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Mindful Parenting and Emotion Socialization Practices: Concurrent and Longitudinal Associations

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Caregivers play a crucial role in the socialization of youth emotion understanding, competence, and regulation, which are implicated in youth social and emotional health; however, there is less understanding of parental psychosocial or cognitive factors, like mindful parenting, that may be associated with the use of particular emotion socialization (ES) strategies. This study tests a model of the cross-sectional and short-term longitudinal associations between mindful parenting and supportive and nonsupportive ES strategies in a community sample of parents (N = 246; 63.8% mothers) of youth ranging from ages 3-12. Caregivers reported on mindful parenting and ES strategies at two time points 4 months apart. The structural equation model indicated that higher levels of mindful parenting are positively related to supportive ES responses and negatively related to nonsupportive ES responses both concurrently and over time. The longitudinal association between mindful parenting and nonsupportive, but not supportive, ES was marginally larger for fathers as compared to mothers. Given the documented impact of ES strategies on youth emotional and behavioral outcomes and interventions emerging to educate parents about how to provide a healthy emotional atmosphere, incorporating a focus on mindful parenting strategies may provide one pathway to increase supportive responses and decrease nonsupportive ones.

Keywords: Mindfulness; Parenting; Emotion Socialization

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INTRODUCTION

A compelling literature documents the impact of caregiver behavior on offspring emotion understanding, expression, and coping. As a socialization source, parents provide messages to youth both directly and indirectly by modeling emotion expression and coping, by responding to youth expression of emotion, and by explicitly coaching youth and using emotion talk (Eisenberg, Cumberland, & Spinrad, 1998; Halberstadt & Eaton, 2002). These messages about emotion expression and coping have important consequences for mental and physical health, peer relationships, and even academic achievement in youth across developmental periods, from early childhood through adolescence (see Katz, Maliken, & Stettler, 2012, for a review). Many researchers, for example, have examined the impact of

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caregiver response to youth emotion, particularly negative emotion. Findings suggest that parents who respond to youth sadness, anger, or fear with nonsupportive strategies (by punishing or minimizing youth expression or expressing their own distress) are more likely to have children who exhibit emotion dysregulation, poor coping skills, and internalizing symptoms (e.g., Sanders, Zeman, Poon, & Miller, 2015; see Morris, Silk, Steinberg, Myers, & Robinson, 2007, for a review). Alternatively, parents who respond with supportive strategies (by comforting, encouraging, and offering problem solving) are more likely to report having children with more positive psychosocial outcomes (e.g., Eisenberg, Fabes, & Murphy, 1996; Garner, 2006; McElwain, Halberstadt, & Volling, 2007).

Although a large body of research has accumulated documenting the impact of parent emotion socialization (ES) on youth psychosocial outcomes, less work has focused on the factors associated with caregiver ES strategies. In other words, fewer studies have sought to identify variables that might be related to parental use of supportive or coaching responses to youth negative emotion and those that might be associated with the use of nonsupportive ES practices. In the current paper, we hypothesize that mindful parenting, an index of a parent's ability to be (1) aware and present-centered during parenting interactions, (2) receptive and nonjudgmental regarding child emotion displays, and (3) nonreactive in the context of parent-child interactions, is a relevant and potentially important predictor of ES responses. Several important bodies of work set the theoretical and empirical stage for these hypotheses and our tests of the proposed models.

METAEMOTION PHILOSOPHY: MAKING THE CASE FOR MINDFUL PARENTING AND ES

In one of the earliest and most formative theories of ES, Gottman, Katz, and Hooven (1996) proposed a model to explain associations between a parent's metaemotion philosophy (PMEP) and youth biopsychosocial outcomes, which has been put to empirical test in the decades since its introduction (see Katz et al., 2012, for a review). The metaemotion construct originally tapped into a parent's fundamental attitude toward emotion and consisted of two elements: (1) awareness, which represents the parent's *experience with and understanding of* sadness, fear, and anger in themselves and in their child, and (2) coaching, which indexes the parent's *response* to the child's emotional display. Parents rated highly on a coaching philosophy, for example, are likely to respect the child's emotional experience and provide both comfort and education about emotion expression and coping in developmentally and contextually appropriate ways (Gottman et al., 1996). Alternatively, parents labeled as emotion, reflecting the sentiment that emotions are dangerous and to be avoided (Klimes-Dougan et al., 2007; Lunkenheimer, Shields, & Cortina, 2007).

In the original Gottman et al. (1996) manuscript, path analyses incorporated these two distinct dimensions—awareness and coaching—and demonstrated that awareness was a significant predictor of coaching, which was associated directly and indirectly (though other parenting variables) with youth academic achievement, peer relations, and health outcomes. In more recent work (i.e., Katz & Hunter, 2007; Katz, Stettler, & Gurtovenko, 2016), some analyses using the PMEP model have incorporated a third element, acceptance, consisting of parents' acceptance of their own emotion as well as the emotion of their child, which has been positively linked with youth self esteem and negatively associated with depression and internalizing and externalizing symptoms. This body of work demonstrates that awareness and acceptance are important elements in parent–child interactions around emotion, suggesting that mindful parenting, which incorporates both elements, is likely to be associated with ES strategies.

MINDFUL PARENTING AND ES IN THE CONTEXT OF PSYCHOPATHOLOGY

Despite the influence PMEP has exerted on subsequent examinations of ES and youth adjustment, the majority of research has focused on the coaching variable and its relations with youth outcomes, with much less emphasis on the prediction of parent ES behaviors. Nevertheless, researchers have recently begun to examine ES in the context of parental psychopathology, with some studies starting to investigate how parent mental health may impact the use of particular strategies. For example, higher parent depressive symptoms have been associated with higher reported use of nonsupportive and lower use of supportive ES strategies (McKee, Jones, Vaughn, & Ward, 2015). Maternal ES has also been shown to vary as a function of drug use, with mothers more nonsupportive while using than while sober and more supportive while sober (Shadur & Hussong, 2015). The current paper does not index parental psychopathology; however, this growing body of work builds the case for mindful parenting. Given that both depression and substance use have been associated with negative parenting practices (e.g., Dix & Meunier, 2009a,b; Solis, Shadur, Burns, & Hussong, 2012) and lower levels of mindfulness (e.g., Dakwar, Mariani, & Levin, 2011; Deng, Li, & Tang, 2014; Desrosiers, Vine, Klemanski, & Nolen-Hoeksema, 2013), this emerging work suggests promise for mindful parenting as a salient predictor of ES strategies.

PARENTING AND ES

ES practices have also, historically, been considered in relation to positive and negative parenting practices. In their original publication, Gottman and colleagues noted that "parents' metaemotion philosophy is not independent of their parenting" (Gottman et al., 1996, p. 245) and more specifically suggested that supportive ES responses may be "nestled within a web of positive parenting" (p. 246). Indeed, in their correlational models, PMEP is significantly related to positive parenting, providing further support for the idea that mindful parenting may also be associated with ES responses.

DEFINING MINDFUL PARENTING

Mindful parenting as a construct was introduced by Kabat-Zinn and Kabat-Zinn (1997) and subsequently modeled by Duncan, Coatsworth, and Greenberg (2009). As conceptualized and measured by Duncan and colleagues, mindful parenting is comprised of 5 dimensions—listening, awareness, acceptance, regulation, and compassion—that are exercised in the context of the parent-child relationship and theorized to impact parenting and parent well-being, the emotional milieu of the relationship, and subsequently, youth psychopathology and well-being. In fact, recent empirical investigations have shown that mindful parenting impacts both positive and negative parenting practices among parents of young children, school age children, and adolescents (de Bruin et al., 2014; Parent, McKee, Rough, & Forehand, 2016) and emotion expression during parent-adolescent conflict (Turpyn & Chaplin, 2016). So while mindful parenting has been shown to impact parenting practices, investigations to date have not tested the impact of mindful parenting on ES as indexed by response to youth emotion, which is relevant to the social and mental health of toddlers, school-agers, and teenagers. It is also notable that 2 of the 5 mindful parenting dimensions—awareness and acceptance—are components of PMEP. Thus, the current investigation seeks to expand our understanding of both mindful parenting and ES by considering how parenting with awareness, nonjudgmental receptivity, and nonreactivity may provide parents the clarity, poise, and skills to respond to their child's emotion with support and encouragement rather than punishment, minimization, or distress.

Furthermore, parent gender appears to play an important role in both ES and mindful parenting. Although the majority of ES research has highlighted the practices of mothers, emerging data suggest that fathers may show a unique pattern of socialization behaviors. For example, fathers typically respond to youth negative emotion with more nonsupportive strategies that mothers (e.g., Baker, Fenning, & Crnic, 2011; Nelson, O'Brien, Blankson, Calkins, & Keane, 2009), and some data suggest their ES behaviors may have a stronger impact on youth functioning than maternal behaviors (i.e., McElwain et al., 2007; Shortt et al., 2016). With regard to mindful parenting, research suggests that mothers may exhibit higher levels of mindful parenting than fathers (e.g., Gouveia, Carona, Canavarro, & Moreira, 2016; Medeiros, Gouveia, Canavarro, & Moreira, 2016) and that mindfulness interventions may have a larger positive impact on fathers than mothers (Coatsworth et al., 2015; Gouveia et al., 2016). As such, this study will investigate the potentially moderating effect of parent gender on the relations between mindful parenting and emotion socialization strategies.

THIS STUDY

Drawing from extant research suggesting the importance of delineating the associations between mindful parenting and ES, this study seeks to examine the concurrent (cross-sectional) and short-term longitudinal relations between supportive and nonsupportive ES strategies and mindful parenting. Based on prior research on PMEP, we hypothesize that mindful parenting will be (1) positively associated with supportive ES responses to youth negative emotion both concurrently and longitudinally and (2) negatively associated with nonsupportive ES responses concurrently and over time. Given data highlighting differences between mothers and fathers and both mindful parenting and ES responses, in exploratory analyses we will examine parent gender as a moderator of the proposed model.

METHOD

Overview

Parents were recruited online through Amazon's Mechanical Turk (MTurk) as part of a larger study on the assessment of parenting. MTurk is the dominant crowdsourcing application in the social sciences (Chandler, Mueller, & Paolacci, 2014), and prior research has convincingly demonstrated that data obtained via crowdsourcing methods are as reliable as those obtained via more traditional data collection methods for adult populations (e.g., Buhrmester, Kwang, & Gosling, 2011; Casler, Bickel, & Hackett, 2013; Paolacci & Chandler, 2014; Shapiro, Chandler, & Mueller, 2013) as well as specifically for child psychopathology research (Parent, Forehand, Pomerantz, Peisch, & Seehuus, 2017; Schleider & Weisz, 2015). On MTurk, parents responded to a study on parenting that was listed separately for three age groups to ensure roughly equal sample sizes in these three age ranges: young childhood (3 to 7 years old), middle childhood (8 to 12 years old), and adolescence (13 to 17 years old).

Participants

A subsample consisting of 246 parents of children between the ages of 3 and 12 was drawn from the original sample based on inclusion of the ES measure at the 8- and 12- month follow-up assessments and age of the youth. Overall, parents were an average of 34.02 years old (SD = 6.55), and 36.2% were fathers. Approximately half of youth were girls (50.2%) and were 7.5 years old on average (SD = 2.8). Participants were

756 /

predominantly White (80.4%), with an additional 9.8% who identified as Black, 5.7% as Latina/o, 3.3% as Asian, and .8% as American Indian, Alaska Native, or other Pacific Islander. Parents' education level ranged from not completing high school (H.S.) or the H.S. equivalent (.8%), obtaining an H.S. degree or GED (12.6%), attending some college (26%), earning a college degree (43.1%), to attending at least some graduate school (17.5%). A majority of parents were employed full-time (62.2%) with 15% reporting employment at a part-time level, and 22.8% reporting unemployment. Reported family income was 20.7% for less than \$30,000 per year, 31.3% between \$30,000 and \$50,000, 17.1% between \$50,000 and \$70,000, 18.3% between \$70,000 and \$100,000, and 12.6% at least \$100,000. Parent marital status was organized into three categories with 14.8% reporting being single, 65.6% being married, and 19.7% being in a cohabiting relationship. Retention for parents in the current sample from the 8-month assessment to the 12-month assessment was 91.8%.

Procedure

All study procedures were approved by a university Institutional Review Board (IRB). Parents consented online before beginning the survey following the approved IRB procedures. Three different studies were listed on MTurk (one for each child age range) describing a year-long study involving the completion of five surveys over the course of 12 months. Participants were compensated \$4.00 and \$8.00, respectively, for participating in the 8-month (Wave 1, current study) and 12-month (Wave 2, current study) surveys, respectively. At both Waves 1 and 2, participants were contacted using an MTurk ID to complete surveys. One email was sent the day before the survey was available, one email was sent the day the survey became available, and two to three emails were sent subsequently if the follow-up survey had not been completed. For families with multiple children in the target age range, one child was randomly selected by a computer algorithm and measures focused on parenting specific to this child and her/his behavior. Attention checks built into the surveys and inconsistent responses on demographic variables (e.g., gender of child) across assessments resulted in the exclusion of flagged respondents (see Parent & Forehand, 2017, for more detail).

Measures

Demographic information

Parents responded to demographic questions about themselves (e.g., parental age, education), their families (e.g., household income), and the target child's demographic information (e.g., gender, age).

Mindful parenting

The Interpersonal Mindfulness in Parenting Scale (IMPS; Duncan, 2007) consists of eight items reflecting parents' ability to maintain: (1) awareness and present-centered attention during parenting interactions (e.g., reverse-coded: "I rush through activities with my child without being really attentive to him/her."); (2) nonjudgmental receptivity to their child's articulation of thoughts and displays of emotion (e.g., "I listen carefully to my child's ideas, even when I disagree with them."); and (3) the ability to regulate their reactivity to their children's behavior (e.g., "When I'm upset with my child, I notice how I am feeling before I take action."). Parents responded to each item on a five-point Likert rating scale with higher scores reflecting higher levels of mindful parenting. Previous studies have demonstrated the concurrent and discriminant validity of the IMPS (e.g., de Bruin et al., 2014; Coatsworth, Duncan, Greenberg, & Nix, 2010). Mean levels of the IMPS in the current sample were comparable to the community sample from the original validation sample (Duncan, 2007). Reliability for this scale in this study was .82 for Wave 1 (8-month follow-up).

Emotion socialization

The Coping with Children's Negative Emotions Scale (CCNES; Fabes, Eisenberg, & Bernzweig, 1990) served as the measure of caregiver ES practices. The CCNES consists of 12 different hypothetical emotionally evocative scenarios for youth; caregivers are directed to indicate how likely they would be to respond in each of six ways to their youth's negative emotion. The six subscales consist of (1) emotion-focused reactions, which include parental strategies designed to help the child feel better (i.e., oriented toward impacting the child's negative feelings), (2) problem-focused reactions, which reflect the degree to which parents help the child solve the problem that caused the child's distress (i.e., oriented toward helping the child solve his/her problem or coping with a stressor), (3) expressive encouragement, indicative of the degree to which parents encourage children to express negative affect or the degree to which they validate child's negative emotional states (i.e., "it's ok to feel sad"), (4) distress reactions, which capture the degree to which parents experience distress when children express negative affect, (5) punitive reactions, which include parental punitive reactions that decrease their exposure or need to deal with the negative emotions of their children, and (6) minimization reactions, which reflect the degree to which parents minimize the seriousness of the situation or devalue the child's problem or distress reaction. Based on the aims of this study and following trends in the literature (e.g., Baker et al., 2011; Nelson, Leerkes, O'Brien, Calkins, & Marcovitch, 2012), these subscales were grouped into two broader domains of supportive ES Practices (composed of Expressive Encouragement, Emotion-focused and Problem-focused responses), with higher scores reflecting more adaptive responses and *nonsupportive ES Practices* (composed of Distress, Minimization, and Punitive Reactions), with higher levels reflecting more maladaptive aspects of emotion socialization. Previous studies have demonstrated that the CCNES has good internal and test-retest reliability and is sensitive to change over time (e.g., Denham & Kochanoff, 2002; Eisenberg & Fabes, 1994; Herbert, Harvey, Roberts, Wichowski, & Lugo-Candelas, 2013). The alphas for this study for the nonsupportive subscale were .76 at Wave 1 and .83 at Wave 2, while alphas for the supportive subscale were .86 at Wave 1 and .92 at Wave 2.

Data Analytic Plan

Evaluation of the primary model

Longitudinal structural equation modeling was used to test the primary hypotheses and was conducted with Mplus 7.0 software (Muthén & Muthén, 2012). To account for nonnormal data (e.g., the CCNES Punitive Reactions subscale evidenced significant skew and kurtosis), maximum likelihood estimation with robust standard errors (MLR) was used. The following fit statistics were employed to evaluate model fit: Chi-square, χ^2 : p > .05 excellent, Comparative Fit Index (CFI; > .90 acceptable, > .95 excellent), Root Mean Square Error of Approximation (RMSEA; < .08 acceptable, < .05 excellent), and the Standardized Root Mean Square Residual (SRMR; < .08 acceptable, < .05 excellent) (Hu & Bentler, 1999). Missing data for primary variables ranged from 8.1% to 11.8%. The mechanism of missingness was treated as ignorable (missing completely at random, Little's MCAR test, χ^2 (38) = 41.44, p = .32), and full information maximum likelihood estimation techniques were used for inclusion of all available data.

Prior to estimation of the full structural model, the longitudinal measurement model with latent supportive and nonsupportive ES responses was estimated to ensure good fit.

758 /

For the longitudinal CFA model, correlated uniqueness between the same indicators of the latent variables across time (e.g., CCNES Distress Reactions at Wave 1 with CCNES Distress Reactions at Wave 2), were allowed to co-vary. Furthermore, the first indicator of each latent variable was set to 1.0 to establish the metric. Next, the measurement model for mindful parenting at Wave 1 was estimated. Following the measurement model, stability pathways along with longitudinal pathways between mindful parenting and ES were added. Stability pathways were estimated (i.e., Wave 2 supportive ES on Wave 1 supportive ES, Wave 2 nonsupportive ES on Wave 1 nonsupportive ES) to account for continuity of parenting practices over time.

Sensitivity analyses

Although not included in the proposed conceptual model, the impact of additional control variables (i.e., child age, family income, parent education, parent marital status, parent employment status) on the model was examined by running a multiple-indicator/ multiple-cause (MIMIC; Muthén, 1989) model in which all major constructs of the final structural model were regressed on the covariates separately. If paths in the structural model remained significant with the inclusion of these covariates, it was concluded that the control variables did not influence the relationships among variables in the model.

Parent gender moderation

To examine the moderating effect of parent gender on associations in the model, two steps were taken. First, a multiple-group CFA model was employed to examine and test whether measurement invariance across parent genders was supported for mindful parenting and for ES. Three different forms of measurement invariance were tested: configural (i.e., identical factor structure for each stage), metric (factor loadings are held equal across groups), and scalar (factor loadings and intercepts/thresholds are held equal across groups). Second, following measurement invariance tests, multiple-group models were employed to examine and test whether differences in the structural parameters between mother and father participants were statistically significant. Testing for cross-group invariance involved comparing several sets of nested models: (1) a baseline model wherein no constraints were specified and (2) a series of second models where all paths were constrained to be invariant between mothers and fathers. The use of the MLR estimator required the use of a scaled chi-square difference test (Satorra, 2000) for making comparisons among nested models.

RESULTS

Primary Analyses

Measurement model

The longitudinal CFA model for the CCNES demonstrated acceptable model fit without any correlated residuals, χ^2 (42, N = 246) = 80.28, RMSEA = .061, 95% CI 0.04–0.08, CFI = .98, SRMR = .058. Factor loadings for both supportive and nonsupportive ES responses were all significant and ranged from .64 to .92. The CFA model for the IMPS was just identified, thus not providing model fit statistics until follow-up measurement invariance analyses, and factor loadings were all significant and ranged from .74 to .89.

Structural model

The proposed full structural model also demonstrated acceptable fit, χ^2 (76, N = 246) = 156.14, RMSEA = .065, 95% CI 0.05–0.08, CFI = .97, SRMR = .066. The standardized estimates are presented in Figure 1 and in Table 1 along with bias-corrected bootstrap



FIGURE 1. The SEM of concurrent and longitudinal paths.

Note: *p < .01, *p < .05. AA = Mindful Parenting Awareness and Present Centered Attention subscale, NJ = Mindful Parenting Nonjudgment subscale, and NR = Mindful Parenting Nonreactive subscale; EFR = Emotion-Focused Reactions, PFR = Problem-Focused Reactions, EE = Expressive Encouragement, DR = Distress Reactions, PR = Punitive Reactions, and MR = Minimization Reactions. Correlated uniqueness between the same indicator across time (e.g., PR Wave 1 with PR Wave 2) are modeled but not depicted.

confidence intervals for all effects in the model. All stability, concurrent, and predictive longitudinal pathways were statistically significant and in the hypothesized directions. As shown in Figure 1, higher levels of mindful parenting were concurrently associated with higher levels of supportive and lower levels of nonsupportive ES. Furthermore, above and beyond the stability of ES across the 4-month time interval, higher levels of mindful parenting at Wave 1 predicted increases in supportive and decreases in nonsupportive ES from Waves 1 to 2 (4-month interval). Lastly, supportive and nonsupportive ES responses were negatively correlated at both time points.

Sensitivity Analyses

MIMIC models tested the demographic effects of child age, parent age, child gender, parent marital status (coded as two-parent vs. single parent family), parent employment status (dummy coded with full-time employment as the reference category), and parent educational attainment on the associations in the final model. All the major constructs of the final model were regressed on the control variables simultaneously. All paths in the structural model were unaffected by the inclusion of these control variables (i.e., no change in significance, direction, and only minor changes in effect size). Furthermore,

TABLE 1 ad Standardized Factor Loadi

Means and Standard Deviations and Standardize	l Factor Loadings and Path Coefficients With 959
Confidana	Intervale

	Mean (SD)	β	95% CI	
Measurement model				
Mindful parenting—W1				
Attention & Awareness	14.76 (2.36)	.79	.72 to .85	
Nonjudgment	7.94 (1.49)	.88	.82 to .95	
Nonreactivity	7.44 (1.57)	.74	.65 to .83	
Supportive emotion socialization—W1				
Expressive encouragement	4.79 (1.25)	.69	.62 to .76	
Emotion-focused reactions	5.28 (.99)	.87	.82 to .92	
Problem-focused reactions	5.57 (.94)	.92	.88 to .96	
Nonsupportive emotion socialization—W1				
Distress reactions	2.52 (.73)	.65	.55 to .75	
Punitive reactions	2.18 (.76)	.98	.93 to 1.03	
Minimization reactions	2.50 (.89)	.71	.63 to .78	
Supportive emotion socialization—W2				
Expressive encouragement	4.86 (1.25)	.70	.62 to .78	
Emotion-focused reactions	5.29 (1.02)	.89	.83 to .92	
Problem-focused reactions	5.56 (.95)	.92	.88 to .95	
Nonsupportive emotion socialization—W2				
Distress reactions	2.58 (.79)	.70	.62 to .78	
Punitive reactions	2.27 (.84)	.91	.86 to .96	
Minimization reactions	2.42 (.83)	.81	.75 to .87	
Concurrent paths				
Nonsupportive W1 WITH supportive W1		53	64 to 42	
Mindful W1 WITH nonsupportive W1		47	61 to34	
Mindful W1 WITH supportive W1		.70	.59 to .80	
Nonsupportive W2 WITH supportive W2		25	49 to01	
Longitudinal path				
Supportive W1 \rightarrow Supportive W2		.59	.43 to .76	
Nonsupportive W1 \rightarrow Nonsupportive W2		.67	.54 to .80	
Mindful W1 \rightarrow Supportive W2		.28	.12 to .43	
Mindful W1 \rightarrow Nonsupportive W2		22	35 to09	

Note. 95% CI that do not contain zero are considered statistically significant.

none of the demographic covariates was significantly related to ES or mindful parenting. Therefore, it was concluded that the demographic covariates did not influence the original relationships among model variables.

Parent Gender Moderation Analyses

Measurement invariance

Three different forms of measurement invariance across parent genders were tested: configural (i.e., same number of factors across groups), metric (configural plus factor loadings are held equal across groups), and scalar (metric plus factor loadings and intercepts/ thresholds are held equal across groups). Measurement invariance was first examined for the CCNES (ES) and then for the IMPS (mindful parenting). In regard to the CCNES, the chi-square difference test was nonsignificant between the configural and metric models (p = .22) but significant between the metric and scalar models (p < .05), supporting weak measurement invariance of ES across parent genders. Similarly, the chi-square difference test was nonsignificant between the configural and metric models of the IMPS (p = .22), but significant between the metric and scalar models (p < .05), supporting weak measurement invariance of mindful parenting across parent genders. In practice, researchers regularly fail to find full or strong measurement invariance (Vandenberg & Lance, 2000). However, Byrne, Shavelson, and Muthén (1989) have demonstrated that, in most cases, full measurement invariance is not a necessary condition for comparisons across groups to be valid. Therefore, these results suggest that, overall, measurement of mindful parenting and ES was largely equivalent across parent genders.

Structural invariance

Having shown that the IMPS and CCNES met the assumption of metric measurement invariance across parent genders, we were free to test whether differences in the structural parameters between mother and father participants were statistically significant. First, stability paths were fixed to be equal without significant deterioration of model fit, $\Delta\chi^2$ (2) = 3.68, p = .159, suggesting continuity of ES was equivalent for mothers and fathers. Next, concurrent associations between mindful parenting and ES were constrained to be equal across groups without significant deterioration of model fit, $\Delta\chi^2$ (2) = 1.49, p = .474, suggesting concurrent associations were equivalent across genders. In addition, the predictive path between mindful parenting at Wave 1 and supportive ES at Wave 2 was constrained to be equal without significant deterioration of model fit, $\Delta\chi^2$ (1) = .14, p = .712. Lastly, when the predictive path between mindful parenting at Wave 1 and nonsupportive ES at Wave 2 was constrained to be equal across mothers and fathers, deterioration of model fit was marginal, $\Delta\chi^2$ (1) = 2.93, p = .087. Examination of a multiple group model found a larger effect size of this longitudinal path for fathers, $\beta = -.32$, p < .001, compared to mothers, $\beta = -.17$, p < .05.

DISCUSSION

The purpose of this study was to examine the concurrent and short-term longitudinal associations between mindful parenting practices and ES responses. While the literature has clearly documented the impact of ES behaviors on youth psychosocial adjustment, less work has been concerned with the correlates or antecedents of supportive and nonsupportive ES practices. However, both theoretical and emerging empirical work suggest that mindful parenting may be associated with more supportive ES responses and fewer nonsupportive ES responses. The current analyses support these hypothesized relations in a sample of mothers and fathers of young and middle childhood aged youth, such that higher levels of mindful parenting are associated with more supportive ES responses and fewer nonsupportive ones. In other words, when parents have the capacity to bring a centered awareness that is nonjudgmental and nonreactive to interactions with their children, they are *more* likely to encourage emotional expression, to comfort their child, and to assist the child in solving the problem that resulted in the negative emotion in the first place. They are also *less* likely to be punitive or to minimize the distress their child is experiencing and less likely to respond with distress themselves. The impact of mindful parenting may be particularly important for parents struggling with psychopathology, given research suggesting compromised ES in depressed (McKee et al., 2015; Primo & Kiel, 2016) and drug using mothers (Shadur & Hussong, 2015).

Kabat-Zinn and Kabat-Zinn (1997) describe how mindful acceptance can both disrupt nonsupportive ES responses and set the stage for supportive ES responses, particularly when faced with a child's strong emotion or difficult behavior. They write, "When things feel out of control, the impulse may be to reach for whatever methods we have at our disposal to 'discipline' the offender and restore order" creating "distance and alienation" (p. 79). Alternatively, they offer, "If we bring mindfulness into those very moments when we sense ourselves losing perspective or clarity ... we may be able to be a little more sympathetic and accepting" (p. 79), a stance, they explain, which allows the parent to empathize with the child, provide an outlet for discharge of energy, and teach the child how to notice feelings and consider alternative behaviors. Without using the term *emotion* socialization, the Kabat-Zinns were describing how mindful parenting could interrupt nonsupportive ES responses and engender supportive ones.

In addition to examining the relations between mindful parenting and ES practices overall, we also considered the moderating role of parent gender. Given past research that has highlighted distinct patterns of ES for fathers compared with mothers (e.g., fathers are more likely to engage in lower mean levels of supportive practices and higher mean levels of nonsupportive practices; Baker et al., 2011), it was important to determine whether the relations between mindful parenting and ES practices would also vary based on gender of parent. Constraining 5 of 6 paths did not result in deterioration of model fit; however, the longitudinal association between mindful parenting and nonsupportive practices was marginally stronger for fathers than mothers, suggesting that taking an accepting, nonjudgmental, and nonreactive stance may be more powerfully linked with lower levels of parent distress and with lower levels of punitive, dismissive responses to child emotion for fathers than for mothers. The current findings are consistent with the pattern of results for mothers and fathers who received a mindfulness-enhanced parenting intervention (Mindfulness-Enhanced Strengthening Families Program; Coatsworth et al., 2015): Namely, fathers appeared to benefit more than mothers in a number of father- and youth-reported domains including greater emotional awareness of youth, more compassion/acceptance, and better listening with full attention. It is possible that mindfulness serves to interrupt gendered patterns or even tendencies for fathers to be punitive or avoidant in emotionally charged situations (Fuchs & Thelen, 1988; Kang, Gruber, & Gray, 2013; MacDonald & Hastings, 2010).

The findings of this study are relevant to the work of both scientists and practitioners focused on the family as the context for socialization of youth emotion. Although there is some consensus regarding the kinds of ES parenting behaviors that engender youth emotional and social health, it is much less clear why parents engage in such behaviors. Knowing the why is imperative for interventionists aiming to design programs to encourage optimal youth ES; it allows them to capitalize on extant patterns of behavior and provide an empirically sound rationale for changing problematic behavior. Furthermore, our examination of short-term longitudinal behavior is a strength and begins to address how the variables are related over time. Although we examined correlational data, which has inherent limitations, it is possible that manipulating mindful parenting could have a positive impact on ES behaviors. Several parenting programs that encourage mindful parenting, specifically, have recently been tested (see Kirby, 2016, for a review) with promising results. Although none of the enhanced parenting programs have examined ES as a variable in the RCTs, there is evidence that more mindful parents are more emotionally aware and even more accepting or compassionate (Coatsworth et al., 2015). It is possible that building upon extant mindful-enhanced parenting programs could impact parental use of supportive ES strategies without requiring the addition of new modules or new programs, many of which are already lengthy and multifaceted. Furthermore, it is possible that such programs could hold particular promise for parents with psychopathology, given lower levels of mindfulness (e.g., Desrosiers et al., 2013) and higher levels of negative parenting practices (Solis et al., 2012). Alternatively, there are also several interventions that focus specifically on parent ES behaviors (e.g., Tuning into Teens, Kehoe, Havighurst, & Harley, 2014; Tuning into Kids, Havighurst, Wilson, Harley, Prior, & Kehoe, 2010), including a Father's Parenting Program (Dads Tuning into Kids; Wilson, Havighurst, Kehoe, & Harley, 2016) that may benefit from a focus on parent mindfulness (Dumas, 2005).

In addition to the strengths and contributions of this work, there are also limitations. First, parents provided self-report for all variables, which increases the likelihood of shared method variance and does not take into account the lived experiences of the youth. Although parental response to child negative emotion is typically measured with a questionnaire, observational methods may provide additional data that are better able to represent the complex bidirectional nature of any parent-child interaction. Second, the data are correlational, limiting our ability to make any causal claims about their linkages. Although it is both exciting and tempting to speculate about how mindful parenting may impact ES practices, experimental data are required to draw firm conclusions. Third, we have assessed the ES behaviors of one parent and limited parent report to one youth in the family. So although we include both mothers and fathers as reporters, they are not reporting as a dyadic unit; consideration of the interaction of parenting from both caregivers, triadic interactions (e.g., two parents and one youth), or sibling impact require a systemic approach with assessments capable of modeling complex family interactions. An important next step is to assess parenting dyads to consider how patterns of mindful parenting and associations with ES may vary. Fourth, the sample was predominantly Caucasian, which limits the generalizability of current findings. It is important that future studies are more inclusive of diverse families, particularly given some past research suggesting variations in ES patterns based on race/ethnicity (i.e., Brown, Craig, & Halberstadt, 2015). Finally, this study focused solely on parent mindfulness and its relation to ES, to the exclusion of other variables and potential models. These limitations notwithstanding, this study adds to the clinical and research literature on parent mindfulness and ES practices of mothers and fathers of young and middle childhood age youth.

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MCKEE, PARENT, ZACHARY, & FOREHAND

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766 /

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