented more unsupportive and fewer supportive ES behaviors in those deployed fathers. Given the mixed literature of associations with PTSD and partner parenting, I did not make predictions about whether deployed fathers' PTSD would be associated with more supportive or more unsupportive profiles in non-deployed mothers.

Methods

Data were collected as part of a NIDA-funded randomized control trial of a parenting intervention for military couples (Gewirtz, DeGarmo, & Zamir, 2018); hereafter referred to as the Parent Study). Participants in the Parent Study were 257 intact families with a Minnesota National Guard/Reserve (NG/R) member who had deployed to Afghanistan and/or Iraq since September 11, 2001, and a child between 4-13 years old. Of these, only 33 families had a NG/R mother who had deployed since September 11, 2001. Because parenting difficulties may be experienced in different ways for deployed

mothers compared to fathers (Berz et al., 2008; Gold et al., 2007), and because of the large imbalance in numbers of families with deployed mothers vs deployed fathers, these 33 families were excluded to enhance homogeneity of the sample. Due to lack of completion of the structured at-home tasks (described below) in a small number of additional families, the final sample for this study included 192 intact couples, 13 families with data from fathers only, and 19 families with data from mothers only. The families in this final sample did not differ from those excluded families in terms of parental age, race, education level, income, number of children who lived at home, length of relationships, or parental PTSD severity (all $ps > .15$). The only difference detected was that children in the final sample were older ($M = 8.55$ $SD = 2.29$) than those excluded ($M = 8.03$, $SD = 2.81$), $t(236.75) = 1.99$, $p = .048$.

More than half (53.6%) of families in this study's sample reported an annual household income between \$50,000-\$100,000, with 24.8% of families reporting a household income less than \$50,000 and 21.6% reporting \$100,000 or more. Almost half (45.2%) of families reported having two children at home, with 16.8% reporting one child, 28.4% reporting three children, and 9.7% reporting either four or five children. The average length of relationship of couples in these families was 9.88 years ($SD = 5.48$) and about half (52.7%) of the target children in the study were girls.

Fathers in the sample were, on average, 37.88 years old ($SD = 6.60$, range = 23-58). Most fathers reported their race as white (85.6%), with 4.8% Black/African American, 3.4% "Unknown," 2.4% Asian, 2.4% Multi-Racial, and 0.5% Pacific Islander. Most also reported their ethnicity as non-Hispanic (90.8%), with 2.9% reporting being

Hispanic and 6.3% reporting as “Unknown.” Regarding highest degree of education, 37.9% reported completing a 4-year college degree, 25.0% reported completing some college, 14.8% completed an Associate’s degree, 10.8% completed a Master’s degree, 6.9% completed high school, while 2.5% completed a doctoral or professional degree and 2.0% completed a GED. Most (85.7%) fathers reported full-time employment, and the remaining fathers were either retired or students. Fathers primarily came from Army service branches, with 59.2% from the Army National Guard and 13.0% from the Army Reserve, while 8.7% were in the Air National Guard, 3.9% were in the Air Force Reserve, 3.4% were in the Navy Reserves, and 11.7% reported “Other” service branch experience. Forty-two percent of fathers reported being deployed at least once within the United States for peacekeeping or other natural disasters. All fathers had deployed overseas in the conflicts since 2001, with 35.9% having deployed once, 38.8% having deployed twice, and 25.3% having deployed between 3 and 10 times. In these deployments, 40.9% of fathers reported being assigned to combat duties.

Mothers were, on average, 35.97 years old ($SD = 5.84$). Most mothers reported their race as White (92.0%), with 1.4% Black/African American, 3.8% “Unknown,” 1.4% Asian or Pacific Islander, and 1.4% Multi-Racial. Most reported their ethnicity as non-Hispanic (94.4%), with 1.9% reporting as Hispanic and 3.8% reporting as “Unknown.” Regarding highest degree of education, 35.9% reported completing a 4-year college degree, 22.5% reported completing some college, 19.1% completed an Associate’s degree, 13.9% completed a Master’s degree, 5.3% completed high school, while 1.9% completed a doctoral or professional degree and 1.5% completed a GED or some high

school. The largest group of mothers (41.1%) reported being employed 30 hours per week or more, 23% reported part-time employment, 26.8% being homemakers, and remaining mothers reported either being retired or students. Of these non-deployed mothers, 10% ($n = 21$) reported being in the Guard, Reserves, or Active Duty themselves, but had not experienced a deployment since 2001.

Procedures

Recruitment. The original recruitment for the Parent Study took place through (1) presentations at mandatory pre-deployment and reintegration events for all NG/R personnel, (2) mailings from the Minneapolis Veterans Affairs Medical Center to all OIF/OEF veterans, (3) flyers posted throughout the Minneapolis/St. Paul area, (4) media (e.g., newspaper and radio reports) and social media coverage (e.g., Facebook and Twitter), and (5) word of mouth by fellow military parents and stakeholder groups. Families could go directly online to consent to participate in the study. Typically, however, recruitment staff called families who provided contact information at the above events and directed them to the hyperlink for the screener and online consent forms. Families were given the contact information of study staff and were encouraged to contact them with any questions or concerns. Participants who submitted their informed consent were automatically directed to a HIPAA-compliant site to complete an online assessment. Each participating parent completed a separate assessment, and consent and permission were obtained from both parents for children's study participation.

Baseline Assessments. Initial measures were completed separately by each partner online, and subsequent self-report data and observational data from several family

interaction tasks were collected during an at-home visit. Data for the current study were drawn from videotaped recordings of the following family interaction tasks: (1) mother-child conflict task; (2) father-child conflict task; (3) mother-child discussion of deployment; and (4) father-child discussion of deployment. In the “conflict” task, each parent-child dyad was asked to identify and solve a source of everyday conflict (e.g., bedtime, chores, homework). In the “deployment” task, dyads were asked to discuss deployment-related concerns (e.g., missing a child’s birthday). These tasks were chosen due to the range of emotions that were likely to be elicited. For all tasks, families were seated at a kitchen table, and instructions for tasks were read to them by a trained research technician. After ensuring families understood instructions, the technician left the room for 5 minutes while the parent-child dyad discussed the task, and all conversations were stopped after 5 minutes. Parents each received \$25 for online assessments and \$50 for the in-home visit. Children received a small gift.

Measures

Demographics and Military Information. Both parents completed a questionnaire of demographic information for themselves and for the target child. Parents who were in the NG/R also provided information about their NG/R and deployment experiences, including the number and length of deployments.

PTSD Symptoms. PTSD symptoms of the NG/R fathers were measured using the PTSD Checklist – Military Version (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1993). This measure is a widely used, psychometrically sound, 17-item, self-report measure of DSM-IV-TR (American Psychiatric Association, 2000) PTSD symptom

severity that was administered to the NG/R member in each family. Respondents rate the extent to which they were bothered by each symptom over the past month on a 5-point scale, with higher scores indicating greater severity of PTSD symptoms. In addition to a continuous measure of PTSD symptom severity, Weathers et al. (1993) recommended a cutoff of 50 as an estimate of PTSD diagnosis. Using ROC analyses, Bliese et al. (2008) later found a score of 35 or greater as providing optimal sensitivity and specificity for estimating PTSD diagnosis. In the sample for this project, the average score was 29.09 ($SD = 11.57$), 22.5% of fathers had a PCL-M score ≥ 35 , and 8.5% of fathers had a PCL-M score ≥ 50 .

Observational Coding Measures. ES for each parent was assessed through behavioral and language coding of the parent-child interactions. Three different coding schemes were used to model the three types of ES behaviors (contingent responses, emotion coaching, and modeling of emotion expression).

Contingent responses. Contingent responses were measured via behavioral coding of the parent-child deployment discussions using the FOCAL coding system (Denham & Bassett, 2013). This system codes children's expressed emotions and parental responses to such emotional expression using software developed by Roberts (2011) specifically for the FOCAL. Child emotions were coded as happy, sad, angry, tense, tender, pain, other, and neutral. Parental responses to each instance of child emotional expression were coded as punitive (e.g., threatening a child for showing emotion), problem-focused (e.g., helping a child solve an emotion-eliciting problem), emotion-focused (e.g., trying to help a child feel better), validating (e.g., acknowledging a child's emotions), minimizing (e.g.,

teasing a child for expressing emotion), distress (e.g., showing frustration or sadness to a child emotion), and matching positive reactions (e.g., smiling back at a smiling child). Only one discrete emotion was coded at a time for children, whereas multiple parental responses could be coded per emotion. Coding yielded a total count of parental responses in each category.

The first author trained in the FOCAL system under the supervision of Dr. Susanne Denham, and then trained a team of three research assistants. Inter-rater reliability among raters was good to excellent, with a mean ICC = .85 for child emotions and mean ICC = .75 for parent responses on a subset of 15% of tasks that were coded by all coders.

After coding was completed, scores from parental contingent responses were further reduced for analysis. Scores for distress, punitive, and minimization were summed into one “Negative Responses” variable. Reliability for this summative code remained strong (ICC = 0.82); however, only 61 fathers (out of 152) and 60 mothers (out of 155) displayed even a single such response in their entire interaction. As such, the “Negative Responses” variable was dichotomized, with 1 indicating the presence of 1 or more unsupportive response and 0 indicating no unsupportive responses to children’s emotions. Positive, Expressive Validation, and Emotion Focused were similarly combined into a summative “Positive Responses” variable, with strong reliability (ICC = .80). As problem-focused approaches to emotion are sometimes considered to be distinct from supportive or unsupportive responses (Sosa-Hernandez et al., 2020), Problem-Focused Responses was maintained as an independent coding variable (ICC = .76).

Emotion coaching. Parental emotion coaching was measured with the Parent-Child Affect Communication system (PACT; Zahn-Waxler, Ridgeway, Denham, Usher, & Cole, 1993), which was applied to transcripts of the parent-child discussions of both deployment and conflict. In this coding system, emotion words that refer to discrete emotions or behavioral expressions of emotion (e.g., crying, hugging) are counted. Functions of these utterances are then coded as follows: commenting (noting a feeling without further explaining the causes and/or consequences of feeling states); explaining or clarifying (explaining the causes and/or consequences of feeling states, or rectifying misunderstandings); questioning (asking the child about an emotion); attempts to guide behavior (attempting to shape emotional experiences without explanation); and socialization (teaching a lesson about appropriateness, causes, or consequences of emotion). Coding yielded a sum total of each function used per parent.

The first author trained in this coding scheme under the supervision of Dr. Susanne Denham and then trained a team of three research assistants. Inter-rater reliability was good with a mean ICC = .81 of functions of emotion words on a subset of 15% of tasks that were coded by all coders.

After coding was completed, data were reduced for further analysis. Socialize, Clarify, Explain, and Question were summed into one category to represent “High Complexity Emotion Language” (ICC = .91). Comment and Guide were summed into a second category representing “Low Complexity Emotion Language” (ICC = .79).

Modeling. Parental modeling of emotion expression was coded by using the Relationship Affect Coding Scheme (RACS; Peterson et al., 2010). This micro-level

coding scheme assessed each parent's verbal, physical, and affective behavior. Codes are designed to be mutually exclusive and are assigned following a hierarchical order: a. anger; b. distress; c. validation; c. positive affect; e. ignoring, f. no affect. A value of rate per minute (RPM) was extracted for each affect in each task, and higher RPM indicated more frequent displays of each affective behavior. This coding was completed in the original Parent Study from videos of the deployment and conflict parent-child tasks using the Noldus Observer XT software. A technical report documenting details of the RACS micro-coding processes and results is available upon request.

Reliability of this coding system in the Parent Study was reported by Snyder et al., (2016). They report that four observers who coded parent-child interaction were trained to an inter-coder agreement κ of $>.70$ for coding categories prior to beginning coding, and reliability of observer ratings for 25% of the video samples was strong (average inter-coder κ agreement $>.90$).

For the purposes of this paper, only expressions of anger, distress, and positive affect were used to represent parental emotion modeling, with each parent's RPM affective score of each emotion summed across the deployment and conflict tasks. Validation and Ignoring were excluded from my analyses, as such behaviors overlapped with the FOCAL coding of contingent responses to children's emotions.

Data Analysis

Following calculation of descriptive statistics and bivariate correlations of primary variables, a person-centered analytic approach was used to identify parenting profiles based on observed parental emotion socialization (ES) behaviors. We used latent

profile analyses (LPA; Masyn, 2013), a person-centered latent variable analytic technique that uses continuous variables to categorize parents into subgroups based on patterns of scores on parenting indicators (Bauer & Curran, 2004; Lubke & Muthén, 2007). The LPA is used to identify groups underlying the data of parents with similar patterns.

Model Estimation. LPA models were estimated via MPlus 8.4 (Muthén & Muthén, 2019), using full information maximum likelihood estimation with robust standard errors, to account for missing data. Indicators included: Negative Responses (from FOCAL), Positive Responses (from FOCAL), Problem-Solving Responses (from FOCAL), Low-Complexity Emotion Language (from PACT), High Complexity Emotion Language (from PACT), Parent Expression of Distress (from RACS), Parent Expression of Anger (from RACS), and Parent Expression of Positive Emotion (from RACS). For ease of interpretation, prior to running the LPA, all indicators were converted to z-scores, except for Negative Responses, which was included as a dichotomous variable.

Individual parents were the units of analysis. To account for shared variance due to parenting the same children, parents were nested within families using the “type = mixture complex” option (Muthén & Muthén, 2015). Models were estimated using all four possible combinations of variance and covariance structures (i.e., class-varying variances with unrestricted covariances, class-invariant variances with unrestricted covariances, class-varying variances with covariances constrained to zero, and class-invariant variances with covariances constrained to zero) (Masyn, 2013). For each combination, models were run first with one profile, and then by iteratively adding another profile until log-likelihoods were unable to replicate or significant errors

occurred that stopped models from converging or producing reliable estimates (whichever came first). Each model was first run with 1000 random starts and 250 iterations in the initial stage, after which, it was run a second time with the random start values from the first run. If the best log-likelihood did not replicate in the second attempt, we continued to run models with random start values, increasing the number of random starts and iterations each time, until the best log-likelihood was replicated. Only models that had a replicated best log-likelihood were considered.

Profile Enumeration. Multiple factors were assessed to determine the best number of profiles for the data, including fit indices, conceptual reasoning, and parsimony (Bauer & Curran, 2004). Fit indices assessed were the Bayesian Information Criterion (BIC; Schwartz, 1978), Akaike Information Criteria (AIC; Akaike, 1987), and the Lo-Mendel-Ruben adjusted likelihood ratio test (LMR-A; Lo, Mendell, & Rubin, 2001). These statistics represent different aspects of absolute and relative fit compared to other models. When the LMR-A has a p -value $< .05$, it is an indication that k profiles are statistically better-fitting when compared to $k-1$ profiles. The AIC and BIC also assist in determination of model fit, with lower values on each index indicating better relative fit, and a drop in AIC (Burnham & Anderson, 2004) and BIC (Kass & Raftery, 1995) of more than 10 points indicating a statistically better fit relative to another model. Entropy is a measure of classification accuracy that ranges from 0 to 1, and values closer to 1 indicate greater certainty in separations between profiles (Clark & Muthén, 2009). In addition, the proportion of the sample that made up final class counts was taken into

consideration, with a preference for profiles that consisted of at least 10% of the sample (Nylund, Asparouhov, & Muthén, 2007).

When multiple profiles demonstrated good statistical fit, conceptual distinctness and meaningfulness of profiles was also taken into consideration to select the best-fitting number of profiles for the data. To compare final models more closely, posterior probabilities were used to classify each parent into a profile based on their most likely profile membership. Means of indicators on profiles were plotted and inspected. The final profile selected was the best statistically-fitting and most conceptually logical fit to the data. The descriptive statistics of these final profiles (i.e., means of indicators, demographics) were further examined to characterize the profiles. Profiles were examined with the combined sample and for mothers and fathers separately. Separate MANOVAs for mothers and fathers were conducted to examine significant differences in indicators between profiles, and subsequently examined with Dunnett's T3 or Games-Howell post-hoc tests to accommodate unequal sample sizes and variances (Shingala & Rajyaguru, 2015).

Multinomial Logistic Regressions. To identify the extent to which parent profile membership was associated with father's PTSD symptoms, a series of multinomial logistic regressions were conducted using SPSS 27 (IBM, 2020), with the most likely predicted profile membership as the outcome. First, I conducted two multinomial logistic regressions assessing father's PTSD symptom severity as a predictor of (1) father parenting profile and (2) mother parenting profile. Next, I assessed the role of specific contextual variables in the association of NG/R PTSD symptoms with parental profile

membership. Those variables were child demographics (age, gender), father's deployment history (in months), and the number of emotions displayed by the child coded via FOCAL (because the number of parental ES behaviors coded with FOCAL is based explicitly on opportunities to respond to child emotions, the number of emotions expressed by the child during the interactions is a potentially important contextual variable). Each contextual variable was first tested as a possible moderator of the association of father's PTSD symptoms with parental profile via an interaction term, with separate regressions for each variable to preserve power to detect interactions. Contextual variables and father's PCL-M score were centered prior to multiplying them to create relevant interaction terms (Aiken, West & Reno, 1991). As a final step, I ran two overarching multinomial logistic regression predicting (a) father parenting profile and (b) mother parenting profile with the following independent variables: father's PTSD symptoms, all contextual variables, and any interactions detected as significant in the individual regressions. Any significant interactions were then probed using the recommendations of Aiken and colleagues (1991), by creating high (+1 *SD*) and low (+1 *SD*) versions of the contextual variable (or appropriate probes for dichotomous variables) and re-running the logistic regression to examine the change in the path estimate for PTSD symptoms.

Results

Descriptives of Parenting Profiles

Means and standard deviations of primary parenting data from observational and language coding are shown in Table 1.

Correlations of primary parenting data are shown in Table 2. Overall, there were few significant correlations within mothers' behaviors and fathers' behaviors, indicating that many of these behaviors were independent of each other. For both mothers and fathers, there were significant positive correlations between high and low complexity emotion language, between high complexity emotion language and positive responses to children's emotions, and between expression of positive emotion and positive responses. In mothers only, expression of anger was positively associated with both expression of positive emotion and problem-focused responses. In fathers only, expression of positive emotion was negatively correlated with problem-focused responses and negative responses. Notably, the same ES behavior in mothers and fathers were positively correlated with one another in all cases except for use of low complexity emotion language, suggesting consistency in behavior across both parents.

Latent Profile Analysis

Results from comparative models are presented in Table 3. Models of k classes were run for each type of variance-covariance structure until the final model was unable to converge and/or the log likelihood was not replicated when run with additional random starts, which would indicate that a global maxima had not been identified. Inspection of fit indices seemed to indicate that a structure of class-varying variances with covariances constrained to zero best fit the data, and that structure also yielded profiles that specified at least 10% of the data.

Within this structure, both the 3-Profile and 5-Profile models demonstrated high entropy, significant drops in AIC and BIC, and significant LRTS. Both the 3- and 5-

Profile options were more thoroughly examined to identify meaningful separation of profiles. The 5-Profile model demonstrated greater meaningful separation of profiles compared to the 3-Profile version (See Supplementary Figure 1), and inspection of the AIC and BIC elbow plots showed a continued drop after profile 3 and flattening of the line after Profile 5 (see Supplementary Figure 2). A MANOVA of all parenting indicators of the 5-Profile model showed significant differences on ES parenting indicators across profiles for fathers, $F(32, 351.398) = 9.442$ $p < .001$; Wilk's $\Lambda = 0.102$, partial $\eta^2 = .435$, and for mothers, $F(32, 348.250) = 7.234$, $p < .001$; Wilk's $\Lambda = 0.152$, partial $\eta^2 = .375$.

Thus, the 5-profile version was selected as the best way to represent parenting profiles of ES in our sample. Profiles were labeled based on levels of ES characteristics they represented. Profile 1 ($n = 52$) was named “Balanced/Supportive” due to representing the highest level of both positive responses to children’s emotions and expression of positive emotion, average levels of emotion language, and moderate expressions of distress and anger. Profile 2 ($n = 142$) was the largest profile, and was named “Disengaged/ Unemotional,” due to relatively low positive responses, the lowest levels of parent expression of all types of emotions, and average levels of other ES behaviors. Profile 3 ($n = 67$) was named “Unsupportive/Distressed,” due to low levels of emotion language, primary use of problem-focused responses to child emotion, and the greatest levels of parent expression of distress. Profile 4 ($n = 79$) was called “Unsupportive/Positive Emotions,” due to low levels of emotion language, primary use of problem-focused responses, and higher levels of expression of positive emotions relative to expressions of anger or distress. Finally, Profile 5 ($n = 76$) was labeled

“Involved/Angry,” as these parents had highest levels of expressions of anger, while also using the highest levels of emotion language, and showing high levels of all types of responses.

Multinomial Logistic Regression

Following profile enumeration, I assessed relationships of father’s PTSD symptom severity with profile membership for fathers and for mothers, using multinomial logistic regression. The largest profile, Profile 2 (“Disengaged/Unemotional”), was selected as the reference profile for these analyses. When tested alone, fathers’ PTSD symptom severity was not significantly associated with a greater likelihood of profile membership for either fathers or mothers (see Table 4). In the follow-up analyses that added contextual variables and their interactions with PTSD symptoms one at a time, none of the interactions involving PTSD were significant in predicting father profile membership (see Table 5). Two interactions, those involving child’s age and child’s emotions, were significant in predicting mothers’ profiles and, thus, retained for the full model (see Table 5).

In the full model testing each contextual variable and PTSD as predictors of fathers’ profile membership, only number of child emotions displayed were significant (see Table 5). Specifically, the more emotions expressed by the child, the greater the likelihood that fathers would be in Profile 4 (Unsupportive/Positive) compared to Profile 2 (Disengaged/Unemotional).

In the full model testing each contextual variable, PTSD, and significant interactions as predictors of mothers’ profile membership, the severity of father’s PTSD

symptoms was significantly related to a higher likelihood of mothers being in Profile 1 (Balanced/Supportive) compared to Profile 2 (Disengaged/Unemotional). The number of emotions expressed by the child was significantly related to an increased likelihood of mothers being in Profile 5 (Involved/Angry) compared to Profile 2 (Disengaged/Unemotional). Finally, the interaction of PTSD and number of emotions displayed was significant in predicting the likelihood of a mother being in Profile 1 compared to Profile 2. Probes of this interaction revealed that, for children who displayed high levels (+1 *SD*) of emotions during the discussions, fathers' PTSD symptoms were not significantly related to mothers' likelihood of being in Profile 1 (Balanced/Supportive) compared to Profile 2 (Disengaged/Unemotional) ($\text{Exp}(B) = 0.997, p = .928$). In contrast, for children who displayed low levels (-1 *SD*) of emotions, fathers' PTSD symptoms were significantly related to increased likelihood of mothers' likelihood of being in Profile 1 (Balanced/Supportive) rather than Profile 2 (Disengaged/Unemotional) ($\text{Exp}(B) = 1.109, p = .004$). No other factors were significantly related to mother's profile membership.

Discussion

This project sought to identify patterns of observed ES parenting behaviors in deployed fathers and non-deployed mothers, and further investigate how PTSD might relate to those patterns. Five profiles of ES parenting were identified using coding of parents' responses to children's emotions, emotion language use, and expression of their own emotions. Similar to some prior studies (Miller et al., 2015; Miller-Slough et al., 2018), when analyzing multiple behaviors across all three domains of ES together, these

profiles demonstrated blends of “supportive” and “unsupportive” ES behaviors, rather than parents who primarily displayed similar levels of all three types of ES behaviors.

One profile that emerged represented behaviors that look like what prior research would identify as the most traditionally supportive, such as the highest level of positive responses to children’s emotions, use of both high and low complexity emotion language, and expression of predominantly positive emotions, rather than distress or anger.

Accordingly, I labeled this profile *Balanced/Supportive*. Notably the 24 mothers and 28 fathers in this profile used absolutely no problem-focused responses in either the conflict discussion or deployment-related discussion with their child, even though such responses are typically considered to be helpful in shaping children’s own emotion understanding and regulation (Eisenberg et al., 1998). In our sample, problem-focused responses were also positively correlated with use of lower-complexity emotion language and expression of anger, and negatively correlated with positive responses to children’s emotions. These patterns suggest that, in our sample, problem-focused responses were not particularly positive ES behaviors. Some recent research does suggest that problem-focused responses may become less helpful for children’s development as they get older (school-age), as they may remove learning opportunities for children to practice managing emotions more independently (Mirable, Oertwig, & Halberstadt, 2018). As the average age in our sample was between 8-9 years old, it could be that children in our sample were already engaging in their own problem-solving behaviors, and parents were appropriately providing space for children to practice that skill. Alternatively, this pattern may be more broadly reflective of a distinctive quality within military families. Further research

examining whether problem-focused responses are associated with better or worse functioning in military children is needed to better understand this pattern.

The profile with the largest number of parents (71 fathers, 71 mothers) included parents with a predominant lack of expression of any emotion, together with moderate levels of both low and high complexity emotion language, slightly fewer positive responses than other profiles, and moderate negative and problem-focused responses. The profile was labeled *Disengaged/Unemotional*. Although the lack of emotional expression by parents may be consistent with the more stoic nature of military culture (Moore, 2019), the conversations were designed to be emotionally provocative by discussing a current conflict and the child's experience of deployment, so it is notable that these parents expressed such minimal emotions. On the other hand, despite these parents not expressing their own emotion, they did use an average level of emotion words compared to the rest of the sample, which could mean that parents in this group are still comfortable discussing emotions and provide children with opportunities to learn about emotion in other ways. However, parents in this group also used more problem-focused and negative responses than positive responses to children's emotions, so it could be that parents in this group are subtly communicating to children that outward expression of emotions is inappropriate both with their own lack of expression and fewer positive responses to children's emotions. As this is one of the first studies to identify parental ES in military families, further research is warranted to identify if this pattern of limited emotion expression and fewer positive responses, while still discussing emotions, is unique to military families.

Two profiles showed fairly similar patterns across contingent responses and emotion coaching, with the lowest levels of positive responses and the lowest levels of both high and low complexity emotion language, as well. They differed in terms of parent's own emotional expression (modeling), with one profile expressing the highest level of parent distress (labeled *Unsupportive/Distressed*; 37 fathers and 30 mothers) and the other expressing one of the highest levels of positive emotions (labeled *Unsupportive/Positive*; 40 fathers and 39 mothers). These two profiles may represent parents who are struggling to engage emotionally or struggling with their own emotions, but who cope with that in different ways. Parents in the *Unsupportive/Distressed* profile may share their distress with their children, either by choice, or because they are unable to regulate themselves. Parents in this profile also showed the highest level of problem-focused responses and lowest level of positive responses to children's emotions of any profile in the sample. This presentation in particular may discourage children's emotion expression over time as they receive the message that their own emotions are distressing to their parents, and need to be "solved" rather than understood. In contrast, the *Unsupportive/Positive* profile may be parents who are superficially positive in an attempt to keep things calm, mask their own difficulties, or to re-direct a child who may be upset or misbehaving. It is also possible that these parents are genuinely feeling positive emotions; however, the pattern of showing higher negative responses and lower positive responses directly in response to children's behavior, in addition to using the lowest levels of emotion language, suggests otherwise. The potentially conflicting messages of using a positive emotional expression to negatively respond to a child's emotions, while

not explaining the rationale using either high or even low complexity emotion language, may be especially confusing for children.

The final profile consisted of 29 fathers and 47 mothers who engaged in several ES behaviors at some of the highest levels across the board. This included the highest levels of emotion language and negative responses to children's emotions, and nearly the highest problem-focused and positive responses, but also the highest expressions of anger. I labeled this profile *Involved/Angry*. It is possible that this profile represents parents who are attuned to emotions but more emotionally dysregulated. In particular, the notable levels of anger displayed in relatively short discussions suggest difficulty with self-control. This overall pattern of parents who are angry but also positively involved is somewhat surprising, but aligns with patterns identified by Miller and colleagues (2015), who found one group of parents who showed higher levels of positive *and* negative emotion expression, dismissing children's emotions, and coaching emotions (this "high involvement" group was in contrast to their only other identified group of "low involvement" parents). The balance in our sample, though, leans towards more negative than positive behaviors. This higher level of intensity may be overwhelming for children and send conflicting messages about appropriateness of emotional expression. Some research suggests that inconsistent socialization messages (e.g., a parent expressing their own high levels of emotion but negatively responding to children's expressions of emotions) are associated with children's poorer emotion regulation (Mirabile, 2014). Overall, this profile likely characterizes parents who may lash out at children and show

high levels of negativity, even while using some positive socialization aspects, like emotion coaching.

Despite prior links between PTSD symptoms and parenting behaviors, I did not find that fathers' PTSD symptoms were related to any of the ES profiles. This was surprising, given the number of studies that have identified such associations (e.g., citations), but some key differences between my research and many prior studies are my use of observations of parenting behaviors rather than self-reports and my consideration of several parenting behaviors simultaneously. Other research using observed parenting (including with this sample, see Gewirtz et al., 2018) has similarly found no links between PTSD symptoms and parenting behaviors. It may be that much of the findings in this area are more reflective of greater negative self-bias in those with higher PTSD symptoms, rather than actual behaviors detectable by unbiased observers. At the same time, research-based coding of observed behavior do only capture one small period of parent-child interaction, which could be influenced by social desirability. It is possible that, despite my investigation of fathers' observed parenting in two separate interactions with three separate coding systems, I did not capture the full range of parenting behaviors. Also of importance, most service members in this sample were not experiencing high levels of PTSD symptoms. It could be that sub-threshold symptoms are not as impactful for parenting, compared to clinically-significant PTSD. Further research using observational methods with a more symptomatic sample is warranted to understand our null findings.

Fathers' PTSD symptoms were also not related to mothers' parenting profiles when tested alone, but when accounting for other factors (e.g., deployment length, child demographics), increased PTSD symptoms were related to mothers' being in the Balanced/Supportive profile compared to the Disengaged/Unemotional profile, specifically when children showed fewer emotions. This pattern aligns with prior research suggesting that partners may engage in more *positive* parenting behaviors in the presence of greater PTSD symptoms (Breux et al., 2016; Giff et al., 2019). The finding that this effect was present primarily in children who showed fewer emotions during the interaction may reflect that compensatory parenting may be easiest for partners when children have a more mild temperament or fewer emotions to attend to (e.g., Eisenberg & Fabes, 1994). The temperament of the child may be especially salient for non-deployed mothers in the presence of a partner with PTSD symptoms, and it may be that these mothers of service members with greater PTSD symptoms have a "limit" – if they are coping with an "easy" child, they can use more supportive parenting, but if coping with a more temperamentally difficult or emotional child, they become unable to fully attend to the range of the child's needs and engage in supportive parenting.

Children's level of emotions were also significantly related to mothers being more likely to be in the Involved/Angry profile compared to the Disengaged/Unemotional profile. This pattern may reflect that, when children display many emotions that warrant attention, mothers are more likely to be involved and less capable of being disengaged. Mothers may do their best to attend to the child, but become inconsistent and more likely to express their own frustration. It is important to note that the number of emotions

displayed comes only from 5-minute conversations with each parent, and we only evaluated associations with levels of children's emotions to account for the inherent association of contingent responses with number of emotions displayed. Thus, we had no a priori hypotheses in regard to this variable, but the findings suggest that future research intentionally investigating the role of a child's broader temperament in parental ES behaviors in military families is warranted.

It was also surprising that child age and sex did not predict profile membership. Some research has found that parents modify their ES behaviors developmentally to adapt to children's growing emotional competence (Mirabile et al., 2018). Other studies suggest that parents may socialize emotions for boys differently than girls, particularly when fathers hold strong beliefs about masculinity (Cherry & Gerstein, 2021), which may be particularly prevalent in military culture. However, other recent studies investigating parental profiles of ES have also failed to detect an association of child's sex with parental ES profile membership (McKee et al 2022; Hernandez et al., 2018), so it could be that the child's sex could predict certain ES behaviors, but not a parent's overall ES patterns or style.

Strengths, Limitations, and Future Directions

This project is one of the first to assess ES through observational coding of all three types of ES behaviors and to examine their use by military parents in a holistic way. This approach provided a thorough examination of a key parenting behavior that can take on many forms. Combining these data to identify person-centered ES patterns likely aligns more with the reality of how parents socialize emotions, rather than a focus on

individual behaviors. Such an alignment may be particularly important, given recent research indicating that the overall patterns of socialization may be more important for children compared to individual behaviors (Miller-Slough et al., 2018). Using this method, we identified distinct patterns of socialization for the first time in military families, which included deployed fathers and non-deployed mothers, rather than just one parent. This look at the ES in families while accounting for broader contextual variables provides important, novel information to help us better understand ES processes in military families.

Despite its strengths, this study has many limitations. The sample primarily consisted of White/European American families. Families from non-White and non-Western cultures often socialize emotions differently compared to White/Western families, due to different cultural values and norms around emotion expression (e.g., Brown, Craig, & Halberstadt, 2015; Friedlmeier, Corapci, & Cole, 2011), so our results may not generalize beyond our sample. Our sample also does not represent broad diversity regarding different family constellations in the military, including single parents, same-sex couples, and families where the mother deployed, who may have different experiences with emotion socialization, deployment, and PTSD (e.g., Gewirtz et al., 2014). Statistically, the use of multinomial logistic regressions did not account for the likelihood of belonging to a profile, instead treating profile membership as categorical. Finally, this project was completed with a convenience sample that volunteered for a parenting study, so it is likely that these parents had the resources and interest to

resources to engage in such a study, and may not be representative of parents lacking such resources, who may struggle more than families with such resources.

Regardless of these limitations, this project offers some important empirical evidence for how military parents who have experienced a deployment socialize emotions with their children across the three different types of ES behaviors. Future research in this area is warranted to further explore these types of profiles, and to investigate the role children play in parents' ES behaviors and what other family factors may relate to ES profiles. Finally, a very important question that remains for future research is how these profiles influence children's psychosocial functioning, particularly within military families.

PAPER TWO: THE ROLE OF POST-TRAUMATIC STRESS DISORDER SYMPTOMS AND PARENTAL EMOTION SOCIALIZATION IN CHILDREN'S PSYCHOSOCIAL FUNCTIONING

Introduction

In military families, deployment, combat exposure, and reintegration take a toll on the entire family system. These difficulties can cascade throughout family members, including military children. Ample research demonstrates that children in military families are at higher risk for internalizing, externalizing, and social problems (Lester et al., 2010; review by White et al., 2011). While some of this risk has been attributed to the broad stressors of military life (Briggs et al., 2020; Cramm et al., 2019), additional evidence suggests that parental post-traumatic stress disorder (PTSD) plays a unique role in children's distress, over and above other stressors (Caselli & Motta, 1995; Sullivan et al., 2016). Indeed, recent research has identified that children with a parent with PTSD symptoms and/or diagnosis are at elevated risk for internalizing and externalizing problems both in the military (see meta-analysis by Kritikos et al., 2018) and in the general population (see review by Leen-Feldner et al., 2013; meta-analysis by Lambert, et al., 2012).

At the same time, many military children do not experience significant emotional, behavioral, or social problems, even in the face of substantial stressors such as deployment and/or PTSD (Easterbrooks, Ginsburg, & Lerner, 2013). Little is yet known about factors that encourage healthy psychosocial adjustment in military children when a parent suffers from PTSD. Identifying processes that offset such stressors and contribute

to the healthy development of military children can improve the effectiveness of preventive programs for military children or children in other high-risk family environments.

One factor in the family system that can convey both risk for or protection against psychosocial problems in children in high-risk contexts is parenting (Luthar, 2006).

Palmer's (2008) model of risk and resilience in military children includes the parent-child relationship as the key determinant of child psychosocial and academic outcomes.

Similarly, Gewirtz and colleagues (2018) recently found support for a *military family stress model*, in which parenting practices were key to healthy child adjustment, even when accounting for number of and length of parental deployments and parental PTSD.

One specific parenting process that may be important in military families is emotion socialization (ES). ES is the process by which parents help their children understand how to process, express, and regulate their own emotions and to understand the emotions of others (Denham et al., 1997; Eisenberg et al., 1998). Both theory and empirical research related to ES support that parents' validating, warm responses to children's emotions, and positive emotion expression (often referred to as "supportive" responses) scaffold children's own emotion regulation skills, and are tied to fewer internalizing and externalizing symptoms (Blair et al., 2014; Denham, 1997; Eisenberg, 1999). The opposite is often found for dismissing, minimizing responses to children's emotions, and overt parental negativity, which are associated with poorer child adjustment, most often due to children learning poor emotion regulation strategies, such as suppression or angry outbursts, which contribute to higher risk for internalizing and

externalizing problems (Fabes et al., 2001). However, there is also some emerging support for the benefits of children receiving a diverse blend of supportive and unsupportive ES from parents (e.g., Miller-Slough et al., 2018, McElwain, Halberstadt, & Volling, 2007), with some researchers suggesting that supportive ES may offset negative effects of unsupportive ES from the same parent (e.g., Lunkenheimer, Shields, & Cortina, 2007).

Several empirical studies demonstrate links between PTSD symptoms and parenting difficulties in military families (see review by Creech & Misca, 2017) and civilians (see review by Christie et al., 2019), suggesting that, when a parent has PTSD, parenting will likely be poorer. However, most of this research has focused on self-reported parenting behaviors, stress, and competence (e.g., Blow et al., 2013; Gewirtz et al., 2010; Giff et al., 2019; Tomassetti-Long et al., 2015). Research that employs observed parenting behaviors shows a less clear picture. For example, fathers' PTSD symptoms were not related to their observed parenting behaviors in Gewirtz and colleagues' (2018) test of a military family stress model or in a broader analysis of father parenting behavior in a recent study with the same sample (see Paper 1). Other studies of military families have revealed that parenting problems/distress were predicted by factors other than PTSD symptoms, such as parental depression, deployment length, income, and paternal age (Mustillo et al., 2015; Davis et al., 2015). In addition, when researchers have investigated parenting behaviors of *partners* in relation to a service member's/veteran's (SM/V's) PTSD symptoms, some results have supported links between PTSD symptoms and greater partner parenting distress (Blow et al., 2013), whereas others have found that

PTSD symptoms are related to *more positive* parenting in partners (Giff et al., 2019), and still others have found a more mixed picture (see Paper 1). Finally, multiple researchers have found that parenting and PTSD symptoms each account for unique variance in child outcomes (e.g., Creech et al., 2016).

Taken together, the results of these studies suggest that at least some parenting behaviors may be somewhat independent of PTSD symptoms; thus, it is possible that a SM/V or their partner (or both) might be capable of engaging in positive parenting behaviors (such as positive ES) in the face of PTSD symptoms. Consequently, certain styles of parenting from either a SM/V or a partner may either mitigate or exacerbate the negative effects of PTSD on children. Indeed, in a civilian sample, Greene and colleagues (2020) found that responsive parenting moderated the relationship between maternal PTSD symptoms and children's negative outcomes, such that more responsive parenting attenuated the significant, positive relationship between PTSD symptoms and negative outcomes. ES behaviors in particular have also been found to moderate the relationship between family stress and children's internalizing disorders in a civilian sample, with a positive association between these variables manifesting only when parents displayed poorer ES (Lobo et al., 2021). To date, however, no identified studies have investigated relationships among PTSD symptoms, parental ES behaviors, and children's psychosocial functioning in military families. If certain parenting processes can be identified that help support more positive outcomes for military children even in the context of high symptoms of PTSD in a parent, such information would make an important contribution to the development of programs that support military families.

This study aimed to evaluate this possibility by examining how deployed fathers' PTSD symptoms interacted with ES parenting behaviors of both fathers and mothers in military families in relation to measures of children's psychosocial functioning. In order to capture a broad range of children's functioning, I explored children's internalizing and externalizing problems, as well as strengths. In line with prior findings, I expected PTSD symptoms to be positively associated with both internalizing and externalizing problems, which have been shown to be related to PTSD symptoms (Caselli & Motta, 1995; Lester et al., 2010). Although no identified studies have looked at associations between PTSD and children's strengths, I also hypothesized that PTSD symptoms would be negatively associated with children's strengths. Similarly, I hypothesized that more supportive and positive ES parenting behaviors (in both parents) would be related to greater strengths and fewer internalizing and externalizing problems (and vice versa for more unsupportive and negative ES parenting behaviors). Finally, the primary hypothesis was that the relationships of PTSD symptoms with children's internalizing problems, externalizing problems, and strengths would be stronger in the context of more unsupportive, angry, or dismissive ES behaviors by either parent, and weaker in the context of more supportive ES by either parent.

Methods

Data were collected as part of a NIDA-funded randomized control trial of a parenting intervention for military families (Gewirtz, DeGarmo, & Zamir, 2018); referred to hereafter as the Parent Study). Participants in the Parent Study were 257 intact families with at least one Minnesota National Guard/Reserves (NG/R) member as a parent and at

least one child between 4-13 years old. Of these, almost all consisted of a NG/R father who had deployed to Afghanistan and/or Iraq since September 11, 2001 and a mother who had not. There were 33 families with a NG/R mother who had deployed since September 11, 2001. Because parenting difficulties may be experienced in different ways for deployed mothers compared to fathers (Berz, Taft, Watkins, & Monson, 2008; Gold et al., 2007), and because of the large imbalance in numbers of deployed mothers vs. deployed fathers, these 33 families were excluded. Additionally, 19 fathers and 13 mothers (from different families) did not complete the structured at-home tasks (described below), resulting in a final sample of 192 intact couples, 13 families with data from fathers only, and 19 families with data from mothers only. The final sample did not differ from those excluded families in terms of parental age, race, education level, income, number of children who lived at home, length of relationships, or parental PTSD severity (all $ps > 0.15$). The only difference detected was that children in the final sample were older ($M = 8.55$ $SD = 2.29$) than those excluded ($M = 8.03$, $SD = 2.81$), $t(236.75) = 1.99$, $p = .048$).

The annual household income reported by more than half (53.6%) of families in this study's sample was \$50,000-\$100,000, with 24.8% of families reporting a household income less than \$50,000 and 21.6% reporting \$100,000 or more. Almost half (45.2%) of families reported having two children at home, with 16.8% reporting one child, 28.4% reporting three children, and 9.7% reporting either four or five children. The average couples' relationship length in these families was almost 10 years ($M = 9.88$ years, $SD = 5.48$, range = 1-28). The sample represented a nearly even split of boys and girls (52.7%

girls).

The average age for fathers in this sample was 37.88 years old ($SD = 6.60$). Fathers reported their race as 85.6% white, 4.8% Black/African American, 3.4% “Unknown,” 2.4% Asian, 2.4% Multi-Racial, and 0.5% Pacific Islander. Most (90.8%) reported being non-Hispanic, 2.9% reporting being Hispanic, and 6.3% responding as “Unknown.” Approximately one third (37.9%) reported completing a 4-year college degree, 25% completed “some college,” 14.8% completed an Associate’s degree, 10.8% completed a Master’s degree, 8.9% completed high school or GED, while 2.5% completed a doctoral or professional degree. The majority of fathers (85.7%) reported full-time employment, and the remaining fathers were students or retired. Service in the Army was most common, with 59.2% from the Army National Guard and 13% from the Army Reserve, while 8.7% were in the Air National Guard, 3.9% were in the Air Force Reserve, 3.4% were in the Navy Reserves, and 11.7% reported “Other” service branch experience. All fathers deployed overseas in the conflicts since 2001, with 35.9% having deployed once, 38.8% having deployed twice, and 25.3% having deployed three or more times (range of deployments = 1-10). In these deployments, 40.9% of fathers reported being assigned to combat duties. In addition to overseas deployment, 42% of fathers reported being deployed at least once within the United States for peacekeeping or other natural disasters.

The average age for mothers was 35.97 years old ($SD = 5.84$). The majority of mothers reported their race as white (92.0%), with 1.4% as Black/African American, 3.8% as “Unknown,” 1.4% as Asian or Pacific Islander, and 1.4% as Multi-Racial. Most

(94.4%) mothers reported being non-Hispanic, 1.9% reported being Hispanic, and 3.8% reported “Unknown.” Approximately one third (35.9%) of mothers reported completing a 4-year college degree, 22.5% completed “some college,” 19.1% completed an Associate’s degree, 13.9% completed a Master’s degree, 6.8% completed high school or a GED, while 1.9% completed a doctoral or professional degree. Full-time employment was reported by the largest group of mothers (41.1%), while 23% reported part-time employment, 26.8% reported being homemakers, and remaining mothers reported either being retired or students. In this group of non-deployed mothers, 10% ($n = 21$) reported being in the Guard, Reserves, or Active Duty themselves, but did not report a deployment since 2001.

Procedures

Recruitment. Recruitment in the Parent Study occurred via (1) presentations at mandatory pre-deployment and reintegration events for all NG/R personnel, (2) mailings from the Minneapolis Veterans Affairs Medical Center to all OIF/OEF veterans, (3) flyers posted throughout the Minneapolis/St. Paul area, (4) media (e.g., newspaper and radio reports) and social media coverage (e.g., Facebook and Twitter), and (5) word of mouth by fellow military parents and stakeholder groups. Families could independently visit a website for screening and consent procedures. In addition, many families provided contact information at the above events, and these families were called by recruitment staff to direct them to the online screening and consent forms. Families were provided with study staff contact information and encouraged to reach out regarding any questions or concerns. Participants who submitted informed consent were automatically directed to

a HIPAA-compliant website to complete the baseline online assessment. Each participating parent completed assessments separately. Consent and permission were gained from both parents for children's study participation.

Baseline Assessments. Initial measures were completed separately by each partner online, and additional self-report data and observational data from family interaction tasks were collected during an at-home visit. Data for the current study were drawn from some self-report measures and videotaped recordings of four specific 5-minute family interaction tasks, namely separate mother-child and father-child discussions of (1) a source of everyday conflict (e.g., bedtime, chores, homework) and (2) deployment-related concerns (e.g., missing a child's birthday). These tasks were chosen due to the potential range of emotions that could emerge during discussions of such difficult topics. Parents each received \$25 for online assessments and \$50 for the in-home visit, while children received a small gift. After the in-home visit, children's teachers were contacted by study staff and asked to complete additional surveys regarding the child.

Measures

Demographics and Military Information. Both parents completed a questionnaire of demographic information about themselves and for the target child. Parents who were in the NG/R also provided information about their NG/R and deployment experiences.

PTSD Symptoms. PTSD symptoms of the NG/R fathers were measured using the PTSD Checklist – Military Version (PCL-M; Weathers, Litz, Herman, Huska, & Keane,

1993). This measure is a widely used, psychometrically sound, 17-item, self-report measure of DSM-IV-TR (American Psychiatric Association, 2000) PTSD symptom severity that was administered to the NG/R in each family. Respondents rate the extent to which they were bothered by each symptom over the past month on a 5-point scale, with higher scores indicating greater severity of PTSD symptoms. In addition to a continuous measure of PTSD symptom severity, Weathers et al. (1993) recommended a cutoff of 50 as an estimate of PTSD diagnosis. Using ROC analyses, Bliese et al. (2008) later found a score of 35 or greater as providing optimal sensitivity and specificity for estimating PTSD diagnosis. In the sample for this project, the average score was 29.09 ($SD = 11.57$), 22.5% of fathers had a PCL-M score ≥ 35 , and 8.5% of fathers had a PCL-M score ≥ 50 . In the parent study, internal consistency was high ($\alpha = .95$).

Child Outcome Measures..

Child Internalizing and Externalizing Problems.. The *Behavior Assessment Scales for Children - Second Edition* (BASC-2; Reynolds & Kamphaus, 2004) is a frequently-used, valid, and reliable measure of child adjustment. Each parent completed the Parent Rating Scale independently, and teachers completed the Teacher Rating for the target child. The measure is made of 16 subscales reflecting various types of behaviors. Respondents rate how often they observe the child engaging in various behaviors on a 4-point scale ranging from 0 (*never*) to 3 (*always*). Three of these subscales, *Aggressive Behaviors*, *Conduct Problems*, and *Hyperactivity*, are combined to calculate an Externalizing Problems Composite score, while an Internalizing Problems Composite score is calculated from the *Anxiety*, *Depression*, and *Somatization* subscales. These two

scores were used in the present study. Each composite score was converted to a *T*-score, with a mean of 50. In the Parent Study, reliability was good (mothers' $\alpha = .83$ for internalizing and $\alpha = .73$ for externalizing, and fathers' $\alpha = .84$ for internalizing and $\alpha = .69$ for externalizing; Zhang et al., 2020).

Child Strengths.. The Behavioral and Emotional Rating Scale – Second Edition (BERS-2; Buckley & Epstein, 2004) is a widely-used and psychometrically sound measure of children's strengths and competencies. To assess children's strengths, parents completed the Parent Rating Scales, and teachers completed the Teacher Rating Scales, which are similar but contain minor wording differences to reflect different perspectives of respondents. Items asking about child behavior are scored on a 4-point Likert scale from 0 (*not at all like the child/student*) to 3 (*very much like the child/student*). Children's strengths are measured on the following five subscales: Affective, Family Involvement, Intra-Personal, Inter-Personal, and School Functioning. Scores on these five subscales are combined to yield an Overall Strengths Index, which was then converted to a *T*-Score with a mean score of 50. In the Parent Study, this measure demonstrated good reliability ($\alpha = .88$ for parents and $\alpha = .96$ for teachers; Gewirtz et al., 2018).

Parental ES Profiles. Profiles of parental ES behaviors were generated in Paper 1 from observed coding of parental ES behaviors during the at-home visit using latent profile analysis (LPA). A full report of the coding systems used, scores yielded, analytic plan, and results of the LPA can be found in Paper 1. These analyses yielded five ES parenting behavior categories. *Balanced/Supportive* (28 fathers, 24 mothers) consisted of parents with the highest levels of supportive responses to children's emotions and

positive emotion expression, moderate levels of negative emotions, and average levels of emotion talk. *Disengaged/Unemotional* (71 fathers, 71 mothers) represented parents with low supportive contingent responses and low parental emotional expression.

Unsupportive/Distressed (37 fathers, 30 mothers) parents demonstrated below-average levels of emotion coaching, the lowest levels of supportive contingent responses, and the highest amount of parental distress, while *Unsupportive/Positive* (40 fathers, 39 mothers) parents showed the lowest levels of emotion language, high unsupportive contingent responses, but also the highest level of positive emotion expression. Finally, parents in the *Involved/Angry* (29 fathers, 37 mothers) profile represented use of the highest levels of emotion language, above-average levels of all contingent responses, and the highest display of angry emotions. These five profiles were used as categorical variables in all analyses.

Analytic Plan

Descriptive statistics of primary variables were reviewed. A measurement model of child outcomes was created using structural equation modeling (SEM) in MPlus 8 (Muthén & Muthén, 2017), in which a latent variable was created for each of internalizing problems, externalizing problems, and strengths. For each latent variable, *t*-scores from mother report, father report, and teacher report were modeled as observed indicators (e.g., mother, father, and teacher report of child internalizing problems were modeled as observed indicators of a latent Internalizing Problems factor). Covariances were specified among error terms for variables from the same reporter (e.g., mother report of internalizing problems, mother report of externalizing problems, and mother

report of strengths), and the three latent variables themselves were covaried. Pending adequate model fit, standardized factor scores were outputted from MPlus for subsequent analyses. Missing data were addressed via full information maximum likelihood (FIML).

Relationships between fathers' PTSD symptom severity and the three child outcome factor scores were assessed first using bivariate correlations and then in a multivariate SEM framework, with paths modeled from PTSD symptoms to each of the three outputted factor scores simultaneously. As the error terms for each of the three outcomes were covaried, the model was fully saturated.

Relationships between ES parenting profiles and the three child functioning factor scores were assessed using two separate 5 x 3 MANOVAs using SPSS (IBM, 2020). Pillai's criterion was used to determine the presence of significant differences in outcomes, due to violation of assumption of equal sample sizes and correlations among outcomes. If such differences were detected, post-hoc Tukey-LSD tests were conducted.

Finally, the interaction of PTSD and ES parenting profiles in predicting child functioning was assessed using two multi-group path analyses of PTSD symptom severity predicting the three child outcomes using Amos (IBM, 2020). The first model used father's ES parenting profile as a grouping variable, and the second used mother's ES parenting profile. In each model, comparisons of paths from PTSD to outcomes were compared using pairwise parameters (*Z*-scores).

Results

Table 6 shows the descriptive statistics of *T*-scores for mothers', fathers', and teachers' reports of child's internalizing problems, externalizing problems, and strengths. The

model to create children's factor scores for internalizing, externalizing, and strengths showed good model fit (RMSEA = 0.00, CFI = 1.00), $\chi^2[15] = 7.857, p = .929$; see Figure 2). Factor scores for internalizing, externalizing, and strengths were created successfully with standardized factor scores outputted to be used in subsequent analyses.

Relationships of PTSD with Child Outcomes

PTSD symptoms ($M = 29.09, SD = 11.58$) were positively correlated with internalizing problems, negatively correlated with child strengths, and nonsignificantly correlated with externalizing problems (see Table 7). The same pattern held in the multivariate path analysis (PTSD to internalizing problems: $b = .19, p = .006$; PTSD to externalizing problems: $b = .08, p = .264$; PTSD to strengths $b = -.20, p = .003$).

Relationship of ES Parenting Profiles with Child Outcomes

The MANOVA of all three outcomes across fathers' ES profiles did not detect significant differences between outcomes across ES parenting profile (Pillai's Trace = .077, $F(12, 600) = 1.322, p = .201$, partial $\eta^2 = .026$). The MANOVA of all three outcomes across mothers' ES profiles revealed significant differences in means among outcomes (Pillai's Trace = .103, $F(12, 618) = 1.829, p = .041$, partial- $\eta^2 = .034$). Follow-up post-hoc Tukey-LSD tests revealed significant differences in child externalizing problems only, whereby mothers in the Unsupportive/Distressed profile had children who were significantly higher on externalizing problems compared to all other ES categories. No other significant differences were detected. See Table 8 for full results.

Interaction of PTSD and ES Parenting Profiles in Predicting Child Outcomes

Multi-group SEM analyses of associations of PTSD with child outcomes, with father ES profile as the grouping variable, revealed significant paths from PTSD to child outcomes only in the group of father with the Involved/Angry ES profile. In this group, paths to all three child outcomes were significant and in expected directions (see Table 9). Inspection of Z-Scores comparing magnitude of differences in paths identified that the association between PTSD and externalizing problems for fathers in the Involved/Angry profile was significantly stronger than the same path for fathers in the Balanced/Supportive and the Unsupportive/Positive profiles, and the path from PTSD symptoms to child strengths in the Involved/Angry fathers was also significantly more negative than that for fathers in the Balanced/Supportive, Disengaged/Unemotional, and the Unsupportive/Positive profiles (see Table 10 for parameter comparisons).

Multi-group analyses of associations of PTSD with child outcomes, with mother ES profile as the grouping variable, revealed significant paths from PTSD to child outcomes only in the Balanced/Supportive ES profile (See Table 9). In this group, only the paths from PTSD symptoms to child externalizing were significant (and the internalizing association was not significant; see Table 9). Inspection of Z-Scores comparing magnitude of differences in paths identified that the association between PTSD and externalizing problems for Balanced/Supportive mothers was significantly stronger than the same paths for Disengaged/Unemotional mothers. No other significant differences between paths were identified (see Table 10 for full results of pairwise parameter comparisons).

Discussion

The primary goal of this project was to investigate links of PTSD symptoms in SM/Vs and ES parenting behaviors in both SM/Vs and their partners with children's psychosocial functioning. Consistent with prior research (e.g., Herzog, Everson, & Whitworth, 2011; Snyder et al., 2016), symptoms of PTSD were related to children's increased internalizing problems. I also found an expected association of PTSD symptom severity in fathers with fewer strengths in children, which has not been reported before. When evaluating how PTSD symptoms interacted with fathers' ES parenting behaviors in relation to child outcomes, a strong pattern was detected, in which PTSD symptoms were associated with children's internalizing problems, externalizing problems, and strengths (in expected directions) only in the group in which fathers displayed ES behaviors characterized by notable levels of anger, higher levels of dismissing and minimizing responses to children's emotions, and a greater amount of distress.

This pattern suggests that links between deployed fathers' PTSD symptoms and children's psychosocial functioning are primarily present only in the context of overtly negative/angry parenting by those fathers. Indeed, the links detected in the full sample were driven primarily by families in this group. Of note, prior research has revealed no significant association of fathers' PTSD with ES parenting profile (see Paper 1). Thus, it may be that the presence of greater PTSD symptoms coupled with a more involved, angry, and dismissive style of interacting with a child produce a "perfect storm" that is tied to a wide range of problems in children. Some children may learn ineffective emotion regulation strategies themselves when interacting with parents who have their

own difficulties with emotion regulation, leading to externalizing problems. Other children may become overwhelmed by the level of angry emotional involvement and minimizing/ dismissing responses to their emotions, leading to more internalizing problems. A shared theme among both of these possibilities is the likelihood of a child learning poor emotion regulation, which may also disrupt development of their strengths in many domains.

When a father has PTSD symptoms, expressions of anger and dysregulation may be more common or confusing (because anger is often out of proportion of the situation), which may send complicated messages to children about anger and emotion regulation broadly. Of note, it is possible that children who have more difficulties (more internalizing or externalizing problems, fewer self-regulatory strengths) may provoke more involvement and anger in fathers, especially those with greater symptoms of PTSD. Snyder and colleagues (2016) investigated this possibility by looking at 2-year long cascades of deployed fathers' PTSD symptoms and children's internalizing and externalizing problems (in this same sample), and did find that children's symptoms reciprocally related to fathers' PTSD symptoms over time. However, they also found that effects of father's PTSD symptoms on externalizing problems were stronger than the effects of externalizing problems on fathers' PTSD, so the parental behaviors are still important (Snyder et al., 2016). Further assessment in additional samples would be important to explore directionality of such relationships.

It is notable that PTSD symptoms were not linked with any child functioning constructs in any of the other father ES parenting groups. Differences in the associations

across groups were only significant for externalizing problems and strengths, not internalizing, so it is important not to over-interpret these findings. However, this pattern is consistent with research that has obtained mixed findings with regard to links between PTSD symptoms and child outcomes (Herzog, Everson, & Whitworth, 2011). Our findings suggest that it is PTSD symptoms primarily in the context of overtly problematic parenting that is more clearly associated with maladaptive functioning in children. While a lack of association between PTSD symptoms and outcomes in the Balanced/Supportive profile (reflecting mostly supportive ES) was somewhat expected, the same lack of associations for children whose fathers were in an Unsupportive/Positive profile and Disengaged/Unemotional profile was more surprising. Both of these latter profiles show a combination of several behaviors that would be typically understood as unfavorable for child development. Our findings suggest that there is something specific about an overly angry and negative environment that crosses a problematic threshold for fostering negative impacts of PTSD symptoms, which other combinations of suboptimal parenting behaviors does not (e.g., Dix, 1991). Clearly, there are many additional variables in the family system that play a role in child development, but these findings support the idea that both PTSD symptoms and fathers' ES behaviors are important to understanding children's psychosocial development and problems. Moreover, they suggest that considering parenting or PTSD symptoms in isolation may leave holes in our clinical understanding of mental health of military children.

For mothers, I surprisingly found that the associations between greater PTSD symptoms and poorer child psychosocial functioning were only significant for mothers in

the Balanced/Supportive profile. Unlike the findings for fathers, this pattern was quite unexpected. Some recent studies (e.g., Castro, Halberstadt, & Garrett-Peters, 2018; Miller-Slough et al., 2018; Mirabile et al., 2018) have found that ES behaviors usually considered to be “supportive” have been linked to more negative outcomes. In line with these authors’ suggestion that the effectiveness of socialization strategies may depend on many additional factors (e.g., child’s age, the emotion being socialized), it could be that mothers in this sample who showed more positive strategies were not using them appropriately in a way that matches their child’s needs. However, it is also notable that, in this sample, the Balanced/Supportive profile included a complete lack of any problem-focused responses to children’s emotions. Problem-focused reactions are often thought of as more supportive for children, especially if done in a way that scaffolds children learning their own emotion regulation (Eisenberg, Fabes, & Murphy, 2006; Fung, Chung, & Lam, 2022). It is possible that in a family where a father has greater PTSD symptoms and is displaying their own poor emotion regulation, when a mother uses broadly supportive and positive ES but does not assist in problem solving ways to cope with difficult emotions, children may struggle to learn their own emotion regulation skills, which can manifest in externalizing problems (e.g., difficulties with self-control, impulsive behaviors, trouble regulating emotions). This possibility is speculative, especially because the lack of problem-focused responses could also be due to children simply expressing relatively few emotions that warranted such a response. Another possibility is that mothers who are attempting to be supportive when a father has greater PTSD symptoms may unintentionally provide *too much* support that limits a child’s

ability to develop their own emotion regulation skills (e.g., Mirabile et al., 2018). It may also be that mothers in this sample were most strongly pulled to engage in balanced and supportive ES behaviors, because both their husbands and their children were struggling with emotional difficulties. Further research is necessary to determine whether this pattern replicates and, if so, to better understand how else this type of profile could be connected to poorer outcomes in children.

Similar to fathers, when mothers fell into other ES behavior profiles, there were not significant associations between fathers' PTSD symptoms and children's functioning. Once again, however, there were almost no significant differences in the strength of associations across groups (the sole exception being that the link between PTSD symptoms and children's externalizing behaviors was significantly stronger in the Balanced/Supportive profile than in the Disengaged/Unemotional profile). As such, differences across profiles should be cautiously interpreted. However, it is clear that my findings do *not* support the idea that supportive parenting from partners can offset the negative impact of fathers' PTSD symptoms.

The profiles of ES parenting behavior were also examined in isolation in relation to children's psychosocial functioning. These comparisons revealed no significant differences, except that externalizing problems were highest in children whose mothers were in the Unsupportive/ Distressed profile, relative to other profiles. This result aligns with similar research findings that an ES profile characterized by dismissing children's emotions was associated with the highest levels of children's externalizing problems (McKee et al., 2022). Indeed, most literature suggests that when parents are dismissive of

children's emotions, children may escalate their behaviors to rise to a level at which a parent will eventually engage with the emotion, which can create an environment where children learn that they have to make a large display of emotion to be taken seriously. At the same time, it is important to acknowledge that my findings by and large contrasted with my expectations that more unsupportive ES parenting profiles would be associated with child problems. The general lack of association of profiles with child functioning could be due to the profiles accounting for a comprehensive range of ES behaviors, rather than only one ES behavior at a time. Some ES researchers (e.g., McElwain, Halberstadt, & Volling, 2007; Miller-Slough et al., 2018) have proposed a "divergence model," whereby it is optimal for children's emotional competence to be exposed to a range of negative and positive ES behaviors rather than only positive and supportive socialization, or that more positive behaviors can offset negative ES (Lunkenheimer, Shields, & Cortina, 2007). Accounting for the totality of behaviors across multiple domains of ES may have actually reduced the chance for any one profile to be associated in one way or another with child functioning.

Overall, the most notable pattern in my findings is that fathers' PTSD symptoms were not associated with children's functioning in most ES parenting contexts. Similarly, most ES parenting profiles themselves were not linked with striking differences in child functioning. This overall pattern is consistent with the finding that many children in military families are resilient even in the context of high stress, including parent PTSD. At the same time, my largely null findings could be due to several limitations of the research. Those limitations include only observing a small

snapshot of parent-child interactions that may not fully capture the range of ways families interact, and having small sample sizes of parent profiles, which may have limited power to detect differences. It will be important to conduct similar research of this type with other samples, to determine the replicability of ES parenting profiles and my findings. Statistically, using the latent profiles of ES parenting as categorical variables based on their highest likelihood of profile membership, rather than incorporating the probability of profile membership, may also have limited the reliability of profiles. This approach also limited my analyses of moderation to multi-group analyses rather than linear tests of interactions, which may have reduced power due to smaller group sizes.

Strengths, Weaknesses, and Future Directions

Additional limitations may also affect my findings and their generalizability. The cross-sectional nature of the data limits any inference of causation. More broadly, the sample primarily consisted of White/European American families, who often socialize emotions differently compared to non-White/Western families, due to different cultural values and norms around emotion expression (e.g., Brown, Craig, & Halberstadt, 2015; Friedlmeier, Corapci, & Cole, 2011), so our results may not generalize beyond our sample. Our sample also does not represent diversity in family constellations in the military, including single parents, same-sex couples, and families where the mother deployed, who may have different experiences with emotion socialization, deployment, and PTSD (e.g., Gewirtz et al., 2014).

Despite these limitations, this project contributes novel empirical information that broadens our understanding of the interplay of PTSD symptoms and ES behaviors in

military families in a meaningful way. The use of ES profiles generated from observed coding of both mothers' and fathers' ES behaviors in three domains, and multi-informant data (two parents and a teacher) for child outcome data provides a robust assessment of the constructs at hand. As this project represents the first identified study that investigates PTSD symptoms, observed parental ES of both mothers and fathers, and children's psychosocial functioning, many questions remain for future study to help frame our results in more meaningful ways. Important information could be gained by research into how the interaction of mother and father profiles may relate to child outcomes in the context of paternal PTSD. Also, longitudinal research could help understand directionality of effects, and a further investigation of other contextual factors that may play an important role in how military families experience a parent's PTSD symptoms could further our holistic understanding of military family functioning. It may also be the case that fathers in the Involved/Angry profiles are also experiencing more PTSD symptoms in the arousal and reactivity symptom cluster, so further investigation of the role of PTSD symptom clusters in these relationships may also be important. My findings suggest that these areas are potentially fruitful areas of research, and subsequent findings could further inform efforts to support military families.

APPENDIX

Table 1: Means and Standard Deviations of Observational Coding Variables

Variable	Mothers		Fathers	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Positive Responses	5.78	2.87	5.34	3.08
Problem-Focused Responses	1.93	1.50	1.74	1.45
High Complexity Emotion	14.26	10.73	11.20	8.86
Language				
Low Complexity Emotion Language	3.06	3.07	2.55	2.77
Parent Distress	0.40	0.74	0.46	0.97
Parent Anger	0.68	1.14	0.48	0.93
Parent Positive Emotion	1.70	1.47	1.43	1.38

Note. Negative Responses not included in this table, due to being used as a dichotomous variable.

Table 2: Correlations of Primary Parenting Variables

	1	2	3	4	5	6	7	8	9
1. High Complexity Emotion Language	0.19*	0.43***	-0.10	0.06	-0.03	0.18*	0.02	0.00	0.13
2. Low Complexity Emotion Language	0.46***	0.05	-0.04	0.18	-0.18	-0.06	-0.06	-0.01	-0.02
3. Distress	0.12	0.05	0.54***	0.01	0.09	-0.07	-0.02	-0.09	-0.11
4. Anger	0.04	-0.04	0.08	0.43***	0.05	-0.01	0.00	0.11	-0.04
5. Positive Emotions	0.03	0.05	0.10	0.21*	0.39***	0.34***	-0.23*	-0.09	0.32***
6. Positive Response	0.21*	0.01	0.08	-0.10	0.26**	0.35***	-0.24**	-0.23**	0.69***
7. Problem-Focused Response	0.06	0.18*	0.02	0.18*	0.04	-0.16*	0.35***	0.12	0.12
8. Negative Response	0.06	0.12	-0.06	0.18	-0.06	-0.11	0.04	0.23**	0.02
9. Child Total Emotions	0.06	0.03	-0.07	0.18	0.10	0.62***	0.24**	0.13	0.52***

Note. Correlations among mothers' parenting variables are shown below the diagonal, correlations among fathers' parenting variables are shown above the diagonal, and cross-correlations of the same behavior in mothers and fathers are shown (bolded) on the diagonal.

* $p < .05$. ** $p < .01$. *** $p \leq .001$.

Table 3: Model Fit Indices for Exploratory Latent Profile Analysis ($N = 416$)

	# of Classes (K)	LL	npar	BIC	AIC	Adj. LMR-LRT p. value (H0: K Classes; H1: K-1 Classes)	Entropy	Class Proportions
Class Invariant, Covariances set to zero	1	-3337.884	15	6766.228	6705.767	--	--	--
	2	-3225.934	24	6596.605	6499.869	0.15	0.916	94%/5%
	3	-3130.637	33	6460.286	6327.273	0.36	0.891	88%/6%/5%
	4	-3061.433	42	6376.154	6206.865	0.0501	0.886	5%/8%/1%/84%
	5 ^a	-2991.883	51	6291.332	6085.767	0.0899	0.867	5%/8%/76%/9%/1%
Class Variant, Covariances set to zero	1	-3337.884	15	6766.228	6705.767	--	--	--
	2	-2803.72	31	5794.39	5669.439	0	0.790	40%/59%
	3	-2655.522	47	5594.486	5405.044	0.006	0.770	32%/27%/39%
	4	-2538.178	63	5456.29	5202.356	0.07	0.786	23%/14%/35%/26%
	5	-2455.326	79	5387.075	5068.651	0.0375	0.768	12%/34%/16%/18%/18%
	6 ^a	-2410.448	95	5393.811	5010.896	0.5046	0.754	14%/16%/14%/24%/13%/16%
Class-invariant, unrestricted covariances	1	-3271.66	36	6760.425	6615.321	--	--	--
	2	-2955.139	66	6308.304	6042.279	0.0002	0.786	30%/70%
	3	-2842.916	96	6264.779	5877.833	0.0954	0.851	4%/31%/65%
	4 ^{a,b}	--	--	--	--	--	--	--
Class-varying, unrestricted covariances	1	-3271.66	36	6760.425	6615.321	--	--	--
	2	-2708.82	73	5857.881	5563.641	0.0172	0.798	39%/65%
	3	-2568.462	110	5800.299	5356.923	0.6476	0.780	38%/46%/15%
	4 ^a	-2471.458	147	5829.428	5236.917	0.2748	0.763	35%/26%/22%/15%

Note. LL = log likelihood; npar = number of parameters; BIC = Bayesian Information Criterion; AIC = Akaike Information Criteria ; -- = not calculated when only 1 class.

^a Log likelihood did not replicate.

^b Statistics from this iteration not reported due to difficulty converging yielding several errors.

Table 4: Multinomial Logistic Regressions of PTSD Symptoms Predicting Profile Membership

Profiles		Mothers		Fathers	
		B	Exp(B)	B	Exp(B)
P1 vs. P2	Intercept	-2.34***		-1.33*	
	PTSD	.04	1.04	.01	1.01
P3 vs. P2	Intercept	-.89		-.62	
	PTSD	.00	1.00	-.00	1.00
P4 vs P2	Intercept	-1.35*		-.59	
	PTSD	.02	1.02	.00	1.00
P5 vs P2	Intercept	-.42		-1.10	
	PTSD	-.00	.99	.01	1.01

Note. P = profile.

* $p < .05$. ** $p < .01$. *** $p \leq .001$.

Table 5: Multinomial Logistic Regressions of PTSD Symptoms and Contextual Variables Predicting Profile Membership

		Mothers		Fathers	
		B	Exp(B)	B	Exp(B)
P1 vs. P2	Intercept	-1.35***		-0.75**	
	Child Age	0.22	1.24	-0.20	0.82
	PTSD	0.05*	1.05	0.04	1.04
	Child Emotions	0.15	1.16	0.13	1.14
	Deployments	-0.21	0.81	-0.03	0.97
	Child Gender	-0.52	0.60	-0.48	0.62
	PTSD * Child Age	-0.02	0.98	—	—
	PTSD * Emotions	-0.02*	0.98	—	—
P3 vs P2	Intercept	-1.29***		-0.56*	
	Child Age	-0.03	0.97	-0.08	0.92
	PTSD	-0.01	0.99	0.01	1.01
	Child Emotions	-0.15	0.86	0.02	1.02
	Deployments	-0.17	0.84	-0.07	0.93
	Child Gender	-0.25	0.78	-0.54	0.58
	PTSD * Child Age	-0.03	0.97	—	—
	PTSD * Emotions	-0.03	0.98	—	—
P4 vs. P2	Intercept	-0.76**		-1.07***	
	Child Age	0.14	1.15	-0.15	0.87
	PTSD	0.03	1.03	0.04	1.04
	Child Emotions	0.06	1.06	0.25*	1.28
	Deployments	-0.06	0.95	-0.49	0.61
	Child Gender	-0.91	0.40	0.28	1.33
	PTSD * Child Age	-0.01	0.99	—	—
	PTSD * Emotions	-0.01	1.00	—	—
P5 vs P2	Intercept	-0.54*		-0.71**	
	Child Age	-0.11	0.90	-0.17	0.84
	PTSD	0.01	1.01	0.03	1.03
	Child Emotions	0.21*	1.24	0.18	1.20
	Deployments	-0.49	0.61	-0.49	0.62
	Child Gender	-0.48	0.62	-0.61	0.54
	PTSD * Child Age	-0.01	0.99	—	—
	PTSD * Emotions	-0.01	0.99	—	—

Note. P = profile; PTSD = posttraumatic stress disorder; — indicates variable was not included in analysis.

* $p < .05$. ** $p < .01$. *** $p \leq .001$.

Table 6: Child Outcome *T*-Scores Reported by Father, Mother, and Teacher

	<i>N</i>	Mean	<i>SD</i>	Minimum	Maximum
Externalizing - Father	200	56.68	13.53	36	95
Externalizing - Mother	203	55.63	13.03	36	95
Externalizing - Teacher	177	50.36	8.87	41	89
Internalizing - Father	199	51.69	10.29	30	92
Internalizing - Mother	204	51.93	11.24	32	95
Internalizing - Teacher	176	50.74	10.45	37	81
Strengths - Father	198	49.75	10.33	24.67	72.67
Strengths - Mother	203	50.82	10.00	28.67	72.67
Strengths - Teacher	157	52.34	12.96	25.33	74.67

Table 7: Correlations of Child Outcome Factor Scores with PTSD Symptoms

	1	2	3
1. PTSD Symptoms			
2. Internalizing	.19**		
3. Externalizing	.08	-.04	
4. Strengths	-.21**	-.49***	-.40***

Note. PTSD = posttraumatic stress disorder.

* $p < .05$. ** $p < .01$. *** $p \leq .001$.

Table 8: Means of Child Functioning Scores by Parent Emotion Socialization Profile

Factor	Profile	Fathers			Mothers		
		<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Internalizing	Balanced/Supportive	0.12	4.90	28	0.46	3.38	24
	Disengaged/Unemotional	0.20	4.10	71	-0.05	4.06	71
	Unsupportive/Distressed	0.10	4.59	37	-0.07	4.39	30
	Unsupportive/Positive	-1.01	2.86	40	0.66	4.50	39
	Involved/Angry	1.20	3.98	29	-0.45	3.68	47
Externalizing	Balanced/Supportive	-1.04	3.41	28	0.22	3.02	24
	Disengaged/Unemotional	0.43	3.24	71	-0.15	3.15	71
	Unsupportive/Distressed	-0.71	2.72	37	2.13	4.37	30
	Unsupportive/Positive	0.84	4.26	40	-0.65	3.49	39
	Involved/Angry	-0.57	3.45	29	-0.51	3.65	47
Strengths	Balanced/Supportive	0.52	2.36	28	-0.90	2.82	24
	Disengaged/Unemotional	-0.34	2.90	71	-0.01	2.72	71
	Unsupportive/Distressed	-0.11	2.87	37	-0.32	2.84	30
	Unsupportive/Positive	0.46	2.47	40	0.48	2.85	39
	Involved/Angry	-0.49	3.33	29	-0.08	2.84	47

Table 9: Standardized Coefficients Representing Associations between PTSD Symptoms and Child Outcomes from Multi-Group SEM

Fathers' ES Profiles					
Child Outcome	Balanced/ Supportive	Disengaged/ Unemotional	Unsupportive/ Distressed	Unsupportive /Positive	Involved/ Angry
Internalizing	.07	.17	.14	.30	.36*
Externalizing	-.09	.13	.05	-.13	.46**
Strengths	-.19	-.06	-.22	-.08	-.57***
Mothers' ES profiles					
Child Outcome	Balanced/ Supportive	Disengaged/ Unemotional	Unsupportive/ Distressed	Unsupportive /Positive	Involved/ Angry
Internalizing	.26	.20	.27	.06	.11
Externalizing	.44*	-.05	.05	.10	.17
Strengths	-.50**	-.19	-.15	-.06	-.21

Note. ES = emotion socialization.

* $p < .05$. ** $p < .01$. *** $p \leq .001$.

Table 10: Pairwise Parameter Comparisons (z-scores) for Paths in Different Profiles for Mothers and Fathers

PTSD → Internalizing Path					
	1	2	3	4	5
1. Balanced/Supportive		<i>0.063</i>	<i>0.725</i>	<i>-0.550</i>	<i>-0.326</i>
2. Disengaged/Unemotional	0.447		<i>0.723</i>	<i>-0.664</i>	<i>-0.429</i>
3. Unsupportive/Distressed	0.353	-0.016		<i>-1.086</i>	<i>-0.944</i>
4. Unsupportive/Positive	0.659	0.274	0.215		<i>0.247</i>
5. Involved/Angry	0.955	0.681	0.543	0.457	
PTSD → Externalizing Path					
	1	2	3	4	5
1. Balanced/Supportive		-2.067	<i>-0.637</i>	<i>-1.078</i>	<i>-0.503</i>
2. Disengaged/Unemotional	1.01		<i>0.347</i>	<i>0.675</i>	<i>1.228</i>
3. Unsupportive/Distressed	0.528	-0.469		<i>0.015</i>	<i>0.322</i>
4. Unsupportive/Positive	-0.374	-1.243	-0.834		<i>0.499</i>
5. Involved/Angry	2.221	1.519	1.805	2.268	
PTSD → Strengths Path					
	1	2	3	4	5
1. Balanced/Supportive		<i>1.289</i>	<i>0.665</i>	<i>1.674</i>	<i>0.792</i>
2. Disengaged/Unemotional	0.401		<i>-0.153</i>	<i>0.634</i>	<i>-0.295</i>
3. Unsupportive/Distressed	-0.456	-0.798		<i>0.535</i>	<i>-0.055</i>
4. Unsupportive/Positive	0.32	-0.049	0.709		<i>-0.776</i>
5. Involved/Angry	-2.208	-2.602	-1.497	-2.385	

Note. Values from multigroup SEM based on fathers' profiles shown below the diagonal, and values from multigroup SEM based on mothers' profiles shown above the diagonal and in italics. Bolded values indicate significant Z-Scores.

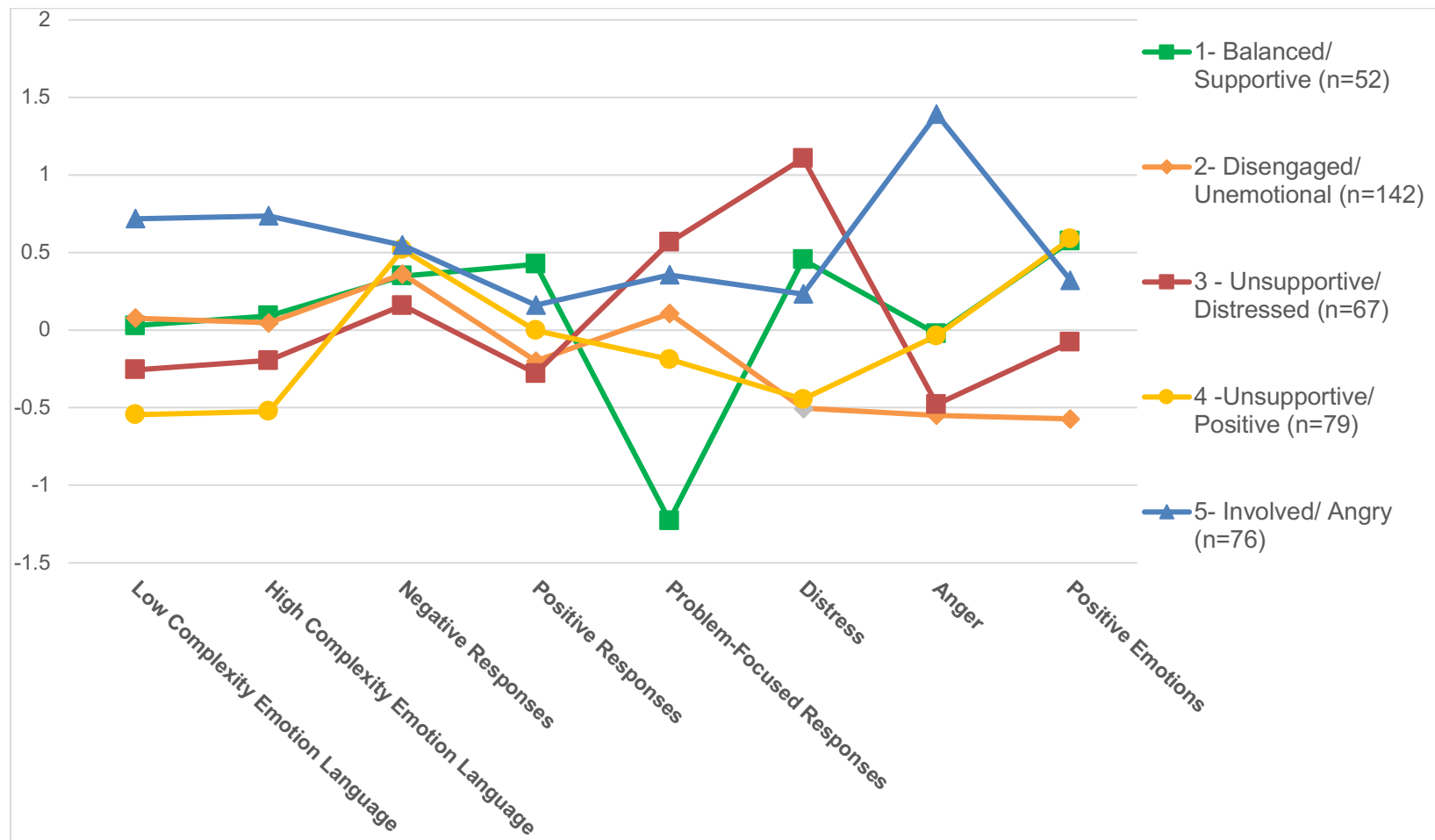


Figure 1: Mean z-scores of emotion socialization variables in the 5-profile solution

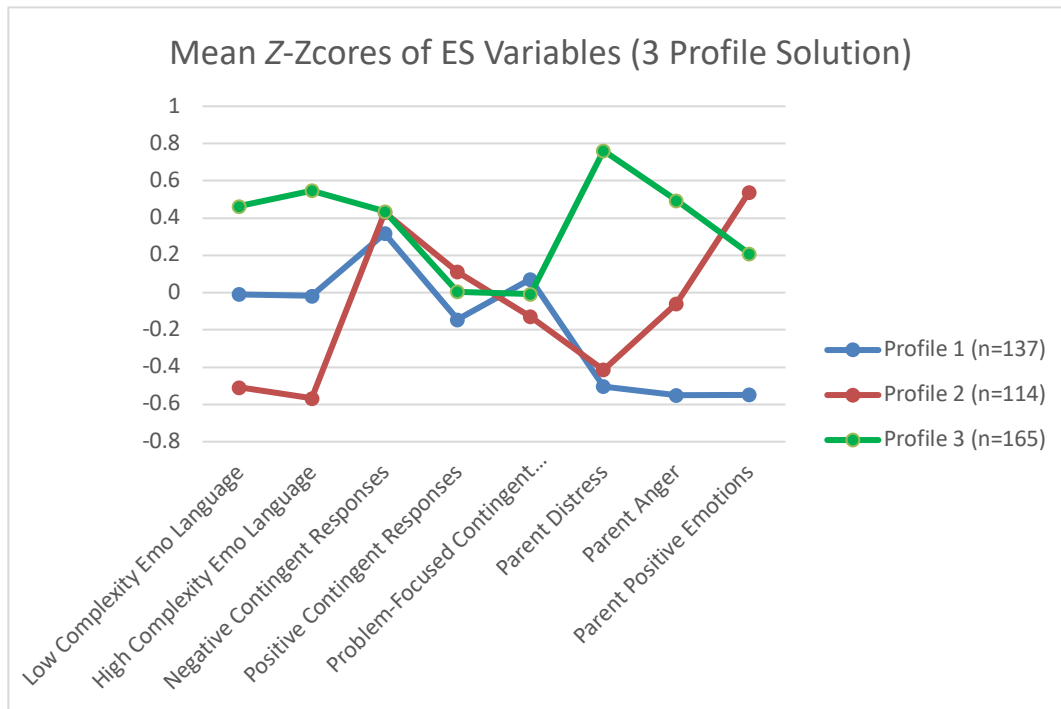


Figure 2: Mean z-scores of emotion socialization variables in a 3-profile solution

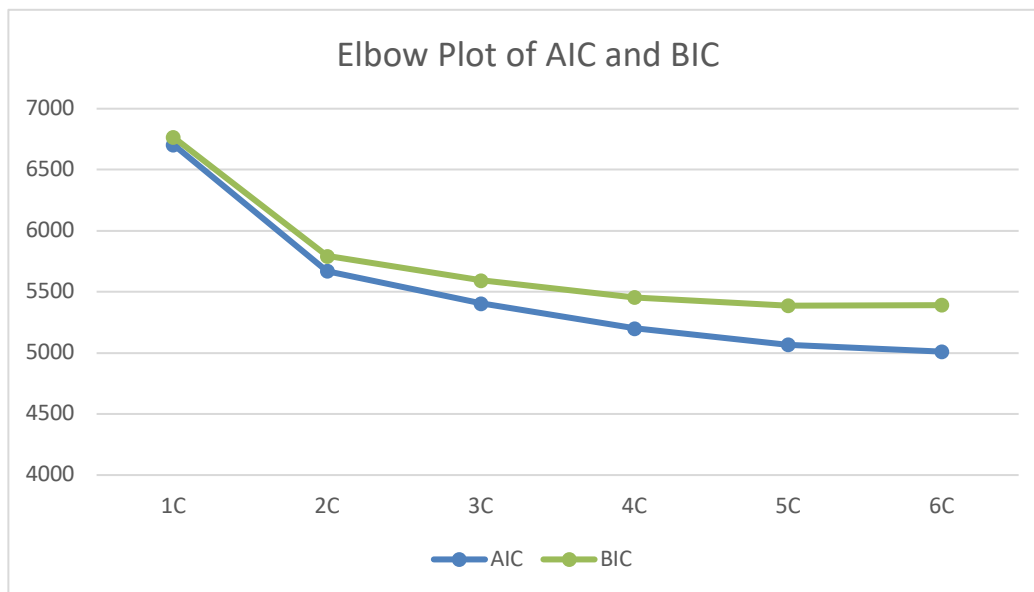


Figure 3: Elbow plot of decreases in AIC and BIC for 3- and 5- profile solutions

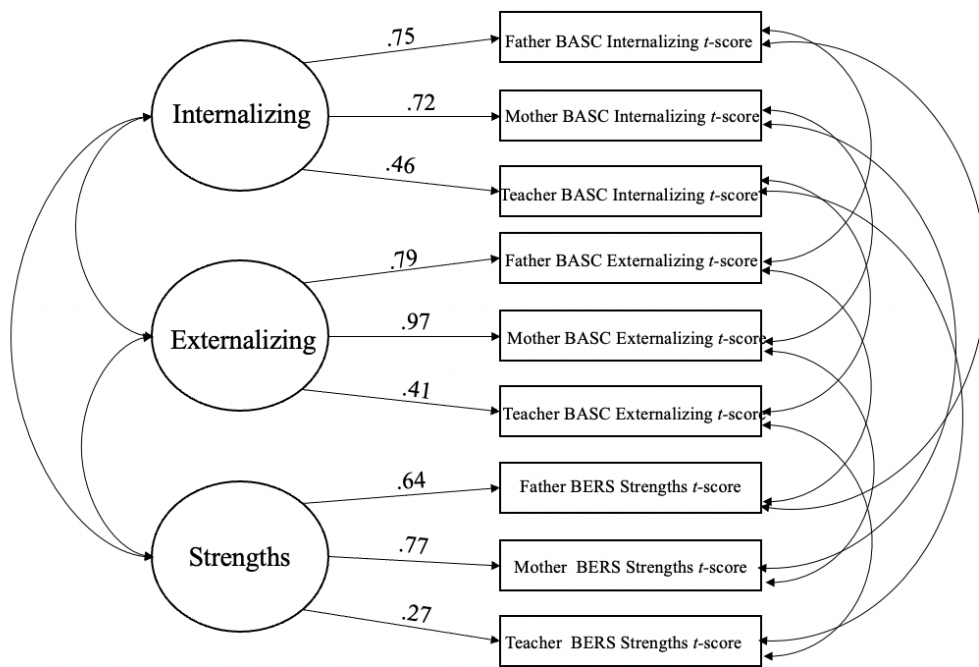


Figure 4: Model estimating factors for child psychosocial variables. All paths are significant (all $ps < .003$). Standardized path coefficients shown.

REFERENCES

- Acion, L., Ramirez, M. R., Jorge, R. E., & Arndt, S. (2013). Increased risk of alcohol and drug use among children from deployed military families. *Addiction, 108*, 1418-1425. <https://doi.org/10.1111/add.12161>
- Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications.
- Akaike, H. (1973). Information Theory and an Extension of the Maximum Likelihood Principle. In B. N. Petrov, & F. Csaki (Eds.), *Proceedings of the 2nd International Symposium on Information Theory* (pp. 267-281). Budapest: Akademiai Kiado.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Baker, J. K., Fenning, R. M., & Crnic, K. A. (2010). Emotion socialization by mothers and fathers: Coherence among behaviors and associations with parent attitudes and children's social competence. *Social Development, 20*, 412-430. <https://doi.org/10.1111/j.1467-9507.2010.00585.x>
- Bauer, D. J., & Curran, P. J. (2004). The Integration of Continuous and Discrete Latent Variable Models: Potential Problems and Promising Opportunities. *Psychological Methods, 9*, 3-29. <https://doi.org/10.1037/1082-989X.9.1.3>
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55*, 83-96. <https://doi.org/10.2307/1129836>

- Berz, J. B., Taft, C. T., Watkins, L. E., & Monson, C. M. (2008). Associations between PTSD symptoms and parenting satisfaction in a female veteran sample. *Journal of Psychological Trauma, 7*, 37–45. <https://doi.org/10.1080/19322880802125969>
- Blair, B. L., Perry, N. B., O'Brien, M., Calkins, S. D., Keane, S. P., & Shanahan, L. (2014). The indirect effects of maternal emotion socialization on friendship quality in middle childhood. *Developmental Psychology, 50*, 566-576. <https://doi.org/10.1037/a0033532>
- Bliese, P. D., Wright, K. M., Adler, A. B., Cabrera, O., Castro, C. A., & Hoge, C. W. (2008). Validating the primary care posttraumatic stress disorder screen and the posttraumatic stress disorder checklist with soldiers returning from combat. *Journal of Consulting and Clinical Psychology, 76*, 272-281. <https://doi.org/10.1037/0022-006X.76.2.272>.
- Blow, A. J., Gorman, L., Ganoczy, D., Kees, M., Kashy, D. A., Valenstein, M., Marcus, S. M., Fitzgerald, H. E., & Chermack, S. (2013). Hazardous drinking and family functioning in National Guard veterans and spouses postdeployment. *Journal of Family Psychology, 27*, 303–313. <https://doi.org/10.1037/a0031881>
- Breaux, R. P., Harvey, E. A., & Lugo-Candelas, C. I. (2016). The role of parent psychopathology in emotion socialization. *Journal of Abnormal Child Psychology, 44*, 731–743. <https://doi.org/10.1007/s10802-015-0062-3>
- Brockman, C., Snyder, J., Gewirtz, A., Gird, S. R., Quattlebaum, J., Schmidt, N., Pauldine, M. R., Elish, K., Schrepferman, L., Hayes, C., Zettle., & DeGarmo, D. (2016). Relationship of service members' deployment trauma, PTSD symptoms,

- and experiential avoidance to postdeployment family reengagement. *Journal of Family Psychology*, 30, 52-62. <https://doi.org/10.1037/fam0000152>
- Briggs, E. C., Fairbank, J. A., Tunno, A. M., Lee, R. C., Corry, N. H., Pflieger, J. C., ... & Murphy, R. A. (2020). Military life stressors, family communication and satisfaction: Associations with children's psychosocial outcomes. *Journal of Child & Adolescent Trauma*, 13, 75-87. <https://doi.org/10.1007/s40653-019-00259-z>
- Brown, G. L., Craig, A. B., & Halberstadt, A. G. (2015). Parent gender differences in emotion socialization behaviors vary by ethnicity and child gender. *Parenting*, 15, 135-157. <https://doi.org/10.1080/15295192.2015.1053312>
- Buckley, J. A., & Epstein, M. H. (2004). The Behavioral and Emotional Rating Scale-2 (BERS-2): Providing a comprehensive approach to strength-based assessment. *The California School Psychologist*, 9, 21-27. <https://doi.org/10.1007/BF03340904>
- Burnham, K. P., & Anderson, D. R. (2004). Multimodel inference: understanding AIC and BIC in model selection. *Sociological Methods & Research*, 33, 261-304. <https://doi.org/10.1177/0049124104268644>
- Caselli, L. T., & Motta, R. W. (1995). The effect of PTSD and combat level on Vietnam veterans' perceptions of child behavior and marital adjustment. *Journal of Clinical Psychology*, 51, 4-12. [https://doi.org/10.1002/1097-4679\(199501\)51](https://doi.org/10.1002/1097-4679(199501)51)
- Castro, V. L., Halberstadt, A. G., & Garrett-Peters, P. T. (2018). Changing tides: Mothers' supportive emotion socialization relates negatively to third-grade

- children's social adjustment in school. *Social Development*, 27, 510-525.
<https://doi.org/10.1111/sode.12251>
- Cherry, K. E., & Gerstein, E. D. (2021). Fathering and masculine norms: Implications for the socialization of children's emotion regulation. *Journal of Family Theory & Review*, 13, 149-163. <https://doi.org/10.1111/jftr.12411>
- Clark, S., & Muthén, B. (2009). Relating latent class analysis results to variables not included in the analysis. Retrieved from <https://www.statmodel.com/download/relatinglca.pdf>
- Cohen, E., Zerach, G., & Solomon, Z. (2011). The implication of combat-induced stress reaction, PTSD, and attachment in parenting among war veterans. *Journal of Family Psychology*, 25, 688–698. <https://doi.org/10.1037/a0024065>
- Creech, S. K., & Misca, G. (2017). Parenting with PTSD: A review of research on the influence of PTSD on parent-child functioning in military and veteran families. *Frontiers in Psychology*, 8, 1101. <https://doi.org/10.3389/fpsyg.2017.01101>
- Creech S. K., Swift R., Zlotnick C., Taft C., Street A. E. (2016). Combat exposure, mental health, and relationship functioning among women veterans of the Afghanistan and Iraq wars. *Journal of Family Psychology*, 30, 43–51.
<https://doi.org/10.1037/fam0000145>
- Christie, H., Hamilton-Giachritsis, C., Alves-Costa, F., Tomlinson, M., & Halligan, S. L. (2019). The impact of parental posttraumatic stress disorder on parenting: A systematic review. *European Journal of Psychotraumatology*, 10, 1550345.
<https://doi.org/10.1080/20008198.2018.1550345>

- Cramm, H., McColl, M. A., Aiken, A. B., & Williams, A. (2019). The mental health of military-connected children: a scoping review. *Journal of Child and Family Studies*, 28, 1725-1735. <https://doi.org/10.1007/s10826-019-01402-y>
- Davis, L., Hanson, S. K., Zamir, O., Gewirtz, A. H., & DeGarmo, D. S. (2015). Associations of contextual risk and protective factors with fathers' parenting practices in the postdeployment environment. *Psychological Services*, 12, 250-260. <https://doi.org/10.1037/ser0000038>
- Denham, S. A. (2007). Dealing with feelings: How children negotiate the worlds of emotions and social relationships. *Cognition, Brain, Behavior*, 11, 1-48.
- Denham, S. A., & Bassett, H. H. (2013). Focal-T: Focal observations of teachers' emotions and reactions to children's emotions. Fairfax, VA: George Mason University.
- Denham, S., & Kochanoff, A. T. (2002). Parental contributions to preschoolers' understanding of emotion. *Marriage & Family Review*, 34, 311-343. https://doi.org/10.1300/J002v34n03_06
- Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental contributions to preschoolers' emotional competence: Direct and indirect effects. *Motivation and Emotion*, 21, 65 - 86. <https://doi.org/10.1023/A:1024426431247>
- Denham, S. A., Zoller, D., & Couchoud, E. A. (1994). Socialization of preschoolers' emotion understanding. *Developmental Psychology*, 30, 928-936. <https://doi.org/10.1037/0012-1649.30.6.928>

- DeVoe, E. R., & Ross, A. (2012). The parenting cycle of deployment. *Military Medicine*, 177, 184–190. <https://doi.org/10.7205/MILMED-D-11-00292>
- Dix, T. (1991). The affective organization of parenting: Adaptive and maladaptive processes. *Psychological Bulletin*, 110, 3–25. <https://doi.org/10.1037/0033-2909.110.1.3>
- Drummet, A. R., Coleman, M., & Cable, S. (2003). Military families under stress: Implications for family life education. *Family Relations*, 52, 279-287. <https://doi.org/10.1111/j.1741-3729.2003.00279.x>
- Easterbrooks, M. A., Ginsburg, K., & Lerner, R. M. (2013). Resilience among military youth. *The Future of Children*, 23, 99-120. <https://doi.org/10.1353/foc.2013.0014>
- Eisenberg, N. (2020). Findings, issues, and new directions for research on emotion socialization. *Developmental Psychology*, 56, 664–670. <https://doi.org/10.1037/dev0000906>
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, 9, 241–273. https://doi.org/10.1207/s15327965pli0904_1
- Eisenberg, N., & Fabes, R. A. (1994). Mothers' reactions to children's negative emotions: Relations to children's temperament and anger behavior. *Merrill-Palmer Quarterly*, 40, 138–156. <http://www.jstor.org/stable/23087912>
- Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1996). Parents' Reactions to Children's Negative Emotions: Relations to Children's Social Competence and Comforting

- Behavior. *Child Development*, 67, 2227–2247. <https://doi.org/10.1111/j.1467-8624.1996.tb01854.x>
- Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I. K., Murphy, B. C., & Reiser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development*, 70, 513-534. <https://doi.org/10.1111/1467-8624.00037>
- Fabes, R. A., Leonard, S. A., Kupanoff, K., & Martin, C. L. (2001). Parental coping with children's negative emotions: Relations with children's emotional and social responding. *Child Development*, 72, 907-920. <https://doi.org/10.1111/1467-8624.00323>.
- Friedlmeier, W., Corapci, F., & Cole, P. M. (2011). Emotion socialization in cross-cultural perspective. *Social and Personality Psychology Compass*, 5, 410-427. <https://doi.org/10.1111/j.1751-9004.2011.00362.x>
- Fulton, J. J., Calhoun, P. S., Wagner, H. R., Schry, A. R., Hair, L. P., Feeling, N., ... & Beckham, J. C. (2015). The prevalence of posttraumatic stress disorder in Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) Veterans: A meta-analysis. *Journal of Anxiety Disorders*, 31, 98-107. <https://doi.org/10.1016/j.janxdis.2015.02.003>.
- Fung, W. K., Chung, K. K. H., & Lam, C. B. (2022). Parental self-efficacy: Examining its mediating and reciprocally predictive roles in supportive emotion socialization. *Family Process*, 61, 779-791. <https://doi.org/10.1111/famp.12688>
- Gewirtz, A. H., DeGarmo, D. S., & Zamir, O. (2018). Testing a military family stress

- model. *Family Process*, 57, 415–431. <https://doi.org/10.1111/famp.12282>
- Gewirtz, A. H., McMorris, B. J., Hanson, S., & Davis, L. (2014). Family adjustment of deployed and nondeployed mothers in families with a parent deployed to Iraq or Afghanistan. *Professional Psychology: Research and Practice*, 45, 465–477. <https://doi.org/10.1037/a0036235>
- Gewirtz, A. H., Polusny, M. A., DeGarmo, D. S., Khaylis, A., & Erbes, C. R. (2010). Posttraumatic stress symptoms among National Guard soldiers deployed to Iraq: Associations with parenting behaviors and couple adjustment. *Journal of Consulting and Clinical Psychology*, 78, 599–610. <https://doi.org/10.1037/a0020571>
- Giff, S. T., Renshaw, K. D., & Allen, E. S. (2019). Post-deployment parenting in military couples: Associations with service members' PTSD symptoms. *Journal of Family Psychology*, 33, 166-175. <https://doi.org/10.1037/fam0000477>
- Godleski, S. A., Eiden, R. D., Shisler, S., & Livingston, J. A. (2020). Parent socialization of emotion in a high-risk sample. *Developmental Psychology*, 56, 489–502. <https://doi.org/10.1037/dev0000793>
- Gold, J. I., Taft, C. T., Keehn, M. G., King, D. W., King, L. A., & Samper, R. E. (2007). PTSD symptom severity and family adjustment among female Vietnam veterans. *Military Psychology*, 19, 71-81. <https://doi.org/10.1080/08995600701323368>
- Greene, C. A., McCarthy, K. J., Estabroo, R., Wakschlag, L. S., & Briggs-Gowa, M. J. (2020). Responsive parenting buffers the impact of maternal PTSD on young

children. *Parenting, Science and Practice*, 20, 141–165.

<https://doi.org/10.1080/15295192.2019.1707623>

Havighurst, S., & Kehoe, C. (2017). The role of parental emotion regulation in parent emotion socialization: Implications for intervention. In *Parental Stress and Early Child Development*. In K. Deater-Deckard & Panneton, R. (Eds.), *Parental Stress and Early Child Development* (pp. 285-307). New York, NY, US: Springer.

Hernandez, E., Smith, C. L., Day, K. L., Neal, A., & Dunsmore, J. C. (2018). Patterns of parental emotion-related discourse and links with children's problem behaviors: A person-centered approach. *Developmental Psychology*, 54, 2077–2089.

<https://doi.org/10.1037/dev0000602>

Herzog, J. R., Everson, R. B., & Whitworth, J. D. (2011). Do secondary trauma symptoms in spouses of combat-exposed national guard soldiers mediate impacts of soldiers' trauma exposure on their children? *Child and Adolescent Social Work Journal*, 28, 459–473. <https://doi.org/10.1007/s10560-011-0243-z>

Huebner, A. J., Mancini, J. A., Wilcox, R. M., Grass, S. R., & Grass, G. A. (2007).

Parental deployment and youth in military families: Exploring uncertainty and ambiguous loss. *Family Relations*, 56, 112-122. <https://doi.org/10.1111/j.1741-3729.2007.00445.x>

IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp

Janke-Stedronsky, S. R., Greenawalt, D. S., Stock, E. M., Tsan, J. Y., MacCarthy, A. A., MacCarthy, D. J., & Copeland, L. A. (2016). Association of parental status and

- diagnosis of posttraumatic stress disorder among veterans of Operations Iraqi and Enduring Freedom. *Psychological Trauma: Theory, Research, Practice, and Policy*, 8, 72–79. <https://doi.org/10.1037/tra0000014>
- Kass, R. E., & Raftery, A. E. (1995). Bayes factors. *Journal of the American Statistical Association*, 90, 773-795.
- Kritikos, T. K., Comer, J. S., He, M., Curren, L. C., & Thompson, M. C. (2019). Combat experience and posttraumatic stress symptoms among military-serving parents: A meta-analytic examination of associated offspring and family outcomes. *Journal of Abnormal Child Psychology*, 47, 131-148. <https://doi.org/10.1007/s10802-018-0427-5>
- Lambert, J. E., Engh, R., Hasbun, A., & Holzer, J. (2012). Impact of posttraumatic stress disorder on the relationship quality and psychological distress of intimate partners: A meta-analytic review. *Journal of Family Psychology*, 26, 729-737. <https://doi.org/10.1037/a0029341>
- Leen-Feldner, E. W., Feldner, M. T., Knapp, A., Bunaciu, L., Blumenthal, H., & Amstadter, A. B. (2013). Offspring psychological and biological correlates of parental posttraumatic stress: Review of the literature and research agenda. *Clinical Psychology Review*, 33, 1106-1133. <https://doi.org/10.1016/j.cpr.2013.09.001>
- Lester, P., Peterson, K., Reeves, J., Knauss, L., Glover, D., Mogil, C., Duan, N., Saltzman, W., Pynoos, R., Wilt, K., & Beardslee, W. (2010). The long war and parental combat deployment: Effects on military children and at-home

- spouses. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49, 310-320. <https://doi.org/10.1016/j.jaac.2010.01.003>
- Lester, P., Saltzman, W. R., Woodward, K., Glover, D., Leskin, G. A., Bursch, B., ... & Beardslee, W. (2012). Evaluation of a family-centered prevention intervention for military children and families facing wartime deployments. *American Journal of Public Health*, 102, S48-S54. <https://doi.org/10.2105/AJPH.2010.300088>
- Lester, P., Aralis, H., Sinclair, M., Kiff, C., Lee, K.-H., Mustillo, S., & Wadsworth, S. M. (2016). The impact of deployment on parental, family and child adjustment in military families. *Child Psychiatry & Human Development*, 47, 938–949. <https://doi.org/10.1007/s10578-016-0624-9>
- Link, P. E., & Palinkas, L. A. (2013). Long-term trajectories and service needs for military families. *Clinical Child and Family Psychology Review*, 16, 376-393. <https://doi.org/10.1007/s10567-013-0145-z>
- Lo, Y., Mendell, N., & Rubin, D. (2001). Testing the number of components in a normal mixture. *Biometrika*, 88, 767–778. <https://doi.org/10.1093/biomet/88.3.767>
- Lobo, F. M., Lunkenheimer, E., Lucas-Thompson, R. G., & Seiter, N. S. (2021). Parental emotion coaching moderates the effects of family stress on internalizing symptoms in middle childhood and adolescence. *Social Development*, 30, 1023–1039. <https://doi.org/10.1111/sode.12519>
- Lubke, G., & Muthén, B. O. (2007). Performance of factor mixture models as a function of model size, covariate effects, and class-specific parameters. *Structural*

Equation Modeling: A Multidisciplinary Journal, 14, 26-47.

<https://doi.org/10.1080/10705510709336735>

Lunkenheimer, E. S., Shields, A. M., & Cortina, K. S. (2007). Parental emotion coaching and dismissing in family interaction. *Social Development*, 16, 232-248.

Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In Cicchetti, D & Cohen, D.J., (Eds.), *Developmental Psychopathology: Risk, Disorder, and Adaptation*. (pp. 740–795) New York: Wiley; 2006.

MacDermid Wadsworth, S., Bailey, K. M., & Coppola, E. C. (2017). U.S. Military Children and the Wartime Deployments of Family Members. *Child Development Perspectives*, 11, 23–28. <https://doi.org/10.1111/cdep.12210>

Masyn, K. E. (2013). Latent class analysis and finite mixture modeling. *The Oxford Handbook of Quantitative Methods*, 2, 551-611.

McElwain, N. L., Halberstadt, A. G., & Volling, B. L. (2007). Mother-and father-reported reactions to children's negative emotions: Relations to young children's emotional understanding and friendship quality. *Child Development*, 78, 1407-1425. <https://doi.org/10.1111/j.1467-8624.2007.01074.x>

McKee, L. G., DiMarzio, K., Parent, J., Dale, C., Acosta, J., & O'Leary, J. (2022). Profiles of emotion socialization across development and longitudinal associations with youth psychopathology. *Research on Child and Adolescent Psychopathology*, 50, 193–210. <https://doi.org/10.1007/s10802-021-00829-6>

Miller, R. L., Dunsmore, J. C., & Smith, C. L. (2015). Effortful control and parents' emotion socialization patterns predict children's positive social behavior: A

- person-centered approach. *Early Education and Development*, 26, 167–188.
<https://doi.org/10.1080/10409289.2015.975034>
- Miller-Slough, R. L., Dunsmore, J. C., Zeman, J. L., Sanders, W. M., & Poon, J. A. (2018). Maternal and paternal reactions to child sadness predict children's psychosocial outcomes: A family-centered approach. *Social Development*, 27, 495–509. <https://doi.org/10.1111/sode.12244>
- Mirabile, S. P. (2014). Parents' inconsistent emotion socialization and children's socioemotional adjustment. *Journal of Applied Developmental Psychology*, 35, 392–400. <https://doi.org/10.1016/j.appdev.2014.06.003>
- Mirabile, S. P., Oertwig, D., & Halberstadt, A. G. (2018). Parent emotion socialization and children's socioemotional adjustment: when is supportiveness no longer supportive?. *Social Development*, 27, 466–481.
<https://doi.org/10.1111/sode.12226>
- Moore, B. A. (2019). Understanding and working within the military culture. In B. A. Moore & W. E. Penk (Eds.), *Treating PTSD in military personnel: A clinical handbook* (pp. 9–21). The Guilford Press.
- Mustillo S., Xu M., Wadsworth S. M. (2014). Traumatic combat exposure and parenting among national guard fathers: an application of the ecological model. *Fathering*, 12, 303–319. <https://doi.org/10.3149/fth.1203.303>
- Muthén, L. K., & Muthén, B. O. (2017). Mplus: Statistical Analysis with Latent Variables: User's Guide (Version 8). Los Angeles, CA: Authors

- Nelson, J. A., O'Brien, M., Blankson, A. N., Calkins, S. D., & Keane, S. P. (2009). Family stress and parental responses to children's negative emotions: Tests of the spillover, crossover, and compensatory hypotheses. *Journal of Family Psychology, 23*, 671–679. <https://doi.org/10.1037/a0015977>
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal, 14*, 535-569. <https://doi.org/10.1080/10705510701575396>
- Palmer, C. (2008). A Theory of risk and resilience factors in military families. *Military Psychology, 20*, 205–217. <https://doi.org/10.1080/08995600802118858>
- Peterson, J., Winter, C., Jabson, J., & Dishion, T. J. (2010). Relationship affect coding manual. Unpublished manuscript, University of Oregon, Child & Family Center.
- Price, N. N., & Kiel, E. J. (2022). Longitudinal links among mother and child emotion regulation, maternal emotion socialization, and child anxiety. *Research on Child and Adolescent Psychopathology, 50*, 241-254. <https://doi.org/10.1007/s10802-021-00804-1>
- Reynolds, C. R., & Kamphaus, R. W. (2004). Behavior assessment system for children (2nd ed.). Bloomington, MN: Pearson Assessments.
- Roberts, W. L. (2011). Program for the collection and analysis of observational data: Manual for version 2.75.1. Retrieved from <http://sourceforge.net/projects/behavioraldata/>

- Sayers, S. L., Farrow, V. A., Ross, J., & Oslin, D. W. (2009). Family problems among recently returned military veterans referred for a mental health evaluation. *Journal of Clinical Psychiatry, 70*, 163-170.
<https://doi.org/10.4088/jcp.07m03863>
- Schwarz, G. (1978). Estimating the dimension of a model. *The Annals of Statistics, 6*, 461–464. <https://doi.org/10.1214/aos/1176344136>
- Sherman, M. D., Gress Smith, J. L., Straits-Troster, K., Larsen, J. L., & Gewirtz, A. (2016). Veterans’ perceptions of the impact of PTSD on their parenting and children. *Psychological Services, 13*, 401–410.
<https://doi.org/10.1037/ser0000101>
- Sherman, M. D., Larsen, J., & Borden, L. M. (2015). Broadening the focus in supporting reintegrating Iraq and Afghanistan Veterans: Six key domains of functioning. *Professional Psychology: Research and Practice, 46*, 355-365.
<https://doi.org/10.1037/pro0000043>
- Shingala, M. C., & Rajyaguru, A. (2015). Comparison of post hoc tests for unequal variance. *International Journal of New Technologies in Science and Engineering, 2*, 22-33. <https://www.ijntse.com/upload/1447070311130.pdf>
- Sosa-Hernandez, L., Sack, L., Seddon, J. A., Bailey, K., & Thomassin, K. (2020). Mother and father repertoires of emotion socialization practices in middle childhood. *Journal of Applied Developmental Psychology, 69*, 101159.
<https://doi.org/10.1016/j.appdev.2020.101159>

- Snyder, J., Gewirtz, A., Schrepferman, L., Gird, S. R., Quattlebaum, J., Pauldine, M. R., Elish, K., Zamir, O., & Hayes, C. (2016). Parent–child relationship quality and family transmission of parent posttraumatic stress disorder symptoms and child externalizing and internalizing symptoms following fathers' exposure to combat trauma. *Development and Psychopathology*, 28, 947–969. <https://doi.org/10.1017/S095457941600064X>
- Stocker, C. M., Richmond, M. K., Rhoades, G. K., & Kiang, L. (2007). Family emotional processes and adolescents' adjustment. *Social Development*, 16, 310-325. <https://doi.org/10.1111/j.1467-9507.2007.00386.x>
- Sullivan, K., Barr, N., Kintzle, S., Gilreath, T., & Castro, C. A. (2016). PTSD and physical health symptoms among Veterans: Association with child and relationship functioning. *Marriage & Family Review*, 52, 689–705. <https://doi.org/10.1080/01494929.2016.1157122>
- Tomassetti-Long, V. J., Nicholson, B. C., Madson, M. B., & Dahlen, E. R. (2015). Hardiness, parenting stress, and PTSD symptomatology in U.S. Afghanistan/Iraq era veteran fathers. *Psychology of Men & Masculinity*, 16, 239–245. <https://doi.org/10.1037/a0037307>
- van der Pol, L. D., Groeneveld, M. G., Endendijk, J. J., van Berkel, S. R., Hallers-Haalboom, E. T., Bakermans-Kranenburg, M. J., & Mesman, J. (2016). Associations between fathers' and mothers' psychopathology symptoms, parental emotion socialization, and preschoolers' social-emotional development. *Journal*

of Child and Family Studies, 25, 3367-3380. <https://doi.org/10.1007/s10826-016-0490-x>

Wang, M., Liang, Y., Zhou, N., & Zou, H. (2019). Chinese fathers' emotion socialization profiles and adolescents' emotion regulation. *Personality and Individual Differences*, 137, 33–38. <https://doi.org/10.1016/j.paid.2018.08.006>

Weathers, F., Litz, B., Herman, D., Huska, J., & Keane, T. (October 1993). *The PTSD Checklist (PCL): Reliability, Validity, and Diagnostic Utility*. Paper presented at the Annual Convention of the International Society for Traumatic Stress Studies, San Antonio, TX.

White, C. J., de Burgh, H. T., Fear, N. T., & Iversen, A. C. (2011). The impact of deployment to Iraq or Afghanistan on military children: A review of the literature. *International Review of Psychiatry*, 22, 210-217. <https://doi.org/10.3109/09540261.2011.560143>

Yablonsky, A. M., Barbero, E. D., & Richardson, J. W. (2016). Hard is normal: Military families' transitions within the process of deployment. *Research in Nursing & Health*, 39, 42-56. <https://doi.org/10.1002/nur.21701>

Zahn-Waxler, C., Ridgeway, D., Denham, S., Usher, B., & Cole, P. M. (1993). Pictures of infants' emotions: A task for assessing mothers' and young children's verbal communications about affect. In R. N. Emde, J. D. Osofsky, & P. M. Butterfield (Eds.), *Clinical infant reports series of the ZERO TO THREE/National Center for Clinical Infant Programs*. (pp. 217-236). Madison, CT: International Universities Press

- Zhang, N., Lee, S., Zhang, J., Piehler, T., & Gewirtz, A. (2020). Growth trajectories of parental emotion socialization and child adjustment following a military parenting intervention: A randomized controlled trial. *Developmental Psychology*, 56, 652–663. <https://doi.org/10.1037/dev0000837>
- Zhang, N., Zhang, J., Gewirtz, A. H., & Piehler, T. F. (2018). Improving parental emotion socialization in military families: Results of a randomized controlled trial. *Journal of Family Psychology*, 32, 1046–1056. <https://doi.org/10.1037/fam0000461>

BIOGRAPHY

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