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Parental Emotion Coaching Moderates the Effects of Family Stress on Internalizing Symptoms in Middle Childhood and Adolescence

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Abstract

The present study examined the moderating effects of parental meta-emotion philosophy on the relation between family stress and youth internalizing symptoms. A two-study approach was applied to explore these relations in socioeconomically diverse samples with respect to a self-reported parental emotion coaching (EC) and parental emotion dismissing (ED) meta-emotion philosophy in Study 1 (N = 153; youth ages 10-17 years; 52% female; 49% White, 26% multiracial, 17% African American, 6% Asian American, 1% Latinx, and 1% American Indian) and observed parental EC and ED behaviors in whole-family interactions in Study 2 (N = 82; youth ages 8-11.75 years; 52% female; 57% White, 22% African American, 19% multiracial, and 2% Asian). Across both studies, EC was a buffer such that positive associations between family stress and youth internalizing symptoms were only present when parental EC philosophy or EC behaviors were lower. Additionally, in Study 1, more EC was protective: the relation between family stress and youth internalizing symptoms was negative when parental EC philosophy was higher. Findings suggest parental EC buffers youth internalizing symptoms from the detrimental effects of family stress. Therefore, the inclusion of family-level risk processes and the effects of both parental beliefs and observed parenting behaviors can inform research on youth psychosocial adjustment.

Keywords: family stress, emotion socialization, emotion coaching, emotion dismissing, internalizing symptoms

Parental Emotion Coaching Moderates the Effects of Family Stress on Internalizing Symptoms in Middle Childhood and Adolescence

From middle childhood through adolescence, children are tasked with managing multiple responsibilities, growing expectations, changing social relationships, and puberty-related biobehavioral changes (Alloy & Abramson, 2007; Silk et al., 2003). These demands can elicit higher emotional arousal and regulatory challenges, increasing the risk for the onset and escalation of internalizing symptoms (Alloy & Abramson, 2007; Silk et al., 2003). Internalizing symptoms are emotion or mood disturbances characterized by withdrawal, anxiety, fearfulness, or depressive symptoms (Bongers et al., 2003; Rabinowitz et al., 2016). They manifest across childhood and adolescence and have typically increased with age (Bongers et al., 2003), heightening risk for diagnosed mental health disorders (Zahn-Waxler et al., 2000). An estimated 15% of American children have experienced an emotional disorder by age 16 (Costello et al., 2003). Thus, it is important to explore factors that might inhibit or exacerbate the development of youth internalizing symptoms.

Family relations are a key mechanism of risk and resilience associated with youth emotion regulation and internalizing symptoms (Galambos et al., 2003). At a macro level, family-level processes associated with stress may shape youth psychosocial adjustment adversely. Stress is a broad construct; Patterson (2002) posited that demands on the family system can include normative or nonnormative discrete events of change, ongoing family strains that produce tension, and daily hassles. This study emphasized two forms of stress: the life events that elicit chronic stressors that disrupt family functioning and family chaos characterized by noise, general disarray, and/or absent or inconsistent family routines, both of which may disrupt the formation of protective natural familial rhythms (MacPhee et al., 2015).

Family stress from life events that elicit chronic stressors or household chaos was related positively to more internalizing symptoms in children and adolescents, both concurrently (Peltz et al., 2019) and over time (Sheidow et al., 2014). This association was stronger for more emotionally reactive adolescents, suggesting emotion dysregulation may exacerbate the harmful effects of family stress (Rabinowitz et al., 2016). Conversely, lower family stress was associated with fewer internalizing symptoms in middle childhood and adolescence (e.g., Lucia & Breslau, 2006; Rabinowitz et al., 2016). However, gaps remain regarding how relations between family-level processes and youth adjustment vary by parenting beliefs and practices thought to help or hinder youth emotion regulation, such as parental emotion socialization (Lunkenheimer et al., 2007). The present paper adopted a two-study approach across two socioeconomically and ethnically diverse samples to examine how parental emotion socialization processes interacted with family stress to exacerbate or ameliorate child and adolescent internalizing symptoms.

Family-Level Processes and Child Adjustment

Family systems theory suggests that youth are embedded within a broader family system, and therefore, their development cannot be isolated meaningfully from family influences (Cox & Paley, 1997). The family stress model (Conger & Donnellan, 2007) posits that family-level disruptions shape each family member and their interactions with one another. Therefore, family stress can contribute to parental stress and dysfunction: for example, higher chaos or chronic stressors were associated with parents' lower warmth and higher negativity (Deater-Deckard et al., 2009), harsh reactive discipline (Dumas et al., 2005), and poorer parenting (Sheidow et al., 2014).

Family stress may further confer harm to youth by influencing more proximal contexts such as the parent-child relationship. Research with school-age children revealed that family

stress spilled over into parent-child interactions and was associated with reduced maternal patience and attention (Nelson et al., 2009) and poorer parent-youth cooperation (Dumas et al., 2005). In contrast, lower family stress may help regulate each individual within the home and promote stability within the family system by reinforcing the family's values and expectations of one another's behavior (MacPhee et al., 2015). Despite these important effects, relatively few studies have examined family-level processes in empirical research on child adjustment. Understanding the relation between proximal indicators of parenting and family stress could afford a more nuanced understanding of its effects on adjustment in middle-to-late childhood and adolescence.

Parental Emotion Socialization and Youth Adjustment

Parent emotion socialization is a promising candidate as a more proximal moderator of the effects of family-level processes on youth emotion regulation and internalizing symptoms. Research has demonstrated that parents played an important role in preschoolers' emotion regulation development through the family emotional climate they created (Are & Shaffer, 2016), their positive versus punitive or dismissive reactions to children's emotions (Katz & Windecker-Nelson, 2006; Snyder et al., 2003), and their efforts to model emotion regulation strategies or help children practice them (Morris et al., 2011). Parents' own emotional expressiveness and responses to children's emotions laid the foundation for children's emotion understanding (Denham et al., 1994) and coping skills (Thompson, 2014) that are critical to emotion regulation development. For example, parents who controlled, invalidated, or dampened their children's emotional expressions had children who exhibited more anger during parent-child interactions (Snyder et al., 2003) or who reported using more maladaptive strategies such as venting and suppression (Berlin & Cassidy, 2003). However, less is known about parents'

emotion socialization during middle-to-late childhood and adolescence and its effects on youth internalizing symptoms.

Parental *meta-emotion philosophy* refers to parents' feelings about their own and their children's emotions and their reasoning for such responses (Gottman et al., 1996). Maternal meta-emotion philosophy shaped the emotion socialization behaviors that mothers used with their children and adolescents and was an important predictor of emotion regulation and behavior problems (Cunningham et al., 2009; Shortt et al., 2010). An *emotion coaching* (EC) philosophy or behavior refers to when a parent discusses the causes and consequences of emotions and assists the child with navigating emotional states in a constructive manner (Gottman et al., 1996). Through EC, parents may model strategies for managing emotions effectively and encourage youth emotional expressions; maternal coaching of positive and negative emotions was related to fewer adolescent depressive symptoms (Katz & Hunter, 2007). In contrast, an *emotion dismissing* (ED) philosophy or behavior reflects parental discomfort with, invalidation of, or a desire to change children's emotions; this could involve punitive or negating reactions to children's emotional displays (Gottman et al., 1996). Maternal and paternal invalidation of children's negative emotions was associated with higher internalizing symptoms in middle-to-late childhood and adolescence (Buckholdt et al., 2014; Lunkenheimer et al., 2007). Though the ED literature emphasizes parental responses to negative emotions, maternal invalidation of positive emotions also was associated with higher adolescent depressive symptoms (Yap, Allen, & Ladouceur, 2008).

Theoretically, parents' EC or ED philosophies or behaviors could ameliorate or exacerbate the effects of family stress on child adjustment. On one hand, greater parental EC could help children regulate emotional fluctuations prompted by living in a stressful family

environment (Katz & Windecker-Nelson, 2006). By offering children appropriate socialization, EC may act as a buffer amidst heightened family stress. Parental EC also protected children's emotion regulation from the negative effects of ED (Lunkenheimer et al., 2007); thus, EC even buffers children from harmful socialization processes from the same parents. On the other hand, parental ED may exacerbate the negative effects of family stress on youth internalizing symptoms. For example, if parents encourage children to suppress emotions prompted by family stress, or are in overt denial of those emotions (e.g., unwilling to believe that stressors are present, or that they impact children), children may internalize these emotions and have fewer strategies for regulating them constructively. Higher family chaos was associated with higher maternal ED (Valiente et al., 2007), and maternal ED played a role in the harmful effects of maternal psychopathology and sociodemographic risk on youth emotion dysregulation in middle and late childhood (Shaffer et al., 2012).

Present Study

This study's purpose was to understand how parental emotion socialization was related to youth internalizing symptoms in the context of family stress. We tested this question across two socioeconomically and ethnically diverse samples of children from middle childhood to adolescence. In the first cross-sectional study, we examined how maternal self-reported EC and ED philosophy moderated links between reported family stress and youth self-reported depressive symptoms, controlling for maternal self-reported depressive symptoms and youth sociodemographic variables. We hypothesized that maternal EC would buffer youth from developing depressive symptoms amidst higher family stress, and that maternal ED would exacerbate the positive relation between family stress and youth depressive symptoms. The second study also employed a cross-sectional study design to investigate the moderating effects

of *observed* parental EC and ED behaviors on the relation between reported family stress and teacher-reported youth internalizing symptoms, controlling for maternal self-reported psychopathology symptom severity, maternal-reported youth emotional lability/negativity, and youth age. We hypothesized that parental EC would buffer the effects of family stress on youth internalizing symptoms whereas parental ED would exacerbate these effects. In both studies, we controlled for maternal psychopathology symptom severity because this was a prominent risk factor for children's and adolescents' internalizing symptoms (Connell & Goodman, 2002) and was associated with compromised maternal emotion socialization (Buckholdt et al., 2014). In Study 2, we also controlled for child emotional lability/negativity because youth with higher negative emotional reactivity were more susceptible to the harmful effects of family stress (Rabinowitz et al., 2016).

Replicating comparable constructs across two samples allowed us to examine the robustness of these relations; this was an important goal in light of the broader replication crisis currently affecting the behavioral sciences and the specific challenges in replicating moderation effects across studies (Simons, 2014). As this was not a planned replication design, there are important differences across the studies. Study 1 included children in middle childhood, whereas Study 2 included youth in adolescence. Additionally, family stress was operationalized as chaos in Study 1 and chronic stressors resulting from stressful life events in Study 2. However, given those differences, a replication of effects across studies could be considered evidence for greater generalizability of effects across age and/or symptom level or type. Additionally, in combination, the two studies offered tests of the moderating effects of both parental meta-emotion philosophy and meta-emotion behaviors, heeding the call for attention to both parental beliefs (Shortt et al., 2010) and practices (Buckholdt et al., 2014) in emotion socialization research.

Study 1

Method

Participants

Participants were 153 youth (52% female; *n* = 79) and their parents. Youth were on average 12.80 years old (*SD* = 2.16, range = 10–17 years). Of the youth who reported their ethnicity (6% or *n* = 9 did not), 49% were White (*n* = 70), 26% multiracial or "other" (*n* = 37), 17% African American (*n* = 25), 6% Asian American (*n* = 8), 1% Latinx (*n* = 2), and 1% American Indian (*n* = 2) (see Supplemental Information for sample descriptives). Participating youth were from 98 families recruited through parenting magazines, newspaper classifieds, and church bulletins in an urban area. Because of the larger study's goal to examine links between family relationships (including interparental conflict) and adolescent health, parents were required to have been married or living together for at least 2 years; the average length of parents' relationships was 15.64 years (*SD* = 5.86 years). Seventy-eight percent of adolescents had parents who were married or cohabitating for their entire life (*n* = 120, or 75 families). The median annual family income was $67,000, though there was a large range ($3,375 - $450,000 per year). On average, both parents had completed an associate's degree or vocational training beyond high school.

Procedure

Youth and their parents completed questionnaires using audio computer-assisted self-interview software at a laboratory visit. Each participant was compensated $20 and each family was compensated $10 for transportation. Study procedures were approved by the Institutional Review Board at Colorado State University for the "Family Relationships, Stress, and Health" study.

Measures

Family stress. The Confusion, Hubbub, and Order Scale (Matheny et al., 1995) assesses the level of family stress experienced in the past year; this measure is reliable and strongly correlates with independent ratings of similar constructs (Matheny et al., 1995). The 15-item scale (α = .70, *M* = 20.43*, SD* = 4.61) includes items such as "There is very little commotion in our home" and "It's a real zoo in our home." Mothers responded using a scale from 1 (*very much like your own home*) to 4 (*not at all like your own home*). Individual items were scored such that higher scores reflected a more stressful family environment and then summed together.

Maternal emotion coaching and emotion dismissing. We used the Maternal Emotional Styles Questionnaire (Lagacé-Séguin & Coplan, 2005) to assess mothers' endorsement of an EC or ED style; this measure has documented reliability, convergent validity, and construct validity (Lagacé-Séguin & Coplan, 2005). The 7-item EC subscale (α = .66, *M* = 2.76, *SD* = 0.43) assesses whether parents endorse assisting children with their negative emotions (e.g., "When my child is angry, I want to know what he/she is thinking"). The 7-item ED subscale (α = .77, *M* = 2.10, *SD* = 0.64) asks about dismissive or punitive reactions to children's negative emotions (e.g., "When my child is angry, my goal is to make him/her stop"). Mothers responded on a scale from 1 (*strongly disagree)* to 5 (*strongly agree*). Items were averaged to create overall scores for maternal EC and ED.

Maternal and youth depressive symptoms. Mothers and youth reported their own depressive symptoms using the Center for Epidemiologic Studies Depression Scale (Radloff, 1977). This 20-item measure (adolescents: α = .85, *M* = 12*, SD* = 8.85, mothers: α = .90, *M* = 9.97*, SD* = 8.98) is reliable and valid for older children, adolescents, and adults (Roberts et al., 1990). Participants endorse how often over the past week they experienced symptoms associated

with depression (e.g., restless sleep, feeling lonely). Mothers and youth responded using a scale from 0 (*rarely or none of the time)* to 3 (*most or almost all of the time*). Items were summed; possible scores ranged from 0 to 60, with higher scores reflecting higher depressive symptoms. Scores of 16 or above indicate clinically significant depression; 38 youth (25%) and 24 mothers (25%) met this criterion.

Sociodemographic variables. Youth reported their sex, age, and ethnicity. Given the ethnic demographics noted above and insufficient group size to analyze differences by specific ethnic background, we created a dichotomous variable to represent youth who reported they were White versus those who reported they were Black, Indigenous, and People of Color (BIPOC).

Analytic Plan

All variables were approximately normally distributed except depressive symptoms for youth and mothers; therefore, log-transformed values for these variables were used in analyses. Because some families included multiple participating youth, we utilized generalized estimating equation (GEE) models to account for the clustering of youth within families; these models use a regression-based, nonparametric approach to analyze nested data (Ballinger, 2004). A multiplicative interaction term was calculated and tested (after mean centering and controlling for lower-order terms) according to Aiken and West's (1991) guidelines to assess whether parental EC or ED moderated the association between family stress and youth depressive symptoms, controlling for parental depressive symptoms and youth age, sex, and ethnicity. To interpret significant interactions, simple slopes were plotted at high and low (one standard deviation above and below the mean, respectively) levels of the moderator.

Results

Table 1 shows the bivariate correlations among the predictors and youth depressive

symptoms. There was a moderate negative correlation between family stress and maternal depressive symptoms and a moderate positive correlation between EC and ED philosophies. Finally, there was a moderate relation between youth ethnicity and youth depressive symptoms: White youth reported significantly fewer depressive symptoms than BIPOC youth. No other significant correlations emerged among study variables.

Before testing the hypothesized interaction, we examined main effects of family stress, EC, and ED in relation to youth depressive symptoms; these associations were non-significant, controlling for demographic characteristics and maternal depressive symptoms (see Table 2). However, there was a significant interaction between maternal EC and family stress in relation to youth depressive symptoms. For youth whose mothers reported lower EC, there was a significant positive association between family stress and youth depressive symptoms. In contrast, for youth whose mothers reported higher EC, there was a significant negative association between family stress and youth depressive symptoms (see Figure 1a).

There was also a significant interaction between family stress and ED in relation to adolescent depressive symptoms. Examination of simple slopes revealed the association between family stress and depressive symptoms was non-significant at both high and low ED. Exploratory post-hoc analyses indicated that associations between stress and depressive symptoms were only significant when levels of ED were 2 or more standard deviations from the mean; there was a positive association when ED levels were very low and a negative association when ED levels were very high. However, only four families showed these extreme levels of ED, specifically only very high levels of ED. Thus, this interaction was not interpreted further.

In terms of control variables, although parental depressive symptoms, age, and sex were not related to youth depressive symptoms, there was a difference in youth depressive symptoms

based on ethnicity; BIPOC youth reported significantly more depressive symptoms than White youth.

Study 2

Method

Participants

Participants were a subset of a longitudinal study ($N = 102$) investigating emotional development in middle childhood. Youth were oversampled for conduct problems; families were recruited through newspapers asking for 'hard-to-manage' children and through letters sent to parents of youth in grades 3-5 in a mid-sized Midwestern school district. The subset with valid data for a family narrative task were included in this study.

Participants were 82 youth (52% female; $n = 43$) and their families, and 64 teachers. Youth were on average 9.73 years old ($SD = 1.08$, range = 8–11.75 years). Fifty-seven percent of youth were White ($n = 46$), 22% African American ($n = 18$), 19% multiracial or "other" ($n = 15$), and 2% Asian ($n = 2$). Everyone living in the target youth's primary household comprised the youth's family (range = 2-6 people). Forty-four percent of youth were living with both biological parents ($n = 36$), 42% with one biological parent ($n = 34$), and 14% with one biological parent and a significant other ($n = 11$). The median annual family income was $50,000, though there was a large range ($2,000 - $180,000 per year). On average, parents were college graduates. The modal occupation for mothers was a service occupation and for fathers a professional specialty occupation.

Procedure

Families completed a one-hour laboratory visit in which they engaged in a short whole-family narrative task (Shields et al., 2002). Additionally, parents filled out questionnaires about

demographics and their youth's behaviors. Families were compensated $75. Teachers completed questionnaires on the youth's regulatory behaviors one month following the laboratory visit and received a $20 gift certificate to a local bookstore. Study materials and protocols were approved by the Institutional Review Board at the University of Michigan for the "Families in Transition Study."

Measures

Family stress. An inventory based on Holmes and Rahe (1967) was used to measure life events that could present chronic stress within the family. Mothers responded to 15 items reflecting stressors that could impact day-to-day life (e.g., "Chronic medical problems" and "Conflict in the immediate family"), indicating whether the item had occurred within the past year. The number of endorsed events was summed to create a family stress score ($M = 4.22$, $SD = 2.73$). Similar checklists used to examine family stress have exhibited negative correlations with adolescent life satisfaction measures (Chappel et al., 2014).

Parent emotion socialization. A family narrative task based on the method of Fivush (1994) was used to elicit shared narratives or whole-family conversations around emotional experiences. All household members were asked to discuss a good time for the family (Good), a difficult time (Difficult), and a time when the target child misbehaved (Misbehavior). Families discussed each topic in the same order with no time limit. The emotion communication scoring system (Shields et al., 2002) has been used in research relating family risk to maternal EC (Ellis et al., 2014). In the present study, verbal statements were coded for use of emotion words and their socialization functions. *Emotion coaching* reflected verbal statements or questions in which parents validated or labeled the youth's emotions, helped them understand their emotions, problem-solved with emotions, or taught them to increase their positive emotions. *Emotion*

dismissing occurred when parents criticized, invalidated, avoided, or attempted to distract the youth away from their emotions. For further details on the task and scoring system, see Lunkenheimer et al. (2007) and Shields et al. (2002).

Six research assistants were trained on the coding system by its developers. Twenty percent of coding was checked for reliability by the developers, and disagreements were resolved via consensus. Inter-rater reliability was measured using an intra-class correlation and was high for both EC (.94) and ED (.86). In line with prior research (Ellis et al., 2014; Gottman et al., 1996; Lunkenheimer et al., 2007), EC and ED statements were summed across both parents, respectively, and across conversation topics in order to measure parental emotion socialization occurring across emotional contexts within the family system. On average, there were 6.95 EC statements (*SD* = 6.88; range = 0-33 statements) and 1.33 ED statements (*SD* = 2.70; range = 0-14 statements) per family. To account for individual differences in family speech, we divided the number of EC and ED statements by the total number of utterances made. The proportion of EC or ED relative to the overall amount of family speech was used in primary analyses.

Youth internalizing symptoms. The Teacher's Report Form (Achenbach & Rescorla, 2001) is a well-validated measure used to assess youth internalizing symptoms and has acceptable test-retest reliability, inter-rater reliability, and internal consistency. The 32-item internalizing symptoms subscale (α = .82; *M* = 50.15, *SD* = 11.2; T-score range = 33–68) assesses youth emotional reactivity, anxiety and depressive symptoms, somatization, and withdrawal behaviors (e.g., "Feels unhappy, sad, or depressed"). In relation to the last two months, teachers endorsed the items using a scale from 0 (*not true)* to 2 (*very true*). Five percent (*n* = 3) of children had T-scores in the borderline range ($60 \geq T \leq 63$) and 9% (*n* = 6) had T-scores in the clinical range ($T \geq 64$). Raw scores were summed to create an overall score for

internalizing symptoms.

Maternal psychopathology symptom severity. The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) has acceptable test-retest reliability, convergent validity, and internal consistency, and is considered a valid measure of general psychopathology. Mothers responded to 53 items describing symptoms during the past seven days (e.g., "Feeling no interest in things") using a scale from 0 (*not at all*) to 4 (*always*). Item responses were summed and then divided by the total count of symptoms endorsed, yielding an estimate of the average severity of symptoms ($\alpha = .95$; $M = 1.70$, $SD = 0.60$).

Youth emotional lability/negativity. The Emotion Regulation Checklist (Shields & Cicchetti, 1997) assesses youth's abilities to manage their emotions. Researchers have demonstrated its validity using correlations with observed emotion regulation and emotional displays (Shields & Cicchetti, 1997). We used the 15-item lability/negativity subscale ($\alpha = .88$; $M = 27.92$, $SD = 7.69$) to assess dysregulated negative affect and mood lability (e.g., "Exhibits wide mood swings"). This was included as a covariate to account for youth emotion regulation. Mothers responded on a scale from 1 (*never*) to 4 (*always*). Responses were summed so that scores ranged from 15 to 60, with higher scores reflecting greater emotional lability/negativity.

Analytic Plan

Maternal psychopathology symptom severity, ED, and youth internalizing symptoms were not normally distributed; we applied log transformations to correct for skew. We explored the relations of EC, ED, and youth internalizing symptoms with sociodemographic factors such as youth age, sex, and race (coded as White vs. BIPOC for the same reasons as in Study 1), family annual income, and maternal and paternal education. Only youth age was associated moderately with ED; older children experienced higher ED, $r(79) = .32$, $p = .003$. Child age thus

was included as a covariate in primary analyses.

Eighty-one families had complete behavioral data and 58 families had complete behavioral and questionnaire data. Data were missing completely at random according to Little's (1988) test, $\chi^2(42) = 34.68$, $p = .78$. To handle missing data, a full information maximum likelihood (FIML) approach was used to estimate each parameter using all available data for that parameter.

Using a robust estimator, two path analytic models in RStudio version 1.1.383 (RStudio Team, 2009 -2019) tested multiplicative interactions between parental emotion socialization (EC and ED) and family stress (after mean centering), controlling for lower-order terms and mother-reported psychopathology symptom severity, youth emotional lability/negativity, and youth age. Model goodness-of-fit was determined using a non-significant chi-square test, comparative fit index (CFI) and Tucker-Lewis Index (TLI) values of .95 and above, a root-mean-square error of approximation (RMSEA) value below .06, and a standardized root mean square residual (SRMR) value below .08 (Hu & Bentler, 1999). Interaction effects were tested using simple slopes to estimate the effect of family stress on youth internalizing symptoms at high and low (one standard deviation above and below the mean, respectively) levels of parental emotion socialization.

Results

Bivariate correlations among the predictors and youth internalizing symptoms can be found in Table 3. Family stress had moderate positive associations with youth internalizing symptoms, youth emotional lability/negativity, and maternal psychopathology symptom severity. Furthermore, youth emotional lability/negativity had moderative positive correlations with maternal psychopathology symptom severity and youth internalizing symptoms. EC and ED

were not associated with other study variables.

The EC model (Figure 2a) fit well, $\chi^2(7) = 2.21$, $p = .95$, CFI = 1.00, TLI = 1.00, RMSEA = 0.00, SRMR = 0.04. It explained significant variance in youth internalizing symptoms (32%). The interaction between family stress and EC was a significant predictor of internalizing symptoms, $\beta = -0.26$, $SE = 0.12$, $p = .02$. Post-hoc analyses revealed that at lower EC, there was a positive association between family stress and youth internalizing symptoms (Figure 1b). However, at higher EC, there was no association between family stress and youth internalizing symptoms. There were significant positive associations between family stress and youth internalizing symptoms, $\beta = 0.27$, $SE = 0.12$, $p = .02$, and between youth emotional lability/negativity and youth internalizing symptoms, $\beta = 0.36$, $SE = 0.13$, $p = .003$. Maternal psychopathology symptom severity was negatively associated with youth internalizing symptoms, $\beta = -0.36$, $SE = 0.12$, $p = .001$.

The ED model (Figure 2b) also fit well, $\chi^2(5) = 0.33$, $p = .99$, CFI = 1.00, TLI = 0.98, RMSEA = 0.03, SRMR = 0.01. It explained significant variance in youth internalizing symptoms (28%). However, the main effect for ED also was not significant nor did the interaction effect significantly predict youth internalizing symptoms. There were positive associations between family stress and youth internalizing symptoms, $\beta = 0.30$, $SE = 0.16$, $p = .04$, and between youth emotional lability/negativity and youth internalizing symptoms, $\beta = 0.34$, $SE = 0.15$, $p = .01$. Maternal psychopathology symptom severity was related marginally and negatively to youth internalizing symptoms, $\beta = -0.25$, $SE = 0.14$, $p = .05$.

Discussion

Pre-adolescence and adolescence are sensitive periods for the onset or escalation of youth internalizing symptoms (Alloy & Abramson, 2007). Investigating mechanisms of risk and

resilience within the family system offers novel insights into the processes that reduce or exacerbate youth internalizing symptoms. This study's purpose was to examine the moderating effect of parent meta-emotion philosophy and behaviors on the association between family stress and youth internalizing symptoms. We hypothesized that parental EC amidst higher family stress would buffer youth from internalizing symptoms. Across two studies, results supported this hypothesis: positive associations between stress and internalizing symptoms were only present when maternal EC philosophy or parental EC behaviors were lower. Furthermore, in Study 1, higher family stress was associated *negatively* with youth depressive symptoms when EC meta-emotion philosophy was higher, suggesting an EC philosophy supported adolescents when family stress was higher. We also hypothesized that maternal ED philosophy or parental ED would exacerbate the harmful effects of family stress; however, there was no evidence for a main or moderating effect of ED. Taken together, findings highlight that parental EC may be a source of resilience for youth living in stressful family environments and may offer a potential target for intervention. This study also affirms the utility of examining whole-family processes as opportunities for adaptive emotion socialization and promoting youth psychosocial adjustment.

Emotion Coaching Buffers the Effects of Family Stress

It is difficult to demonstrate reliable evidence for moderator effects, particularly when the potential for further undiscovered moderators may dilute observed effects and limit the generalizability of findings (Simons, 2014). A particular strength of this study was that the replication of the buffering role of EC across samples provided evidence for its robustness and generalizability (Simons, 2014). Because these studies were not designed originally as a planned replication, there were differences across Study 1 and Study 2, i.e., different operationalizations of family stress and meta-emotion philosophy (maternal self-reported attitudes versus parental

observed behaviors, respectively), as well as differences in reporter and type of internalizing symptoms. However, despite these methodological differences, there was a significant buffering effect of parental EC for youth internalizing symptoms within both socioeconomically and ethnically diverse samples, indicating that this finding has stronger external validity and may be generalizable across age and/or symptom level and type.

Both studies illustrated that lower levels of or absent EC philosophies or behaviors were a risk factor, associated with more deleterious effects of family stress on internalizing symptoms. Related findings demonstrated that when mothers and fathers endorsed lower levels of EC meta-emotion philosophy, intimate partner violence exposure was associated positively with youth aggression (Katz & Windecker-Nelson, 2006). The present findings extend this prior knowledge to indicate that lower or absent EC may also put youth at risk for developing internalizing symptoms amidst higher family stress.

There also was some evidence that the inverse was true: in Study 2, the expected association between family stress and youth internalizing symptoms was absent in the context of higher observed parental EC, suggesting an important buffering effect. Furthermore, in Study 1, higher EC meta-emotion philosophy was associated with not just the absence of maladaptive effects, but the presence of adaptive effects: specifically, higher EC philosophy was associated with fewer youth depressive symptoms when family stress was higher. EC could act as a supportive factor in a stressful context because the ability of a family to navigate a range of emotional states flexibly is thought to provide an opportunity for parents to model regulatory strategies and for youth to practice them (Lunkenheimer et al., 2012). Thus, when parents utilize family stressors as opportunities to socialize emotions constructively (Valiente et al., 2007), youth might learn regulatory strategies and coping mechanisms that may help protect against

emotional difficulties (Lunkenheimer et al., 2007; Nelson et al., 2009). Evidence of this buffering effect or thriving amidst family stress indicates that EC may promote youth resilience.

Though evidence of youth thriving in light of adversity was only found in Study 1, this finding may reflect a distinction between the effects of maternal EC philosophy and parental EC behaviors during whole-family interactions. Prior literature with adolescents has emphasized the role of maternal EC in particular on youth psychosocial adjustment (e.g., Katz & Hunter, 2007; Shortt et al., 2010). On the other hand, observed behaviors during whole-family interactions might vary by the degree to which co-parents' meta-emotion philosophies cohere or the extent to which each parent adopts the role of emotion socialization during a group interaction. Baker and colleagues (2011) found a moderate correlation between mothers' and fathers' emotion socialization attitudes and behaviors during a discussion. However, fathers of adolescents with depressive disorders exhibited more ED in response to adolescent sadness than mothers (Shortt et al., 2016). Further research is needed to explore whether and how mothers' and fathers' emotion socialization behaviors vary by emotional contexts or in dyadic versus coparenting situations with their youth.

Family stress may emerge from risk factors not easily amenable to change (e.g., poverty; Evans et al., 2005), and may only be a risk factor for a subset of youth. However, the present findings suggest that parents can protect their children from these effects and that interventions to promote EC may buffer youth psychosocial adjustment. For example, an intervention with families of adolescents with ADHD ("Regulating Emotions Like An eXpert") improved parents' EC and parent and child emotion dysregulation (Breaux & Langberg, 2020). It would be informative to determine whether such interventions promote heightened resilience for those living in stressful family environments, particularly for youth internalizing symptoms.

Emotion Dismissing Did Not Moderate Effects of Family Stress

Prior research demonstrated that ED was associated with higher youth internalizing symptoms (Buckholdt et al., 2014) and mediated the relation between higher family risk (indexed by a composite of sociodemographic characteristics and maternal psychopathology) and youth emotion dysregulation (Shaffer et al., 2012). Controlling for maternal depressive symptoms in Study 1 and both maternal psychopathology and emotion dysregulation in Study 2, we were interested in whether ED would be associated positively with youth internalizing problems for families that experienced higher chaos or chronic stressors. Contrary to expectations, we did not observe any interpretable main effects or moderating effects of ED on the relation between family stress and youth internalizing symptoms in either study.

This absence of effects could be due to unexamined factors. Research has shown differential effects of ED based on youth temperament (Yap, Allen, Leve, & Katz, 2008), though Study 2 did include emotional lability/negativity as a covariate to capture individual differences in youth emotion regulation. Prior work suggested EC protected children's emotion regulation from the effects of ED (Lunkenheimer et al., 2007); if these same processes were operating presently, buffered emotion regulation in these families could have diminished the effects of ED on internalizing symptoms. ED may confer the harmful effects of family stress on youth outcomes in some mother-youth dyads or whole families and in others, ED may accompany higher emotion socialization behaviors overall that may support youth coping. In Study 2, emotion socialization behaviors also were collapsed across mothers and fathers, so one parent's EC may have buffered the impact of the other parent's ED. Emotion socialization behaviors were also collapsed across positively- and negatively-valanced conversation topics, which could have ranged in the degree to which they elicited challenging emotions and ED.

Limitations and Future Directions

Certain study limitations should be noted. First, family stress is a general term that can encompass multiple stressors occurring within family life, so there are methodological challenges to measuring it (Patterson, 2002). In the present study, the operationalization of family stress differed across samples, reflecting both chaos and daily and chronic stressors (Nelson et al., 2009; Sheidow et al., 2014). Higher chaos paired with more daily hassles was associated with higher youth internalizing symptoms (Sheidow et al., 2014), but additional research is needed to understand how these distinct operationalizations of family stress cohere. Furthermore, the present study's findings may not generalize to other forms of family stress. Next, Study 1 utilized maternal self-reports of meta-emotion philosophy and Study 2 included whole-family observations; a multi-method assessment of both within one model could yield a more unbiased assessment of parental emotion socialization. In Study 2, just over a third of families showed ED, which may have been due to social desirability, reducing our power to detect ED effects. Both studies relied on questionnaire data, and the range of internalizing symptoms was restricted. Further research is needed to determine if findings replicate in clinical samples. Additionally, using teacher-reports of youth internalizing symptoms allowed for an inclusion of multiple reporters in Study 2; however, this practice may have restricted the reported range as teacher-reports have not always cohered strongly with youth self-reports, particularly for youth with higher family stress (Kolko & Kazdin, 1993). Lastly, both studies were cross-sectional and included a broader age range suggesting generalizability of our findings across ages; however, prospective longitudinal studies could help identify which emotion socialization behaviors are salient for distinct developmental periods.

Overall, this study emphasized the importance of considering the role of the family

system in youth psychosocial adjustment. Through a consideration of the relations between whole-family processes and parental emotion socialization, we discovered that a meta-emotion philosophy and behaviors emphasizing supportive reactions to youth's emotions may serve to buffer the harmful impact of family stress on youth. Targeting parental EC through intervention may help youth better manage experiences of family stress, thereby decreasing youth internalizing symptoms and promoting better psychosocial adjustment.

References

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA school-age forms and profiles: An integrated system of multi-informant assessment*. University of Vermont, Research Center for Children, Youth, and Families.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications.

Alloy, L. B., & Abramson, L. Y. (2007). The adolescent surge in depression and emergence of gender differences: A biocognitive vulnerability-stress model in developmental context. In D. Romer & E. F. Walker (Eds.), *Adolescent psychopathology and the developing brain* (pp. 284-312). Oxford University Press.

Are, F., & Shaffer, A. (2016). Family emotion expressiveness mediates the relations between maternal emotion regulation and child emotion regulation. *Child Psychiatry & Human Development*, *47*, 708-715. https://doi.org/10.1007/s10578-015-0605-4

Baker, J. K., Fenning, R. M., & Crnic, K. A. (2011). Emotion socialization by mothers and fathers: Coherence among behaviors and associations with parent attitudes and children's social competence. *Social Development*, *20*, 412-430. https://doi.org/ 10.1111/j.1467-9507.2010.00585.x

Ballinger, G. A. (2004). Using generalized estimating equations for longitudinal data analysis. *Organizational Research Methods*, *7*, 127-150. https://doi.org/10.1177/1094428104263672

Berlin, L. J., & Cassidy, J. (2003). Mothers' self-reported control of their preschool children's emotional expressiveness: A longitudinal study of associations with infant-mother attachment and children's emotion regulation. *Social Development*, *12*, 477-495.

https://doi.org/10.1111/1467-9507.00244

Bongers, I. L., Koot, H. M., Van der Ende, J., & Verhulst, F. C. (2003). The normative development of child and adolescent problem behavior. *Journal of Abnormal Psychology*, *112*, 179-192. https://doi.org/10.1037/0021-843X.112.2.179

Breaux, R., & Langberg, J. M. (2020). Development and refinement of the RELAX intervention, an intervention targeting emotion dysregulation and interpersonal conflict in adolescents with ADHD: Results from a pilot study. *Evidence-Based Practice in Child and Adolescent Mental Health*. Advance online publication. https://doi.org/10.1080/23794925.2020.1759468

Buckholdt, K. E., Parra, G. R., & Jobe-Shields, L. (2014). Intergenerational transmission of emotion dysregulation through parental invalidation of emotions: Implications for adolescent internalizing and externalizing behaviors. *Journal of Child and Family Studies*, *23*, 324-332. https://doi.org/10.1007/s10826-013-9768-4

Chappel, A. M., Suldo, S. M., & Ogg, J. A. (2014). Associations between adolescents' family stressors and life satisfaction. *Journal of Child and Family Studies*, *23*, 76-84. https://doi.org/10.1007/s10826-012-9687-9

Conger, R. D., & Donnellan, M. B. (2007). An interactionist perspective on the socioeconomic context of human development. *Annual Review of Psychology*, *58*, 175-199. https://doi.org/10.1146/annurev.psych.58.110405.085551

Connell, A. M., & Goodman, S. H. (2002). The association between psychopathology in fathers versus mothers and children's internalizing and externalizing behavior problems: A meta-analysis. *Psychological Bulletin*, *128*, 746-773. https://doi.org/10.1037/0033-2909.128.5.746

Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, *60*(8), 837-844. https://doi.org/10.1001/archpsyc.60.8.837

Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, *48*, 243-267. https://doi.org/10.1146/annurev.psych.48.1.243

Cunningham, J. N., Kliewer, W., & Garner, P. W. (2009). Emotion socialization, child emotion understanding and regulation, and adjustment in urban African American families: Differential associations across child gender. *Development and Psychopathology*, *21*, 261-283. https://doi.org/10.1017/S0954579409000157

Deater-Deckard, K., Mullineaux, P. Y., Beekman, C., Petrill, S. A., Schatschneider, C., & Thompson, L. A. (2009). Conduct problems, IQ, and household chaos: A longitudinal multi-informant study. *The Journal of Child Psychology and Psychiatry*, *50*, 1301–1308. https://doi.org/10.1111/j.1469-7610.2009.02108.x

Denham, S. A., Zoller, D., & Couchoud, E. A. (1994). Socialization of preschoolers' emotion understanding. *Developmental Psychology*, *30*, 928-936. https://doi.org/10.1037/0012-1649.30.6.928

Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, *13*, 595-605. https://doi.org/10.1017/s0033291700048017

Dumas, J. E., Nissley, J., Nordstrom, A., Smith, E. P., Prinz, R. J., & Levine, D. W. (2005). Home chaos: Sociodemographic, parenting, interactional, and child correlates. *Journal of Clinical Child & Adolescent Psychology*, *34*, 93-104. https://doi.org/10.1207/s15374424jccp3401_9

Ellis, B. H., Alisic, E., Reiss, A., Dishion, T., & Fisher, P. A. (2014). Emotion regulation among preschoolers on a continuum of risk: The role of maternal emotion coaching. *Journal of Child and Family Studies, 23, 965-974.* https://doi.org/10.1007/s10826-013-9752-z

Evans, G. W., Gonnella, C., Marcynyszyn, L. A., Gentile, L., & Salpekar, N. (2005). The role of chaos in poverty and children's socioemotional adjustment. *Psychological Science*, *16*, 560-565. https://doi.org/ 10.1111/j.0956-7976.2005.01575.x

Fivush, R. (1994). Constructive narrative, emotion, and self in parent-child conversations about the past. In U. Neisser & R. Fivush (Eds.), *The remembering self: Construction and accuracy in the self-narrative* (pp. 136-157). Cambridge University Press.

Galambos, N. L., Barker, E. T., & Almeida, D. M. (2003). Parents do matter: Trajectories of change in externalizing and internalizing problems in early adolescence. *Child Development*, *74*, 578-594. https://doi.org/10.1111/1467-8624.7402017

Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology, 10*, 243-268. https://doi.org/10.1037/0893-3200.10.3.243

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, *11*, 213-218. https://doi.org/10.1016/0022-3999(67)90010-4

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*, 1-55. https://doi.org/10.1080/10705519909540118

Katz, L. F., & Hunter, E. C. (2007). Maternal meta-emotion philosophy and adolescent depressive symptomology. *Social Development*, *16*, 343-360. https://doi.org/10.1111/j.1467-9507.2007.00388.x

Katz, L. F., & Windecker-Nelson, B. (2006). Domestic violence, emotion coaching, and child adjustment. *Journal of Family Psychology*, *20*, 56-67. https://doi.org/10.1037/0893-3200.20.1.56

Kolko, D. J., & Kazdin, A. E. (1993). Emotional/behavioral problems in clinic and nonclinic children: Correspondence among child, parent and teacher reports. *Journal of Child Psychology & Psychiatry*, *34*, 991-1006. https://doi.org/10.1111/j.1469-7610.1993.tb01103.x

Lagacé-Séguin, D. G., & Coplan, R. J. (2005). Maternal emotional styles and child social adjustment: Assessment, correlates, outcomes and goodness of fit in early childhood. *Social Development*, *14*, 613-636. https://doi.org/10.1111/j.1467-9507.2005.00320.x

Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, *83*, 1198-1202.

Lucia, V. C., & Breslau, N. (2006). Family cohesion and children's behavior problems: A longitudinal investigation. *Psychiatry Research*, *141*, 141-149. https://doi.org/10.1016/j.psychres.2005.06.009

Lunkenheimer, E. S., Hollenstein, T., Wang, J., & Shields, A. M. (2012). Flexibility and attractors in context: Family emotion socialization patterns and children's emotion regulation in late childhood. *Nonlinear Dynamics, Psychology, and Life Sciences, 16*, 269-291.

Lunkenheimer, E. S., Shields, A. M., & Cortina, K. S. (2007). Parental emotion coaching and dismissing in family interaction. *Social Development*, *16*, 232-248. https://doi.org/10.1111/j.1467-9507.2007.00382.x

MacPhee, D., Lunkenheimer, E., & Riggs, N. (2015). Resilience as regulation of developmental and family processes. *Family Relations*, *64*, 153-175. https://doi.org/10.1111/fare.12100

Matheny, A. P., Wachs, T. D, Ludwig, J. L., & Philips, K. (1995). Bringing order out of chaos: Psychometric characteristics of the confusion, hubbub, and order scale. *Journal of Applied Developmental Psychology, 16*, 429–444. https://doi.org/10.1016/0193-3973(95)90028-4

Morris, A. S., Silk, J. S., Morris, M. D. S., Steinberg, L., Aucoin, K. J., & Keyes, A. W. (2011). The influence of mother-child emotion regulation strategies on children's expression of anger and sadness. *Developmental Psychology*, *47*, 213-225. https://doi.org/10.1037.a0021021

Nelson, J. A., O'Brien, M., Blankson, A. N., Calkins, S. D., & Keane, S. P. (2009). Family stress and parental responses to children's negative emotions: Tests of the spillover, crossover, and compensatory hypotheses. *Journal of Family Psychology*, *23*, 671-679. https://doi.org/10.1037/a0015977

Patterson, J. M. (2002). Integrating family resilience and family stress theory. *Journal of Marriage and Family*, *64*, 349-360. https://doi.org/10.1111/j.1741-3737.2002.00349.x

Peltz, J. S., Rogge, R. D., & O'Connor, T. G. (2019). Adolescent sleep quality mediates family chaos and adolescent mental health: A daily diary-based study. *Journal of Family Psychology*, *33*, 259-269. https://doi.org/10.1037/fam0000491

Rabinowitz, J. A., Osigwe, I., Drabnick, D. A. G., & Reynolds, M. D. (2016). Negative emotional reactivity moderates the relations between family cohesion and internalizing and externalizing symptoms in adolescence. *Journal of Adolescence*, *53*, 116-126. https://doi.org/10.1016/j.adolescence.2016.09.007

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, *1*, 385-401. https://doi.org/10.1177/014662167700100306

Roberts, R. E., Andrews, J. A., Lewinsohn, P. M., & Hops, H. (1990). Assessment of depression in adolescents using the Center for Epidemiologic Studies Depression Scale. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, *2*(2), 122–128. https://doi.org/10.1037/1040-3590.2.2.122

RStudio Team. (2009-2019). RStudio: Integrated development for R (Version 1.2.5033) [Computer software]. RStudio, Inc. Retrieved from http://www.rstudio.com/

Shaffer, A., Suveg, C., Thomassin, K., & Bradbury, L. L. (2012). Emotion socialization in the context of family risks: Links to child emotion regulation. *Journal of Child and Family Studies*, *21*, 917-924. https://doi.org/10.1007/s10826-011-9551-3

Sheidow, A. J., Henry, D. B., Tolan, P. H., & Strachan, M. K. (2014). The role of stress exposure and family functioning in internalizing outcomes of urban families. *Journal of Child and Family Studies*, *23*, 1351-1365. https://doi.org/10.1007/s10826-013-9793-3

Shields, A., & Cicchetti, D. (1997). Emotion regulation among school-age children: The development and validation of a new criterion Q-sort scale. *Developmental Psychology*, *33*, 906-916. https://doi.org/10.1037/0012-1649.33.6.906

Shields, A. M., Lunkenheimer, E., & Reed-Twiss, I. (2002). *Manual for the family emotion communication scoring system, revised*. University of Michigan.

Shortt, J. W., Stoolmiller, M., Smith-Shine, J. N., Mark Eddy, J., & Sheeber, L. (2010). Maternal emotion coaching, adolescent anger regulation, and siblings' externalizing symptoms. *The Journal of Child Psychology and Psychiatry*, *51*, 799-808.

https://doi.org/10.1111/j.1469-7610.2009.02207.x

Shortt, J. W., Katz, L. F., Allen, N. B., Leve, C., Davis, B., & Sheeber, L. B. (2016). Emotion socialization in the context of risk and psychopathology: Mother and father socialization of anger and sadness in adolescents with depressive disorder. *Social Development*, *25*, 27-46. https://doi.org/10.1111/sode.12138

Silk, J. S., Steinberg, L., & Morris, A. S. (2003). Adolescents' emotion regulation in daily life: Links to depressive symptoms and problem behavior. *Child Development*, *74*, 1869-1880. https://doi.org/10.1046/j.1467-8624.2003.00643.x

Simons, D. J. (2014). The value of direct replication. *Perspectives on Psychological Science*, *9*, 76-80. https://doi.org/10.1177/1745691613514755

Snyder, J., Stoolmiller, M., Wilson, M., & Yamamoto, M. (2003). Child anger regulation, parental responses to children's anger displays, and early child antisocial behavior. *Social Development*, *12*, 335-360. https://doi.org/10.1111/1467-9507.00237

Thompson, R. A. (2014). Socialization of emotion and emotion regulation in the family. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 173-186). Guilford Press.

Valiente, C., Lemery-Chalfant, K., & Reiser, M. (2007). Pathways to problem behaviors: Chaotic homes, parent and child effortful control, and parenting. *Social Development*, *16*, 249-267. https://doi.org/10.1111/j.1467-9507.2007.00383.x

Yap, M. B. H., Allen, N. B., & Ladouceur, C. D. (2008). Maternal socialization of positive affect: The impact of invalidation on adolescent emotion regulation and depressive symptomatology. *Child Development*, *79*, 1415-1431. https://doi.org/10.1111/j.1467-8624.2008.01196.x

Yap, M. B. H., Allen, N. B., Leve, C., & Katz, L. F. (2008). Maternal meta-emotion philosophy

and socialization of adolescent affect: The moderating role of adolescent temperament. *Journal of Family Psychology*, *22*, 688-700. https://doi.org/10.1037/a0013104

Zahn–Waxler, C., Klimes–Dougan, B., & Slattery, M. J. (2000). Internalizing problems of childhood and adolescence: Prospects, pitfalls, and progress in understanding the development of anxiety and depression. *Development and Psychopathology*, *12*, 443-466. https://doi.org/10.1017/S0954579400003102

The dataset analyzed for the current study is not publicly available.

Table 1

Study 1 Bivariate Correlations Among Predictors and Youth Depressive Symptoms

Variable	1	2	3	4	5	6	7	7
1. Family stress	1							
2. Emotion coaching	0.10	1						
3. Emotion dismissing	-0.04	0.29***	1					
4. Maternal depressive symptoms	-0.30***	0.04	0.15	1				
5. Youth race[a]	0.07	-0.04	-0.37***	-0.14	1			
6. Youth sex[b]	-0.10	-0.03	-0.02	0.06	0.02	1		
7. Youth age	-0.05	-0.01	-0.05	-0.01	0.09	-	1	
8. Youth depressive symptoms	-0.02	-0.06	0.08	0.16	-0.25**	0.06	-0.04	1

Note. ** $p < .01$. *** $p < .001$.

[a]0 = Black, Indigenous, and People of Color, 1 = White. [b]1 = male, 2 = female.

Table 2

Study 1 Associations Between Family Stress and Maternal Meta-Emotion Philosophy from General Estimating Equation Models

	Emotion Coaching				Emotion Dismissing			
	Main effects model		Interaction model		Main effects model		Interaction model	
Variable	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Family stress	.01	.01	.01	.01	.01	.01	.01	.01
Emotion coaching/dismissing	-.06	.08	-.07	.08	-.01	.06	-.02	.06
Family stress x emotion coaching/dismissing	-	-	-.03*	.02	-	-	-.03*	.01
Maternal depressive symptoms	.01	.01	.01	.01	.01	.01	.01	.01
Youth race[a]	-.16*	.07	-.18*	.07	-.17*	.07	-.21*	.07
Youth sex[b]	.05	.07	.07	.07	.05	.07	.02	.07
Youth age	-.01	.02	-.00	.02	-.01	.02	-.01	.02

Note. b = unstandardized regression coefficient. *SE* = standard error. *$p < .05$.

[a]0 = Black, Indigenous, and People of Color, 1 = White. [b]1 = male, 2 = female.

Table 3

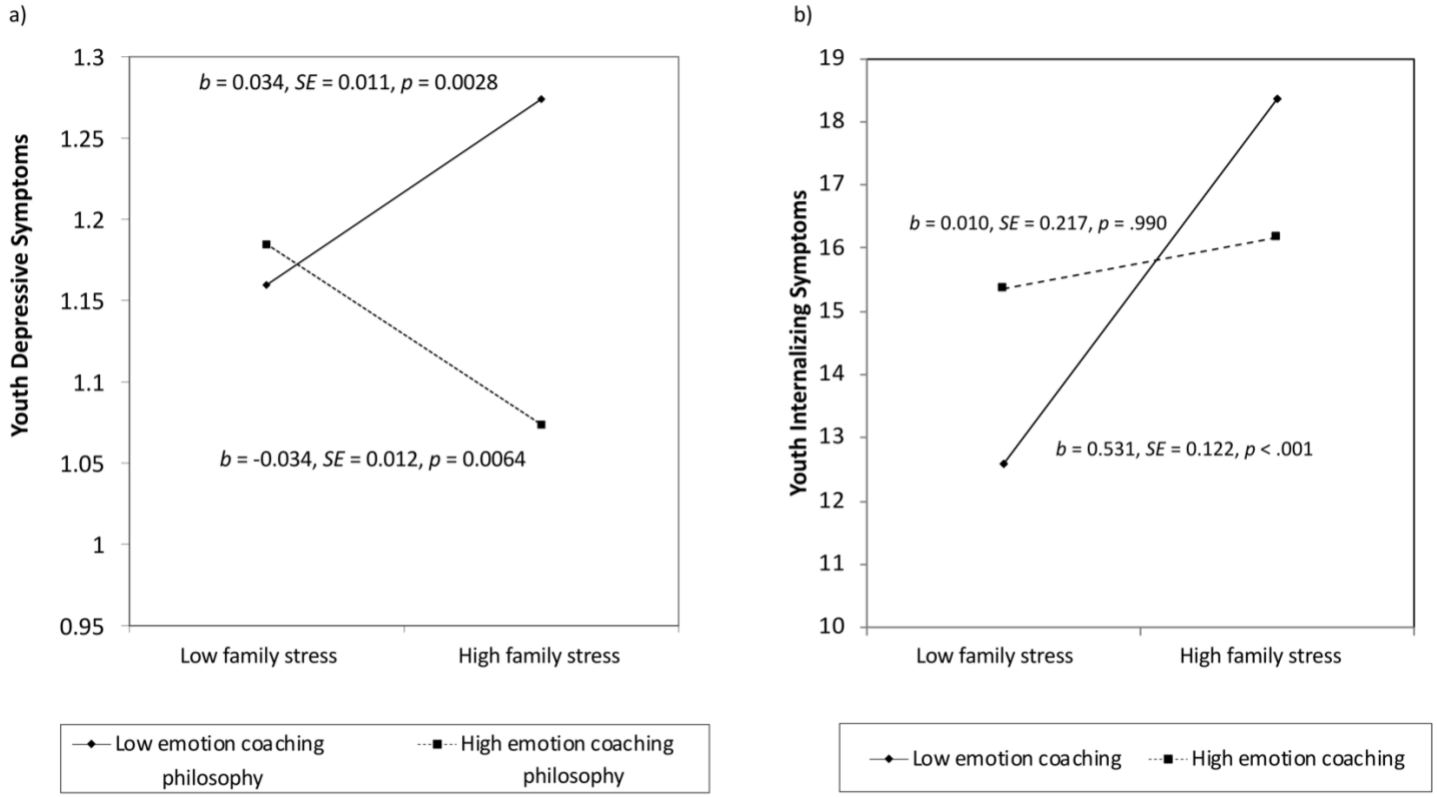
Study 2 Bivariate Correlations Among Predictors and Youth Internalizing Symptoms

Variable	1	2	3	4	5	6	7
1. Youth age	1						
2. Youth emotional lability/negativity	.011	1					
3. Maternal psychopathology symptom severity	.112	.442***	1				
4. Family stress	.040	.421***	.392***	1			
5. Emotion coaching	-.081	-.092	-.053	-.098	1		
6. Emotion dismissing	.325**	-.034	.085	.147	.079	1	
7. Youth internalizing symptoms	.095	.333*	.118	.470***	-.083	.005	1

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

Figure 1

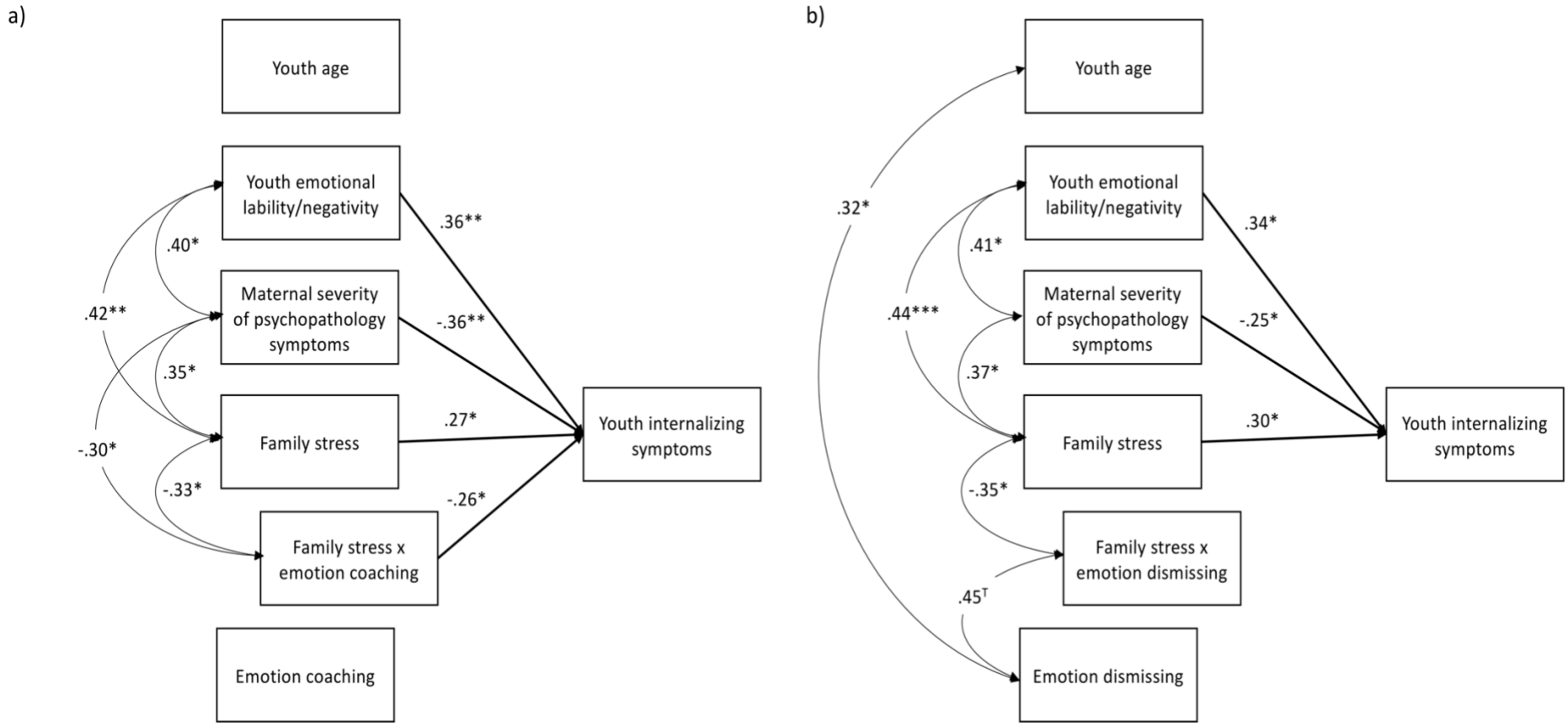
Study 1 and Study 2 Emotion Coaching Interaction Effects



Note. Significant interaction effects are displayed for a) the Study 1 association between family stress and maternal emotion coaching philosophy in relation to youth depressive symptoms, and b) the Study 2 association between family stress and observed emotion coaching in relation to youth internalizing symptoms. High and low emotion coaching are determined based on one standard deviation above and below the mean, respectively.

Figure 2

Study 2 Emotion Coaching and Emotion Dismissing Models



Note. The a) emotion coaching and b) emotion dismissing models from Study 2. Only standardized regression coefficients for significant relations are reported. $^{T}p < .10$, $*p < .05$, $**p < .01$, $***p < .001$.

Supplemental Information

Participant Demographics for Study 1 and Study 2

Study 1			Study 2		
Youth sex			Youth sex		
n	153		n	81	
% female		52	% female		52
% male		48	% male		48
Youth age			Youth age		
n	153		n	81	
Mean (*SD*)	12.80 (2.16)		*Mean* (*SD*)	9.73 (1.08)	
Range	10 – 17 years		Range	8 – 11.75 years	
Youth race/ethnicity			Youth race/ethnicity		
n	153		n	81	
% African American		17	% African American		22
% Asian American		6	% Asian		2
% Latinx		1	% White		57
% American Indian		1	% Multi-racial or "other"		19
% White		49			
% Multi-racial or "other"		26			
Parental education	*Mothers*	*Fathers*	Parental education	*Mothers*	*Fathers*
n	95	95	n	80	59
% Some high school	1.1	5.3	% Some high school	1.3	3.4
% High school graduate/GED	7.4	13.7	% High school graduate/GED	21.3	20.3
% Vocational/ Associate's degree	14.7	13.7	% Vocational degree	3.8	3.4
% Some college	20	13.7	% Associate's degree	11.3	3.4
% Bachelor's degree	27.4	29.5	% Some college	17.5	10.2
% Graduate work	9.5	7.4	% Bachelor's degree	26.3	28.8
% Master's degree	14.7	2.1	% Master's degree	13.8	16.9
% Professional or advanced degree	5.3	6.3	% Professional or advanced degree	5.1	13.6
Family structure			Family structure		
n	153		n	81	
% Youth living with two biological parents		78	% Youth living with two biological parents		44
% Youth living with one biological parent and a significant other		22	% Youth living with one biological parent		42
			% Youth living with one biological parent and a significant other		14