



Published in final edited form as:

*Soc Dev.* 2016 February ; 25(1): 66–81. doi:10.1111/sode.12117.

## Socialization in the Context of Risk and Psychopathology: Maternal Emotion Socialization in Children of Incarcerated Mothers

Janice Zeman, Danielle Dallaire, and Sarah Borowski

The College of William and Mary

### Abstract

Children of incarcerated mothers are at increased risk for psychological, social, and emotional maladaptation. This research investigates whether perceived maternal socialization of sadness and anger may moderate these outcomes in a sample of 154 children (53.9% boys, 61.7% Black, *M* age = 9.38, range: 6 – 12), their 118 mothers (64.1% Black), and 118 caregivers (74.8% female, 61.9% grandparents, 63.2% Black). Using mother, caregiver, and child report, seven maternal socialization strategies were assessed in their interaction with incarceration-specific risk experiences predicting children's adjustment. For sadness socialization, the results indicated that among children reporting maternal emotion-focused responses, incarceration-specific risk predicted increases in psychological problems, depressive symptoms, increased emotional lability, and poorer emotion regulation. For children who perceived a problem-focused response, incarceration-specific risk did not predict outcomes. There were no significant interactions with incarceration-specific risk and perceived maternal anger socialization strategies. These results indicate a critical need to examine how socialization processes may operate differently for children raised in atypical socializing contexts.

---

Considerable research provides support for the notion that parents are important external sources of influence on the development of emotion competencies in early childhood (Denham, Bassett, & Wyatt, 2007) and continue to exert critical influences in the ongoing refinement of children's emotional competencies during middle childhood and adolescence (Dunsmore, Booker, & Ollendick, 2013; Klimes-Dougan et al., 2007; Sanders, Zeman, Poon, & Miller, in press). Increasing our understanding of the socialization influences involved in children's developing emotional competencies is essential given the established pathways from emotion processes to psychological and emotional (Aldao, Nolen-Hoeksma, & Schweizer, 2010; Denham et al., 2007; Folk, Zeman, Poon, & Dallaire, 2014). What has received considerably less attention, however, is an examination of how emotional socialization processes operate for children who are exposed to atypical environmental contexts that place them at increased risk for psychosocial maladaptation. A developmental psychopathology perspective (Sroufe, 1990) recommends that developmental processes be studied in both normative and atypical contexts so that a more complete framework can be constructed to understand the complexity of developmental processes, such as emotion

socialization. The current study investigates maternal emotion socialization processes for children, ages 6 to 12, who live in the atypical family context of maternal incarceration which has a high probability of placing these children on a trajectory towards maladaptation in psychological, social, and academic realms (Murray, Farrington, & Sekol, 2012).

Parental incarceration affects a significant segment of our population with documentation of “mass incarceration” occurring over the past few decades with an estimated 1.1 million incarcerated parents to 2.3 million children (Boddie, Franklin, & Trulear, 2008). Children with an incarcerated parent face many risks in their environment including but not limited to poverty (Western & Wildeman, 2009), unstable living environments (Kjellstrand & Eddy, 2011), harsh parenting (Phillips, Erkanli, Keeler, Costello, & Angold, 2006), and negative outcomes such as mental health problems and antisocial behavior (Murray et al., 2012).

The 2008 mid-year report from the Bureau of Justice Statistics reported an 839% increase in female incarceration since 1977, with approximately two-thirds of incarcerated women being mothers of dependent children (Boddie et al., 2008). Although greater numbers of children are affected by paternal incarceration, children with incarcerated mothers often experience greater disruptions. These additional challenges are due to their mother having provided the primary childcare prior to incarceration and thus, children may experience changes in residence and schools because of a change in caregivers (Dallaire, 2007). The small literature examining children of incarcerated mothers indicates that these children exhibit high levels of anxiety, depression, and aggression (Block & Potthast, 1998), attachment insecurity (Poehlmann, 2005), poor emotion regulation skills (Lotze, Ravindran, & Myers, 2010), and are at high risk for academic failure and school drop-out (Trice & Brewster, 2004). Further, according to incarcerated mothers’ reports, their adult children are significantly more likely to be incarcerated compared to adult children of incarcerated fathers (Dallaire, 2007).

There are a multitude of experiences associated with maternal incarceration that potentially affect children’s functioning. Adopting a variable-oriented approach to risk research (Greenberg, Speltz, DeKlyen, & Jones, 2001; Rutter, 1979), Dallaire, Zeman, and Thrash (in press) demonstrated that experiences specific to maternal incarceration predicted internalizing and externalizing problem behaviors above those risks due to exposure to and experience of general environmental risks. That is, although children of incarcerated mothers encountered risks such as low socioeconomic status, mothers’ attitudes towards parenting, and low maternal education, it was the proximal risks and sequelae associated with maternal incarceration that played a critical role in children’s outcomes. Given the challenges facing children of incarcerated mothers, it is important to determine whether there are experiences such as emotion socialization practices that can ameliorate or lessen the impact of the risk they experience.

Specific types of emotion socialization practices have been associated with children’s psychosocial adaptation in middle-class, Caucasian families (e.g., Zeman, Cassano, & Adrian, 2013 for a review), yet little research has been conducted to determine whether these practices also confer benefit to children living in high risk environments. As such, the existing literature has generally examined emotional socialization responses by categorizing

them as supportive and representative of an emotion coaching style or as unsupportive and reflective of an emotion dismissing response (Gottman, Katz, & Hooven, 1996). Parents who adopt a supportive or coaching type of response view their children's negative emotions as an opportunity to teach important emotion awareness, recognition, and regulation skills. They label, discuss, and validate their children's emotional experiences and expressivity while also helping them to learn constructive ways to manage these emotions. As such, this type of parental response has been associated with many positive psychological outcomes (e.g., Cassano, Zeman, & Perry-Parrish, 2007; Dunsmore et al., 2013; Eisenberg, Fabes, Shaller, Carlo, & Miller, 1991; Gottman et al., 1996; Lunkenheimer, Shields, & Cortina, 2007). For example, higher awareness and acceptance of children's sadness and fear by their mothers was indirectly related to lower symptoms of post-traumatic stress in children through children's regulation of sadness and fear, respectively (Katz, Stettler, Gurtovenkio, & Maliken, this issue).

In contrast, parents who respond to their children's emotions with unsupportive and dismissing behaviors view negative emotion as an aversive experience that should be squelched or dissipated as soon as possible. Parents may either not be aware of their children's emotions, thereby neglecting to respond to them, or they may react in a harsh, punitive way to punish the children for their expressivity. Alternatively, they may minimize the experience of their children's emotion and distract them from processing and responding to the emotion in a constructive manner. Research has consistently found that unsupportive and dismissing responses have resulted in negative psychological outcomes such as increased depression in children (e.g., Sanders et al., in press) and adolescents (e.g., Katz & Hunter, 2007; Shortt et al., this issue), as well as poorer emotion regulation skills over time (e.g., Eisenberg, Fabes, & Murphy, 1996; Gottman et al., 1996). These conclusions have largely been derived using European-American, low risk samples and it remains an empirical question whether supportive and unsupportive parental emotion socialization responses operate in the same manner for children living in contexts that place them at high risk for psychosocial maladaptation.

A more fine grained approach has also been applied to the study of parental emotion socialization in which different types of parental reactions that characterize supportive and unsupportive responses have been studied. For example, Fabes, Poulin, Eisenberg, and Madden-Derdich (2002) developed a parent-report measure, the *Children's Coping with Negative Emotion Scale*, in which parents indicate the degree to which they would respond to hypothetical vignettes from an array of possible responses. The socialization categories include three supportive reactions (i.e., problem-focused, emotion-focused, expressive encouragement), and three nonsupportive responses (i.e., minimization, punitive, distress). These different parental responses have been demonstrated to be reliable with accumulating evidence of validity (Fabes et al., 2002). The current study sought to evaluate whether these specific types of emotion socialization strategies would function in the same manner with a high risk sample of children as they have been shown to operate using low risk samples. That is, will the supportive categories of maternal emotion socialization be associated with positive outcomes with the converse true for the unsupportive responses?

Accordingly, the current study examined the moderating effects of maternal emotion socialization on children's experiences of incarceration-specific risks with respect to their psychological and emotional functioning. Child report was used because children's perceptions of maternal behaviors are based on their history of interactions with their mothers and guide future behavior. Further, children's descriptions of maternal behavior may be less susceptible to social desirability bias than parental report (Sanders et al., in press). Sadness and anger were selected for examination as each emotion is posited to have associated appraisals, goals, and action tendencies that elicit different responses from social partners (Campos, Campos, & Barrett, 1989). In particular, sadness may rouse feelings of vulnerability with a corresponding expectation that support may be provided. Thus, this emotion affords an opportunity to examine the fit between socialization responses and outcomes in an environment where children may frequently experience feelings of vulnerability. Anger is typically evoked when there is, for example, a perceived blockage of goals or unfair decision with the goal of changing the unpleasant situation or assigning blame for the circumstances (Kuppens, Van Mechelen, Smits, & De Boeck, 2003). Anger is often viewed as an aversive emotion that can create conflict leading to negative outcomes within interpersonal relationships (von Salisch & Vogelgesang, 2005). Thus, in a context that is riddled with stressors such as the one experienced by children with incarcerated mothers, feelings of anger and frustration may be frequently experienced. Thus, an investigation of maternal anger socialization practices could provide insight into how these responses are associated with psychological and emotional outcomes. Children's exposure to nine incarceration-specific risk experiences (Dallaire et al., in press) was evaluated through caregiver report in order to better understand the interaction between socialization practices and incarceration-specific risk on children's functioning. Using mother- and child-report, children's overall level of psychological problems, depressive symptoms, externalizing behaviors, and emotion lability and regulation were assessed to reflect key indicators of functioning and potential areas of maladaptation.

Based on the limited literature examining emotion socialization in atypical populations and in particular, those with incarcerated mothers, we generated several speculative hypotheses. In general, we anticipated that maternal emotion socialization responses would not operate in the same fashion for children who experienced higher incarceration-specific risk than for low-risk samples, although direct comparisons cannot be made in this study between low and high risk samples. For sadness socialization, we hypothesized that perceived supportive reactions, and in particular, problem-focused responses, would predict fewer negative outcomes at lower than higher levels of incarceration-specific risk due to the multitude of other factors that might outweigh the benefits of maternal socialization responses at high levels of risk. For anger, we anticipated that children at higher levels of incarceration-specific risk who perceived their mothers to respond with unsupportive responses would report more psychological problems and poor emotion regulation than those at lower levels of risk.

## Method

### Participants

Participants were 154 children (53.9% boys; 61.7% Black;  $M$  age = 9.8 years,  $SD$  = 1.67 years, range = 6.50 – 12.98 years) and their 118 currently incarcerated mothers and their 118 caregivers from urban and rural Virginia locales. Mothers ( $M$  = 32.85 years,  $SD$  = 5.91 years) were ethnically diverse (64.1% Black) with 35.1% reporting no high school education. If mothers had multiple children in the eligible age range, each child participated with 37.7% of children having a sibling participate<sup>1</sup>. Mothers reported being incarcerated for contempt of court (e.g., parole violations, 31.6%), property crimes (e.g., larceny, 27.2%), substance abuse issues (e.g., distribution of illegal substances, 16.7%), fraud (e.g., identity theft, 12.3%), and violent crimes (e.g., armed robbery, 6.1%). Mothers had been incarcerated from 1 – 11 times ( $M$  = 2.65,  $SD$  = 1.64), with 25.0% experiencing their first incarceration. Caregivers (74.8% female; 63.2% Black;  $M$  = 47.8 years,  $SD$  = 11.6 years; range = 19 to 70 years; 28.3% not completed high school) included children's grandparent(s) (61.9%), father (18%), relative (e.g., aunt, sibling, 17.3%) and step-parent (2.9%). (For more sample details, see Dallaire et al, in press).

Regarding the current relationships between children and their mothers, in the month preceding incarceration, 77.0% of the mothers had daily contact with their children with only 5.9% not having contact with their children during that period<sup>2</sup>. Using a 4-point scale (1 = *not very close*, 4 = *very close*), 84.1% of mother reporting feeling “very close” to their children prior to incarceration. Mothers had been incarcerated an average of 56.11 days ( $SD$  = 85.17) at the time of the interview. Based on caregiver report, the majority of children had some contact with their mothers while she was in jail including by mail (37.5% weekly, 33.8% none), phone (33.6% daily, 30.6% weekly, 26.9% none), or visits (19.1% weekly 15.6% once or twice per month, 53.2% none). The majority of caregivers (72.1%) had lived with the children for the prior year with caregivers reporting feeling “very close” (66.1%) or “close” (19.3%) to the children.

### Procedure

Ethics approval was obtained by the authors' university's protection of human subjects committee and each jail facility. Eligible women incarcerated at one of six jail facilities were recruited to participate. Eligibility recruitments included having a child within the specified age range (6 – 12 years), having maintained parental rights, and no documented history of abuse or neglect to the target child. Of the 236 mothers interviewed, interviews with 118 caregivers of 156 children with incarcerated mothers were conducted. There were no significant differences on the relevant variables between the total sample of mothers and the subsample whose children and caregivers participated. Mothers participated in a private, 1-hour interview with the research assistant at the jail facility and provided consent to contact the child's caregiver. After obtaining caregiver consent and child assent, caregivers and

---

<sup>1</sup>Analyses were also performed on a sample of mother-child and caregiver triads that only included one child chosen at random from the family and did not include siblings. The results did not differ substantially from those presented here.

<sup>2</sup>Results were analyzed excluding the children who did not have contact with their mother in the month prior to incarceration. The results did not differ and thus, the full sample was used in subsequent analyses.

children participated in separate locations to ensure privacy for the 1-hour interview. Family visits were conducted at the caregiver's homes (80.0%), libraries (16.0%), and other public locations (4.0%). Caregivers and children were remunerated for their time.

## Measures

**Maternal sadness socialization**—Children were interviewed using the *Kusche Affective Interview-Revised (KAI-R)*, Kusche, Greenberg, & Beilke, 1988). Children were presented with a picture of a same-sex child displaying a sad or angry facial expression. After correctly identifying the emotion, children were asked “If your mom saw you looking (sad, angry), what would she do?” Each response was coded by two graduate students into one of six categories (present/absent) of emotion socialization practices based on a well-known parent-report questionnaire on parental emotion socialization, *Coping with Children's Negative Emotions Scale (CCNES)*; Fabes et al., 2002) as well as an additional category that fit the data, neglect. If two responses were provided, only the first one was coded. Emotion-focused responses (EFR) occur when parents respond to a child's distress by trying to help alleviate it primarily through comfort (e.g., “My mom would give me a hug.”). Problem-focused responses (PFR) arise when parents try to solve the problem that caused the child's unhappiness (e.g., “My mom would ask what is wrong and then help me fix it.”). Expressive Encouragement reflects how often parents encourage or validate their child's expression of negative emotions (e.g., “My mom would tell me to go ahead and cry if I'm feeling sad.”). Distress Reactions reflect the degree to which parents respond with upset to their children's negative emotion (e.g., “My mom would get angry too if I were mad.”). Punitive Reactions reflect the degree to which parents responded negatively to their child's emotional expression (e.g., “My mom would punish me.”). A Minimization Reaction occurs when the parent devalues or minimizes the importance of the emotion evoking event (e.g., “My mom would say that's nothing to get upset about.”). Neglect responses arise when parents ignore or do not notice the child's emotional expression (e.g., “When I was sad, my mom did not pay attention to my sadness”). Inter-rater reliability was established on 20% of the protocols with 93.8% agreement. Disagreements were resolved through discussion.

Given the uneven frequency of responses across categories that yielded small sample sizes in certain cells, only the top two categories for each emotion were used for data analyses. Further, the three categories that are typically considered to be negative responses (Punitive Reactions, Minimization Reactions, Neglect) were combined consistent with other research practices (Fabes et al., 2002) to provide a Negative Reactions (NR) scale. In this sample, for sadness, the most commonly endorsed socialization reactions were PFR and EFR with 50.6% ( $n = 78$ ) citing a PFR maternal reaction and 33.8% ( $n = 58$ ) citing an EFR maternal reaction. For anger, PFR and NR were the top endorsed categories with 50.6% ( $n = 78$ ) citing a PFR and 31.2% ( $n = 48$ ) citing a NR. There were four children for sadness and 10 children for anger whose responses were not coded into one of the top two socialization categories and thus, were not included in analyses (see Table 2).

**Incarceration-specific risk index (ISRI)**—(See Dallaire et al., in press, for a detailed explanation). Caregiver's ISRI was based on information from the demographic and background interview. The following nine variables were included: lack of current maternal

contact with the child, three or more maternal incarcerations during the child's lifetime, separation from siblings because of mother's incarceration, child changed schools because of mother's incarceration, child witnessed mother's arrest, child witnessed mother's sentencing, child's biological father has been incarcerated, child's maternal grandmother has been incarcerated, and the caregiver is new to the child. The number of risks experienced ranged from 1–8.

**Psychological outcomes**—Mothers reported on children's psychological functioning over the previous six months using the 113-item *Child Behavior Checklist (CBCL;* Achenbach & Rescorla, 2001). The Total Problem scale was used in this study. Validation studies indicate strong internal consistency with adequate content, criterion-related, and construct validity (Achenbach & Rescorla, 2001). In the current study, internal consistency was strong (Total Problems:  $\alpha = .95$ ).

To assess their depressive symptoms over the past two weeks, children completed the 27-item *Child Depression Inventory (CDI;* Kovacs, 1992) s. Children respond to items by choosing one of three statements describing a depressive symptom (i.e., "I am sad once in a while, I am sad many times, I am sad all the time."). The item assessing suicidality was deleted due to IRB concerns. The reliability, and construct and discriminant validity have been widely established with children ages 6 to 17 (e.g., Gomez, Vance, & Gomez, 2012; Kovacs, 1992). Internal consistency was strong for this study ( $\alpha = .84$ ).

To assess the presence of acting-out, delinquent types of behaviors, children completed the 19-item *Risky Behavior Protocol (RBP;* Conger & Elder, 1994). Using a 3-point frequency scale, children report about their engagement in risky behaviors ranging from mild (i.e., riding a bike without a helmet) to more serious behaviors (i.e., smoking, drinking alcohol). Internal consistency was adequate ( $\alpha = .78$ ).

**Emotion regulation outcomes**—Children's emotion regulation was evaluated using maternal report on the 24-item *Emotion Regulation Checklist (ERC;* Shields & Cicchetti, 1997). The Lability scale evaluated perceptions of children inability to manage their emotions (e.g., "Exhibits wide mood swings."). The Emotion Regulation scale assesses children's ability to manage their emotional arousal and affective displays (e.g., "Can say when s/he is feeling sad, mad, fearful or afraid."). Discriminant and construct validity has been demonstrated (Shields & Cicchetti, 1997) and had adequate internal consistency in this study (Lability,  $\alpha = .85$ , Emotion Regulation,  $\alpha = .73$ ).

## Results

### Preliminary analyses and analytic plan

Descriptive data and correlations among measures are presented in Table 1. Preliminary analyses indicated that child age and ethnicity plus the amount of pre-jail contact children had with their mothers were correlated with the variables of interest, thus, they were entered as control variables. Neither child gender, caregiver nor maternal socio-economic status were significantly associated with study variables and, thus, were not included as controls. The two most frequently endorsed socialization responses for sadness (PFR, EFR) and anger

(PFR, NR) were represented by one composite variable, Socialization Response (SR), for each emotion. The composite variable (SR) was dummy coded for sadness such that PFR = 1 and EFR = 0. For anger, SR was dummy coded such that PFR = 1 and NR = 0. The ISRI was converted into z-scores for computation of the ISRI by SR interaction term. Five regression analyses were conducted for sadness and anger each in which the first step contained the control variables, the second step included the main effects of the ISRI and the socialization response, and the third step examined the interactive effects. Significant interactions were interpreted using *Utilities for Examining Interactions in Multiple Regression* (computer software; Sibley, 2008). The five outcome variables were CBCL total problems, CDI depressive symptoms, RBP externalizing problems, CBCL social behavior problems, ERC lability, and ERC emotion regulation. Only significant regression models are reported (see Table 3).

There were significant interaction effects between ISRI and sadness socialization responses on children's total problems ( $\beta = -.27, p = .04$ ), depressive symptoms ( $\beta = -.40, p = .01$ ), lability ( $\beta = -.27, p = .05$ ), and emotion regulation ( $\beta = .29, p = .03$ ). Follow-up testing indicated that for children who perceived that their mothers responded to their sadness with EFR, higher level of ISRI predicted greater total psychological problems,  $b = 9.26, t(117) = 2.82, p = .01$  (see Figure 1a); depressive symptoms,  $b = 2.40, t(117) = 2.62, p = .01$  (see Figure 1b); and lability,  $b = 1.60, t(117) = 1.96, p = .05$  (see Figure 1c). Higher levels of ISRI predicted lower emotion regulation for children who perceived that their mothers responded with EFR,  $b = 9.26, t(117) = 2.82, p = .01$  (see Figure 1d). The model for risky behaviors was non-significant. For children who perceived their mothers as responding to their sadness with a PFR, ISRI had no significant association with any of the outcome variables.

Regression using anger socialization responses were all non-significant.

## Discussion

From a developmental psychopathology perspective, delineating pathways to competent functioning within conditions of adversity is crucial for understanding the complexities of development (Sroufe, 1990). As such, maternal emotion socialization as perceived by children at higher incarceration-specific risk does not appear to function in the same way as depicted in the literature using White, middle-class samples or for children with lower levels of incarceration-specific risk. Specifically, the results of this research indicated that for children who perceived that their mothers reacted to their sadness with an Emotion-focused Response (EFR), had poorer functioning within psychological, social, and emotion domains in conjunction with more maternal incarceration-specific experiences. At lower levels of incarceration risk, the negative sequelae associated for maternal EFR were not found. Interestingly, no significant associations were found for perceived maternal Problem-focused Responses (PFR). Thus, these two sadness socialization strategies do not appear to function in the previously established adaptive manner (Fabes et al., 2002) for children experiencing many environmental adversities due to their mother's incarceration. These responses mirror the distinction made by Lazarus and Folkman (1991) concerning the two basic ways of coping. That is, one approach (PFR) addresses the problem that caused the



distress, whereas the other (EFR) emphasizes ways to respond to the emotional distress. Thus, it is particularly striking that these two maternal responses that presumably have the potential to teach children important and seemingly constructive coping responses did not function as they do for lower risk samples.

There are several possible explanations for these thought-provoking findings. Research indicates that children of incarcerated mothers are more likely to have insecure attachment relationships with their mothers (Poehlmann, 2005). This relational history may translate into a basic mistrustful attitude towards a seemingly supportive EFR to their sadness expression by their mothers. Rather than interpreting their EFR as showing interest or concern, the children may interpret it as invalidating their emotions perhaps by misinterpreting maternal concern as being insincere or mocking which then could lead children to respond in a defensive or hostile manner. Thus, the potential mismatch between their emotional needs and their mother's response may exacerbate their psychological problems and emotion regulation difficulties. Because these high risk children may be unaccustomed to receiving consistent, sensitive responses to their vulnerable emotions (i.e., sadness) from their mothers, they may not perceive an EFR as being comforting or helpful to alleviate or lessen the arousal. It may be that responding to the EFR could result in a flood of sadness expression that could overwhelm their coping resources. Thus, the EFR would not lead to improved emotion regulation but rather emotion dysregulation. Interestingly, a maternal PFR did not interact with incarceration-related experiences to predict outcomes, perhaps because children have low confidence that their mothers or others can solve the problem that produced the sadness. Prior research indicates that EFR is more effective in situations in which the degree of control is low, whereas the converse is true for PFR (Altshuler & Ruble, 1989). An avenue for future examination is to evaluate children's perceptions of control as this was not investigated in the current study. Given the chaotic environment in which many of these children live, it is likely that very little control is possible and thus, maternal EFR ought to have been more effective than was demonstrated in this research. Further, it would be interesting to also evaluate how mothers' sense of control over their environment is a factor in their use of EFR and PFR in response to their children's sadness. It may be that incarcerated mothers do not respond with a PFR because of their lack of available resources to "fix" sadness-eliciting problems in their children.

Alternatively, it may be that emotion socialization processes are not of sufficient importance to exert an effect on psychosocial maladaptation for these children who have been exposed to multiple stressors including both incarceration-specific and general environmental risk factors. Mothers' response to children's sadness may be of minor importance in the context of living in a high stress environment characterized by instability and inconsistency in care and inadequate resources. Clearly, more research needs to be conducted to understand why two maternal sadness socialization responses that have been demonstrated to be associated with positive outcomes do not yield the same benefits for children exposed to high levels of incarceration-specific risk.

The findings from this research also have potentially important implications for emotion socialization researchers who have tended to view these two strategies (EFR, PFR) as supportive based on theory and/or the combination of these scales into a single composite

scale. It may be that seemingly positive responses may have differing degrees of effectiveness, particularly in contexts in which a high degree of stress or risk is present. For example, Stelter and Halberstadt (2011) found that parental stress moderated the effect of parental beliefs about children's emotions on children's attachment security. That is, under conditions of high stress, parental beliefs about the acceptability of positive and negative emotions were more important to children's attachment security than under conditions of low stress. These findings in combination with those of the present study suggest the importance of considering how parental stress and risk may affect the assumed benefits of various parental responses to children's emotional expressivity.

The findings regarding perceived maternal anger socialization did not lend support to our specific hypotheses but were indicative of the general theme that the potential influence of maternal socialization practices must be considered and evaluated within the context of risk. Prior research has indicated that negative maternal responses to anger through punitive, minimizing, and ignoring strategies has been associated with negative psychological and emotional outcomes (e.g., Katz & Hunter, 2007; Sanders et al., in press). Researchers have hypothesized that the use of these types of strategies to control children's negative emotions typically results in the initial suppression of the emotion that later can evolve into a dysregulated display due to the intensity of the stored negative affect that has not been processed (Buck, 1984; Butler et al., 2003). It is likely that the children who are at high risk of maternal incarceration-specific experiences live in home contexts and neighborhoods that are characterized by high frequencies of witnessed and experienced anger, hostility, aggression, and violence to varying degrees. Thus, expression of anger by the child and/or his or her mother is considered a normative part of the emotional landscape and does not warrant particular notice by the child. It also may be that children have become desensitized to negative responses to their anger expression by their mothers and thus, the linkages to psychological and emotional difficulties are not robust. Interestingly, this sample of high risk children do display higher levels of externalizing behaviors than children without incarcerated mothers (Block & Potthast, 1998; Murray et al., 2012) suggesting that children are not learning adaptive ways to manage their anger. Dunsmore, Booker, Ollendick, and Greene (this issue) note that emotion regulation processes in children diagnosed with Oppositional Defiant Disorder likely operate differently than they do for children without these symptom pointing to the importance of understanding emotion processes in children and families in challenging environments. However, those children with incarcerated mothers who have learned to cope with their anger in adaptive ways have been found to have better emotion regulation and less internalizing and externalizing psychopathology (Zeman, Dallaire, Borowski, & Poon, 2014). Additional research needs to investigate further this unexpected set of findings to determine what types of maternal and caregiver responses to anger are helpful in teaching children these important emotion regulation skills.

Although this study adds valuable information to the study of maternal socialization of emotion in high risk samples, there are several limitations that must be considered. First, we relied on children's report for the evaluation of maternal emotion socialization rather than using an interaction task. However, given the logistical constraints, using observational methodology was not feasible. Second, there was considerable variability in the pre-jail relationships between children and mothers that may have affected the findings although this

variable was controlled statistically. One of the challenges investigating this sample is the complexity and myriad of factors influencing children's lives. Although the current sample is the largest collected to date of children with incarcerated mothers, future research must strive to master the logistical hurdles to ensure adequate sample sizes so that analyses of contextual variables can be considered. Third, given the important role of the caregiver in these children's lives, emotion socialization should be investigated within these relationships.

Further, the ISRI is a recent, novel addition to the literature that was based on a variable-oriented approach in which each individual is represented by a group mean score for each variable. This approach does not permit the identification of particular subgroups within a sample that may have a unique set of risk factors and resultant outcomes (Greenberg et al., 2001). Using a person-oriented analytic approach would enable the detection of risk factors unique to particular subgroups of individuals within a larger sample with their own constellations of experiences and risk variables that may contribute in particular ways to outcomes. Thus, it is not possible to know in this sample of children with incarcerated mothers whether there are subgroups of children who experience their mother's emotion socialization in different ways than represented by the current analyses. Finally, the cross-sectional nature of these data prohibits causal explanations. Longitudinal designs would provide important insights regarding how emotion socialization practices may both facilitate and impede psychological functioning in this group of children who are at high risk for adverse outcomes.

## Acknowledgments

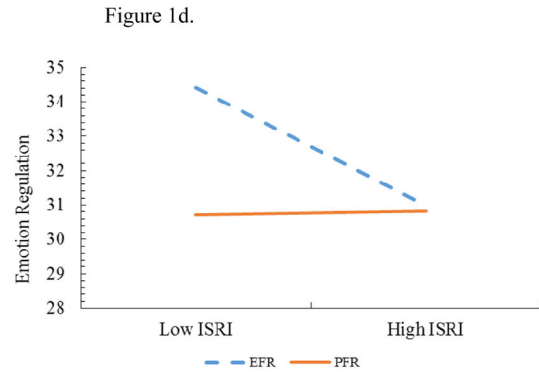
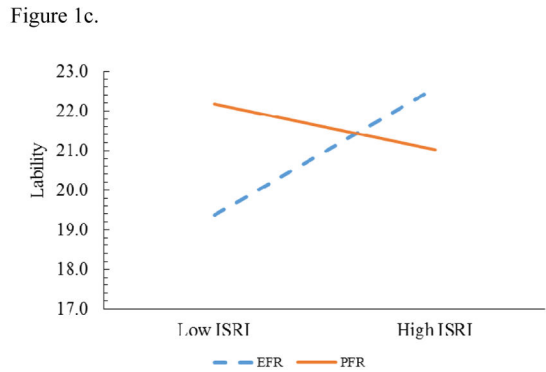
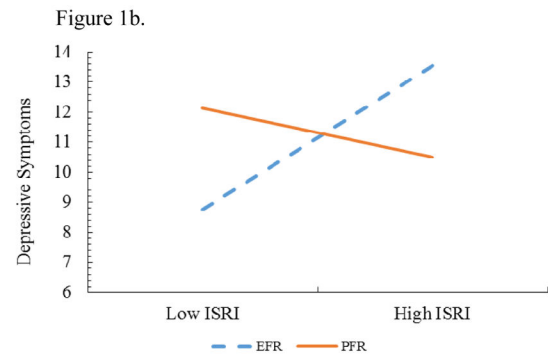
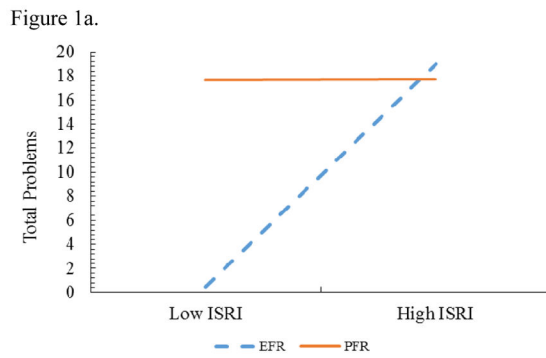
This research was supported by the NIH grant # 5R21HD060104-02 to the College of William & Mary and the authors. We thank Caroline Cumings, Johanna Folk, and Jennifer Poon for their tireless assistance on this research.

## References

- Achenbach, T.M.; Rescorla, L.A. Manual for the ASEBA School-Age Forms & Profiles. Burlington: University of Vermont, Research Center for Children, Youth, and Families; 2001.
- Aldao A, Nolen-Hoeksema S, Schweizer S. Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*. 2010; 30:217–237. [PubMed: 20015584]
- Altshuler JL, Ruble DM. Developmental changes in children's awareness of strategies for coping with uncontrollable stress. *Child Development*. 1989; 60:1337–1349. [PubMed: 2612245]
- Block KJ, Potthast MJ. Girl scouts beyond bars: Facilitating parent-child contact in correctional settings. *Child Welfare*. 1998; 77:561–578. [PubMed: 9744074]
- Boddie, S.; Franklin, R.; Trulear, H. Healing Communities: A framework for congregations in their ministry to families affected by incarceration. Report to the Annie E. Casey Foundation. 2008. [http://ojp.gov/fbnp/pdfs/Healing\\_Communities.pdf](http://ojp.gov/fbnp/pdfs/Healing_Communities.pdf)
- Buck, R. The communication of emotion. New York: Guilford; 1984.
- Butler EA, Egloff B, Wilhelm FH, Smith NC, Erickson EA, Gross JJ. The social consequences of expressive suppression. *Emotion*. 2003; 3(1):48–67. [PubMed: 12899316]
- Campos JJ, Campos RG, Barrett KC. Emergent themes in the study of emotional development and emotion regulation. *Developmental Psychology*. 1989; 25:394–402.
- Cassano M, Zeman J, Perry-Parrish C. Influence of gender on parental socialization of children's sadness regulation. *Social Development*. 2007; 16:210–231.

- Cassidy J, Poehlmann J, Shaver P. Introduction to the Special Issue: An attachment perspective on incarcerated parents and their children. *Attachment and Human Development*. 2010; 12:285–288. [PubMed: 20582841]
- Conger, RD.; Elder, GH. Families in troubled times: The Iowa youth and family project. In: Conger, RD.; Elder, GH., Jr, editors. *Families in troubled times: Adapting to change in rural America*. Hawthorne, NY: Walter de Gruyter; 1994. p. 3-16.
- Dallaire DH. Incarcerated mothers and fathers: A comparison of risks for children and families. *Family Relations*. 2007; 56:440–453.
- Dallaire D, Zeman J, Thrash T. Children's experiences of maternal incarceration-specific risks: Predictions to psychological maladaptation. *Journal of Clinical Child and Adolescent Psychology*. in press.
- Denham, SA.; Bassett, HH.; Wyatt, T. The socialization of emotional competence. In: Grusec, JE.; Hastings, PD., editors. *Handbook of socialization: Theory and research*. New York, NY, US: Guilford Press; 2007. p. 614-637.
- Dunsmore J, Booker J, Ollendick T. Parental emotion coaching and child emotion regulation as protective factors for children with Oppositional-Defiant Disorder. *Social Development*. 2013; 23:444–466.
- Dunsmore J, Booker J, Ollendick T, Greene R. Maternal emotion coaching predicts better treatment outcome for emotionally labile children with Oppositional Defiant Disorder. *Social Development*. this issue.
- Eisenberg N, Fabes R, Murphy B. Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. *Child Development*. 1996; 67:2227–2247. [PubMed: 9022240]
- Eisenberg N, Fabes RA, Schaller M, Carlo G, Miller PA. The relations of parental characteristics and practices to children's vicarious emotional responding. *Child Development*. 1991; 62:1393–1408. [PubMed: 1786723]
- Fabes RA, Poulin RE, Eisenberg N, Madden-Derdich DA. The Coping with Children's Negative Emotions Scale (CCNES): Psychometric properties and relations with children's emotional competence. *Marriage and Family Review*. 2002; 34:285–310.
- Folk J, Zeman J, Poon J, Dallaire D. A longitudinal examination of emotion regulation: Pathways to anxiety and depressive symptoms in urban minority youth. *Child and Adolescent Mental Health*. 2014; 19:243–250.
- Greenberg M, Speltz M, DeKlyen M, Jones K. Correlates of clinic referral for early conduct problems: Variable- and person-oriented approaches. *Development and Psychopathology*. 2001; 13:255–276. [PubMed: 11393646]
- Gomez R, Vance A, Gomez A. Children's Depression Inventory: Invariance across children and adolescents with and without depressive disorders. *Psychological Assessment*. 2012; 24(1):1–10. [PubMed: 21859217]
- Gottman JM, Katz LF, Hooven C. Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology*. 1996; 10:243–268.
- Katz LF, Hunter EC. Maternal meta-emotion philosophy and adolescent depressive symptomatology. *Social Development*. 2007; 16:343–360.
- Katz LF, Stettler N, Gurtoenko K, Maliken A. Traumatic stress symptoms in children exposed to intimate partner violence: The role of parent emotion socialization and children's emotion regulation abilities. *Social Development*. this issue.
- Kjellstrand JM, Eddy JM. Parental incarceration during childhood and its relationship to family and youth functioning across adolescence. *Journal of Offender Rehabilitation*. 2011; 50:18–36. [PubMed: 21423568]
- Klimes-Dougan B, Brand AE, Zahn-Waxler C, Usher B, Hastings PD, Kendziora K, Garside RB. Parental emotion socialization in adolescence: Differences in sex, age and problem status. *Social Development*. 2007; 16:326–342.
- Kovacs, M. *Childhood Depression Inventory*. Cheektowaga: Multi-Health Systems Inc; 1992.

- Kuppens P, Van Mechelen I, Smits D, De Boeck P. The appraisal basis of anger: Specificity, necessity and sufficiency of components. *Emotion*. 2003; 3(3):254–269. [PubMed: 14498795]
- Kusche, CA.; Greenberg, MT.; Beilke, B. The Kusche Affective Interview. University of Washington; Seattle: 1988. Unpublished manuscript
- Lazarus, RS.; Folkman, S. Stress and coping. New York: Columbia University Press; 1991.
- Lotze GM, Ravindran N, Myers BJ. Moral emotions, emotion self-regulation, callous-unemotional traits and problem behavior in children of incarcerated mothers. *Journal of Child and Family Studies*. 2010; 19:702–713.
- Lunkenheimer ES, Shields AM, Cortina KS. Parental emotion coaching and dismissing in family interaction. *Social Development*. 2007; 16:232–248.
- Murray J, Farrington DP, Sekol I. Children’s antisocial behavior, mental health, drug use, and educational performance after parental incarceration: A systematic review and meta-analysis. *Psychological Bulletin*. 2012; 138:175–210. [PubMed: 22229730]
- Murray J, Murray L. Parental incarceration, attachment, and child psychopathology. *Attachment & Human Development*. 2010; 12:289–309. [PubMed: 20582842]
- Phillips SD, Erkanli A, Keeler G, Costello EJ, Angold A. Disentangling the risks: Parent criminal justice involvement and children’s exposure to family risks. *Criminology and Public Policy*. 2006; 5:677–702.
- Poehlmann J. Representations of attachment relationships in children of incarcerated mothers. *Child Development*. 2005; 76:679–696. [PubMed: 15892786]
- Rutter, M. Protective factors in children’s responses to stress and disadvantage. In: Kent, MW.; Rolf, J., editors. *Primary prevention of psychopathology*. Vol. 3. Hanover, NH: University Press of New England; 1979. p. 49-74. Social competence in children
- Sanders W, Zeman J, Poon J, Miller R. Parental emotion socialization and its associations to depressive symptoms: Does parent gender matter? *Journal of Family and Child Studies*. in press.
- Shortt JW, Katz LF, Allen N, Leve C, Davis B, Sheeber L. Mother and father socialization of anger and sadness in adolescents with depressive disorder. *Social Development*. this issue.
- Shields A, Cicchetti D. Emotion regulation among school-age children: The development and validation of a new criterion Q-sort scale. *Developmental Psychology*. 1997; 33:906–916. [PubMed: 9383613]
- Sibley, CG. Utilities for examining interactions in multiple regression [computer software]. University of Auckland; 2008.
- Sroufe LA. Considering normal and abnormal together: The essence of developmental psychopathology. *Development and Psychopathology*. 1990; 2:335–347.
- Stelter RL, Halberstadt AG. The interplay between parental beliefs about children’s emotions and parental stress impacts children’s attachment security. *Infant and Child Development*. 2011; 20:272–287. [PubMed: 21731472]
- Trice AD, Brewster J. Effects of maternal incarceration on adolescent children. *Journal of Police and Criminal Psychology*. 2004; 19:27–35.
- Von Salisch M, Vogelgesang J. Anger regulation among friends: Assessment and development from childhood to adolescence. *Adolescent Development*. 2005; 22(6):837–855.
- Western B, Wildeman C. The black family and mass incarceration. *The Annals of the American Academy of Political and Social Science*. 2009; 621:221–242.
- Zeman, J.; Cassano, M.; Adrian, M. Socialization influences on children’s and adolescents’ emotional self-regulation processes: A developmental psychopathology perspective. In: Barrett, KC.; Fox, NA.; Morgan, GA.; Fidler, DJ.; Daunhauer, LA., editors. *Handbook of self-regulatory processes in development: New directions and international perspectives*. New York, NY: Psychology Press; 2013. p. 79-106.
- Zeman, J.; Dallaire, D.; Borowski, S.; Poon, J. Emotion coping strategies and externalizing behaviors in youth with an incarcerated mother. In: Cavanaugh, C., Chair, editor. *Families behind bars: Familial justice system contact and adolescent development*; Talk given at the biennial meeting of the Society for Research in Adolescence; Austin, T. 2014.



**Figure 1.**

Figure 1a. CBCL Total Problems by SSR and ISRI

Figure 1b. CDI Depressive Symptoms by SSR and ISRI

Figure 1c. ERC Labiality by SSR and ISRI

Figure 1d. ERC Emotion Regulation by SSR and ISRI

Note. SSR = sadness socialization response (1 = PFR; Problem-focused Response, 0 = EFR; Emotion-focused Response); ISRI = Caregiver’s report of children’s experience of Incarceration-specific Risks; CBCL = Child Behavior Checklist; CDI = Child Depression Inventory

**Table 1**

Descriptive Statistics and Correlations among Study Variables

Measure	M (SD)	Age	Race	Mother Contact	ISRI	Sad SR.	Anger SR	CBCL Total	CDI	RBP	ERC Liability
1. Child Age	9.38 (1.72)	--									
2. Child Ethnicity/Race	61.7% Black	.11	--								
3. Pre-jail Mother Contact	4.36 (1.41)	-.05	.31**	--							
4. Incarceration-specific Risk Index	3.03 (1.55)	.05	-.12	-.12	--						
5. Sad Socialization Responses	--	.02	.22*	-.08	.10	--					
6. Anger Socialization Responses	--	.11	.18*	-.02	.04	.34**	--				
7. CBCL Total Problems	32.63(24.01)	.05	-.15+	.19*	.20*	-.13	-.01	--			
8. Child Depression Inventory	8.17 (7.04)	-.09	-.11	.09	.06	-.00	-.03	.33**	--		
9. Risky Behavior Protocol	4.35 (4.08)	.18*	.05	.08	.03	.04	.03	.22*	.21*	--	
10. ERC Liability	23.81 (5.88)	-.08	-.20*	.16+	.07	.01	.06	.74**	.19*	.20*	--
11. ERC Emotion Regulation	29.63 (4.35)	.04	.10	-.07	-.07	-.19*	-.17*	-.15	-.06	-.28**	-.37**

Note. Ethnicity was coded 1 = Black, 0 = non-Black; Pre-jail Mother contact was evaluated on 6-point scale (0 = never, 5 = daily), Sadness Socialization Responses were coded as Problem-focused Responses = 1, Emotion-focused Responses = 0; Anger Socialization Responses were coded as Negative Responses = 1, Emotion-focused Responses = 0; CBCL = Child Behavior Checklist; RBP = Risky Behavior Protocol; ERC = Emotion Regulation Checklist. N = 136.

+ p = .06-.10.  
 \* p < .05.  
 \*\* p < .01.  
 \*\*\* p < .001.

**Table 2**

## Percentages of Endorsed Sadness and Anger Socialization Responses

Emotion	Socialization Response						
	<u>PFR</u>	<u>EFR</u>	<u>EE</u>	<u>Distress</u>	<u>Punitive</u>	<u>Neglect</u>	<u>Minimize</u>
Sadness	78 (50.6%)	52 (33.8%)	0 (0.0%)	0 (0.0%)	8 (5.2%)	7 (4.9%)	8 (5.2%)
Anger	78 (50.6%)	18 (11.7%)	0 (0.0%)	0 (0.0%)	34 (22.1%)	5 (3.2%)	9 (5.8%)

*Note.* PFR = Problem-focused response, EFR = Emotion-focused response, EE = Expressive Encouragement. In the current study, Punitive, Neglect, and Minimize responses were combined to create a Negative Responses category. A small subset of participants' responses could not be coded into one of the six categories for sadness ( $n = 1$ ) and anger ( $n = 10$ ).



Regressions Predicting Children's Total Behaviors, Depressive Symptoms, Lability, and Emotion Regulation by Sadness Socialization Responses

Table 3

Outcome	Total Problems		Depressive Symptoms		Lability		Emotion Regulation	
	B (SE) β	R <sup>2</sup>	B (SE) β	R <sup>2</sup>	B (SE) β	R <sup>2</sup>	B (SE) β	R <sup>2</sup>
Step 1: Control Variables		.08*		.04		.07*		.02
Child Age	0.67 (1.31)	.05	-0.44 (0.04)	-11	-0.08 (0.34)	-02	-0.15 (0.25)	-05
Child Ethnicity <sup>a</sup>	-12.95 (4.69)	-.24**	-1.66 (1.31)	-12	-2.55 (1.16)	-.21*	1.19 (0.88)	.13
Pre-Jail Mother Contact	4.55 (1.66)	.25**	0.43 (0.45)	.09	1.00 (0.42)	.23*	-0.34 (0.32)	-.10
Step 2: Main Effects		.06*		.01		.01		.06*
Child Age	0.83 (1.33)	.06	-0.34 (0.38)	-08	-0.10 (0.34)	-03	-0.17 (0.25)	-06
Child Ethnicity <sup>a</sup>	-12.89 (4.75)	-.26**	-1.91 (1.34)	-14	-2.68 (1.21)	-.22*	1.72 (0.89)	-.18+
Pre-Jail Mother Contact	4.95 (1.68)	.27**	0.66 (0.45)	.14	1.04 (0.42)	.24*	-0.44 (0.31)	-.11
ISR1 <sup>b</sup>	4.09 (2.22)	.16+	0.40 (0.58)	.06	0.42 (0.56)	.07	-0.12 (0.41)	-03
SR	8.79 (4.43)	.18+	0.42 (1.24)	.03	0.80 (1.13)	.07	-2.06 (0.83)	-.24*
Step 3: Interaction Term		.03*		.06		.03*		.04*
Child Age	0.67 (1.31)	.05	-0.44 (0.04)	-11	-0.13 (0.34)	-04	-0.14 (0.25)	-05
Child Ethnicity <sup>a</sup>	-12.09 (4.69)	-.24**	-1.66 (1.31)	-12	-2.53 (1.20)	-.21*	-1.60 (0.88)	-.18+
Pre-Jail Mother Contact	4.55 (1.66)	.25**	0.43 (0.45)	.09	0.94 (0.42)	.22*	-0.37 (0.31)	-.11
ISR1 <sup>b</sup>	9.26 (3.29)	.37**	2.40 (0.92)	.38**	1.60 (0.81)	.27*	-1.08 (0.60)	-.24+
SR	7.93 (4.38)	.16+	0.17 (1.21)	.01	0.63 (1.12)	.05	-1.93 (0.82)	-.22*
ISR1 x SR	-9.25 (4.39)	-.27*	-3.22 (1.17)	-.40**	-2.17 (1.10)	-.27*	1.77 (0.81)	.29*

Note.

<sup>a</sup> Ethnicity was coded as 1 = Black, 0 = non-Black;

<sup>b</sup> ISR1 = Caregiver's report of children's experience of Incarceration-specific Risks;

<sup>c</sup> SR = sadness socialization response (1 = Problem-focused Response, 0 = Emotion-focused Response).

+  $p < .10$ .

\*  $p < .05$ .

$\cdot 10^4 < d$   
\*\*

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript