MATERNAL SOCIALIZATION OF EMOTION: IMPLICATIONS FOR EMOTION REGULATION AND CHILD DEPRESSION

by

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(Under the Direction of Kimberly Shipman, Ph.D.)

ABSTRACT

Child depression is a serious mental health concern affecting millions of children and their families each year. Although research has yet to identify the etiological mechanisms responsible, findings suggest that emotion regulation deficits that emerge as a result of atypical socialization experiences in the parent-child relationship may place children at risk for depression. The present study was designed to examine the relations between maternal socialization of emotion, child emotion regulation, and child depression in a community sample of African American mother-child dyads. In particular, it was hypothesized that low levels of maternal validation and high levels of maternal invalidation would predict child depression and that deficits in adaptive emotion regulation would mediate the relation between maternal socialization of emotion and child depression. Consistent with hypotheses, maternal socialization predicted child depression. However, findings did not support the proposed relation between emotion regulation and child depression.

INDEX WORDS: child depression, socialization of emotion, emotion regulation, validation, invalidation

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DEDICATION

This manuscript is dedicated to Doug McCreary and Jason Schneider and to the memory of Norman Barry Schneider, M.D.

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CHAPTER 1: INTRODUCTION

Although research on the etiology and treatment of adult depression has burgeoned in the past few decades, until recently, little attention was directed to the study of depression in childhood. For many years, experts assumed that children lack the cognitive capacity necessary to experience the intense dysphoria and feelings of hopelessness characteristic depression. However, recent epidemiological studies do not support this contention and instead indicate that child depression is a significant mental health problem affecting millions of children and their families each year (see Kazdin & Marciano, 1998, for a review). Symptoms of child depression are similar to those observed in depressed adults and include frequent sadness, changes in appetitive motivation, and low self-esteem. (American Psychiatric Association, 1994; Kazdin & Marciano, 1998). Findings further indicate that depressed children are impaired in numerous areas of functioning and are at heightened risk for future socioemotional difficulties.

Despite differing contextual and developmental factors, the majority of models designed to explain the development of child depression were derived from research on depressed adults (Kazdin & Marciano, 1998). An important exception is the emotion regulation model proposed by Garber and colleagues (Garber, Braafladt, & Zeman, 1991). Emotion regulation, defined as the ability to monitor and adjust emotional experience and expression in accordance with intrapersonal and interpersonal demands, is essential to goal attainment and adaptive psychosocial functioning (Thompson, 1994). Garber suggests that deficits in the ability to regulate negative emotion (e.g., an inability to recognize or accurately label emotions, failure to generate or implement effective problem-solving strategies) are important to the etiology and maintenance of depressive disorders in children. Comparisons between depressed and

nondepressed youth provide empirical support for an emotion regulation model. In particular, Garber has found that relative to nondepressed youth, depressed children rely less on active problem-solving strategies and more on avoidance and disinhibited emotional expression to manage their negative affect (Garber, Braadfladt, & Weiss, 1995; Garber et al., 1991).

Researchers have begun to study maternal responses to children's emotional displays in an effort to understand how children fail to acquire effective emotion regulation strategies or learn faulty strategies for managing negative emotions. Theory and research on the socialization of emotion suggests that maternal responses to children's emotions have important implications for children's emotion regulation and psychological adjustment. In general, maternal responses characterized by validation, or acceptance, of the child's emotion are associated with children's use of more effective emotion regulation strategies, whereas invalidating maternal responses, particularly those that function to minimize or punish children's emotions, are associated with children's use of ineffective or problematic emotion regulation strategies (see Eisenberg, Cumberland, & Spinrad, 1998, for a review). Validating parental responses are believed to reduce children's immediate arousal, facilitate the internalization of effective emotion regulation strategies, and foster expectancies for future parental support (Calkins, 1994; Eisenberg, Cumberland, & Spinrad, 1998; Gottman, Katz, & Hooven, 1996; Linehan 1993). In contrast, invalidating parental responses to children's negative affect may increase children's arousal, making it more difficult for them to manage the current situation (Eisenberg, Cumberland, & Spinrad, 1998; Hoffman, 1983). Invalidation is also expected to produce difficulties in the ability to accurately identify and label subjective emotional experience (Dunn & Brown, 1991; Gottman, et al., 1996; Linehan, 1993) and may limit children's willingness to seek future social support (Calkins, 1994; Fuchs & Thelen, 1988; Zeman & Shipman, 1998).

In summary, recent research indicates that child depression is associated with deficits in children's ability to regulate negative emotions. Findings also suggest that emotion regulation deficits emerge as a result of interactions between mother and child, although research has yet to directly test the relationship between maternal socialization of emotion and child depression. Prior literature on emotion socialization has largely been restricted to the study of externalizing behavior problems and has been limited by reliance on parental report. Additionally, most studies on the socialization of emotion have been restricted to the study of Caucasian families and as a result little is currently known about the socialization of emotion in diverse populations. The present study will examine maternal socialization of emotion in a community sample of low to middle income, African American mother-child dyads to better understand the relation between maternal validation and invalidation of emotion and child depression. The present study will also examine the relation between emotion regulation and child depression and the potential role that maternal socialization may play in the development of children's emotion regulation skills.

CHAPTER 2: LITERATURE REVIEW

Functionalist Theory and Emotion Regulation

The functionalist theory of emotion provides a foundation for understanding the importance of emotion regulation to adaptive psychosocial functioning. Functionalist theory defines emotions as "bidirectional processes of establishing, maintaining, and/or disrupting significant relationships between an organism and the (external or internal) environment." (Barrett & Campos, 1987, p. 558). Emotions may be experienced as subjective feeling states, physiological arousal, urges, cognitions, or behavioral expressions, and they function to alert the individual and persons in the environment to the occurrence of an important event and to organize goal-directed behavior (Barrett & Campos, 1987). From a functionalist perspective, each emotion is associated with a unique motivational function for the individual and the social environment. For example, sadness functions to signal the self and others that assistance is needed; anger organizes behavior to overcome an obstacle to goal-attainment.

Functionalist theory suggests that emotional experience and expression are influenced by personal characteristics (i.e., biological factors, learning history), the emotion-eliciting event, and the social context (Barrett & Campos, 1987; Saarni, Mumme, & Campos, 1989). Embedded in the functionalist definition of emotion is an understanding that emotions are reciprocal in nature (Barrett & Campos, 1987). They serve not only to organize individual behavior, but also to motivate the behavior of others in desired ways. In turn, how emotions are received and responded to by the social environment impacts future emotional experience and expression

(Barrett & Campos, 1987; Campos, Campos, & Barrett 1989; Saarni et al., 1998; Thompson, 1994).

Learning to attend to emotional information and to modify emotional experience and expression is essential to goal attainment and adaptive functioning. According to Thompson (1994), "Emotion regulation consists of the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions… to accomplish one's goals." (Thompson, 1994, pp.27-28). Coping strategies for managing negative affect represent only one facet of emotion regulation, and although emotion regulation is often associated with the diminishing of physiological arousal or the minimizing of emotional expression, effective emotion regulation depends on the context and at times may involve intensifying emotions (Thompson, 1994). Positive emotions (e.g., joy) are also regulated and, the ability to experience and maintain positive affect is considered an essential component of healthy emotion regulation (Cole, Michel, & Teti, 1994). As implied in Thompson's (1994) definition, other aspects of emotion regulation include the ability to attend to and monitor emotional events, to correctly interpret internal and external emotion cues, and to implement effective regulatory strategies for the expression of positive and negative affect.

Young children learn to regulate emotions within the context of the parent-child relationship. In particular, parents are responsible for the emotional tone or climate of the family. An optimal emotional climate is one in which children are afforded opportunities to explore the use of regulatory strategies in manageable situations but are simultaneously shielded from intense emotional experiences (Cole, Michel et al., 1994). An overly controlled, restrictive environment shelters children from important opportunities to learn about emotions, whereas an environment fraught with intense emotional experiences may overwhelm children's capacity for

effective emotion regulation. Additionally, through various learning processes (e.g., emotional contagion, social referencing) children living in an aversive emotional climate may develop a chronically distressed mood or a tendency to react negatively to ambiguous events (Campos et al. 1989; Thompson, 1991; Zahn-Waxler & Kochanska, 1990). By exposing children to moderate levels of distress at developmentally appropriate ages, parents allow their children to develop a sense of mastery and emotional competence.

Parents also influence the development of children's emotion regulation through the use of modeling and didactic training (Halberstadt, 1991; Thompson, 1991). Not only do parents' displays of emotion contribute to the overall emotional climate of the home (Zahn-Waxler & Kochanska, 1990), but they also model for children acceptable emotional experience and expression (Cole et al., 1994; Eisenberg, et al., 1998; Halberstadt, 1991; Hoffman, 1983). Parents teach their children to label emotions, and they provide instruction regarding the causes and consequences of emotion and appropriate emotional expression (Dunn & Brown, 1991; Halberstadt, 1991; Thompson, 1991). Research suggests that children's capacity for emotion language and their understanding of emotions may be particularly important to the development of adaptive emotion regulation strategies (Dunn & Brown, 1991; Gottman, Katz, & Hooven, 1996; Thompson, 1991).

Additionally, parents function as external regulators for their children's emotions (Calkins, 1994; Malatesta-Magai, 1991; Thompson, 1994), and functionalist theory suggests that parental responses to children's displays of emotion are especially important to the development of healthy emotion regulation. In particular, validating or supportive parental responses (i.e., those responses characterized by acceptance of the child's emotion) are expected to reduce children's immediate distress and to facilitate the internalization of effective emotion strategies

(Calkins, 1994; Eisenberg et al., 1998; Hoffman, 1983). Validation teaches children to recognize and label subjective emotional experience, a skill necessary for the use of more sophisticated emotion regulation strategies (Gottman et al. 1996; Linehan, 1993). Parental support for emotion also increases the likelihood that children will seek social support in the future (Fuchs & Thelen, 1988; Zeman & Shipman, 1998) and may foster positive beliefs about the self and the world (e.g., the world is a safe place; Calkins, 1994).

In contrast, invalidating parental responses (i.e., those responses that restrict, punish, or delegitimize children's emotional experience or expression) are thought to increase children's immediate distress and impede efforts at effective emotion regulation (Eisenberg et al., 1998; Hoffman, 1983). Invalidation (e.g., suggesting a child should feel happy, not sad) may teach children to inaccurately label subjective emotions, increasing the likelihood of misinterpretation in the future (Linehan, 1993). By heightening children's emotional arousal, invalidation also prevents children from internalizing effective emotion regulation strategies offered by parents (Eisenberg et al., 1998; Hoffman, 1983). Invalidating responses discourage children from seeking social support when distressed and may contribute to the development of negative beliefs about the self and the world (Calkins, 1994).

Emotion Regulation and Psychological Adjustment

Consistent with functionalist theory, empirical research has found a relation between emotion regulation and psychosocial adjustment in children. Findings indicate that children with externalizing problems are more emotionally intense than their nondisordered peers (Eisenberg, Fabes, Guthrie, et al., 1996) and more likely to express emotion in dysregulated ways (e.g., uncontrollable sobbing, slamming doors; Cole, Zahn-Waxler et al., 1994; Eisenberg et al., 1999; Zeman, Shipman, & Suveg, 2002). Compared to nondisordered children, children with

externalizing problems are less apt to use problem-solving strategies and more likely to focus on the source of their distress or to use avoidance coping strategies to manage negative emotion (Calkins, Gill, Johnson, & Smith, 1999; Cole, Zahn-Waxler et al., 1994; Eisenberg, Fabes, Guthrie, et al., 1996; Gilliom, Shaw, Beck, Schonberg, & Lukon, 2002; Zeman et al., 2002; see also Compas, Conner-Smith, Saltzman, Thomsen, & Wadsworth, 2001, for a review of the child coping literature). For example, Eisenberg, Fabes, Guthrie et al. (1996) found that children who were less likely to avert their gaze from a distressing film clip were rated by mothers, fathers, and teachers as having a greater number of externalizing behavior problems. Similarly, Gilliom and colleagues (Gilliom, et al., 2002) found that 3 1/2 year-old boys who were able to shift their attention from a desired but forbidden object and those who relied more on distraction during a frustration laboratory task had fewer teacher-reported externalizing problems at age 6.

Although a majority of research has focused on children with externalizing problems, studies suggest that children with internalizing problems have difficulty regulating negative emotion as well. In particular, findings indicate that children with internalizing problems experience both sadness and anger more often than their peers (Blumberg & Izard, 1985, 1986), and they may be more likely than nondisordered children to express negative emotion in uncontrollable ways (Cole, Zahn-Waxler, et al., 1994; Eisenberg et al., 1999; Zeman et al., 2002). Additionally, some research suggests that children with internalizing problems are inclined to express sadness but to inhibit anger (Eisenberg et al., 2001; Zeman, et al., 2002), a strategy that is expected to interfere with effective communication and may increase children's experience of anger over time (e.g., Fabes, Leonard, Kupanoff, & Martin, 2001).

Garber and her colleagues studied the emotion regulation strategies of depressed children in an effort to better understand the origins of childhood depression (Garber et al., 1995; 1991).

Garber hypothesized that deficits in children's ability to regulate negative emotions places them at risk for depression (Garber et al., 1991). Garber has outlined a number of steps involved in effective emotion regulation, including recognition and accurate identification of a subjective feeling, generation of effective emotion regulation strategies, and implementation of selected strategies. To test their model, Garber, Braafladt, and Zeman (1991) compared the emotion regulation strategies nominated by depressed children and adolescents to those of medically ill, nondepressed children and adolescents. In general, the nondepressed youths reported using distraction and problem-solving regulatory strategies more often than the depressed children and adolescents; whereas the depressed children and adolescents reported greater reliance on avoidance strategies. Depressed and nondepressed youths did not differ in their use of emotion regulation strategies for maintaining positive emotions.

In another study, Garber, Braafladt, and Weiss (1995) examined the emotion regulation strategies endorsed by depressed children in grades kindergarten through eighth. Depressed and nondepressed children were presented with a list of potential emotion regulation strategies and queried about their use of these strategies in hypothetical interpersonal or achievement-oriented situations. Though no differences between groups were found in the anticipated intensity of emotional experience, depressed children differed from nondepressed children in their reported use of the various regulatory strategies. In hypothetical interpersonal situations, depressed girls were less likely to endorse the use of problem-solving strategies relative to nondepressed girls, and depressed boys were more likely to endorse the use of anger relative to nondepressed boys. In hypothetical achievement situations, compared with nondepressed children, depressed boys and girls were both less likely to endorse the use of social support and cognitive restructuring.

Socialization of Emotion: Parental Responses to Children's Emotions

Given the importance of emotion regulation to adaptive functioning, researchers have begun to examine how children learn to regulate their emotions. As suggested by functionalist theory, empirical studies have found that parental responses to children's displays of emotion are particularly important to the development of children's emotional competence. Evidence for a relation between parental support and adaptive emotion regulation is derived from studies by Eisenberg and colleagues. In particular, Eisenberg and Fabes (1994) found that maternal report of comforting in response to children's displays of negative emotion was correlated with children's use of verbalizations when angered by a peer as opposed to venting (i.e., intense, nonverbal expressions of emotion). A second study found that maternal report of problem-focused responses to elementary school children's negative emotions was associated with children's use of constructive coping (e.g., problem-solving, seeking social support; Eisenberg, Fabes, and Murphy, 1996).

A study by Roberts and Strayer (1987) found a non-linear relationship between fathers' encouragement of negative emotion and teacher ratings of children's competence, suggesting that too much paternal support is associated with lower levels of child competence. This finding may hold true for mothers as well, although research has not tested this hypothesis. Additionally, some have suggested that parents are more likely to support children who are less emotionally competent, which could in part explain the findings reported by Roberts and Strayer (e.g., Eisenberg et al, 1998). However, these findings may also reflect a problem with the way in which support has been defined across studies. In particular, the impact of parental support on the development of children's emotion regulation is expected to differ depending on whether parental support is provided indiscriminately in all situations or only when behavior is

appropriate. For example, Eisenberg and colleagues (Eisenberg et al., 1998) found that parental restrictiveness of emotional expression in situations which may result in harm to others has been correlated with higher ratings of child sympathy (Eisenberg et al., 1991).

Research also suggests that parental invalidation (i.e., parental responses that restrict, minimize, or punish children's emotions) is associated with poorer socioemotional functioning in children. For example, Eisenberg, Fabes, and Murphy (1996) examined the relation between maternal punishing, minimizing, and distress responses to children's negative affect and child emotion regulation. Findings indicated that maternal report of minimizing or punitive responses was associated with children's use of avoidance coping strategies (i.e., avoiding contemplating or solving an existing problem). No relationship was found between maternal distress responses and children's emotion regulation.

Fabes and colleagues (Fabes et al., 2001) examined the relations between harsh parental responses (i.e., an aggregate of minimizing and punitive responses) and distress responses to children's emotions and the intensity of children's emotional displays. A group of preschool children was observed in play for nearly 5 months and the intensity of their displays of negative emotion with peers was measured. Parents also completed a self-report questionnaire assessing the quality of their responses to their children's displays of negative emotion. Fabes et al. found that harsh parental responses to children's emotional displays were positively correlated with the intensity of children's displays of negative emotion during play with peers. Additionally, children whose parents reported both harsh parental responses and distress responses were particularly likely to display intense negative emotion.

Although a consistent relation between parental socialization of emotion and child adjustment has emerged, the majority of research has been conducted on Caucasian samples of

middle socioeconomic status (SES), and it is unknown whether findings will generalize to diverse populations. In the only study focusing on the socialization of emotion in African-American children, researchers found partial support for the proposed relation between supportive parental responses to child emotion and child emotion regulation in preschool aged children (Smith & Walden, 2001). In particular, supportive maternal responses negatively predicted children's use of avoidance coping strategies. However, contrary to expectations, maternal support was also negatively associated with daughters' use of problem-focused strategies. In the absence of additional research on African American populations, it is unclear whether these findings reflect an important cultural difference or an artifact of this study.

Limitations of Past Research

Although empirical research on child externalizing problems supports the functionalist perspective that parental socialization of emotion is important to child adjustment, there is currently little data on the relation between parental socialization of emotion and child internalizing problems. Additionally, prior research is limited by almost exclusive reliance on parent-report data, though self-report of parenting practices may not accurately reflect real-life responses to children's distress, and parents may not be valid reporters of their children's internalizing problems (Kazdin, 1994). There may also be a problem of shared variance since many of the aforementioned studies had parents report on their own behavior and as well as that of their children. Finally, as noted, research in this area has been limited to primarily Caucasian, middle-class samples. As a consequence, little is known about the socialization of emotion and the relation between emotion regulation and child behavior problems in diverse populations.

The Present Study

The present study examined validation and invalidation of emotion in a community sample of low to middle-income African American mother-child dyads to explore the relation between maternal socialization of emotion and child depression. Validation and invalidation were used as measures of maternal socialization because of the theoretical importance of these constructs to the development of emotion dysregulation (Eisenberg et al., 1998; Gottman et al., 1996; Linehan, 1993). Validation, or acceptance, of the child's emotion is believed to enhance those skills underlying effective emotion regulation (e.g., accurate recognition and identification of subjective experience) and to facilitate the acquisition of adaptive emotion regulation strategies. Importantly, validation does not include support for inappropriate or unacceptable behaviors (e.g., hitting a peer when angry). In contrast, invalidation, or rejection of the child's emotion, is thought to confuse children regarding the nature of their subjective experience, decreasing the likelihood that they will accurately interpret internal emotion cues or seek social support in future contexts. Validation and invalidation of both sadness and anger were assessed because of the relevance of these emotions to child depression.

This study makes a unique contribution to the literature by utilizing behavioral observation methodology to measure maternal socialization. Behavioral observation allows for a more unbiased measure of maternal socialization and permits in vivo examination of maternal responses to children's real-life expressions of everyday emotion. The present study also represents one of the first attempts to study the socialization of emotion in a low to middle-income, African American sample.

Hypotheses

A set of hypotheses was generated based on previous theoretical and empirical research. Consistent with research on the socialization of emotion, it is expected that low levels of maternal validation and high levels of maternal invalidation for child sadness and anger will predict child depression, after controlling for maternal depression and child gender. Given that maternal depression is an established risk factor for child depression (e.g., Downey & Coyne, 1990) and that several epidemiological studies have reported higher rates of depression among boys (see Kazdin & Marciano, 1998 for a review), maternal depression and child gender will be treated as covariates to control for the effects of these variables on child depression. Additionally, sadness and anger will be assessed independently because of normative research suggesting that parents may socialize these emotions differently (Casey & Fuller, 1994). Based on Garber's emotion regulation model (Garber et al., 1995; 1991), it is hypothesized that adaptive emotion regulation will negatively predict child depression, after controlling for maternal depression and child gender. Finally, given research on the importance of emotion socialization to child emotion regulation and psychosocial functioning, it is expected that emotion regulation will mediate the relation between maternal validation and invalidation of emotion and child depression.

CHAPTER 3: METHOD

Participants

Data from 51 mother-child dyads recruited for a larger project on the socialization of emotion were used in the present study. Participants were recruited from Head Start, churches, and other community organizations, as well as with flyers placed around the local community. Children ranged in age from 5 to 12 years. Although there was substantial variability in family income (i.e., reported monthly income ranged from 0 to $5500), approximately 50% of families reported a monthly income of $1300 or less, suggesting that many of the families in this study were living below the poverty line (Federal Register, 2003). Only mothers and their biological or adopted children were allowed to participate (i.e., grandmothers and temporary foster mothers were excluded from the study). One dyad was excluded because the mother reported she had been diagnosed with mental retardation and demonstrated significant cognitive deficits expected to interfere with her participation; a second dyad was excluded because the mother demonstrated significant difficulty understanding the interaction task and measures. Eight dyads were excluded because of equipment failures or data collection errors (e.g., the wrong directions were given, an interaction was not properly recorded, mother and/or child could not be understood). Only mothers who self-identified as African American were included in the present study. With the exception of three children identified by their mothers as bi-racial, all child participants were identified as African American.

Power Analyses

Power analyses were computed according to Cohen (1988) using the G-prime software program (Buchner, Erdfelder, & Faul, 2001). Findings from previous studies demonstrated small

to medium effect sizes for the relations between socialization variables and child outcome variables:

Study	*r*	*effect size (f^2)*
Eisenberg & Fabes (1994)	.26 to .32	.07 to .11
Eisenberg, Fabes, & Murphy (1996)	.23 to .36	.06 to .15

Based on this information, with power set at .80, an alpha level of .05 (one-tailed test), and one predictor (i.e., socialization variable), a minimum of 55 dyads is needed (Buchner et al., 2001).

Materials

Maternal Socialization of Child Emotion

Parent-Child Interaction. As part of the larger study, each mother-child dyad participated in the *Parent-Child Interaction Task* (PCIT) to provide an opportunity to assess maternal responses to children's emotion disclosures. During the PCIT, each child was asked to "…tell mom about a time you felt *emotion*," and mothers were asked to respond to their child as they naturally would. Emotions (i.e., anger, sadness, happiness, and fear) were presented in random order. Interactions were videotaped to be coded at a later date. Only the segments for sadness and anger were used in the present study because of the particular relevance of these emotions to child depression.

The interactions were coded using a modified parent-child version of the Validation/Invalidation Behavior Coding Scales developed by Fruzzetti (2001). The Parent-Child Validation/Invalidation Behavior Coding Scales were designed for the present study to measure both validation (i.e., acceptance of the speaker's experience and/or support) and invalidation (i.e., minimization and/or criticism of the speaker's experience) of children's

emotion. Validation and invalidation were each measured on a 7-point scale ranging from *1-no/low validation or invalidation* to *7-very strong validation/invalidation*. In the present study, four scores were obtained for each mother-child dyad: validation sadness, validation anger, invalidation sadness, invalidation anger. Three mother-child dyads did not participate in one segment of the interaction task as requested (e.g., discussed a scared event instead of a sad event) or were given incorrect instructions for one of the emotions. For these dyads, only data from one segment (i.e., either sadness or anger) was used in data analysis. The primary coder trained to criterion reliability with the author of the original system. Both the primary and secondary coders were unaware of child diagnostic condition (i.e., depressed, not depressed). Interrater reliability was established on 25% of the interactions. Intraclass correlations indicated high interrater reliability (validation sad ICC = .93; validation anger ICC = .98; invalidation sad ICC = .72; invalidation anger ICC = .87).

Child Measures

Depression. The *Children's Depression Inventory* (CDI; Kovacs, 1992) was used to measure child depression. The CDI consists of 27 items that question children about the presence and severity of current depressive symptomatology (e.g., sadness, sleeping, eating). Three statements are provided for each item and children are asked to choose the statement that best describes their feelings and behavior during the past two weeks. Due to concerns regarding the questioning of children about suicide in a research context, the set of statements pertaining to suicidality was removed from the version of the CDI used in the present study. This revised version consisted of 16 items, and each item was scored 0, 1, or 2, with higher scores indicating more severe depressive symptomatology. Consistent with literature on the CDI (e.g., Garber et al., 1995) and recommendations in the CDI manual, children with scores of 13 and above were

considered depressed. Children with scores from 0 to 12 were considered nondepressed. A cutoff of 12 or 13 is typically used when the incidence of depression is expected to be higher than in the general population (Kovacs, 1992). Thirteen was chosen as the cutoff in the current study given that many of the child participants were expected to be at increased risk for depression due to the stresses of living in poverty. Research on the psychometric properties of the CDI has demonstrated the internal consistency (coefficient alpha = .85), test-retest reliability (r =. 82), and the construct validity of this measure (Kovacs, 1992).

Parent Measures

Demographics. Mothers were asked a series of demographic questions designed to assess child age, gender, ethnicity, and family SES.

Child Emotion Regulation. The *Emotion Regulation Checklist* (ERC; Shields & Cicchetti, 1997) was administered to mothers to assess children's emotion regulation skills. The measure is comprised of 24 statements, and mothers are asked to rate, on a 4-point scale, how much each statement describes her child. The ERC has two subscales: (a) an adaptive emotion regulation scale (e.g., displays negative emotion when it is situationally appropriate; aware of own emotions; empathic) and (b) a lability/negativity scale (e.g., persistent negativity, dysregulated expressions of emotion). Some items are reverse scored, and items within each scale are summed to yield the two subscale scores. Because there is likely to be substantial overlap between the symptoms of depression and the items on the lability/negativity scale, only scores from the adaptive emotion regulation scale were used in the present study. Higher scores on the adaptive emotion regulation scale reflect more adaptive emotion regulation. Research has demonstrated the internal consistency (alpha = .83 to .96) and construct validity of this measure (Shields & Cicchetti, 1997).

Maternal Depression. Mothers were administered the *Beck Depression Inventory-II* (BDI-II; Beck, 1986) to assess for maternal depression. The BDI-II is similar in format to the CDI, though no items are reverse scored. The 21 items on the BDI-II are summed to yield a total score with higher scores indicative of more severe depressive symptomatology. Scores on the BDI-II range from 0 to 42. Due to the nature of this study (i.e., community research), the question pertaining to suicidality was removed, yielding a total of 20 items (and a possible range of scores from 0 to 40). The psychometric properties of this measure are well established (Beck, 1996).

Procedure

Most participants traveled a short distance to the University of Georgia to participate in the larger study on the socialization of emotion. Mother-child dyads were assessed in the home if they reported transportation difficulties or another problem that precluded their traveling to the university (e.g., a time conflict). After administration of consent and assent forms, each mother-child dyad participated in the Parent-Child Interaction Task. Individual interviewers administered the remaining measures to each mother and child who were physically separated for the remainder of the assessment. When finished, mothers were thanked for their participation and compensated $50 for their time. Children were given stickers and a small toy and also thanked for their participation

CHAPTER 4: RESULTS

Overview of Data Analyses

Scores on the CDI were transformed and dummy coded such that children with a CDI score below 13 were considered nondepressed; those with a CDI score of 13 or above were considered depressed. In the present study, 17 children (i.e., 34% of the sample) had a CDI score of at least 13. *T*-tests and chi-square analyses were used to compare depressed and nondepressed children on important demographic variables (i.e., child age, maternal age, family income, maternal depression, and child gender). Hypotheses concerning the relation between maternal socialization of emotion (i.e., validation and invalidation of sadness and anger) and child depression were tested using four separate hierarchical regression analyses. Validation and invalidation for each emotion type was analyzed separately to account for the possibility that sadness and anger are socialized differently. Given that maternal depression is an established risk factor for child depression (e.g., Downey & Coyne, 1990) and that several epidemiological studies have reported higher rates of depression among boys (see Kazdin & Marciano, 1998 for a review), maternal depression, as measured by mothers' BDI scores, and child gender were entered into all hierarchical linear regression equations first (i.e., as a block) to control for the possible effects of these variables on child depression. Hierarchical linear regression analyses were also used to test the relation between adaptive emotion regulation and child depression.

To examine whether emotion regulation mediates the relation between maternal socialization of emotion and child depression, a series of regression analyses were to be conducted consistent with the steps outlined by Baron & Kenny (1986). For example, to determine whether low levels of adaptive emotion regulation mediate the relation between a lack of maternal

validation for sadness and child depression, the following requirements must be met: (a) validation for sadness should negatively predict child depression; (b) validation for sadness should predict adaptive emotion regulation; (c) adaptive emotion regulation should negatively predict child depression; and (d) when validation for sadness and adaptive emotion regulation are simultaneously entered into the regression equation, the relation between validation for sadness and child depression should be reduced or eliminated, while the relation between adaptive emotion regulation and child depression should remain significant. Similar analyses were to be conducted with each of the socialization variables as the predictor.

Sample Characteristics

Independent-samples *t*-tests were conducted to determine whether any significant differences exist between depressed and nondepressed children on important demographic variables (i.e., child age, maternal age, family income, and maternal depression). Chi-square analyses were used to compare depressed and nondepressed children on child gender. No significant differences between depressed and nondepressed children were found on any of the demographic variables (see Table 1).

Maternal Socialization of Emotion and Child Depression

Pearson correlations for the socialization variables are presented in Table 2. Results of hierarchical regression analyses revealed that as hypothesized, maternal validation for sadness negatively predicted child depression, $r(48) = -0.35$, $p < 0.02$, after controlling for the effects of maternal depression and child gender (see Table 3). However, contrary to study hypotheses, maternal validation for anger was unrelated to child depression $r(47) = -0.19$, *NS*. As expected, after controlling for maternal depression and child gender, invalidation of sadness significantly

predicted child depression, $r(48) = 0.37$, $p = .01$, but the relation between invalidation of anger and child depression was not significant, $r(47) = 0.22$, *NS*.

Emotion Regulation and Child Depression

A correlation matrix for child emotion regulation is presented in Table 4. Contrary to expectations, a significant negative relation between adaptive emotion regulation and child depression did not emerge, $r(49) = -0.11$, *NS* (see Table 5). Regression analyses to test for mediation were not conducted since the expected mediator (i.e., adaptive emotion regulation) was not significantly associated with the criterion variable (i.e., child depression).

CHAPTER 5: DISCUSSION

Maternal Socialization of Emotion and Child Depression

The present study relied on observational methodology to examine the relation between maternal socialization of emotion and child adjustment in a low to middle-income African American sample of mother-child dyads. As hypothesized, differences in maternal socialization of emotion predicted child depression after controlling for the effects of maternal depression and child gender. In particular, child depression was associated with lower levels of maternal validation and higher levels of maternal invalidation in response to children's expressions of sadness. However, contrary to expectations, a relation between maternal socialization of anger and child depression did not emerge. Additionally, support was not obtained for the proposed relation between emotion regulation and child depression. Overall, the results of the present study indicate that maternal responses to children's sadness may have important implications for the development and maintenance of child depression.

Functionalist theory and empirical research suggest that children learn to manage emotions within the context of the parent-child relationship. Validating maternal responses to child distress teach children to recognize and label subjective feeling states and convey important information about rules for socially acceptable emotional experience and expression (Linehan, 1993; Saarni, 1999). Maternal validation is expected to reduce the intensity of children's emotional arousal and to facilitate the acquisition of novel problem-solving and coping strategies (e.g., Eisenberg et al., 1998; Gottman et al. 1996). Validation may also be important for maintaining healthy self-esteem, and Calkins (1994) has suggested that parental support for emotion fosters the development of positive beliefs about the self, the world, and the future.

In contrast, maternal invalidation is expected to intensify emotional distress and to decrease children's willingness to seek social support. Parental invalidation erodes children's confidence and emotional self-efficacy and may be central to the development of the negative cognitive triad (i.e., negative beliefs about the self, the world, and the future), a defining feature of adult depression (e.g., Beck, 1967). Empirical research with depressed children supports a cognitive model and suggests that negative cognitions represent an important risk factor for child depression (Ostrander, Weinfurt, & Nay, 1998).

Although the proposed relation between maternal socialization of anger and child depression did not emerge, these results are not entirely surprising given research demonstrating differences in maternal responding to child sadness and anger (Casey & Fuller, 1994). In particular, relative to sadness, mothers are less likely to offer support for children's expressions of anger (Casey & Fuller, 1994; Fuchs, & Thelen, 1988). In general, anger may be less socially desirable than sadness, and as a result, there may be little variability in maternal responding. However, more research is needed to establish the relative acceptability of sadness and anger in both Caucasian and African American families.

Emotion Regulation and Child Depression

Prior research suggests that depressed children demonstrate emotion regulation deficits, particularly in regard to their ability to cope with negative emotion (Garber et al., 1995; 1991). However, in the present study, emotion regulation did not emerge as a significant predictor of child depression, and no support was obtained for the hypothesis that emotion regulation would mediate the relation between maternal socialization of emotion and child depression. The failure to find a relation between emotion regulation and child depression may have been due to higher than expected rates of externalizing disorders in the nondepressed child participants. Many of

the children recruited into the present study were living in poverty and at risk for both internalizing and externalizing problems characterized by emotion regulation deficits. Another problem is that the ERC is limited in that it does not tap all dimensions of adaptive emotion regulation. In particular, the ERC does not measure the cognitive aspects of emotion regulation (e.g., negative biases) likely to be observed in depressed children.

Limitations and Future Directions

The present study expands on prior research by utilizing observational methodology to measure maternal socialization of emotion in mother-child dyads. To date, the majority of research on emotion socialization has relied exclusively on maternal self-report, although mothers may fail to accurately report on their socialization practices for a variety of reasons, including demand characteristics, memory biases, and failure to self-monitor. Additionally, few studies have attempted to examine the relation between emotion socialization and child internalizing problems. The present study also represents one of the first attempts to examine maternal socialization of emotion in African American families. Cultural factors are known to influence parental socialization of emotion (e.g., Saarni, 1999), and it is possible that the nature of the relation between emotion socialization and child adjustment will differ across culturally diverse populations.

Despite important contributions made by the present study, several limitations should be noted. In particular, future research should address the direction of the relation between maternal socialization of emotion and child adjustment. Although research on the offspring of depressed mothers indicates that hostile parenting practices may be important in the etiology of child depression, depressed children may also behave in ways that are likely to elicit invalidation from

parents (e.g., Downey & Coyne, 1990). Longitudinal studies are needed to better understand the dynamic relation between maternal socialization of emotion and psychosocial adjustment.

Future research should use multiple methods to measure child depression (e.g., observational measures of peer-related functioning), and there is a need for the development of new measures to assess emotion regulation in children. Depressed children may hold cognitive distortions similar to depressed adults, but there are presently few measures that tap this domain of child functioning. Future research may also benefit from examining the relation between maternal validation and child self-esteem since low self-esteem may represent an important risk factor for child depression. Additionally, data from fathers or father figures are needed to formulate a more complete understanding of the relation between parental socialization of emotion and child depression.

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APPENDIX

THE PARENT-CHILD VALIDATION/INVALIDATION CODING SCALES

Validating Behaviors

These are behaviors that generally help the child to recognize and identify feelings. They are accepting/understanding/supportive of child's emotional experience and expression (when it makes sense to accept). Not all observed behaviors will be validating or invalidating. Some behaviors will be ignored for coding purposes.

Mild Behaviors

- **Reflecting or Acknowledging Child's Disclosure**
  Child makes a statement and mom echoes back the statement (or a sentiment expressed in the statement).
  Examples: (C): "I feel sad when the kids pick on me at school."
  (M): "So you feel down when the other kids pick on you."

- **Functionally Responding to the Child's Disclosure**

That is, mom lets child know she has heard the disclosure by responding to the content of the disclosure. Mom may ask child how *she* would solve the problem.

Examples: (C): "I get real mad at Denny. He always breaks my toys."
(M): "What do you think you could do to make the situation better?" Or "I know that makes you sad."

- **Asking Questions to Clarify the Situation or Child's Emotional Experience**

Mom asks for more details about the situation that prompted child's feelings.

Examples: (C): "I felt so mad when Johnny wouldn't play with me."
(M): "Why didn't he want to play?"

Stronger Behaviors

- **Mom Offers *Effective* Problem-Solving Ideas**

Mom may attempt to help child cope with the problem or the emotion.

Example: (C): "I hate it when she breaks my toys."
(M): "Well, maybe we can put your toys in the closet where she can't reach them."

- **Offering Ideas About What the Child Might Want/Think/Feel in an Empathic Way or Clarifying Child's Private Experience**
  Mom expands upon child's disclosure by exploring how child might have felt or thought in the situation. Note: This differs from *telling child how she should feel* in the situation.
  Example: (C): "It mad me really mad when Bobby wouldn't play with me."
  (M): "Do you think you also felt hurt because Bobby is your best friend?"

- **Recontextualizing Child's Experience**

1) Putting a More Positive Spin on It: Mom finds some positive about the situation, while *not ignoring* the negative aspect of the situation.

Note: This differs from telling a child how she *should* feel. Important to consider what mom statements proceeded this in conversation.

Example: (C): "I felt sad when you married Jim."
(M): "I know you felt really sad back then, but I think you've really learned to enjoy spending time with Jim. You two seem to have so much fun playing baseball together."

Reminder: This one is tricky. Examine mom's response in context. Make sure Mom isn't telling child she *shouldn't* feel the way she does, only that there are *also* reasons child might feel good in this situation.

2) Reducing the Negative Valence

This is similar to "putting a more positive spin" on the situation, except in this case, mom is just saying there might be reasons not to feel quite so sad/mad. Sometimes this will take the form of an explanation for someone else's insensitive behavior (see 2nd example). However, not all explanations are validating (e.g., "That's life." is not validating.) **Note:** Make sure mom isn't telling child *not* to feel sad/mad. Consider mom's response in context.

Examples: (C): "I felt really sad when you wouldn't let me play outside with Josh."
(M): "Yes, I know you felt pretty sad, but then it rained and Josh got wet but you didn't." or
(C): "I felt so mad when James hit me."
(M): "Yeah. You know sometimes James just can't control his anger and he does things that hurt other people."

- **Acceptance of Child's Emotional Experience**

Mom accepts child's emotional experience or expression.

(C): "I felt so sad when grandma died."
(M): "Yeah, that was a really sad time."

- **Normalizing the Child's Emotional Experience in the Given Situation or Because of Child's History**

Mom notes that anyone (or she herself) would feel the same way child feels in this situation. May use appropriate self-disclosure.

Example: (C): "I felt so mad when the other kids picked on me that day at school."
(M): "Yeah, that would have made me mad, too." OR
(C): "I get so mad when Dan tells me what to do."
(M): "That makes sense because a lot of people in your life have been telling you what to do lately."

- **Empathy**

Mom accepts the child and the child's disclosure without treating the child as fragile or incompetent. She treats child like what she has to say is important and makes sense and displays not simply warmth towards the child but also a deeper understanding of the child's internal experience. (May use appropriate self-disclosure.)

Example: **Mild Empathy** (C): "Sometimes I feel sad when I can't do my homework.

(M): "Yeah you've been having a rough time, lately."

Or **strong empathy**

(M): "I know it has been really frustrating for you because you've put so much time and effort into your work and still you feel like you're struggling."

Validation Rating Scale

1-No Validation or Minimal Validation
No validation or very minimal validation (e.g., 1 or 2 instances of reflecting, asking questions, or functionally responding).

2-Very Low Validation
There is little validation overall. For example, 2 or 3 reflections, questions, or instances of functionally responding or a single instance of good problem solving.

3-Low Validation
There are a few clear instances of mild validation. A combination of 3 or 4 reflections, questions, functional responses, or instances of good problem solving. OR
An instance of mild recontextualizing child's emotional experience.

4-Moderate Validation
Several instances of mild/moderate validation or one instance of strong validation. If reflections, questions, functional responses, and problem solving are the only validating behaviors, this is highest score possible. (Higher levels of validation require more connection with child's inner emotional experience.) OR
A combination of 5 or more reflections, questions, instances of functionally responding, or good problem-solving. OR
An instance of strong recontextualizing, an instance of offering ideas about how/why child might be feeling as she does. OR
An instance of mild empathy (e.g., "I know you miss her.")

5-High Moderate Validation
Multiple instances of recontextualizing or offering ideas about how/why child is feeling as she is in combination with many other mild validating behaviors. OR
An instance of normalizing, empathy, or acceptance of child's emotional experience alone or in combination with a few instances of reflections, questions, functional responses, or good problem solving.

6-Strong Validation
An instance of normalizing, empathy, or acceptance of child's emotional experience in combination with a combination of many instances of reflecting, asking questions, functionally responding, or problem solving.

7-Very Strong Validation
An instance of normalizing, empathy, or acceptance coupled with recontextualizing or offering ideas about how/why child might feel as she does. OR
Multiple instances of normalizing or empathy alone or coupled with any other validating behaviors.
Note: If there is significant invalidation, do not code 7.

Invalidating Behaviors

These behaviors involve ignoring, dismissing, minimizing, criticizing, or punishing child's affective disclosure. Not all observed behaviors will be validating or invalidating. Some behaviors will be ignored for coding purposes.

Milder Behaviors

- **Not Paying Attention, Distracted, Not Participating Actively, or Functionally Unresponsive**
  Mom is clearly not attending to child or child's disclosure or acts as though she has not heard child's disclosure.
  Examples: (C): "I feel sad when the kids pick on me at school."
  (M): Mom answers in an otherwise mildly validating way but is playing with her hair or nails or Mom just says something like "Yeah," or "ok."

- **Changes the Subject, Anxious to Leave or to End the Conversation**
  Note: If mom changes subject after already talking to child about emotion, do not count as invalidating.
  Examples: (C): "I feel sad when the kids pick on me at school."
  (M): "Yeah, what did you do at school today?" or Mom tells researcher mom and child are done talking abut emotion before child seems done, before mom gives child a chance to respond, or before emotion has been addressed.

- **Not Tracking the Child (Not Following the Child's Disclosure)**
  Mom responds to child in such a way as to show that she may have heard what the child said but is not attending to the significant aspects of the disclosure.
  Example: (C): "I feel sad when the kids pick on me at school."
  (M): "Yeah, you're brother picks on a lot of kids at school." or Mom shifts conversational focus away from the emotional content of child's disclosure.

- **Explanations**

Mom provides a rationale for the situation or her behavior without accepting the child's emotional experience.
Note: If mom accepts child's emotional experience and then provides a rationale this may be reducing the negative valence. Also, an explanation of another's behavior may be an instance of reducing negative valence (see validation).

Example: (C): "I was really mad when you wouldn't let me go play with my friends."
(M): "You know it was raining outside, and you can't play when it rains. You'll get all wet and then you'll get sick."

Stronger Behaviors

- **Mom Minimizes Child's Emotional Experience**

Mom suggests experience was not as bad as portrayed by child (when child is being genuine).

Example: (C): "I felt sad when Dad left us."
(M): "Yeah but you got over it and you don't feel sad anymore, right?"

- **Mom tells child what she should feel or explicitly or implicitly criticizes child's emotional experience or expression (Should statements that are devoid of criticism are just as invalidating as critical shoulds).**

1) Mom tells the Child What She Feels/Thinks or Wants Even When Child Denies This or Mom Tells Child How She Should Feel

Mom tells insists child feels a certain way when child denies having these feelings.

Example: (C): "I felt really sad when that new kid pushed me and I fell."
(M): "Are you sure you didn't feel mad?" Continuing after child denies she felt mad. "I think you felt mad. Do you think mad and sad are the same thing?"

2) Mom Blames Child for Event (Rather than Focusing on Emotion). Mom May Tell Child She "Didn't Have to Feel Sad/Mad."

Mom does not directly state that child *should not* feel as she does but this sentiment is implied. Or Mom lets child know situation was her fault (*implying* child had no right to feel as she does).

Examples: (C): "I felt sad that I couldn't go to the park with Dad and Jim."
(M): "You know you didn't have to be sad because you went the last time." or "Why did you feel sad? You didn't have to be sad." Or "You know why you couldn't go. You didn't eat your breakfast that morning. If you had just eaten your breakfast, you could've gone with them."

3) Mom Implicitly or Explicitly Criticizing the Child's Experience or Tells Child She Shouldn't Feel As She Does

Mom tells child she shouldn't feel the way she does or implies or states she had ***NO*** reason to feel the way she does.

Example: (C): "I felt really mad that you wouldn't take me to the movie."
(M): "Take you to the movie! I have to work 12 hour days, and I'm really tired all the time. I can't just take you to a movie every time you want to go." Or
"You shouldn't have felt mad. I told you I didn't have time that day." Or "You know you shouldn't get mad. When you get mad I get mad." Or "When people get mad they do things they regret."

- **Parentification**

  Mild Parentification

  Mom discloses slightly inappropriate material to child, shifts focus of conversation to herself briefly, or gives child too much responsibility in conversation (thereby minimizing child's emotional experience).

  Example: (C): "I felt really sad when dad left."
  (M): "Well, we should talk about that because I can't help you unless you let me."

  Parentification

Mom tells child she shouldn't feel a certain way because it upsets mom, or mom shifts focus of conversation to her own emotions.

  Example: (C): "I was so sad when Dad left."
  (M): "Yeah, I remember when my Dad left. I was all alone and I didn't have anyone who cared about me."

- **Agreeing with Child's Self-Invalidation**

  Mom agrees when child criticizes self or when child overgeneralizes negative aspects of the situation. Basically, mom agrees with child's self-invalidation.

  Example: (C): "I felt so stupid after I cried."
  (M): "Yeah that wasn't a very smart thing to do."

- **Mom Increases the Negative Valence**

  Overreacts or Becomes Distressed, Overgeneralizes a Negative Aspect of Situation, or Provides Very Poor Problem-Solving Advice

  Mom says things make the situation feel worse for child without directly criticizing child. Mom might focus on all the negative aspects of situation or give child a really poor coping strategy. Mom might get visibly upset or she might overgeneralize from one instance of child's behavior.

  Example: (C): "It was just such a stupid thing I did crying like that."
  (M): "Yeah. I don't know how you'll face the other kids on Monday." Or
  (C): "I don't know what to do when I get mad like that."
  (M): "You know you have to hit that kid to make him stop picking on you. Otherwise, the other kids will think you're a fraidy cat."
  (C): "Sometimes I feel so mad I want to hit her."
  (M): "Who do you want to hit? You don't want to hit me, do you?" Or
  (C): "I just started crying. I couldn't help it."
  (M): "Yeah, you always cry at the drop of a hat. You just don't know how to deal with your emotions."

- **Criticizing the Child, Character Assault, Treating the Child as though She is Incompetent**

  Mom attacks the child, not merely the child's emotion.

  Example: (C): "I felt really mad that you wouldn't take me to the movie."
  (M): "You can be so selfish."

- **Leaving the Child Hanging Out to Dry (Punishing Child's Disclosure by Not Responding)**
  Mom fails to respond to child when child discloses something big.
  Example: (C): "I felt so sad when dad left."
  (M): Mom says nothing or provides minimal response.

- **Punishing the Child for Disclosing**

Mom suggests or implements a punishment for child's disclosure.
Example: (C): "I felt so mad she messed up my stuff."
(M): "Well, you'll just have to teach your sister to clean up."

Invalidation Rating Scale

1-No Invalidation
No invalidation

2-Very Low Invalidation
Mother is distracted for small part of interaction. OR
Mother changes the subject prematurely or ends the conversation prematurely.

3-Low Invalidation
Mother is distracted throughout the interaction or clearly ends the conversation before child has a chance to express emotions or to respond or frequently interrupts child. OR
Mother does not track child well (i.e., misses point of child's disclosure or moves conversation away from emotional realm). OR
Mother may use a mild critical tone or subtly question child's experience (e.g., "You felt what?") OR
One explanation statement (without accepting child's emotional experience) or one mild minimization statement (e.g., "that was a while ago").

4-Moderate Invalidation
Mother does not respond to child's disclosure of mild/moderate emotional intensity (i.e., missed opportunity to validate), mild parentification, or mother does not track child throughout the interaction (i.e., mother ignores some important piece of what child is saying). For example, mother tells child what she is feeling (when it differs from child's statements) or mother tells child she shouldn't feel a certain way in a particular setting or under certain circumstances. OR
Mild should statement or mild minimizing statement. OR
Explanations given throughout interaction with no or little acceptance of child's emotion (e.g., "you know you've got to get up in the morning to get to school on time…."). OR
Some mild minimizing (e.g., "You don't still feel sad, do you?" when child looks pretty sad).

5-High Moderate Invalidation
One instance of one of the following: should statements, agreeing with child's self-invalidation, increasing negative valence, criticizing child, leaving child hanging out to dry, punishing child's disclosure, minimizing, or parentification.

6-Strong Invalidation
Two instances of one or more of the following: should statements, agreeing with child's self-invalidation, increasing negative valence, criticizing child, leaving child hanging out to dry, punishing child's disclosure, minimizing, or parentification.

7-Very Strong Invalidation
Three or more instances of strong invalidation or mother invalidates child throughout the interaction. Three or more instances of one or more of the following: should statements, agreeing with child's self-invalidation, increasing negative valence, criticizing child, leaving child hanging out to dry, punishing child's disclosure, minimizing, or parentification.
Note: If there is significant validation, do not code 7.

Table 1

Differences between Depressed and Nondepressed Children on Demographics Variables

	N	*Mean*	*SD*	*df*	t
Monthly Income					
Not Depressed	34	1865	1435.1	(48)	0.96
Depressed	16	1461	1296.2		
Child Age in Months					
Not Depressed	34	106.2	22.9	(49)	0.97
Depressed	17	99.8	21.0		
Mother Age in Months					
Not Depressed	34	387	69.3	(49)	0.23
Depressed	17	381	89.1		
Mother's BDI Score					
Not Depressed	33	8.7	9.30	(48)	-0.04
Depressed	17	8.8	6.69		

	N	*df*	X^2
Child Gender			
Not Depressed			
Girls	25	(1)	3.48
Boys	9		
Depressed			
Girls	8		
Boys	9		

Note: BDI score was missing for one mother. Family income data was missing for one dyad.

Table 2

Correlation Table for Socialization Variables

	Validation Sad	Validation Mad	Invalidation Sad	Invalidation Mad	Mother's BDI Score	Child Gender
Validation Sad	---					
Validation Mad	0.50**	---				
Invalidation Sad	-0.45**	-0.17	---			
Invalidation Mad	-0.41**	-0.47**	0.44**	---		
BDI Score	-0.27	-0.04	0.36*	0.09	---	
Child Gender	-0.12	-0.05	-0.02	-0.02	-0.28	---

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Table 3

Prediction of Child Depression from Maternal Socialization while Controlling for Child Gender and Maternal Depression (Hierarchical Multiple Regressions)

Child Depression	R^2	R^2 change	*df*	*F for* R^2 *change*
Validation Sad				
Step 1:	0.07	0.07	(2, 46)	1.63
Gender				
BDI Score				
Step 2:	0.18	0.11	(1, 45)	6.20*
Gender				
BDI Score				
Validation Sad				
Validation Mad				
Step 1:	0.07	0.07	(2, 45)	1.76
Gender				
BDI Score				
Step 2:	0.11	0.03	(1, 44)	1.67
Gender				
BDI Score				
Validation Mad				
Invalidation Sad				
Step 1:	0.07	0.07	(2, 46)	1.63
Gender				
BDI Score				
Step 2:	0.19	0.13	(1, 45)	7.17**
Gender				
BDI Score				
Invalidation Sad				
Invalidation Mad				
Step 1:	0.07	0.07	(2, 45)	1.76
Gender				
BDI Score				
Step 2:	0.12	0.05	(1,44)	2.28
Gender				
BDI Score				
Invalidation Mad				

*Significant at 0.02 level (two-tailed).
**Significant at 0.01 level (two-tailed).

Table 4

Correlation Table for Child Emotion Regulation

	Mother's BDI Score	Child Gender	Adaptive Emotion Regulation
BDI Score	---		
Child Gender	-0.28	---	
Adaptive ER	-0.36**	0.19	---

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Table 5

Prediction of Child Depression from Child Adaptive Emotion Regulation while Controlling for Child Gender and Maternal Depression (Hierarchical Multiple Regressions)

Child Depression	R^2	R^2 *change*	*df*	*F for* R^2 *change*
Step 1:	0.07	0.07	(2, 47)	1.73
Gender				
BDI Score				
Step 2:	0.08	0.01	(1, 46)	0.57
Gender				
BDI Score				
Adaptive ER				