Maternal Emotion Coaching and Depressive Symptoms and Children's Problem Behaviors

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Abstract

The emotion socialization strategies that mothers use with their children impact children's adjustment outcomes, such as internalizing and externalizing behavior problems. Maternal emotion socialization strategies may be particularly important for children of depressed mothers, as depressed mothers often show deficits in parenting and their children tend to have elevated behavior problems. The present study examined how maternal emotion coaching and depressive symptoms were associated with children's internalizing and externalizing behavior problems, and whether mothers' emotion coaching served as a protective factor for children of depressed mothers. During a laboratory visit, mothers (N = 77) engaged their three-year-old child in conversation about past events that made the child sad, angry and scared. Maternal emotion coaching strategies were coded based on mothers' awareness and acceptance of children's emotion, as well as their facilitation of children's elaboration and problem solving strategies. Children's internalizing and externalizing problems were assessed using mothers' report on the Child Behavior Checklist, while mothers' depressive symptoms were assessed using the *Center for Epidemiological Studies Depression Scale*. Regression analyses show that maternal emotion coaching interacted with maternal depressive symptoms in predicting child problem behaviors. Mothers' emotion coaching strategies significantly moderated the association between maternal depressive symptoms and children's externalizing behaviors. The results of this study suggest that emotion coaching serves as a protective factor for children's negative social and behavioral outcomes associated with maternal depressive symptoms.

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The socialization process is recognized as one of the primary ways that individuals learn the information and skills that are necessary to function in a particular social group (Bugental & Grusec, 2006). Despite many facets of socialization, there has been increased interest in the socialization of emotion, in which individuals aid a child in his or her understanding, experience, expression, and regulation of emotion (Eisenberg & Fabes, 1992). The process of emotion socialization in childhood plays an important role in later emotion competence (Eisenberg & Fabes, 1992) and adjustment outcomes, such as externalizing and internalizing problem behaviors (Eisenberg, Cumberland, & Spinrad, 1998). Externalizing behaviors include disruptive behaviors, such as aggression and rule-breaking, while internalizing behaviors are defined as anxiety, depression, and being withdrawn (Achenbach & Rescorla, 2001). Even though children's socialization of emotion may come from a variety of contexts, parental influence on children's emotional development is known to have a major impact, particularly during early childhood, as parents are the primary socialization agents in this developmental period (Eisenberg et al., 1998). The goal of the present study is to examine how parental emotion socialization is associated with children's internalizing and externalizing problems.

Eisenberg and colleagues (1998) posited a theoretical model that conceptualizes the factors that affect children's emotional outcomes. In this model, a parent's emotion-related socializing practices influence children's arousal level, which, in turn, affects their emotional outcomes, such as emotional expression, regulation, and understanding. Further, children's emotional outcomes influence their social behavior and social competence (Eisenberg et al., 1998). Parental emotion-related socialization includes parents' reactions to children's emotion, their discussion of emotion with their children, and their own emotional expressivity. Favorable

social behavior and social competence are associated with parents' positive reactions to children's emotion, positive emotional expressivity, and facilitation of discussion about emotions with their children, as these children tend to effectively cope with negative situations (Eisenberg et al., 1998), and display higher levels of sympathy (Eisenberg & Fabes, 1995; Eisenberg, Fabes, & Murphy, 1996), altruistic behavior (Eisenberg & Fabes, 1990), and social competence (Eisenberg et al., 1996). In contrast, children who are recipients of negative emotional socialization from parents tend to show heightened negative emotional arousal and increased use of dysregulated and nonconstructive behavior (Eisenberg et al., 1998). Because the emotion socialization processes that parents use with their children have such significant effects on children's social and behavioral competence, the present study focuses on parental emotion socialization behavior and examines how this practice relates to the child's internalizing and externalizing problems.

One important factor that underlies parents' emotion socialization behavior is the meta-emotion philosophy, as described by Gottman, Katz, and Hooven (1996). Meta-emotion philosophy is defined as the thoughts and feelings that parents have towards their emotions and their children's emotions, along with the parents' reasons for these thoughts and feelings. Gottman and colleagues differentiate between two types of meta-emotion philosophies that describe the cognitions and feelings that parents have towards emotions. First, parents with an emotion coaching meta-emotion philosophy have heightened awareness of the emotions in the lives of themselves and their children, affirm their children's emotions, and help children label their emotions. These parents perceive situations in which children express negative emotions as opportunities to teach and become close with their children, as they facilitate discussion with their children about how to deal with situations that may lead to negative emotions. Second,

parents who maintain an emotion dismissing meta-emotion philosophy perceive negative emotions as harmful to their children's well being, and they seek to make these negative emotions go away by ignoring or denying their importance. These parents do not view their children's negative emotions as opportunities for problem solving or intimacy, as they seek to protect their children by avoiding the discussion of negative emotions. Gottman and colleagues (1996) coded for seven dimensions of meta-emotion: coaching, awareness, engagement, positive directiveness, responsiveness to child's needs, derogation, and criticism and derisive humor. These seven dimensions were further constructed into two variables to measure meta-emotion philosophy: coaching, and awareness. Parents high in coaching respect their children's emotions and teach their children strategies to cope with negative emotions, while parents high in awareness can talk differentially about emotions and recognize that emotions should be understood, rather than suppressed. Parents who used emotion coaching while interacting with their children also displayed less derogation and more scaffolding-praising behaviors than parents who did not use emotion coaching (Gottman et al., 1996). Gottman and colleagues (1996) found that when parents used emotion coaching strategies with their five year old children, the children's teachers reported these students to be socially competent three years later. Gottman and colleagues argue that emotion coached children are better able to regulate their negative feelings due to their heightened awareness of emotions.

While both parents contribute to the emotion socialization of their children, much research has focused on the mother-child dyad, as mothers tend to facilitate more emotion related discussions with their children and use more emotion words than fathers (Fivush, Brotman, Buckner, & Goodman, 2000). In a 2010 study, it was found that mothers who used emotion coaching with their children's negative feelings, such as anger, had children with less

externalizing and internalizing behaviors (Shortt, Stoolmiller, Smith-Shine, Eddy, & Sheeber, 2010). When mothers supportively responded to their children's negative feelings, children had more effortful control and less instances of externalizing behaviors (Dunsmore, Booker, & Ollendick, 2013; Valiente, Lemery-Chalfant, & Reiser, 2007). In a comparison of children with and without internalizing behavior problems, Suveg and colleagues found that the mothers who discouraged emotion discussion and used less positive emotion words with their children were more often the mothers of children with internalizing behavior (Suveg, Zeman, Flannery-Shroeder, & Cassano, 2005). In addition to less externalizing and internalizing behaviors, children of mothers who initiated emotion explanations tend to engage in more prosocial behavior (Garner, Dunsmore, & Southam-Gerrow, 2008). Moreover, when mothers explained emotion concepts with their toddlers, the children were more likely to display high levels of conscience development when in middle childhood than those of mothers who did not explain emotion concepts in toddlerhood (Kochanska, 1991).

Eisenberg and colleagues (1996) posited that parental characteristics, such as mental health, are influential to parents' particular emotion socialization processes and children's adjustment outcomes (Morris, Silk, Steinberg, Myers, & Robinson, 2007). One part of mental health that is a salient influence on parents' emotion socialization processes is depression (Morris et al., 2007). Depressed mothers tend to be unable to properly model and teach emotion socialization, as they lack the ability to effectively regulate their own emotions (Bradley, 2000) and have less effective communication with their children (Downey & Coyne, 1990). Compared to nondepressed mothers, mothers with depression engage in less eye contact and speak less in conversations with their children, are less responsive to their children's emotions (Ingram, 1990), display low warmth and more disengagement from their children (Downey & Coyne, 1990), and

are more likely to display irritable and sad affect (Cohn, Campbell, Matias, & Hopkins, 1990; Field, Healy, Goldstein, & Guthertz, 1990; Weinberg & Tronick, 1998). These negative behaviors and affect associated with depressed mothers' emotion socialization strategies hinder their ability to meet the social and emotional needs of their children (Goodman & Gotlib, 1999).

Depression is also a significant influence on children's emotion and behavioral problems (Piche, Bergeron, Cyr, & Berthiaume, 2011; Silk, Shaw, Skuban, Oland, & Kovacs, 2006). The negative effects in children of depressed mothers span from infancy to adolescence (Goodman & Gotlib, 1999); depressed mothers tend to have infants who are less securely attached (van Ijzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992), young children who are more likely to be ostracized by peers (Cummings, Keller, & Davies, 2005), and adolescents who are less socially competent (Hammen & Brennan, 2001). Because children of depressed mothers tend to have a weakened ability to regulate emotions (Silk et al., 2006), it is not surprising that they also have higher rates of depression, anxiety (Coyne & Thompson, 2011), and other internalizing problems (Jung, Raikes, & Chazan-Cohen, 2013; Goodman, 2007) than children of nondepressed mothers. In addition, children of depressed parents are more hyperactive (Jung et al., 2013), as well as two to five times more likely to exhibit externalizing problems, as compared to children of nondepressed parents (Ford, Goodman, & Meltzer, 2004).

Because between 6-17% of women have a major depressive episode (Kessler, 2006), and children with depressed mothers are at a heightened risk for adverse emotional and behavioral outcomes, research is needed to determine what factors moderate the relationship between maternal depression and children's risk of negative developmental outcomes (Goodman, 2007). Past research has shown that positive mother-child interactions (Feng et al., 2008), as well as emotion coaching (Lunkenheimer, Shieleds, & Cortina, 2007), serve a protective function for the

negative outcomes that are related with parental risk factors, such as maternal depression. However, there has been little research done on the use of socialization strategies and depressed mothers (Raikes & Thompson, 2006). Some studies indicate that depressed mothers tend to respond in a more negative manner to their children's negative emotions than mothers without depression, such as by amplifying, ignoring, or punishing their children's negative emotions, and thus, limiting opportunities to discuss problem solving for negative emotions (Garside & Klimes-Dougan, 2002). Because these negative emotion socialization practices are associated with child externalizing and internalizing behaviors (Shortt et al., 2010), the goal of this study is to examine whether the use of emotion coaching strategies serves as a moderator for children's development of problem behaviors, as indicated by externalizing and internalizing behaviors, that are associated with maternal depression. This study seeks to provide for a better understanding that will inform prevention and intervention programs for depressed mothers and their young children.

The objective of this study was to observe how mothers' use of emotion socialization strategies relates to and interacts with mothers' depressive symptoms and children's problem behaviors. First, this study sought to determine how mothers' emotion socialization strategies were associated with children's externalizing and internalizing behaviors. Second, this study observed how maternal depressive symptoms were associated with children's externalizing and/or internalizing behaviors. Lastly, the study examined if and how mothers' emotion coaching strategies moderated the associations between maternal depression and children's use of externalizing and internalizing behaviors.

Based on the findings of Gottman and colleagues (1996), I expected the current study's results to reflect the notion that mothers who used emotion coaching with their children would

report less externalizing and internalizing behaviors for their children. Conversely, mothers who did not use emotion coaching with their children would report more externalizing and internalizing behaviors for their children. In agreement with the findings of Goodman (2007) and Goodman & Gotlib (1999), I expected that mothers with elevated depressive symptoms would report higher levels of externalizing and internalizing behavior problems in their children. Lastly, based on Gottman and colleagues' (1996) research, I expected that mothers' use of emotion coaching would moderate the relationship between maternal depressive symptoms and child externalizing and internalizing behaviors, in that emotion coaching would weaken the associations between maternal depression and child externalizing and internalizing behaviors.

Method

Participants

Data of this study were drawn from an ongoing longitudinal study that examines maternal depressive symptoms in relation to children's emotion regulation and attentional control. Participants were recruited via fliers that were sent to daycares and preschools in the Columbus area. Advertisements for the study were posted in Columbus newspapers, as well as online on Craigslist. Participants were screened to ensure that children's primary language was English and that no children had any developmental delays. For the current study, data were available for 77 children and their mothers; 45 (58.4%) of the mothers had depressive symptoms above the clinical cutoff of the *Center for Epidemiological Studies Depression Scale* (CESD; Raldoff, 1977), and 32 (41.6%) of the mothers had CESD scores below the clinical cutoff. The mean age of mothers was 31.36 years (*SD* = 6.02), while the mean age of children was 3.23 years (*SD* = .21). Of the 77 children, 53.2% (n = 41) were female, while 46.8% (n = 36) were male. In regards to maternal race, 6.5% (5) were American Indian or Alaskan Native, 1.3% (1) was Asian

American, 28.6% (22 mothers) were African American, and 66.2% (51) were European American. For the highest level of education that mothers completed, 14.3% of mothers had a high school diploma or lower, 36.4% had some college, specialized training, or an associate's degree, 27.3% had a bachelor's degree, and 22.1% had a graduate degree. Of the 77 mothers, 55.8% were employed, 15.6% were currently unemployed, 22.1% were homemakers, and 6.5% were full time students. 70.1% of mothers were married or living with someone, 14.3% were separated, divorced, or widowed, and 15.6% of mothers had never been married or were single. For annual household income, 55.8% of families had less than $50,000, 36.4% of families had between $50,000 and $100,000, and 7.8% had over $100,000.

Procedures

In the larger study, mother-child dyads participated in a laboratory assessment that lasted for approximately 2 hours. Children were observed in a series of tasks and interacted with their mother and the research assistants. The current study focused on one task, the mother-child emotion discussion, in which mothers and children talked about past events that elicited children's emotions (adapted from Wang, 2004). Mothers also completed online questionnaires about children's problem behaviors. In the mother-child emotion discussion, the research assistant asked the mother to recall three one-time events which happened within the past month that made the child feel angry, scared, and sad, respectively. The mother was instructed to discuss these events one by one with the child in a way that she usually engaged her child in a conversation. The order in which the mother discussed the events was chosen at random. The mother-child emotion discussions were videotaped and later transcribed verbatim. The coding of this study was based on the transcriptions.

A coding system was developed for the mother-child emotion discussion based on Gottman et al. (1996) and Lunkenheimer et al. (2007). The presence or absence of emotion socialization behavior was coded for each conversation unit between the mother and the child. Gottman and colleagues' study specifies emotion coaching as encompassing a mother's heightened awareness and affirmation of children's emotions, as well as a mother's facilitation of discussion about emotions to help children problem solve when dealing with negative emotions. Mothers' emotion coaching strategies were coded for negative emotions only, as positive emotions are highly accepted and require no explicit coaching (Gottman et al., 1996).

Measures

Maternal emotion coaching strategies. Three maternal emotion coaching strategies were coded separately for each negative emotion: sadness, fear, and anger.

1. *Awareness of child's negative emotions*: This measure includes the mother's acknowledgement of her child's emotion, such as labeling emotional states/words (sad or angry), and using words that are indicative of emotion states (crying or yelling) (Hooven, 1994). Awareness of child's emotion included three dimensions: acknowledgement and labeling, discussion of emotion's cause, and mother's description of child's emotional experience. The presence or absence of labeling was coded, with 0 indicating that the mother does not mention any emotional label, and 1 indicating that the mother labels the child's emotion. The presence or absence of mother's discussion of the cause of the child's emotion was scored, with 0 indicating that the mother does not state the cause of the child's emotion, and 1 indicating that the mother states the cause of the child's emotion. The mother's description of the child's emotional experience could be given a score ranging from 0 to 2; a score of 0 indicated no description provided by the mother, a

score of 1 indicated the mother gave details of the event, and a score of 2 indicated the mother gave details, as well as discussed the child's reactions to the emotional situation.

2. *Emotion Elaboration*: This measure includes the mother's facilitation of discourse with the child about emotions by asking the child to elaborate on their emotional experience, such as asking, "How did you feel when that happened?" Emotion elaboration also includes the mother asking questions about the child's cause and/or consequences of emotion, such as "What made you cry?" or "What happened after you were sad?" Elaboration was assessed on a scale from 0 to 2. A score of 0 indicated that the mother might have asked yes-no questions, but did not encourage or facilitate elaboration. A score of 1 indicated that mothers facilitated conversation by asking open-ended questions to initiate elaboration. A score of 2 indicated that the mother facilitated elaboration through open-ended questions until the child engaged in the conversation; if the child did not answer these questions, the mother guided the child to an agreed understanding about the emotion.

3. *Acceptance of child's negative emotions*: This measure includes the mother's expressed comfort with her child's negative emotional experience and expression, as well as her empathy with her child's negative emotion (Hooven, 1994). Examples of such statements would be those that validate the child's emotional state (Kuebli, Butler, & Fivush, 1995) such as, "Yes, you were sad" or "It is okay to be angry. I get angry too sometimes." The presence or absence of acceptance of child's emotion was scored, with 0 indicating that the mother does not explicitly state her acceptance of the emotion, and a 1 indicating that the mother explicitly states her acceptance of her child's emotion.

4. *Problem solving with child's negative emotions*: This measure includes the mother's assistance in helping the child understand negative emotions or think of coping strategies for situations that may lead to negative emotions, such as saying, "Can you think of anything that would have made it easier?" or "What could you do next time when you are sad?" (Lunkenheimer et al., 2007). Problem solving strategies were scored on a scale from 0 to 3. A score of 0 indicated that the mother does not give her child suggestions about how to cope with the emotion, nor does she ask her child to consider problem solving strategies. A score of 1 indicated that the mother gives suggestions about how to cope with the emotion without asking her child for input. A score of 2 indicated that the mother asks her child to consider problem solving strategies. A score of 3 indicated that the mother asks her child to consider problem solving strategies, as well as provides her own suggestions about how to properly regulate the emotion.

The final emotion coaching score was calculated based on adding the respective categories' total for each emotion, with higher scores indicating more emotion coaching behaviors. Each emotion (i.e., anger, fear, or sadness) was scored from 0 to 10. Emotion coaching scores for sadness and fear were combined by totaling mothers' scores for sadness and fear, with scores ranging from 0-20.

Of the 77 emotion coaching transcripts, 16 (20%) were coded for reliability. Kappa was calculated to denote reliability for binary codes, and Cronbach's α for rating scales. For fear, Kappa ranged from .64 to 1, with a mean of .88, while Cronbach's α ranged from .79 to .85, with a mean of .82. Kappa for anger ranged from .64 to 1, with a mean of .88, and Cronbach's α for anger ranged from .79 to .92, with a mean of .86. For sadness, Kappa was calculated as 1, and Cronbach's α had a range from .65 to .85, with a mean of .75.

Child internalizing and externalizing behaviors. Children's problem behaviors were assessed using the Child Behavioral Checklist (CBCL; Achenbach & Rescorla, 2001), a widely used parent-report measure that has two broad factors, externalizing and internalizing problems. The checklist of 100 statements is intended to assess behaviors in children from the age of eighteen months to five years. The checklist utilizes a Likert scale format (from 0 to 2), in which the mother indicates her agreement with statements about her child's behavior.

Maternal depressive symptoms. The Center for Epidemiologic Studies Depression Scale (CESD; Raldoff, 1977) is used to assess mothers' depressive symptoms. The CESD is a well-established 20-item measure assessing current depressive symptomatology, yielding scores with a potential range from 0 to 60, with higher scores indicating more depressive symptoms.

Data Analyses

Descriptive statistics (e.g. means, standard deviation) were obtained first to examine the distributions of the variables. Next, bivariate correlations of the study variables were computed to understand the associations among these variables. All independent variables (including control variables) that were significantly correlated with children's externalizing and internalizing problems were included in the analyses in the next steps to test the research hypotheses. To address my research questions, hierarchical regression analyses were conducted with child problem behaviors (externalizing and internalizing problems) as the dependent variables. In each regression analysis, the independent variables (i.e., maternal emotion coaching strategies, maternal depressive symptoms) were entered in three steps. In the first step, relevant demographic variables (e.g., household income, child's sex) were entered to account for their potential influences on maternal ratings of child behavioral problems. In the second step, maternal emotion coaching strategies and maternal depressive symptoms were entered to

examine the association between these two maternal variables with child problems. In the third step, the interaction between maternal emotion coaching strategies and depressive symptoms was entered to test the third hypothesis, that is whether maternal emotion socialization strategies moderate the relationship between maternal depressive symptoms and child problem behaviors. Because sadness and fear tend to be internalized emotions, the regression analyses assessed whether mothers' use of emotion coaching for the emotions of sadness and fear moderated the association between maternal depressive symptoms and children's internalizing behaviors. Similarly, because anger tends to be an externalizing emotion, the regression analyses assessed whether mothers' use of emotion coaching for anger moderated the association between maternal depressive symptoms and children's externalizing behaviors.

Results

Table 1 contains the means, standard deviations, and bivariate correlations of the variables in this study. There were several correlations that were significant at the .01 level. Mothers' use of emotion coaching for anger, and mothers' use of emotion coaching for sadness and fear were both negatively correlated with mothers' depressive symptoms, such that mothers with higher levels of depressive symptoms tended to use less emotion coaching strategies for anger (r = -.31) and for sadness and fear (r = -.30). Mothers' emotion coaching score for anger had a mean of 5.28 (SD = 1.77), while mothers' emotion coaching score for sadness and fear had a mean of 5.15 (SD = 1.27). Mothers' depressive symptoms on the CESD ranged from 0 (no depressive symptoms) to 49, with a mean of 18.79 (SD = 13.22). Another significant finding at the .01 level was among household income and mothers' use of emotion coaching for sadness and fear. Mothers who reported higher household incomes used more emotion coaching strategies for sadness and fear than mothers who reported lower household incomes (r = .29).

Maternal depressive symptoms were significantly correlated with mothers' reports of children's internalizing and externalizing behaviors. Mothers with depressive symptoms tended to report more internalizing behaviors (r = .48) and externalizing behaviors (r = .35) than mothers without depressive symptoms. Children's internalizing behaviors had a mean of 7.17 (SD = 6.07), while children's externalizing behaviors had a mean of 11.67 (SD = 7.50). Furthermore, mothers' report of children's internalizing behaviors was positively correlated with mothers' report of children's externalizing behaviors (r = .57). The last significant finding at the .01 level was that mothers' use of emotion coaching for anger was positively related to mothers' use of emotion coaching for sadness and fear (r = .35)

There were also two significant findings at the .05 level. Both mothers' report of children's internalizing behaviors and mothers' report of children's externalizing behaviors were related to household income, such that lower household incomes were related to more internalizing (r = -.26) and externalizing (r = -.26) reported behaviors than higher household incomes.

Table 1. Descriptive statistics and bivariate correlations of study variables

	M	*SD*	1	2	3	4	5	6
1. Child Sex	.47	.50						
2. Household Income	5.35	3.12	-.08					
3. CESD	18.79	13.22	-.21	-.22				
4. Emotion Coaching Anger	5.28	1.77	-.04	.11	-.31**			
5. Emotion Coaching Sadness/Fear	5.15	1.27	-.14	.29**	-.30**	.35**		

6. Child's Internalizing Behaviors	7.17	6.07	-.08	-.26*	.48**	-.14	-.12	
7. Child's Externalizing Behaviors	11.67	7.50	.13	-.26*	.35**	-.22	-.15	.57**

* $p < .05$. ** $p < .01$.

Internalizing Behaviors

As shown in Table 2, in the first step of the analysis, control variables (child's sex and household income) were entered to see their relation to children's internalizing behaviors. Household income was negatively related to children's internalizing behaviors ($\beta = -.28$, $p = .02$), yet child's sex was not significantly related to children's use of internalizing behaviors.

In step two, maternal depressive symptoms (CESD) and mothers' emotion coaching scores were entered. Mothers' emotion coaching score for anger and mothers' emotion coaching for sadness and fear were entered separately. When entering maternal depressive symptoms, the relationship between household income and children's internalizing behaviors was not significant. Mothers' depressive symptoms were significantly related to children's internalizing behaviors, such that mothers with high levels of depressive symptoms tended to have children with more internalizing behaviors than mothers without depressive symptoms ($\beta = .42$, $p < .001$). When looking at both mothers with and without depressive symptoms as a whole, mothers' use of emotion coaching for fear and sadness was not significantly related to children's internalizing behaviors, and mothers' use of emotion coaching for anger was not significantly related to children's internalizing behaviors.

In the third step of the analysis, the interaction between mothers' depressive symptoms and emotion coaching score for sadness and fear, as well as the interaction between depressive

symptoms and emotion coaching score for anger, were entered. The interaction between maternal depressive symptoms and emotion coaching for anger was then removed from the analysis, as it was not significantly associated with internalizing problems. Once again, maternal depressive symptoms were positively related to children's internalizing behaviors ($\beta = .34, p = .01$). Mothers' use of emotion coaching for sadness and fear, as well as mothers' use of emotion coaching for anger, was not related to children's internalizing behaviors. Results from Step 3 display that mothers' use of emotion coaching for sadness and fear significantly moderates the effects of maternal depressive symptoms on children's internalizing behaviors ($\beta = -.27, p = .02$).

To explore the interaction between maternal emotion coaching and depressive symptoms, mothers were divided into two groups, mothers with depressive symptoms, with CESD scores at or greater than the clinical cutoff, and mothers without depressive symptoms, with CESD scores below the clinical cutoff (Figure 1). For children of depressed mothers, maternal emotion coaching for sadness and fear was unrelated to internalizing behaviors ($\beta = -.11, p = .38$). For children of nondepressed mothers, maternal emotion coaching for sadness and fear was marginally associated with internalizing behaviors ($\beta = .36, p = .07$).

Table 2: Internalizing

	Variable	*B*	*SE B*	*β*	*t*	*p*	ΔR^2	ΔF	Sig. ΔF
1							.08	3.04	.05
	Child's Sex	-1.55	1.43	-.13	-1.09	.28			
	Income	-.52	.22	-.28	-2.33	.02*			
2							.15	4.18	.01
	Child's Sex	-.33	1.40	-.03	-.23	.82			
	Income	-.37	.22	-.19	-1.67	.10			
	CESD	.19	.06	.42	3.35	.00**			
	ECanger	-.04	.41	-.01	-.10	.92			
	ECin	.30	.62	.06	.49	.63			
3							.06	5.66	.02
	Child's Sex	-.75	1.37	-.06	-.55	.58			
	Income	-.44	.21	-.24	-2.08	.04*			
	CESD	.15	.06	.34	2.71	.01**			
	ECanger	.04	.40	.01	.11	.91			
	ECin	.36	.59	.07	.60	.55			
	CESD_ECin	-.09	.04	-.27	-2.34	.02*			

* $p < .05$. ** $p < .01$.
EC_anger = mothers' emotion coaching score for anger; ECin = mothers' emotion coaching for sadness and fear; CESD_ECin = the interaction of mothers' depressive symptoms with mothers' emotion coaching score for sadness and fear

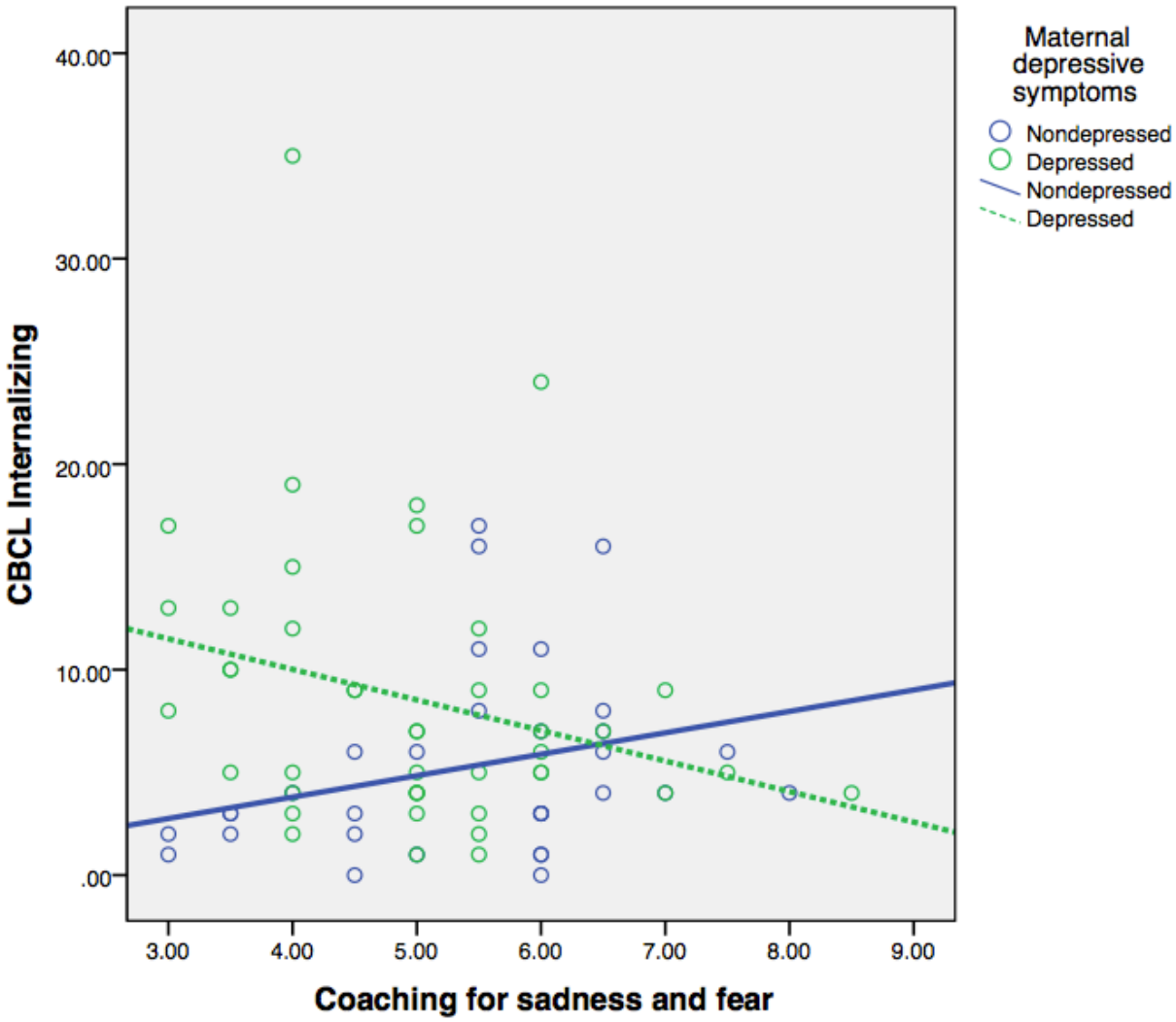

Figure 1. Maternal emotion coaching scores for sadness and fear as related to children's internalizing behaviors.

Externalizing Behaviors

A similar hierarchical regression analysis was conducted to determine relationships between maternal variables and children's externalizing behaviors. In step one, the control variables were entered (child's sex and income). As with internalizing behaviors, only household income was significantly related to children's use of externalizing behaviors, with lower household incomes relating to more reports of children's externalizing behaviors (β = -.27, p = .02).

In the next step of the analysis, maternal depressive symptoms, mothers' use of emotion coaching for anger, and mothers' use of emotion coaching for sadness and fear were entered. The relationship between household income and children's externalizing behaviors became insignificant. There was a significant relationship between mothers' depressive symptoms and children's externalizing behaviors, as mothers with higher levels of depressive symptoms had children who exhibited more externalizing behaviors (β = .32, p = .01). However, when looking at mothers with and without depressive symptoms as a whole, there was no significant relationship between mothers' use of emotion coaching for anger with children's externalizing behaviors, nor with mothers' use of emotion coaching for sadness and fear with children's externalizing behaviors.

In step three, the interaction between maternal depressive symptoms and mothers' use of emotion coaching strategies for anger was entered. The interaction between maternal depressive symptoms and emotion coaching for sadness and fear was entered as well, but was later removed because it was unrelated to the externalizing problems. Mothers' use of emotion coaching for anger significantly moderated the relation between maternal depressive symptoms and children's externalizing behaviors (β = -.30, p < .01). Depressed mothers who used more emotion coaching

while discussing events that elicit anger had children who showed less externalizing behaviors (β = -.30, p < .01). This relation did not hold for children of nondepressed mothers (β = .12, p = .47). Additionally, the overall relationship between maternal depressive symptoms and externalizing behaviors no longer held significant.

Table 3: Externalizing

	Variable	*B*	*SE B*	β	*t*	*p*	ΔR^2	ΔF	Sig. ΔF
1							.08	3.03	.06
	Child's Sex	.92	1.82	.06	.51	.61			
	Income	-.66	.28	-.27	-2.33	.02*			
2							.14	3.04	.04
	Child's Sex	2.10	1.83	.14	1.15	.26			
	Income	-.49	.29	-.21	-1.74	.09			
	CESD	.19	.07	.32	2.52	.01**			
	ECanger	-.48	.53	-.11	-.91	.37			
	ECin	.41	.80	.07	.52	.61			
3							.11	9.63	.00
	Child's Sex	1.53	1.73	.10	.89	.38			
	Income	-.58	.27	-.24	-2.15	.04*			
	CESD	.12	.07	.21	1.63	.11			
	ECanger	-.76	.51	-.18	-1.49	.14			
	ECin	.81	.76	.13	1.06	.30			
	CESD_ECanger	-.11	.04	-.35	-3.10	.00**			

* p < .05. ** p < .01.
EC_anger = mothers' emotion coaching score for anger; ECin = mothers' emotion coaching for sadness and fear; CESD_ECanger = the interaction of mothers' depressive symptoms with mothers' emotion coaching score for anger

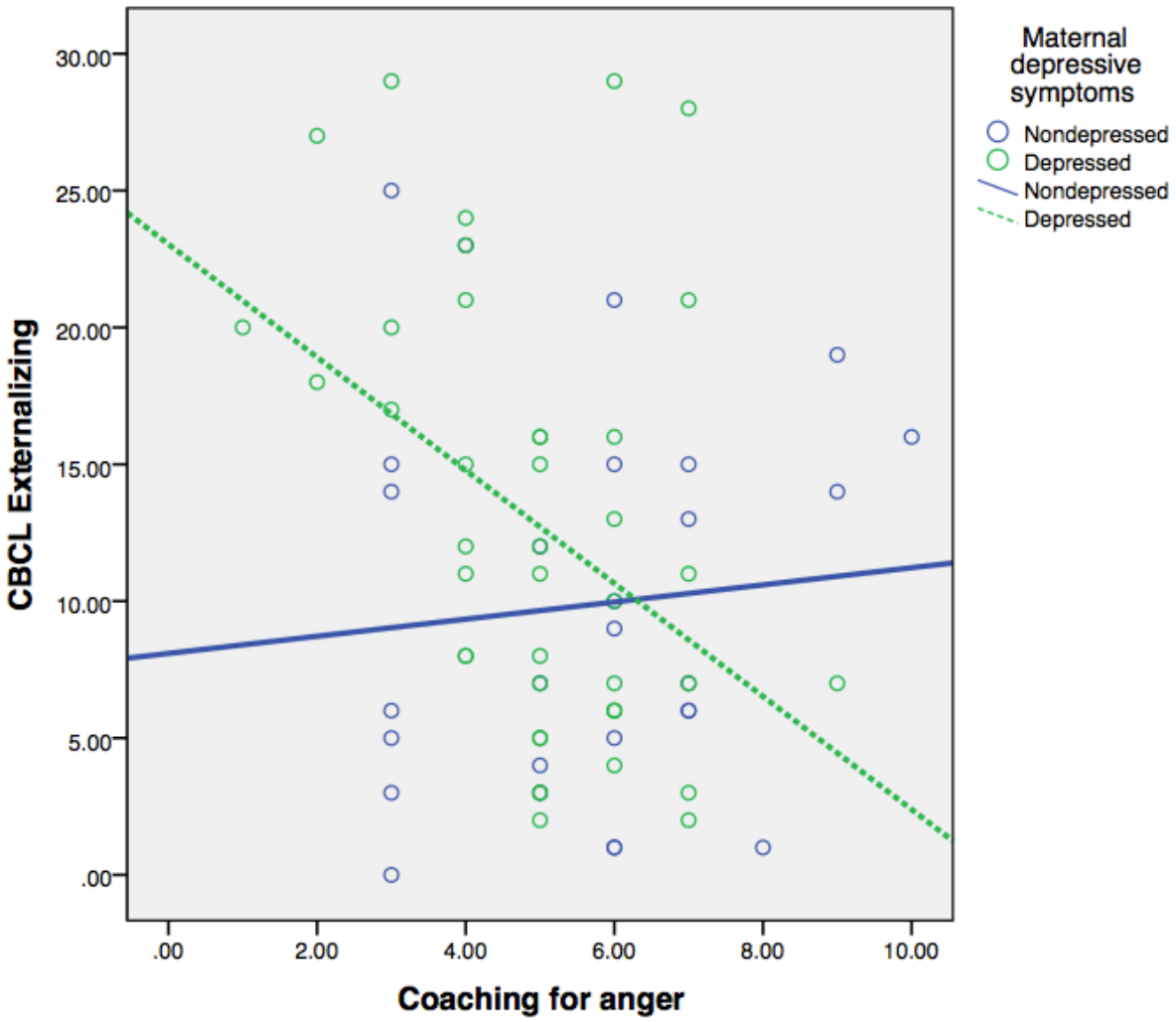

Figure 2. Maternal emotion coaching scores for anger as related to children's externalizing behaviors.

Discussion

The goals of the present study were to (1) determine the relationship between maternal emotion coaching strategies and children's internalizing and externalizing behaviors, (2) determine the relationship between maternal depressive symptoms and children's use of internalizing and externalizing behaviors, and (3) determine if emotion coaching strategies moderate the association between maternal depression and children's use of internalizing and externalizing behaviors.

In relation to the first goal of the study, it was hypothesized that mothers who used more emotion coaching strategies would have children who displayed less internalizing and externalizing behaviors. However, the results of the present study indicate that maternal use of emotion coaching was not significantly related to children's internalizing or externalizing behaviors, despite the notion that the body of literature on maternal emotion coaching strategies tends to be associated with children exhibiting less problem behaviors (Eisenberg et al., 2008; Gottman et al., 1996). A study conducted by Dunsmore, Booker, & Ollendick (2013) attributed their similar findings to the idea that by facilitating their children's recognition of negative emotions through emotion coaching behaviors, children may be overly inclined to think of these self-focused feelings. Dunsmore and colleagues pose that the children's heightened awareness about these negative emotions would lead children to focus too much on their negative feelings (2013). Thus, these children internalized their emotions and displayed more anxiety and depressive symptoms than children of mothers who did not use emotion coaching strategies (Dunsmore et al., 2013). While this may explain why emotion coaching strategies for sadness and fear are not significantly related to children's reduced internalizing behaviors, it is unclear

why children's externalizing behaviors would not be significantly related to mothers' use of emotion coaching for anger.

For the second goal of this study, it was hypothesized that depressed mothers would have children who displayed more internalizing and externalizing behaviors. When controlling for household income and child's sex, results confirmed that maternal depressive symptoms were significantly related to children's use of internalizing and externalizing behaviors. The finding, that mothers with more depressive symptoms tend to have children who have more internalizing and externalizing behaviors, aligns with previous research (Jung et al., 2013; Ford et al., 2004). This finding may support the idea that children's problem behaviors are attributed to depressed mothers' less effective conversations about emotions with their children (Ingram, 1990). These mothers' reduced engagement and use of conversations with their children, due to their depression, are believed to hinder their ability to meet the emotional needs of their children (Downey & Coyne, 1990).

With regards to the third research question, the hypothesis that maternal emotion coaching would moderate the relation between maternal depressive symptoms and children's problem behaviors was partially confirmed. The interaction between maternal depressive symptoms and mothers' emotion coaching strategies for anger significantly moderated the relationship between maternal depression and children's use of externalizing behaviors. Mothers with depressive symptoms who used more emotion coaching for anger had children who displayed less externalizing behaviors. However, this relationship did not hold true for mothers without depressive symptoms. This finding aligns with the theoretical framework proposed by Eisenberg and colleagues (1998), such that the use of explicit emotion socialization practices teaches children how to effectively regulate and cope with negative feelings. This finding

corroborates previous research that maternal positive interaction is particularly important for children of depressed mothers (Feng et al., 2008), because depressed mothers' use of emotion coaching for anger serves as a buffer for the negative externalizing behaviors typically reported in children of depressed mothers. Furthermore, the interaction between maternal depressive symptoms and mothers' use of emotion coaching for sadness and fear significantly moderated the association between maternal depression and children's internalizing behaviors. However, when separately comparing depressed mothers and nondepressed mothers, neither relationship was significant. These findings contradict previous research about the protective factor that positive mother-child interactions serve for the negative outcomes typically associated with maternal depression (Feng et al., 2008, Lunkenheimer et al., 2007). Perhaps depressed mothers' lack of engagement as compared to nondepressed mothers offsets the positive role that emotion coaching serves in reducing children's internalizing behaviors. This finding suggests that positive emotion socialization transcends the use of emotion coaching, as mothers' daily interactions are crucial in children's social and behavioral competence.

Limitations

There are a few noticeable limitations to the present study. First, the mother-child conversations were conducted in the laboratory. While each mother was instructed to facilitate a conversation as she would normally do at home, the transcribed conversation might not accurately reflect how the mother facilitates discussion about her child's emotional experiences. For example, mothers may have conducted themselves in a way to appear socially desirable, in which they conversed in a way that was unnatural because they knew they were being recorded. Furthermore, the conversations were conducted retrospectively. Ergo, mothers might handle emotion discussions differently when their child is experiencing the emotion. The study sample

was disproportionately Caucasian women with higher levels of education. Thus, the sample might not be representative of the larger population of mother-child dyads in the United States. Additionally, it would be useful to consider the confounding variable of the mother's number of children on maternal ratings of child behavioral problems. For example, while household income and child's sex were obtained to examine their relationships with study variables, number of children within the household was not reported in the present study. Furthermore, the study is based on cross-sectional data, which does not allow for the determination of the direction of associations. Despite the limitations, the present study is a valuable contribution to the current body of literature on children's socioemotional outcomes as it relates to maternal depression and maternal emotion coaching. While many studies have corroborated that depressed mothers have a reduced ability to emotionally socialize their children, as well as children who are more likely to display internalizing and externalizing behaviors, there has been a lack of research about depressed mothers' use of meta-emotion strategies. Thus, this study provides support for the notion that when depressed mothers use these emotion coaching strategies with their children, the children display less externalizing behaviors than depressed mothers who do not use an emotion coaching strategy. This finding is positive, as it supports that mothers who use effective emotion socialization strategies with their children can offset the negative socioemotional behaviors typically associated with maternal depression.

Future Directions

The present study provides a foundational framework for further research to be conducted about the interaction of emotion socialization strategies and children's social and behavioral outcomes in the population of depressed mothers. While this study established that the use of emotion coaching serves as a protective factor for the negative social and behavioral outcomes

typically associated with maternal depression, it is necessary to add a longitudinal component in order to see if the interactions among these variables persist across time. Future studies should consider gathering data from a more diverse sample than the present study provides. The use of iPod technology has been employed in recent studies, which allow researchers to record conversations held in the home, rather than in the laboratory setting. Utilizing this technology in future studies would potentially allow researchers to record mother-child conversations as the child experiences the emotion. One final recommendation for future exploration is the use of an experimental design; researchers could explicitly teach emotion coaching strategies to a set of depressed mothers. Mothers' report on children's use of problem behaviors could be compared before and after the intervention. These results, in comparison with a control group, would further the body of knowledge about the potential causal relationship between emotion coaching and the negative social and behavioral outcomes children of depressed mothers commonly experience.

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Appendix A

EMOTION COACHING DIMENSIONS:

1. **Awareness**
    A. **Acknowledging/labeling**
        0: Mother does not mention emotional label
        1: Mother labels child's emotion
    B. **Discusses cause of emotion**
        0: Mother does not state the cause of her child's emotion
        1: Mother states the cause of her child's emotion
    C. **Descriptive of child's experience of emotion**
        0: Mother gives no description
        1: Mother gives description/details of events
        2: Mother gives descriptions of events, how the child felt, and/or how the child reacted during that emotional situation

2. **Emotion Elaboration**:
    A. **Asks to elaborate**
        0: Mother does not encourage or instigate elaboration (such as only asking yes/no questions instead of elaborating)
        1: Mother facilitates conversation by asking open-ended questions in order to have child elaborate
        2: Mother probes child to elaborate through the use of open-ended questions until the child engages in the conversation. If the mother is unable to get her child to elaborate, she guides her child to an agreed understanding about the emotion

3. **Acceptance**:
    A. **Displays acceptance of child having that emotion**
        0: Mother does not explicitly state her acceptance of the emotion
        1: Mother explicitly states her acceptance of the emotion

4. **Problem solving**:
    A. **Teaches strategies to sooth emotion**:
        0: Mother does not give/ask child for suggestions
        1: Mother gives suggestions without asking child for input
        2: Mother asks child to come up with problem solving strategies
        3: Mother asks child to come up with problem solving strategies and discusses own suggestions of strategies to better regulate the emotion