

OBSERVED PARENTING AND CHILDREN'S COPING STRATEGIES: CROSS-
SECTIONAL AND PROSPECTIVE RELATIONS IN THE CONTEXT OF A
FAMILY GROUP COGNITIVE BEHAVIORAL INTERVENTION

By

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CHAPTER I

BACKGROUND

Major Depressive Disorder is a prevalent and debilitating mental health problem that affects more than 20 million adults in the United States annually, and it is estimated that 7.5 million of these individuals are parents of school-age children and adolescents. Further, it is well established that children of depressed parents are at elevated risk for developing depression and other psychopathology in their lifetime (England & Sim, 2009), as it is estimated that 50% of these children will meet diagnostic criteria for at least one episode of depression by the time they reach adulthood (Hammen, Burge, Burney, & Adrian, 1990).

Although the mechanisms of risk transmission are not fully understood, two particularly salient sources of risk for children's emotional and behavioral problems are the use of ineffective strategies to cope with stress and exposure to disrupted parenting behaviors associated with parental depression. Research has shown that children of depressed parents use less adaptive coping strategies in response to stress (e.g., Maughan, Cicchetti, Toth, & Rogosch, 2007; Silk, Shaw, Forbes, Lane, & Kovacs, 2006) relative to children of never depressed parents. Further, extensive research has also shown that children of depressed parents are exposed to at least two stressful parental behaviors, as these caregivers have been characterized as vacillating unpredictably between periods of being withdrawn (e.g., avoidant, unresponsive) and intrusive (e.g., overcontrolling,

irritable) in interactions with their children (see Lovejoy, Graczyk, O'Hare, & Neuman, 2000, for a review).

A large body of research has examined processes of adaption to stress in children and adolescents and has identified specific coping strategies that are differentially associated with emotional and behavioral adjustment (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). The development and use of effective coping strategies is a fundamental resource in promoting resilience in individuals who are living under chronic stress (e.g., having a depressed parent). Given that children and adolescents are embedded within a family context, there has been a call for research on stress and coping to more fully consider the role of the family in socializing and shaping children's coping skills (Compas et al., 2001; Skinner & Zimmer-Gembeck, 2007). An important next step is to better understand the role of parents in the development of children's coping in high-risk families, including families of depressed parents, as this knowledge may inform future preventive interventions and parental educational programs.

Although research on the socialization of coping in children and adolescents is still in its early stages, one process by which parents are thought to influence their children's coping strategies is through their parenting behaviors (e.g., Kliewer, Sandler, & Wolchik, 1994). Consequently, one avenue to begin to understand relations among parenting behaviors and children's coping responses is to examine these processes in a population known to have significant impairments in both domains. Accordingly, the purpose of the present study is to both concurrently and prospectively examine associations between parenting behaviors and children's coping strategies in a high-risk sample of offspring of depressed parents in the context of a family group cognitive

behavioral preventive intervention program designed to teach positive parenting practices and the use of effective coping skills.

Coping

Examining processes of adaptation to stress and their development is fundamental to understanding and identifying those at heightened risk for mental and physical health problems, as extensive research has shown that individual differences in coping with stressors both mediate and moderate the association between stress and mental/physical health (for a review, see Compas et al., 2001). Coping is broadly defined as, “conscious volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances” (Compas et al., 2001, p. 89). Notably, despite substantial research on the important role of coping in reducing risk and enhancing resilience under prolonged periods of stress, comprehensive reviews of the literature highlight the remarkable lack of consensus on the structure and organization of coping, as over 400 different “ways of coping” have been identified in the literature (Skinner, Edge, Altman, & Sherwood, 2003).

Lazarus and Folkman (1984) provided a broad model of coping that has guided research for over two decades and they posited that coping is distinguished between problem-focused (i.e., acting on the problem) and emotion-focused responses (i.e., acting on one’s emotions). Although this conceptual model shaped the field of coping and continues to guide current research, the categories in this organization of coping responses have been criticized for not being conceptually clear, exhaustive, or mutually exclusive (Skinner et al., 2003). Skinner et al. recommended that not only should this

model of coping no longer be used, but also argued that any bottom-up, exploratory approach to the structure of coping (e.g., problem-focused vs. emotion-focused) is problematic, as it capitalizes on idiosyncrasies of the study sample and contributes to inconsistencies in the literature. Consequently, Skinner et al. noted the need for future research to organize coping responses around top-down, theory-driven categories.

Connor-Smith, Compas, Wadsworth, Thomsen, and Saltzman (2000) posited a top-down, dual process model of responses to stress that distinguishes between automatic responses (i.e., stress reactivity) and voluntary responses (i.e., coping). Confirmatory factor analysis (CFA) of the conceptual model divided automatic stress responses into two broader constructs of involuntary engagement (i.e., rumination, intrusive thoughts, emotional arousal, physiological arousal, and impulsive action) and involuntary disengagement (i.e., inaction, emotional numbing, involuntary avoidance, and cognitive interference). These involuntary reactions are rooted in an individual's temperament and develop prior to the conscious, controlled responses. Further, CFA supported three distinct coping categories: primary control, secondary control, and disengagement coping. Specifically, primary control coping refers to efforts to act directly on a problem or one's emotions through problem-solving, emotional modulation, or emotional expression; secondary control coping refers to efforts to adapt to the problem through acceptance, positive thinking, cognitive reappraisal, or distraction; lastly, disengagement coping represents efforts to evade the problem or one's emotions through denial, avoidance, or wishful thinking. Notably, this conceptual model of stress responses has successfully been confirmed and validated in both child and adult samples, clinical and community samples, as well as cross-culturally (e.g., Compas et al., 2006a, 2006b;

Connor-Smith et al.; Wadsworth, Raviv, Compas, & Connor-Smith, 2005; Yao et al., 2010).

Taken as a whole, research has shown that primary control and secondary control coping strategies are generally more adaptive than disengagement coping in response to stressors. Specifically, it has been shown that primary control coping is related to fewer psychological symptoms in the context of controllable stressors (e.g., academic stressors) while secondary control coping has consistently been shown to be associated with better adjustment in response to uncontrollable stressors (e.g., parental depression). For instance, Jaser et al. (2007) found specificity in the relations between coping responses and children's adjustment in the context of peer and family stressors. Specifically, the use of primary control coping was related to fewer internalizing and externalizing symptoms in the context of peer stress, while the use of secondary control coping was associated with fewer symptoms with family stress that was associated with parental depression. On the other hand, studies have been mixed in the associations between disengagement coping and symptoms, with some studies finding that disengagement coping is related to poorer adjustment (e.g., Wadsworth et al., 2005) and other studies finding that this type of coping is unrelated to problems (e.g., Jaser et al., 2007). Despite the significant relations between responses to stress and psychological outcomes, empirical research on the processes contributing to their development remains relatively unexplored (Skinner & Zimmer-Gembeck, 2007).

Socialization of Coping

A small body of research has begun to investigate the socialization of coping in children and adolescents, which can be defined as, “parenting goals, practices, and styles that influence children’s learning and utilization of emotional, cognitive, and behavioral strategies to manage personal and external demands that are perceived by either the parent or child to exceed the child’s resources or capacities” (Miller, Kliewer, & Partch, 2010, p. 430). Although there likely are a number of significant socializing agents in children’s lives that contribute to the development of their coping (e.g., peers, siblings, teachers), to date the most extensive research has focused on the role of parents (see Zimmer-Gembeck & Locke, 2007, for a recent exception), as the family is thought to provide the earliest and most salient context by which children acquire strategies to respond and adapt to stress (e.g., Bradley, 2007).

Kliewer et al. (1994) proposed a conceptual model of coping socialization in which parents are hypothesized to both indirectly and directly influence children’s coping strategies through three pathways: (1) coaching, (2) modeling, and (3) the family context¹. It is noteworthy that conceptual models theorized on the development and socialization of other processes in childhood include similar pathways, such as emotional development (Eisenberg, Cumberland, & Spinrad, 1998), prosocial behavior and empathy (Eisenberg, 1983), as well as emotion regulation (Calkins, 1994). The parallel pathways among these developmental frameworks provide further support that they are fundamental mechanisms by which parents convey important messages to children and influence their behavior.

¹ It is noteworthy that in the model of coping socialization from Kliewer et al. (1994), the “family context” also includes parenting behaviors and practices, and so for purposes of the present study, the term “parenting” will be used to describe this pathway.

Coaching. Parental coping coaching refers to the direct instructional messages that parents communicate to their children about ways that they should appraise a situation and manage the stress associated with the problem (e.g., Kliewer, Parrish, Taylor, Jackson, Walker, & Shivy, 2006). An involved parent may choose to support the coping strategies that their child uses or the parent may offer alternative strategies (Abaied & Rudolph, 2010a). For instance, if a child is upset because he/she was not invited to a friend's birthday party, the parent may coach their child through the problem by either encouraging them to engage with the stressor (e.g., talk with your friend about the problem; try to think about the situation in a different way) or disengage from it (e.g., stay away from the friend who made you upset). Given that engagement and disengagement coping strategies have been shown to be differentially related to psychological adjustment (e.g., Jaser et al., 2005, 2007, 2008), these qualitatively distinct parental coping suggestions may have different consequences for the child's peer relationship as well as their ability to effectively deal with similar interpersonal stressors encountered in the future.

Theoretical support for the role of coping coaching comes from research on both scaffolding and emotion coaching. Scaffolding is a process of structured learning that enables a child to progressively acquire new abilities just beyond their reach through support and instruction by their caregivers (Maccoby, 1992). As children are exposed to novel or recurrent stressors in various life domains, parents are hypothesized to help their children appraise these encounters and guide them through the process of managing and adapting to adversity. Through coaching, the child is thought to acquire regulatory skills and gain self-efficacy in managing stressors on their own. In addition, coping coaching

shares similar characteristics with emotion coaching. Emotion coaching parents are those who, “are aware of the emotion in their lives, who can talk about those emotions in a differentiated manner, who are aware of these emotions in their children, and who assist their children with their emotions” (Gottman, Katz, & Hooven, 1996, p. 244). Research has found that children of emotion coaching parents are better able to manage emotions and have fewer adjustment problems (e.g., Katz & Windecker-Nelson, 2004; Shipman & Zeman, 2001; Stocker, Richmond, & Rhoades, 2007). However, coping coaching is distinct from emotion coaching in that the former represents the direct messages that parents communicate to their children on specific ways to modulate their emotions and cope with stressors, regardless of the valence of these messages or parents’ awareness, acceptance, and ability to differentiate emotions in themselves or in their children.

Empirical evidence for the influence of coping coaching comes from a number of studies that have shown that the direct messages parents communicate to their offspring about ways of coping with stress are related to children’s psychological adjustment and their use of specific coping strategies. For example, Abaied and Rudolph (2010a) found in a community sample that maternal suggestions for coping with both interpersonal and non-interpersonal stress predicted children’s emotional and behavioral problems one year later, although these relations were dependent on the type and severity of the child’s stress. Further, Kliewer et al. (2006) investigated coping coaching efforts in an observational study of families exposed to high levels of community violence, and found associations between mothers’ coaching and children’s coping efforts. For instance, mothers who suggested active strategies had children who used more problem-focused strategies and aggressive actions, whereas children of mothers who encouraged proactive

coping used more aggressive actions and proactive strategies. In contrast, Miller et al. (2010) recently examined observed parental coaching in children exposed to interparental conflict. Although parental coaching messages did not predict children's coping efforts, the strategies that children recalled their parents encouraging predicted their coping.

Modeling. Parental modeling refers to the coping strategies parents use in response to stress that the child has the opportunity to directly observe (e.g., Kliewer et al., 2006). For instance, in response to a friend spreading rumors, a parent might use a primary control coping strategy (e.g., let someone or something know how they feel), they may rely on a secondary control coping strategy (e.g., do something else to get their mind off of the problem), or the parent may use a disengagement coping strategy (e.g., wish the problem would just go away) to deal with the problem. When a child has the chance to watch their parent respond to a specific stressor, the child may internalize their parent's coping behaviors and later imitate those responses when they are confronted with a comparable stressor in their own life.

Indirect support for parental modeling as an important influence on children's coping behavior comes from both the social referencing literature and social learning theory. Social referencing is a developmental phenomenon in which young infants look to their caregivers for emotional cues on how to appraise and approach an ambiguous or novel situation (Campos & Stenberg, 1981). For instance, Sorce, Emde, Campos, and Klinnert (1985) showed in a series of visual cliff experiments that when 12-month-olds could not perceive the depth of a "cliff", they first looked to their mothers for information and guidance. Young infants did not cross the platform to grab a toy when their mothers

displayed anger or fear, but were significantly more likely to cross when their mothers expressed happiness or interest.

Further, social learning theory states that individuals learn through directly observing and imitating the behavior of salient models in their environment (Bandura, 1977). Bandura noted distinct factors that contribute to whether an observed behavior will be learned and modeled: attention, retention, reproduction, and motivation. Specifically, the observer must attend to the behavior of the model, must have learned and remembered the behavior at a later time, must be capable of imitating and applying the behavior to a new situation, and must have a reason to emulate the behavior. Notably, although the seminal work of Bandura on social learning theory is central in developmental psychology, empirical evidence supporting children and adolescents modeling observed parental behavior is limited (Eisenberg & Valiente, 2001).

Empirical evidence for the influence of parental coping on children's coping is also relatively limited. Kliewer and Lewis (1995) examined parental modeling of coping in children with sickle cell disease and reported that children used higher levels of avoidance coping when their parents used either low levels of cognitive restructuring or high levels of active coping. In addition, Kliewer et al. (2006) reported marginal associations between mothers' use of active coping and children's greater use of problem-focused coping as well as maternal avoidance coping and children's lower use of problem-focused coping. Buckley and Woodruff-Borden (2006) examined coping behaviors in mother-child dyads in which the caregiver was either clinically anxious or was non-anxious. Although anxious mothers were observed to use significantly less

adaptive coping and more ineffective strategies, there were no differences between the two groups in children's reported coping behaviors.

Family context and parenting. The family context refers to the broader family structure that children experience, including parenting practices, the quality of the parent-child relationship, and the cohesiveness of the family environment (Kliewer et al., 1994; 2006). For instance, a parent could react in several ways to a child who comes home upset because they do not have any friends at school. A dismissive parent may undermine the child's feelings by either ignoring the child or telling them to "stop whining so much and just get over it." A hostile and intrusive parent might talk over the child or yell at them for not making more of an effort to make friends. In contrast, a warm and supportive parent may engage in reflective listening, being sensitive to the needs of the child and talking through the problem with their child. It is hypothesized that children and adolescents who live in a disrupted and disorganized negative family environment will have more difficulty learning and using effective coping strategies than children who are exposed to warm and structured households and have positive relationships with their caregivers (Eisenberg et al., 1998; Kliewer et al., 1994).

Indirect support for the significance of the family context on children's adaptation to stress comes from attachment theory and research. Attachment refers to the close emotional bond that is formed between an infant and their caregiver that provides the child with a sense of security and facilitates the child in self-regulation; however, not all children form secure attachments with their parents (Bowlby, 1969). In the *strange situation* paradigm, Ainsworth, Belahr, Waters, and Wall (1978) identified three distinct attachment patterns formed by caregivers and offspring: secure, insecure-avoidant, and

insecure-ambivalent; these bonds have been found to be differentially associated with children's adjustment. Moreover, individual differences in parenting practices have been identified as correlates of these bonds (Adam, Gunnar, & Tanaka, 2004), as children of parents who are unresponsive and insensitive have been shown to be more likely to develop insecure attachments (Juffer, Bakermans-Karlenburg, & van IJzendoorn, 2005). Children with insecure attachments are described as more afraid, hesitant, and unwilling to explore their environments, which may contribute to the development of disengagement coping strategies (e.g., avoidance). Conversely, research has shown that children who form secure attachments with their mothers use more adaptive coping strategies in response to problems (Contreas, Kerns, Weimer, Gentzler, & Tomich, 2000).

Several empirical studies have documented the importance of the family climate on children's acquisition of coping strategies. For example, McKernon, Holmbeck, Colder, Hommeyer, Shapera, and Westhoven (2001) investigated the influence of family cohesion and conflict on problem-focused coping in children with spina bifida compared to a group of matched control families. They found that both observed and reported family cohesion predicted increased use of problem-focused strategies two years later in both the pediatric and control samples, although family conflict did not predict children's coping responses. Zimmer-Gembeck and Locke (2007) examined the association between characteristics of the parent-child relationship (i.e., parental involvement, structure, autonomy support) and adolescents' reported use of active coping, avoidant coping, and wishful thinking. These investigators found that the combination of parental involvement, structure, and autonomy support was positively associated with active coping at both home and school and negatively related to wishful thinking and avoidant

coping at home. Finally, Meesters and Muris (2004) examined relations between parenting behaviors and adolescents' active and passive dispositional coping. Adolescents from families characterized as more rejecting reported using more passive coping (e.g., avoidance, depressive reaction) and those with more controlling parents reported using more active coping, although there was not a significant association between parental warmth and adolescents' reported coping strategies.

Associations Between Parenting and Children's Coping

Based on the limited empirical evidence on the parental role in the coping socialization process, previous researchers have examined only one pathway of Kliever et al.'s (1994) conceptual model, which includes coping coaching, parental modeling, and parenting behaviors. For example, a number of studies have only investigated parental coping coaching (e.g., Abaied & Rudolph, 2010a, 2010b), whereas others have exclusively examined the role of parental behaviors (e.g., Smith et al., 2006; Zimmer-Gembeck & Locke, 2007). Similarly, the present study will focus on investigating the role of positive and negative parenting behaviors in the socialization of coping process.

Parenting can be broadly defined as the general behaviors and attitudes of a caregiver in interactions with their child (Morris, Silk, Steinberg, Myers, & Robinson, 2007). Traditionally, parenting has been measured along two separate levels of analysis: categorical and dimensional. Categorical approaches to parenting refer to the overall pattern of parental behavior, whereas dimensional approaches represent the amount of each specific behavior displayed by the parent. Baumrind (1967) identified three categorical parenting styles varying on dimensions of warmth and control: authoritative

(i.e., high warmth, high control), authoritarian (i.e., low warmth, high control), and permissive (i.e., high warmth, low control). Building on Baumrind's seminal work, Maccoby and Martin (1983) later introduced a neglectful parenting style (i.e., low warmth, low control). Dimensional measures of parenting have examined a wider range of behaviors, including warmth and support (e.g., accepting, responsive, and loving behavior; Hardy, Power, & Jaedicke, 1993), structure (e.g., establishing routines and managing children's activities; Bradley, 2007), psychological control (e.g., intrusive control characterized by covert and coercive strategies; Barber, 1996), hostility (e.g., overt aggression toward the child, including both verbally and physically; Morris, Silk, Sessa, Avenevoli, & Essex, 2002), as well as withdrawal (e.g., disengaged and unresponsive behavior; Lovejoy et al., 2000).

While both categorical and dimensional approaches to measuring parenting behavior have been investigated extensively in the literature (e.g., Gryczkowski, Jordan, & Mercer, 2010; Williams et al., 2009), categorical assessments of parenting behaviors have been criticized for their lack of specificity and detail, as it can be difficult to determine which particular parenting behaviors within a categorical grouping best account for child outcomes (McIntyre & Dusek, 1995). For example, although extensive research has shown that authoritative parenting (i.e., high levels of warmth and control) is related to better child adjustment, it is not clear whether it is the high level of parental warmth, high level of parental control, or a combination of high levels of both that are most important in the association between parenting and child outcomes. Further, the categorical grouping of parenting behaviors precludes examining correlations between parenting behaviors and child outcomes as well as changes in parenting across time, as

only group differences (e.g., authoritative vs. neglectful) can be calculated with a categorical approach. Consequently, the present study will examine parenting from a dimensional perspective to investigate both independent effects and joint effects of parental behaviors and children's coping strategies.

Extensive research has shown that parenting behaviors are significantly related to and predictive of children's emotional and behavioral problems (e.g., see McKee, Colletti, Rakow, Jones, & Forehand, 2008; McLeod, Weisz, & Wood, 2007, for reviews). Overall, findings suggest that parents who are warm/supportive, responsive, and create a structured family context promote positive psychological adjustment, while parents who are intrusive, withdrawn, and coercive undermine children's psychosocial development. For instance, Ge, Best, Conger, and Simons (1996) reported that observed levels of warmth, hostility, and disciplinary skills in a community sample of families predicted specificity in adolescents' reported depressive symptoms and conduct problems at a later time point. Specifically, children with conduct problems had parents who were significantly more hostile and had poorer disciplinary skills than children with elevated depressive symptoms, and children experiencing high levels of both depressive symptoms and conduct problems had the most hostile and least warm parents. Although the processes underlying the link between specific parenting behaviors and children's emotional and behavioral adjustment is less well understood, one construct that has begun to receive more attention is the ways in which children cope with and respond to stress, as empirical evidence supports the theorized relations among the ways children cope with stress and both positive and negative parenting styles².

² For purposes of the present study, "positive parenting" refers to those parental behaviors that have extensively been shown to be related to and predictive of children's adaptive adjustment (e.g., create

Positive parenting. A number of positive parenting behaviors are thought to be associated with the ways in which children regulate emotions and respond to stress. First, parents who are sensitive and responsive to their child's emotional experiences are likely more aware and accepting of emotions, communicating a message that negative emotions are understandable and can be expressed (Thompson & Meyer, 2007). Further, these parents may engage their children in conversations about how to modulate emotions and cope with stress (Havighurst, Wilson, Harley, & Prior, 2009). Second, parents who are positive and effective communicators are thought to be able to engage their children in developmentally appropriate conversations about stress, the role of emotions, and adaptive ways to deal with problems (Gentzler, Contreras-Grau, Kerns, & Weimer, 2005). Third, warm/supportive parents likely serve as resources through informational support (e.g., offer concrete ways to cope), emotional support (e.g., comfort and listen), or instrumental support (e.g., problem-solve with the child; Smith et al., 2006). Further, it is suggested that children of supportive caregivers feel more secure approaching their parents when stressed (Bynum & Brody, 2005) as well as expressing, rather than suppressing, negative emotions (Eisenberg, Spinrad, & Eggum, 2010). Through these salient supportive experiences, children may become more comfortable seeking support from others (e.g., peers, teachers; McIntyre & Dusek, 1995). Fourth, Grolnik and Farkas (2002) argue that children need opportunities to practice coping strategies, and it is thought that structured and consistent environments create a safe context for children to refine their skills, having confidence in their parents' assistance if needed. In addition, children who feel secure in the parent-child relationship are more likely to actively

structure, warmth, responsive), while "negative parenting" are the behaviors that have been shown to be related to and predictive of children's maladaptive adjustment (e.g., hostile, intrusive, coercive).

engage with their environment, and so it is possible that these children rely on more engagement coping strategies (Kliewer, Fearnow, & Miller, 1996). Lastly, parents who are positively reinforcing and contingent in their responses may provide their children with more constructive feedback and praise about their skills and efforts at coping.

Notably, while a number of studies have found positive parenting behaviors to be related to children's use of more adaptive coping strategies (e.g., Gentzler et al., 2005; Kliewer et al., 1996; Yagmurlu & Altman, 2010), other studies have reported positive parenting behaviors to be either unrelated to coping or associated with children's use of less adaptive strategies (e.g., Manzeske & Stright, 2009; Smith et al., 2006). For instance, Gaylord-Harden, Campbell, and Kesselring (2010) reported that in low-income families, children who perceived their mothers as supportive reported using more active and support-seeking coping. Similarly, studies that used categorical measures of parenting have reported that children of authoritative and permissive parents, both characterized by high levels of warmth, used significantly more problem-focused coping (Dusek & Danko, 1994), active coping (Wolfradt, Hempel, & Miles, 2003), and social support coping (McIntyre & Dusek, 1995). On the other hand, while Mosher and Prelow (2007) found that adolescents' perceived maternal involvement was positively associated with their use of active coping, unexpectedly they found it to be also positively correlated with children's use of avoidant coping.

Negative parenting. A number of negative parenting behaviors are thought to be associated with the specific ways in which children respond to stress. First, children of caregivers who are critical and coercive may be less likely to seek support from their parents in times of need (Shipman & Zeman, 2001). Second, parents who minimize and

are insensitive to their children's emotions and difficulties are thought to communicate a message that negative emotions are unacceptable and should not be expressed (Eisenberg et al., 1998). Third, parents who respond inconsistently to their children's feelings and behaviors create an unpredictable emotional family climate, limiting their children's willingness to seek guidance and undermining feelings of security in openly discussing and expressing emotions (Thompson & Meyer, 2007). Fourth, parents who are withdrawn and dismissive of their children's problems are not likely to help problem-solve or offer specific strategies for coping. Further, these children may not develop self-efficacy in their coping abilities, finding it more immediately reinforcing to suppress emotions and avoid their problems (Eisenberg, Fabes, & Murphy, 1996). Fifth, parents who are intrusive in their interactions may not effectively scaffold children's learning of coping strategies or give them appropriate opportunities to practice; moreover, these parents may become easily frustrated, and rather than engaging with the child, they may either give up or try to fix the problem for the child. Lastly, it is likely that negative parenting behaviors exacerbate children's emotional reactivity, making it more difficult for them to learn and use adaptive strategies, thereby increasing the likelihood that they will use avoidance coping to diminish their reactivity (Jaffee, Gullone, & Hughes, 2010).

Although a number of empirical studies have found support for the association between negative parenting and less effective child coping strategies (e.g., Lunkenheimer, Shields, & Cortina, 2007; Manzeske & Stright, 2009; McEwen & Flouri, 2009; Meesters & Muris, 2004), others have not found significant relations. For example, in a community sample of families, Mayseless and Scharf (2009) found that young adult daughters who reported that their parents induced high levels of

guilt/psychological control also reported using significantly more disengagement coping strategies six months later in response to military stress. Further, Steele, Forehand, and Armistead (1997) examined communication quality in families where the father had a chronic illness, and they found a negative association between quality of communication and youth's use of avoidant coping strategies. On the other hand, Gaylord-Harden et al. (2010) found no relation between parents' psychological control and their children's coping strategies in a sample of at-risk African-American youth.

Positive and negative parenting. Taken as a whole, although preliminary evidence supports relations among both positive and negative parenting and the ways that children regulate emotions and cope with stress, there remain a number of significant limitations. First, many studies have been cross-sectional and conclusions about the direction of the associations cannot be ascertained (see Mayseless & Scharf, 2009, for an exception). Researchers have noted the need for examinations of bi-directional relationships between parents and children, as it is conceivable that children who are better able to regulate their emotions, behaviors, physiology, and thoughts would elicit more warmth and support from their parents (Eisenberg & Valiente, 2004; Eisenberg et al., 2010). Second, a large number of studies have relied exclusively on children's reports of their own coping strategies and their perceptions of their parents' behavior (e.g., Clark, Novak, & Dupree, 2002; Dusek & Danko, 1994; Gaylord-Harden, 2008; Nijhof & Engles, 2007; Uehara, Sakado, Sato, & Someya, 1999); as a consequence, shared method variance may account for significant relations between parenting practices and children's responses to stress. Third, the majority of studies have examined only questionnaire measures of parent behaviors and children's coping and the use of observational measures has been limited

(see Gentzler et al., 2005, for an exception). Lastly, a number of studies have used unstandardized measures of children's coping (e.g., Hardy et al., 1993; Kliewer et al., 2006; Shell, Roosa, & Eisenberg, 1991), making it difficult to draw valid conclusions from individual studies and to compare findings across studies (Skinner et al., 2003).

Parenting and Coping in the Context of Parental Depression

Parental depression presents a unique and important context in which to examine the associations between parenting behaviors and children's coping strategies, as both processes have been shown to be significantly impaired in this high-risk population. First, a large body of research suggests that depressed parents display more negative parenting and less positive parenting behaviors in interactions with their children (for reviews see, Dix & Meunier, 2009, and Lovejoy et al., 2000). Lovejoy et al. conducted a meta-analysis of 46 observational studies examining parenting behaviors in the context of parental depression, and found that depressed parents were more negative relative to never depressed parents. Specifically, depressed parents were found to be more irritable, withdrawn, inconsistent in their discipline, they offered less praise, and displayed less positive affect toward their children; further, these disruptions were found to remain, although tempered, even after the remission of the parent's depression. Moreover, empirical studies have shown that depressed parents alternate between periods of being withdrawn (e.g., ignoring the child) and intrusive (e.g., poking the child) in interactions with their children. These parenting behaviors create an unpredictable and uncontrollable family environment for children and are positively correlated with children's emotional

and behavioral symptoms (e.g., Jaser et al., 2005; Langrock, Compas, Keller, Merchant, & Copeland, 2002).

Second, children of depressed parents have been shown to rely on less adaptive coping strategies in response to stress (e.g., Maughan et al., 2007; Silk et al., 2006). For example, Silk et al. examined the regulatory strategies of young children of both depressed and non-depressed mothers using a mood induction task. They reported that children of depressed mothers used less effective strategies, including focusing their attention on the desired item or passively waiting for the task to end, while children of non-depressed mothers engaged in more adaptive strategies, including using active distraction (e.g., singing or dancing around the room). Research has also shown that as stress in the family context rises, children and adolescents of depressed parents use less adaptive coping strategies (e.g., Jaser et al., 2005; Langrock et al., 2002), indicating that in stressful situations where individuals require the most effective coping strategies, they increasingly use more maladaptive approaches.

Recent evidence has been reported regarding the effects of a family group cognitive behavioral preventive intervention program designed to teach children to use more adaptive coping strategies to deal with the stress associated with parental depression (i.e., secondary control coping) as well as to teach parents to use more positive parenting practices (e.g., warmth, structure) in interactions with their children. Children in the intervention group reported significantly fewer internalizing problems through the 12-month follow-up (Compas et al., 2009) and had significantly fewer diagnoses of depression and any other DSM disorder at the 24-month follow-up (Compas et al., 2011) compared to the children in the information only comparison condition. Further, we

reported that the intervention led to significant changes in children's secondary control coping strategies as well as positive parenting practices, which both partially mediated the effects of the intervention on children's emotional and behavioral adjustment (Compas et al., 2010). Notably, we have not yet examined relations between changes in these two constructs in the context of the intervention; however, the design of the study provides an optimal opportunity to examine how the intervention may have facilitated changes in parenting behaviors that uniquely contributed to changes in children's coping strategies as well as how changes in children's coping strategies may have uniquely contributed to changes in parenting behaviors.

Although research has not fully addressed whether depressed parents are ineffective in socializing coping in their children, integrating the literature on the effects of parental depression and on the hypothesized role of parenting in children's coping, it is expected that depressed parents would contribute to their children's use of ineffective coping strategies. Further, the effects of parenting on children's coping may be one mechanism by which parental depression is transmitted to offspring. Consequently, the purpose of the present study is to examine the associations of positive and negative parenting behaviors with children's coping in an at-risk sample of offspring of depressed parents in the context of a preventive intervention program designed to teach both positive parenting skills to caregivers and secondary control coping skills to children.

Current Study

The aim of the present study is to (a) replicate and expand on previous empirical research by examining relations between observed parenting practices and children's

coping, (b) expand on research by examining both concurrent and prospective relations between observed parenting and children's coping in the context of a preventive intervention study targeting both of these constructs, (c) extend previous research by examining independent and joint effects of observed parenting behaviors in predicting children's coping, and (d) expand on previous research by conducting exploratory analyses to examine if children's coping strategies predicts changes in observed positive and negative parenting in the context of a preventive intervention designed to change both parenting and children's coping.

Hypotheses: Cross-Sectional Analyses

1. Observed positive parenting behaviors will be positively associated with primary and secondary control coping and negatively associated with disengagement coping strategies at the baseline assessment.
2. Observed negative parenting behaviors will be positively associated with disengagement coping strategies and negatively associated with primary and secondary control coping strategies at the baseline assessment.

Hypotheses: Prospective Analyses

3. Observed positive and negative parenting and at baseline will predict changes in children's coping from baseline to 6-months in the context of the intervention. Specifically, positive parenting behaviors will predict greater increases in primary and secondary control coping and less disengagement coping. Negative parenting behaviors will predict less primary and secondary control coping and greater use of disengagement coping strategies.

4. The relationship between observed positive and negative parenting at the baseline assessment and changes in children's coping strategies from baseline to the 6-month assessment will depend on the family's participation in the intervention program. Specifically, the relationship between parenting and children's coping will be stronger for the families who were not in the intervention program.

Exploratory Analyses

5. Will children's coping responses at baseline predict changes in observed positive and negative parenting from baseline to 6-months in the context of the preventive intervention?

CHAPTER II

METHOD

Participants

The sample included 180 families with 242 children (121 girls, 121 boys) between the ages of 9 and 15 years ($M = 11.53$, $SD = 2.02$) and the target parents (160 mothers, 20 fathers) ages 24 to 69 years ($M = 41.96$, $SD = 7.53$). All parents met criteria for at least one episode of Major Depressive Disorder during the lifetime of their children ($Mdn = 4.0$). A number of families had more than one child participating in the study. In consideration of the possible violation of independence of children within the same family, one child per family was randomly selected from each family for all analyses. Additionally, all families that did not have complete data at both the baseline and 6-month follow-up assessment period were excluded from all analyses ($n = 79$).

The final sample used in the present analyses (see Table 1) included 50 girls and 51 boys between the ages of 9 and 15 ($M = 11.48$, $SD = 2.07$) and their parents (89 mothers, 12 fathers) who met criteria for at least one episode of Major Depressive Disorder during their child's lifetime. The sample of children were 71.3% Euro-American, 15.8% African-American, 2.0% Asian, 2.0% Latino or Hispanic, and 8.9% mixed ethnicity. Seventy-nine percent of the parents were Euro-American, 13.9% African-American, 1.0% Asian, 3.0% Latino or Hispanic, and 3.0% mixed ethnicity. Parents ranged from 26 to 69 years of age ($M = 41.68$, $SD = 7.73$). Parents' level of education included 4.0% of parents with less than high school, 8.9% completed high

school, 28.7% had some college or technical school, 33.7% had a college degree, and 24.8% had a graduate education. The marital statuses of the parents were 59.4% married or co-habiting, 23.8% divorced, 11.9% never married, 4.0% separated, and 1.0% widowed. Annual household income ranged from less than \$5,000 to more than \$180,000, with a median household income of \$40,000.

Table 1. Demographic variables of the sample

	Parents (N = 101)	Children (N = 101)
Gender [<i>n</i> (%)]		
Female	89 (88.1)	50 (49.5)
Male	12 (11.9)	51 (50.5)
Age [<i>M</i> (SD)]	41.68 (7.73)	11.48 (2.07)
Race/ethnicity [<i>n</i> (%)]		
Euro-American	80 (79.2)	72 (71.3)
Black or African-American	14 (13.9)	16 (15.8)
Asian	1 (1.0)	2 (2.0)
Latino/Hispanic	3 (3.0)	2 (2.0)
Mixed ethnicity	3 (3.0)	9 (8.9)
Education [<i>n</i> (%)]		
Some high school	4 (4.0)	n/a
Graduated high school	9 (8.9)	n/a
Some college or technical school	29 (28.7)	n/a
Graduated college	34 (33.7)	n/a
Graduate education	25 (24.8)	n/a
Marital Status [<i>n</i> (%)]		
Married/Living with someone	60 (59.4)	n/a
Divorced	24 (23.8)	n/a
Separated	4 (4.0)	n/a
Never married	12 (11.9)	n/a
Widowed	1 (1.0)	n/a
Annual Household Income [<i>n</i> (%)]		
< \$5,000	7 (6.9)	n/a
\$5,000-\$9,999	3 (3.0)	n/a
\$10,000-\$14,999	2 (2.0)	n/a
\$15,000-\$24,999	13 (12.9)	n/a
\$25,000-\$39,999	21 (20.8)	n/a
\$40,000-\$59,999	16 (15.8)	n/a
\$60,000-\$89,999	20 (19.8)	n/a
\$90,000-\$179,999	11 (10.9)	n/a
≥ \$180,000	3 (3.0)	n/a

Measures

Parental depression diagnoses. The Structured Clinical Interview for DSM (SCID) is a semi-structured diagnostic interview that was administered to the target parent by a well-trained research assistant or graduate student. The SCID is a frequently used measure that has been shown to yield reliable diagnoses of past and current Major Depressive Disorder as well as other psychopathology in adults (First, Spitzer, Gibbon, & Williams, 2001). Inter-rater reliability was calculated on a set of randomly selected interviews and indicated 93% agreement ($kappa = 0.71$) for diagnoses of MDD.

Observed parenting behaviors. Parenting behaviors in the positive and negative parent-child interaction tasks were coded separately using the macro-level coding system, the Iowa Family Interaction Rating Scale, which is designed to code interactions at both the individual and dyadic level (IFIRS; Melby, Conger, Book, Reuter, Lucy, & Repinski, 1998). Each code is rated on a 9-point Likert scale (1 = *not at all characteristic* to 9 = *mainly characteristic*) based on the frequency, intensity, and duration of such things as parental verbal and nonverbal behaviors, affect, and tone of voice.

The two parent-child interaction tasks were independently coded by two highly trained research assistants (i.e., undergraduate research honors students or clinical graduate students) who had received training through extensively reading the IFIRS manual, passing a written examination that required providing definitions and examples of each of the codes with at least 90% accuracy, coding interaction tasks that were previously coded until they attained 80% inter-rater reliability, and all coders were required to attend weekly meetings in an effort to prevent coder drift. Two research assistants coded each task independently by watching the 15-minute parent-child task

five separate and consecutive times before rating each code on the 9-point Likert scale. When both research assistants had completed coding the interaction, they met to compare their codes and to reach a consensus on any discrepant codes (i.e., codes that were two or more points off from each other); if the coders were one point off, the higher code was given to the parent. All coders were blind to the randomized condition (i.e., FGCB intervention vs. Written Information) of the families in the interaction tasks conducted at the follow-up. The IFIRS coding system has been validated through correlational and confirmatory factor analysis (Aldefer et al., 2008; Melby & Conger, 2001).

Although both parents and children were coded separately on a number of emotional and behavioral codes, the current study focuses on the parenting codes that were used to create positive and negative parenting composite scores, reflective of the behaviors hypothesized to be differentially associated with children's coping responses. Specifically, the positive parenting composite was formed from the first interaction (i.e., pleasant task) and the negative parenting composite was formed the second interaction (i.e., stressful task) to obtain independent samples of the parents' positive and negative parenting behaviors, as the two tasks were coded separately by different research assistants. The positive parenting behaviors included warmth, listener responsiveness, communication, prosocial behaviors, child-centeredness, quality time, and child monitoring. Internal consistency for the positive parenting codes was $\alpha = 0.87$ at baseline and $\alpha = 0.87$ at 6-month. Negative parenting behaviors included hostility, neglect/distancing, intrusive, inconsistent discipline, indulgent/permissive, antisocial behaviors, and guilty coercion. Internal consistency for the negative parenting codes was $\alpha = 0.73$ at baseline and $\alpha = 0.76$ at 6-month.

Children's coping responses. Parents and children completed the parental depression version of the Responses to Stress Questionnaire (RSQ; Connor-Smith et al., 2000; Jaser et al., 2005) to assess the specific ways in which children cope with and react to the stress associated with their parents' depression. The opening section of the RSQ includes a list of 12 stressors that are commonly associated with parental depression (e.g., my parent seems to be sad or cries a lot; sometimes I feel responsible for the way my parent feels). The informant (i.e., parent or child) rates on a 4-point Likert scale (1 = *never* to 4 = *almost every day*) how often each specific stressor was experienced by the child in the past six months as well as how much control the child believes that he/she has over the occurrence of the stressors.

The second section of the RSQ includes 57 items to assess how the child responds to those identified stressors based on five different factors that have been identified, confirmed, and validated in the ways in which children and adolescents cope and respond to stress (i.e., primary control coping, secondary control coping, disengagement coping, involuntary engagement, and involuntary disengagement; Connor-Smith et al.). The present study focuses all analyses on the three coping factors. Specifically, we examine primary control coping (i.e., emotional modulation, emotional expression, problem-solving), secondary control coping (i.e., acceptance, cognitive reappraisal, distraction, positive thinking), and disengagement coping (i.e., avoidance, denial, wishful thinking). In order to control for response bias in item endorsement, proportion scores were calculated by dividing the total score for each coping factor by the total score obtained on the RSQ (Vitaliano, Maiuro, Russo, & Becker, 1987). Composite scores of children's coping responses were created separately for each coping factor from the parent and child

report, as Compas et al. (2006) showed through latent variable analysis that parent and child reports on the RSQ adequately converge. Internal consistencies for the composite scores of the coping factors at baseline and the 6-month follow-up assessment, respectively, were: $\alpha = 0.75$ and $\alpha = 0.80$ on primary control coping, $\alpha = 0.77$ and $\alpha = 0.79$ on secondary control, and $\alpha = 0.75$ and $\alpha = 0.77$ on disengagement coping.

Procedure

The participants in the current study were part of a larger study testing the efficacy of a family group cognitive-behavioral intervention to prevent depression and other mental health problems in children of parents with a history of MDD. Families were recruited through a variety of sources in and around Nashville, Tennessee and Burlington, Vermont, including mental health clinics and local media outlets. After the family made initial contact with a member of the research team, a trained research assistant conducted a telephone screen with the target parent to determine whether the family met all eligibility requirements for the study (see Compas et al., 2009, for a more detailed description of the enrollment process).

Inclusion criteria included at least one child in the targeted age range and a parent with at least one episode of MDD in the child's lifetime. Exclusion criteria for the target parent included a history of bipolar-I, schizophrenia, or schizoaffective disorder. Exclusion criteria for the child included a diagnosis of mental retardation, autism spectrum disorder, bipolar-I, schizophrenia, or conduct disorder, as these were all deemed to be inappropriate for the family group intervention. In addition, if a target parent met criteria for a current diagnosis of MDD along with a Global Assessment of Function

(GAF) score of 50 or less, was actively suicidal, had a history of drug or alcohol use disorders along with a GAF of 50 or less, or if the child met criteria for a current diagnosis of MDD, then the family was put on hold and re-contacted three months later for a follow-up assessment. At the re-assessment period, if the parent was no longer actively suicidal, their GAF score was above a 50, or if the child no longer met diagnostic criteria for MDD, the family was considered eligible to participate in the study.

Eligible families from the phone screen were invited into the laboratory to participate in a baseline assessment where they completed more extensive semi-structured interviews to confirm their eligibility for the preventive intervention program, a battery of questionnaires, as well as two 15-minute parent-child videotaped interaction tasks. In the first task, the parent and child were instructed to discuss a recent pleasant family activity using a list of prompted questions that were written to elicit positive affect from the dyad (e.g., what are some other fun activities that we would like to do together? How could we do more pleasant activities together in the future?). In the second task, the parent and child discussed a recent family stressful event that involved the parent and child using a list of prompted questions that were written to elicit negative affect from the dyad (e.g., when mom/dad is sad, down, irritable or grouchy what usually happens? What kinds of feelings or emotions do we usually have when mom/dad is sad, down, irritable, or grouchy?). Eligible families from the baseline assessment were randomized to either the family group cognitive behavioral intervention program (FGCB) or the written information comparison condition (WI). Participating families returned for a 6-month follow-up assessment, after the completion of the intervention program, and

completed semi-structured interviews, a similar battery of questionnaires, and participated in two 15-minute parent-child interaction tasks.

The Institutional Review Boards at Vanderbilt University and the University of Vermont approved all procedures. Clinical graduate students completed all semi-structured interviews and parent-child interaction tasks at the Department of Psychology and Human Development at Vanderbilt University and the Psychology Department at the University of Vermont. All participants were compensated \$40 for the baseline assessment and another \$40 for the 6-month follow-up assessment.

Data Analyses

Descriptive statistics. Means, standard deviations, and minimum and maximum scores for observed parenting behaviors and composite scores of children's coping responses were calculated (see Table 2).

Correlational analyses. Bivariate Pearson's correlations were calculated to examine associations among observed positive and negative parenting behaviors with children's primary control, secondary control, and disengagement coping strategies at both the baseline and 6-month follow-up assessment periods (see Table 3).

Multiple linear regression analyses. To examine prospective relations among positive and negative parenting behaviors and children's coping strategies, a series of multiple linear regressions were calculated (see Tables 4 – 9).

CHAPTER III

RESULTS

Descriptive Statistics

Means, standard deviations, medians, as well as the minimum and maximum values for observed positive and negative parenting behaviors and standardized scores (z-scores) for composites of parent and child reports of children's coping responses at baseline and the 6-month follow-up assessments are presented in Table 2. The observed parenting variables and composite reports of children's coping had relatively normal distributions, were not highly skewed, and had sufficient variance to test them in the correlation and regression analyses.

Table 2. Descriptive Statistics for Observed Parenting Behaviors and Composite Reports of Children's Coping Responses at the Baseline and 6-month Follow-up Assessments.

	N	Minimum	Maximum	Mean (SD)	Median
Baseline Positive Parenting	101	3.14	7.57	5.87 (.93)	.179
Baseline Negative Parenting	101	1.14	5.86	3.06 (1.09)	-.180
Baseline Primary Control Coping (Parent and Child Composite Score)	101	-2.05	1.90	-.05 (.79)	.068
Baseline Secondary Control Coping (Parent and Child Composite Score)	101	-2.01	2.08	-.01 (.78)	.066
Baseline Disengagement Coping (Parent and Child Composite Score)	101	-1.63	2.05	.02 (.79)	-.053
6-month Positive Parenting	101	2.43	6.71	5.02 (1.02)	.041
6-month Negative Parenting	101	1.43	6.43	3.31 (1.07)	-.102
6-month Primary Control Coping (Parent and Child Composite Score)	101	-1.37	1.61	-.06 (.62)	-.108
6-month Secondary Control Coping (Parent and Child Composite Score)	101	-2.16	2.22	-.02 (.82)	.023
6-month Disengagement Coping (Parent and Child Composite Score)	101	-1.81	2.24	.06 (.76)	.089

Bivariate Pearson's correlations for observed positive and negative parenting at both baseline and the 6-month follow-up are presented in Table 3. Baseline positive parenting was significantly associated with baseline negative parenting ($r = -.44, p \leq .01$), 6-month positive parenting ($r = .70, p \leq .01$), and 6-month negative parenting ($r = -.41, p \leq .01$). Further, baseline negative parenting was significantly correlated with 6-month positive parenting ($r = -.40, p \leq .01$) and with 6-month negative parenting ($r = .37, p \leq .01$). It is notable that the significant and relatively strong correlation between observed baseline positive and baseline negative parenting ($r = -.44$) may present a problem of multicollinearity in the subsequent regression analyses.

Hypothesis 1: Cross-sectional Relations Among Observed Positive Parenting and Children's Primary Control, Secondary Control, and Disengagement Coping Strategies

Bivariate Pearson's correlations among observed positive parenting behaviors and composite scores of children's coping responses at the baseline assessment are presented in Table 3. Consistent with the first hypothesis, observed baseline positive parenting was significantly and positively correlated with baseline reports of children's primary control coping composite scores ($r = .22, p \leq .05$) and negatively correlated with children's disengagement coping ($r = -.24, p \leq .05$). Contrary to our hypothesis, baseline positive parenting was not significantly related to children's baseline secondary control coping. Multiple linear regression analyses were conducted to test the relations between baseline positive parenting and children's primary control, secondary control, and disengagement coping strategies, which are each presented separately in Table 4. In Step 1a of the multiple linear regressions, positive parenting was a significant predictor of primary control coping ($\beta = .22, p \leq .05$) and disengagement coping ($\beta = -.25, p \leq .05$), although it

was not a predictor of secondary control coping. However, when positive parenting was entered into Step 2 alongside negative parenting, positive parenting was no longer a significant predictor of children's primary control or disengagement coping responses.

Hypothesis 2: Cross-sectional Relations Among Observed Negative Parenting and Children's Primary Control, Secondary Control, and Disengagement Coping Strategies

Bivariate Pearson's correlations among observed negative parenting behaviors and composite scores of children's coping responses at the baseline assessment are presented in Table 3. Consistent with our hypothesized relations, observed baseline negative parenting was significantly and negatively correlated with composite reports of children's primary control coping ($r = -.31, p \leq .01$) and secondary control coping ($r = -.28, p \leq .01$), and was positively correlated with disengagement coping ($r = .24, p \leq .05$). Multiple linear regressions were conducted to test the relations between baseline negative parenting and children's primary control, secondary control, and disengagement coping strategies, which are each presented separately in Table 4. In Step 1b of the multiple linear regressions, negative parenting was a significant predictor of children's primary control ($\beta = -.31, p \leq .01$), secondary control ($\beta = -.35, p \leq .01$), and disengagement coping ($\beta = .26, p \leq .05$). When negative parenting was entered alongside positive parenting in Step 2, negative parenting remained a significant predictor of primary control ($\beta = -.26, p \leq .05$) and secondary control coping ($\beta = -.34, p \leq .05$), although negative parenting was not a unique significant predictor of disengagement coping.

Table 3. Bivariate Pearson's Correlation Matrix

		1	2	3	4	5	6	7	8	9	10
1	Baseline Positive Parenting	---									
2	Baseline Negative Parenting	-.44**	---								
3	Baseline Primary Control Coping	.22*	-.31**	---							
4	Baseline Secondary Control Coping	.14	-.28**	.31**	---						
5	Baseline Disengagement Coping	-.24*	.24*	-.70**	-.27**	---					
6	6-month Positive Parenting	.70**	-.40**	.05	.10	.03	---				
7	6-month Negative Parenting	-.41**	.37**	-.00	.08	.01	-.51**	---			
8	6-month Primary Control Coping	.27**	-.29**	.44**	.13	-.48**	.18 [†]	-.20*	---		
9	6-month Secondary Control Coping	.23*	-.21*	.00	.47**	-.10	.17 [†]	-.12	.30**	---	
10	6-month Disengagement Coping	-.19 [†]	.16	-.38**	-.10	.54**	-.09	.09	-.64**	-.38**	---

Note. $p \leq .10^{\dagger}$, $p \leq .05^*$, $p \leq .01^{**}$

Table 4. Multiple Linear Regressions Testing Baseline Observed Positive and Negative Parenting Predicting Children’s Baseline Primary Control, Secondary Control, and Disengagement Coping

Model	Primary Control Coping			Secondary Control Coping			Disengagement Coping		
	Beta	<i>t</i>	<i>P</i>	Beta	<i>t</i>	<i>p</i>	Beta	<i>t</i>	<i>p</i>
Step 1a									
Positive Parenting	.222	2.265	.026	.146	.139	.165	-.252	-2.455	.016
Step 1b									
Negative Parenting	-.305	-3.187	.002	-.351	-2.869	.005	-.257	2.729	.015
Step 2									
Positive Parenting	.108	1.016	.312	-.022	.196	.845	.155	-1.527	.130 ³
Negative Parenting	-.257	-2.412	.018	-.339	-2.581	.015	.216	1.567	.120

Hypothesis 3: Observed Baseline Positive and Negative Parenting Behaviors Predicting Reports of Children’s 6-month Primary Control, Secondary Control, and Disengagement Coping Strategies in the Context of the Intervention.

Bivariate Pearson’s correlations among observed baseline parenting behaviors and composite scores of children’s coping strategies at the 6-month follow-up are presented in Table 3. Specifically, baseline positive parenting was significantly positively correlated with reports of children’s primary control coping ($r = .27, p \leq .01$) and secondary control coping ($r = .23, p \leq .05$), and a negative correlation approached significance with children’s disengagement coping ($r = -.19, p \leq .058$) at the 6-month follow-up. Baseline negative parenting was significantly negatively correlated with 6-month follow-up composite reports of children’s primary control coping ($r = -.29, p \leq .01$) and secondary control coping responses ($r = -.21, p \leq .05$), but baseline negative parenting was unrelated to children’s disengagement coping.

³ Based on a larger sample of families (N = 164) at the baseline assessment including one child per family and the families had complete data, $p = .02$.

Multiple linear regressions are presented in Tables 5 through 7 and were conducted to prospectively test main effects of baseline observed positive and negative parenting behaviors as well as interactions between parenting and the family condition (i.e., intervention vs. control condition) as predictors of changes in children's composite scores of primary control, secondary control, and disengagement coping strategies from baseline to the 6-month follow-up assessment. Family condition variable was coded such that "1" was the intervention condition and "2" was the control condition. Family condition and children's baseline coping were entered as control variables in Steps 1 and 2 of all of the regression analyses. The interactions that approached significance or were significant were plotted and are presented in Figures 1 and 2. Since both parenting and children's coping are continuous variables, median splits were calculated on baseline parenting and were coded such that "0" represented levels of parenting below the median and "1" represented levels of parenting above the median (see Cohen, Cohen, Aiken, & West, 2003).

Main effects. In Step 3a, baseline positive parenting was a significant predictor of children's primary control coping ($\beta = .18, p \leq .05$) and secondary control coping ($\beta = .17, p \leq .05$) at the 6-month follow-up, but not a significant predictor of changes in children's disengagement coping from baseline to 6-months. In Step 3b, baseline negative parenting was a marginally significant predictor of children's primary control coping ($\beta = -.18, p \leq .067$), although it was not a significant predictor of children's secondary control or disengagement coping responses. When baseline positive parenting and negative parenting were entered together into Step 4, positive parenting and negative parenting were no longer significant unique predictors of changes in children's primary

control, secondary control, or disengagement coping from baseline to 6-months. As noted above, this might represent a problem of multicollinearity.

Interaction effects. In Step 5, the interaction effect of baseline positive parenting by family condition was not a significant predictor of changes in children's primary control coping from baseline to the 6-month follow-up, but the interaction of baseline negative parenting and condition approached significance ($\beta = -.59, p \leq .059$; see Table 5 and Figure 1). Specifically, children of parents in both the control and intervention conditions who used low levels of negative parenting at baseline increased similarly in their use of primary control coping over time. However, when parents used high levels of negative parenting at baseline, their children used less primary control coping over time, but primary control coping went down less for in the intervention condition relative to children in the control condition. In addition, the interaction effect of baseline positive parenting by family condition was a significant predictor of changes in children's secondary control coping from baseline to 6-months ($\beta = -.57, p \leq .05$; see Table 6 and Figure 2), but the interaction of baseline negative parenting and the family condition was non-significant. Specifically, children in the intervention condition whose parents displayed high levels of positive parenting used more secondary control coping across time relative to children in the control condition whose parents also displayed high levels of positive parenting at baseline. Likewise, children in the intervention condition whose parents displayed low levels of positive parenting used more secondary control coping across time relative to children in the control condition whose parents displayed low levels of positive parenting behaviors at baseline. The interaction effects of baseline positive and negative parenting by the family condition were not significant predictors of

changes in children's disengagement coping from baseline to 6-month follow-up (see Table 7).

Table 5. Multiple Linear Regression Testing Baseline Positive and Negative Parenting Predicting Children's 6-month Primary Control Coping Strategies

Dependent Variable: 6-month Primary Control Coping

Model	Beta	t-value	p-value
Step 1			
Condition	-.007	-.074	.941
Step 2			
Condition	-.038	-.418	.677
Baseline Primary Control Coping	.439	4.823	<.001
Step 3a			
Condition	-.038	-.429	.669
Baseline Primary Control Coping	.399	4.334	<.001
Baseline Positive Parenting	.183	1.991	.049
Step 3b			
Condition	-.059	-.651	.517
Baseline Primary Control Coping	.387	4.105	<.001
Baseline Negative Parenting	-.176	-1.854	.067
Step 4			
Condition	-.053	-.581	.563
Baseline Primary Control Coping	.374	3.960	<.001
Baseline Positive Parenting	.136	1.356	.178
Baseline Negative Parenting	-.119	-1.153	.252
Step 5			
Condition	-.066	-.726	.449
Baseline Primary Control Coping	.396	4.205	<.001
Baseline Positive Parenting	.420	1.355	.179
Baseline Negative Parenting	.439	1.419	.159
Baseline Positive Parenting * Condition	-.311	-.997	.321
Baseline Negative Parenting * Condition	-.589	-1.910	.059

Table 6. Multiple Linear Regression Testing Baseline Positive and Negative Parenting Predicting Children's 6-month Secondary Control Coping Strategies

Dependent Variable: 6-month Secondary Control Coping

Model	Beta	t-value	p-value
Step 1			
Condition	-.307	-3.212	<.001
Step 2			
Condition	-.344	-4.182	<.001
Baseline Secondary Control Coping	.499	6.066	<.001
Step 3a			
Condition	-.345	-4.265	<.001
Baseline Primary Control Coping	.475	5.821	<.001
Baseline Positive Parenting	.167	2.050	.043
Step 3b			
Condition	-.359	-4.367	<.001
Baseline Secondary Control Coping	.464	5.468	<.001
Baseline Negative Parenting	-.130	-1.525	.127
Step 4			
Condition	-.353	-4.315	<.001
Baseline Secondary Control Coping	.461	5.472	<.001
Baseline Positive Parenting	.139	1.538	.127
Baseline Negative Parenting	-.069	-.724	.465
Step 5			
Condition	-.349	-4.282	<.001
Baseline Secondary Control Coping	.462	5.449	<.001
Baseline Positive Parenting	.672	2.396	.019
Baseline Negative Parenting	.243	.862	.391
Baseline Positive Parenting * Condition	-.565	-2.010	.047
Baseline Negative Parenting * Condition	-.327	-1.171	.245

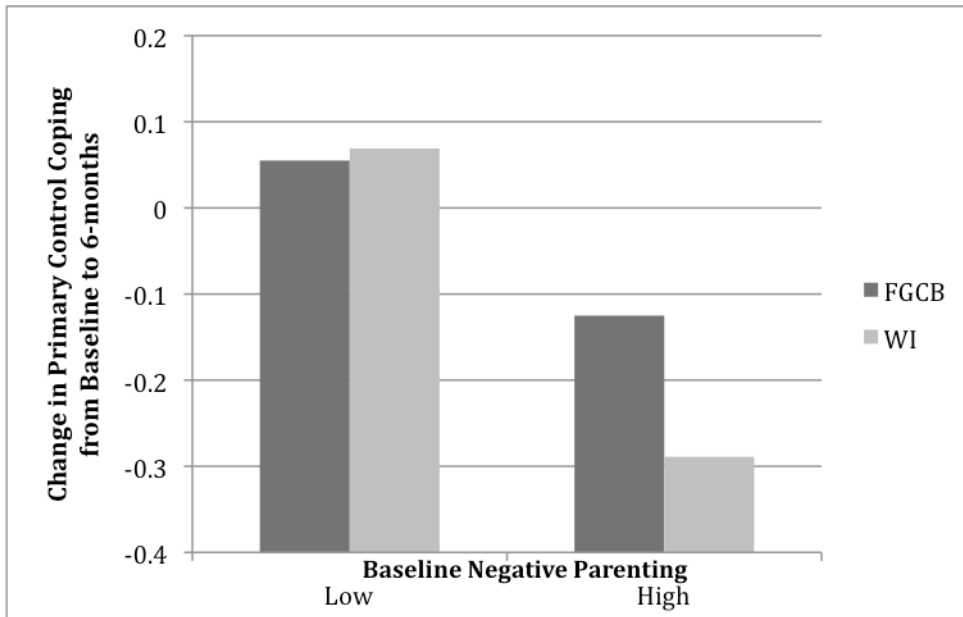


Figure 1. Changes in Children’s Primary Control Coping from Baseline to 6-months as a Function of Family Condition and Negative Parenting.

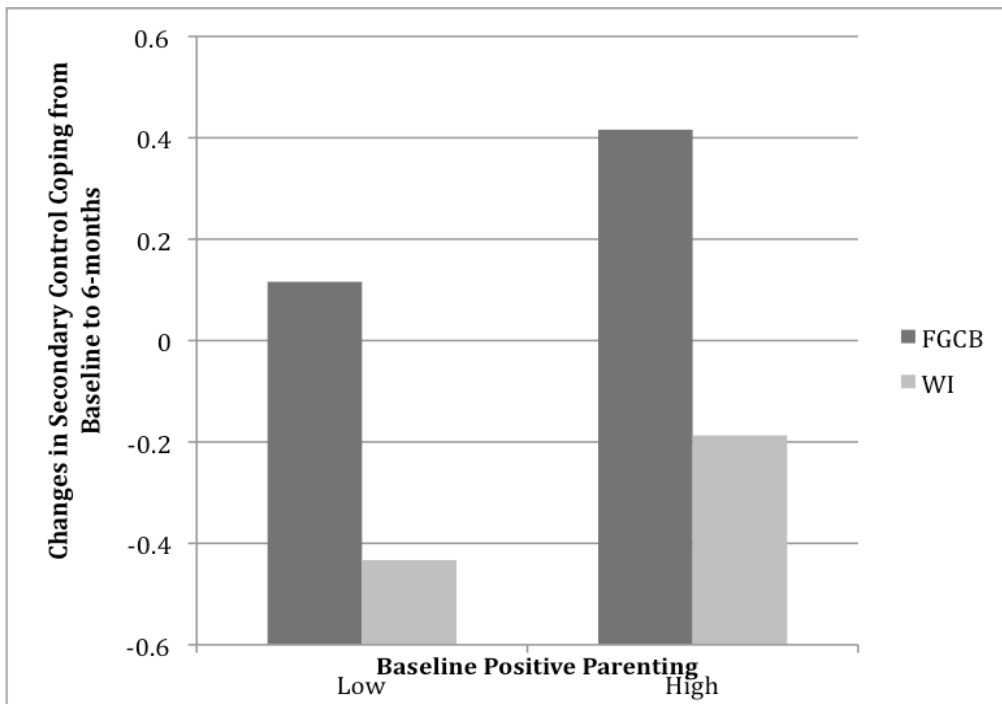


Figure 2. Changes in Children’s Secondary Control Coping from Baseline to 6-months as a Function of Family Condition and Baseline Positive Parenting.

Table 7. Multiple Linear Regression Testing Baseline Positive and Negative Parenting Predicting Children's 6-month Disengagement Coping Strategies

Dependent Variable: 6-month Disengagement Coping

Model	Beta	t-value	p-value
Step 1			
Condition	.114	1.146	.255
Step 2			
Condition	.183	2.180	.032
Baseline Disengagement Coping	.561	6.700	<.001
Step 3a			
Condition	.182	2.166	.033
Baseline Disengagement Coping	.546	6.317	<.001
Baseline Positive Parenting	-.062	-.723	.472
Step 3b			
Condition	.189	2.231	.028
Baseline Disengagement Coping	.549	6.358	<.001
Baseline Negative Parenting	.054	.629	.531
Step 4			
Condition	.186	2.185	.031
Baseline Disengagement Coping	.542	6.175	<.001
Baseline Positive Parenting	-.048	-.506	.614
Baseline Negative Parenting	.035	.363	.717
Step 5			
Condition	.194	2.252	.027
Baseline Disengagement Coping	.555	6.239	<.001
Baseline Positive Parenting	.257	.860	.392
Baseline Negative Parenting	.091	.316	.753
Baseline Positive Parenting * Condition	-.319	-1.071	.287
Baseline Negative Parenting * Condition	-.060	-.205	.838

Exploratory Analyses: Reports of Children's Baseline Primary Control, Secondary Control, and Disengagement Coping Strategies Predicting Observed 6-month Positive and Negative Parenting in the Context of the Intervention

Bivariate Pearson's correlations among children's baseline coping strategies and observed parenting at the 6-month follow-up assessment are presented in Table 3. It is noteworthy that correlations among baseline reports of children's primary control, secondary control, and disengagement coping were all unrelated to observed positive and negative parenting behaviors at the 6-month follow-up assessment.

Multiple linear regressions are presented in Tables 8 and 9 and were conducted to prospectively examine main effects of children's primary control, secondary control, and disengagement coping as well as interactions between children's coping strategies and the family condition as predictors of changes in observed positive and negative parenting from baseline to 6-months. Family condition and baseline parenting were entered as control variables in Steps 1 and 2 of the regression analyses. As noted above, since both parenting and children's coping are continuous variables, median splits were calculated on the composite scores of children's coping responses at baseline and were coded such that "0" represented levels of coping below the median and "1" represented levels of coping above the median of the sample (see Cohen et al., 2003).

Main effects. In Step 3a, children's baseline primary control coping was not a significant predictor of changes in positive or negative parenting from baseline to the 6-month follow-up. In Step 3b, secondary control coping was a significant predictor of changes in negative parenting ($\beta = .20, p \leq .05$), although secondary control coping did not predict changes in positive parenting behavior. In Step 3c, disengagement coping was a significant predictor of changes in positive parenting ($\beta = .20, p \leq .01$), but it did

not predict changes in negative parenting behavior. When primary control, secondary control, and disengagement coping were entered simultaneously in Step 4, disengagement coping remained a significant predictor of changes in positive parenting from baseline to 6-months ($\beta = .24, p \leq .05$) and secondary control coping was a marginally significant predictor of changes in negative parenting ($\beta = .18, p \leq .075$).

Interaction effects. In Step 5, the interaction effects of family condition by children's baseline primary control coping, secondary control coping, and disengagement coping were all non-significant predictors of changes in positive parenting behaviors from baseline to the 6-month follow-up (see Table 8). On the other hand, the interaction effects of family condition by children's baseline primary control coping ($\beta = -.98, p \leq .05$) and baseline disengagement coping ($\beta = -.78, p \leq .05$) were both significant predictors of changes in negative parenting behavior from the baseline to 6-month assessments (see Table 9 and Figures 3 and 4).

Table 8. Multiple Linear Regression Testing Children's Baseline Coping Strategies Predicting Observed Positive Parenting at 6-month Follow-up

Dependent Variable: 6-month Positive Parenting

Model	Beta	t-value	p-value
Step 1			
Condition	-.085	-.848	.398
Step 2			
Condition	-.097	-1.366	.175
Baseline Positive Parenting	.704	9.886	<.001
Step 3a			
Condition	-.090	-1.272	.206
Baseline Positive Parenting	.728	10.020	<.001
Baseline Primary Control Coping	-.106	-1.459	.148
Step 3b			
Condition	-.098	-1.367	.175
Baseline Positive Parenting	.703	9.720	<.001
Baseline Secondary Control Coping	.012	.160	.873
Step 3c			
Condition	-.074	-1.065	.290
Baseline Positive Parenting	.752	10.595	<.001
Baseline Disengagement Coping	.200	2.793	.006
Step 4			
Condition	-.076	-1.082	.282
Baseline Positive Parenting	.745	10.382	<.001
Baseline Primary Control Coping	.042	.426	.671
Baseline Secondary Control Coping	.055	.751	.455
Baseline Disengagement Coping	.242	2.447	.016
Step 5			
Condition	-.080	-1.175	.243
Baseline Positive Parenting	.738	10.288	<.001
Baseline Primary Control Coping	.310	1.042	.300
Baseline Secondary Control Coping	.130	.593	.555
Baseline Disengagement Coping	-.041	-.136	.892
Baseline Primary Control Coping * Condition	-.282	-.945	.347
Baseline Secondary Control Coping * Condition	-.079	-.359	.721
Baseline Disengagement Coping * Condition	.301	1.026	.308

Table 9. Multiple Linear Regression Testing Children's Baseline Coping Strategies Predicting Observed Negative Parenting at 6-month Follow-up

Dependent Variable: 6-month Negative Parenting

Model	Beta	t-value	p-value
Step 1			
Condition	.091	.911	.364
Step 2			
Condition	.145	1.550	.124
Baseline Negative Parenting	.388	4.137	<.001
Step 3a			
Condition	.142	1.518	.132
Baseline Negative Parenting	.422	4.303	<.001
Baseline Primary Control Coping	.113	1.164	.247
Step 3b			
Condition	.138	1.499	.137
Baseline Negative Parenting	.441	4.600	<.001
Baseline Secondary Control Coping	.195	2.045	.044
Step 3c			
Condition	.139	1.471	.144
Baseline Negative Parenting	.404	4.190	<.001
Baseline Disengagement Coping	-.072	-.750	.455
Step 4			
Condition	.139	1.482	.142
Baseline Negative Parenting	.457	4.596	<.001
Baseline Primary Control Coping	.084	.625	.534
Baseline Secondary Control Coping	.179	1.802	.075
Baseline Disengagement Coping	.021	.163	.871
Step 5			
Condition	.120	1.305	.195
Baseline Negative Parenting	.468	4.699	<.001
Baseline Primary Control Coping	1.016	2.577	.012
Baseline Secondary Control Coping	.084	.281	.780
Baseline Disengagement Coping	.765	1.950	.054
Baseline Primary Control Coping * Condition	-.983	-2.505	.014
Baseline Secondary Control Coping * Condition	.131	.441	.660
Baseline Disengagement Coping * Condition	-.779	-2.019	.046

CHAPTER IV

DISCUSSION

The findings from the present study replicate and extend previous research by concurrently and prospectively examining relations among children's coping strategies and observed positive and negative parenting behaviors in the context of a family group cognitive behavioral preventive intervention targeting parents with a history of depression and their children (ages 9 to 15 years), which was designed to teach parents positive parenting skills and children the use of secondary control coping strategies. Previous research has shown significant relations between parenting behaviors and children's coping based primarily on questionnaire reports, with more positive parenting behaviors tending to be related to children's greater use of adaptive coping responses and increased negative parenting behaviors tending to be associated with children's greater use of maladaptive coping strategies. However, limited research has used observational measures of parenting behaviors (see Gentzler et al., 2005, for an exception) or has prospectively examined parenting behaviors as predictors of changes in children's coping responses across time. Further, we had the unique opportunity to examine these relations in the context of an intervention that was specifically designed to change both parenting and children's coping.

In support of the first hypothesis, we found at the baseline assessment that observed positive parenting was significantly positively correlated with composite scores of children's primary control and secondary control coping, and negatively correlated

with children's disengagement coping. These findings replicate earlier cross-sectional studies using questionnaire measures of parenting (e.g., Yagmurlu & Altman, 2010), and extend previous research by being one of a limited number of studies to examine these relations with direct observations of positive parenting behaviors. In support of the second hypothesis, we found at the baseline assessment that observed negative parenting was significant negatively correlated with composite scores of children's primary control and secondary control coping, and positively correlated with children's disengagement coping. Similarly, these findings replicate earlier cross-sectional findings using questionnaire measures of parenting (e.g., McEwen & Flouri, 2009), and extend previous research by examining these relations with direct observations of negative parenting. Although no causal conclusions can be drawn from these correlational results, these findings suggest that parents who are withdrawn, intrusive, and hostile have children who have more difficulty coping with stress and regulating their emotions, whereas children of parents who are warm, responsive, and sensitive are better able to cope with difficult situations. These findings also provide preliminary support for Kliever et al.'s (1994) socialization of coping model, as they hypothesized that one pathway by which parents indirectly and directly influence their children's coping responses is through specific parenting behaviors.

It is notable that both positive and negative parenting behaviors were significantly associated with children's primary control, secondary control, and disengagement coping strategies; however, when positive and negative parenting were simultaneously entered into the regression equations to examine them as predictors of children's coping, only negative parenting remained a significant unique predictor of children's primary control

and secondary control coping, as positive parenting no longer accounted for unique variance in these coping strategies. Additionally, it is notable that although positive parenting and negative parenting were both independently correlated with children's disengagement coping, when they were entered together into the regression equation, neither positive nor negative parenting was a significant predictor. However, baseline positive parenting and negative parenting were correlated at $r = -.44$, and so one possible explanation for this finding is it represents a problem of multicollinearity, which can occur when two predictor variables are correlated highly enough that they compete for the same variance in predicting the dependent variable (Mason & Perreault, 1991). As a consequence of multicollinearity, the independent variables cancel out each other's predictive power and underestimate their significance.

Nonetheless, the cross-sectional relations found suggest that both positive and negative parenting behaviors are significantly associated with the ways in which children cope with stress. However, it appears that the presence of negative parenting more strongly accounted for the cross-sectional relations between parenting and children's primary and secondary coping responses. One possible explanation for this finding is that the adverse family environment associated with negative parenting behaviors may interact with and exacerbate children's stress reactivity, making it even more difficult for children to adaptively cope. In support of this, research has shown that as children's stress reactivity increases in response to stress in the family, children's use of adaptive coping strategies decreases (e.g., Jaser et al., 2005). However, this question was not addressed in the present study and should be examined in future research.

We found partial support for the third hypothesis, as observed positive parenting at the baseline assessment was a significant predictor of changes in a number of children's coping strategies from baseline to the 6-month follow-up assessment after half of the sample had participated in the coping skills and parenting preventive intervention. These are some of the first findings to suggest that observed parenting assessed by independent raters prospectively predicts changes in children's coping strategies across a 6-month period. Specifically, baseline levels of observed positive parenting was a significant and unique predictor of changes in children's primary control coping and secondary control coping. However, contrary to expectations, observed positive parenting was not a significant predictor of changes in children's disengagement coping. These findings provide preliminary support for Kliewer et al.'s (1994) model of the influential role of parents in socializing their children to cope with stress, particularly through positive parenting behaviors. It is notable that primary control coping involve seeking understanding or support from others through problem-solving, emotional expression, and emotional modulation. These findings suggest that characteristics of a positive parenting (e.g., responsiveness, good communication, warmth) may make it easier for parents to communicate to their children ways to effectively deal with stress and modulate emotions as well as create an emotional climate where children feel safe and comfortable approaching their parents for guidance. Further, secondary control coping strategies involve distraction, positive thinking, acceptance, and cognitive reappraisal. It is possible that parents who display positive parenting behaviors may engage their children in distracting activities, teach them to accept their emotions and certain stressful circumstances, or help their children think differently about a problem

situation. Further, a parent's own ability to regulate their emotions and display positive parenting may model to children adaptive ways to regulate emotions.

Further, partial support for the third hypothesis was found with observed negative parenting at the baseline assessment, as it approached significance as a unique predictor of changes in children's primary control coping from baseline to the 6-month assessment; however, observed negative parenting did not independently predict changes in children's secondary control or disengagement coping strategies across time. These findings partially replicate the results from Mayseless and Scharf (2009), which to our knowledge is the only prospective study examining parenting and children's coping. Specifically, they found that late adolescent daughters who reported that their parents used high levels of guilt induction and psychological control used more disengagement coping strategies 6-months later relative to daughters who reported their parents used less of these coercive behaviors. No group difference in daughters' use of secondary control coping was reported. As previously noted, it is likely that characteristics of negative parenting (e.g., hostile, withdrawn, coercive) undermine children's use of primary control coping, as these parental behaviors likely communicate a message that negative emotions are unacceptable and should not be expressed, parents may not be available for children when they are needed, and children may not feel comfortable seeking support. Further, it is likely that parents who are unable to regulate their own negative emotions are not appropriate models for children. It is especially notable that the children who are exposed to the most adverse family environment (i.e., disrupted parenting) are in greatest need of the most adaptive coping strategies to respond to this significant source of stress; however, the findings from the present study indicate that these children use the least

effective strategies, and this may be a consequence of the negative emotional family climate.

In partial support of the fourth hypothesis, we found significant interactions between baseline parenting and the family condition in predicting changes in children's coping strategies from baseline to the 6-month follow-up assessment. First, the interaction between baseline observed negative parenting and the family condition approached significance in predicting changes in children's primary control coping. Children whose parents displayed low baseline levels of negative parenting increased similarly in their use of primary control coping strategies across the 6-month time period, regardless of whether the family was in the intervention program or the control condition. However, for those children whose parents displayed high baseline levels of negative parenting, their use of primary control coping strategies decreased in both of the family conditions, but these coping strategies declined less for children in the intervention condition relative to the children in the control condition. These findings suggest that the intervention program served a protective factor for children from the adverse effects of negative parenting behaviors on children's coping. Although results from the present study suggest that parents have an influential role in the development of their children's responses to stress, they also indicate that it is possible and may be important to intervene and teach children to use effective coping strategies, particularly with children whose parents display high levels of negative parenting, as these children likely have not had the opportunity to learn effective coping strategies from their parents.

We found a significant interaction between baseline observed positive parenting and the family condition in predicting changes in children's secondary control coping

strategies. Children in the control condition whose parents displayed low baseline levels of positive parenting used less secondary control coping from baseline to the 6-month assessment relative to children in the intervention condition, who increased their use of secondary control coping across time. However, children in the intervention condition whose parents displayed high baseline levels of positive parenting increased their use of secondary control coping more than children in the control condition whose parents displayed high level of positive parenting at baseline. These findings suggest that the intervention program, which was specifically designed to teach children the use of secondary control coping strategies, either protected children from the adverse effects of low levels of positive parenting or augmented the role of positive parenting on children's use of adaptive coping strategies. These findings provide additional evidence for the efficacy of the intervention program in teaching children to use secondary control coping in response to stress.

Contrary to our fourth hypothesis, no significant interactions were found for observed parenting and the family condition predicting changes in children's disengagement coping from baseline to the 6-month assessment. These results are consistent with the findings that observed positive and negative parenting at the baseline assessment did not predict changes in children's disengagement coping 6-months later.

Lastly, as a preliminary step in examining bi-directional relations between parenting behaviors and children's coping strategies, we conducted a series of exploratory analyses to examine whether children's coping strategies predicted changes in observed parenting behaviors across time and in the context of the intervention. First, children's disengagement coping at baseline significantly predicted changes in positive

parenting behaviors from baseline to the 6-month assessment, with greater use of disengagement coping predicting a greater increase in positive parenting across time; no significant interactions between children's coping and the family condition emerged. Second, children's secondary control coping responses at baseline significantly predicted changes in negative parenting behaviors from baseline to the 6-month assessment, with greater use of secondary control coping predicting a greater increase in negative parenting across time. In addition, children's primary control and disengagement coping strategies predicted changes in negative parenting behaviors from baseline to 6-months in the context of the intervention. These findings are counterintuitive, as they suggest that children's use of maladaptive (disengagement) coping predicted increases in positive parenting and children's use of adaptive (secondary control) coping predicted increases in negative parenting.

Specifically, parents of children who used high levels of primary control coping at baseline similarly increased slightly in their use of negative parenting across time in the intervention and control condition; however, parents of children in the intervention who used low levels of primary control coping decreased in their use of negative parenting across time, while parents of these children in the control condition slightly increased in their use of negative parenting over time. Likewise, parents of children who used low levels of disengagement coping at baseline increased slightly in their use of negative parenting across time in the intervention and control condition. However, parents of children in the intervention who used high levels of disengagement coping at baseline decreased in their use of negative parenting over time, but parents of children in the control condition who used high levels of disengagement coping did not change in their

use of negative parenting from baseline to 6-months. These findings suggest that the more a child uses adaptive coping strategies (e.g., cognitive reappraisal, problem-solving), the more the parent displays negative parenting behaviors and fewer positive parenting behaviors across time. Although we did not make a priori hypotheses about these findings, they are contrary to what would be expected, and so caution should be used in interpreting these results until they have been replicated.

Limitations

The present study has several limitations that should be noted. First, there are some limitations in the sample. Children who had a diagnosis of Conduct Disorder on the phone screen or at the baseline assessment were excluded from participating in the study, and children with a current diagnosis of Major Depressive Disorder were put on hold and re-assessed at a later time, although a number of children were never re-assessed and enrolled in the study. As a consequence, the sample is not entirely representative of children of depressed parents, as those at highest risk based on level of symptoms were excluded.

Second, 63 families had missing data at the 6-month follow-up assessment, notably reducing the sample size for all of the analyses. However, it is notable that we calculated the baseline multiple linear regressions of positive and negative parenting as unique predictors of children's coping responses with both the larger sample with complete data at the baseline assessment ($N = 164$) and the reduced sample of families with complete data at both time points ($N = 101$), and only 1 of the 12 results went from

significant to non-significant with the smaller sample (i.e., positive parenting predicting children's disengagement coping strategies).

Implications for Future Research

The findings from the present study should be both replicated and extended in future research. First, research should replicate the findings for the cross-sectional and prospective relations among observed positive and negative parenting behaviors and children's coping strategies. Further, future research should more fully examine and investigate bi-directional relations between observed parenting behaviors and children's coping strategies across time. Second, future research should investigate the interactive effects of positive parenting and negative parenting behaviors, as it is possible that high levels of positive parenting may serve a protective factor in the presence of high levels of negative parenting. Third, future research should examine the role of child stress reactivity, as negative parental behavior may exacerbate a child's reactivity, making it even more difficult for the child to adaptively cope with stress. Lastly, research should continue to examine socialization processes in the development of children's coping strategies. Extensive research has underscored the importance of coping on mental/physical health, and so an understanding of the influential pathways that lead to the development of children's responses to stress has the potential to provide an opportunity to intervene with both parents and children to provide children with adaptive strategies to respond to difficulties in their lives to prevent future problems.

Taken as a whole, the present study found significant cross-sectional and prospective relations between observed positive and negative parenting and children's

primary control, secondary control, and disengagement coping strategies in the context of a family group cognitive behavioral preventive intervention study. A number of the cross-sectional findings replicated earlier studies that used questionnaire reports of parenting and children's coping, and the prospective and bi-directional analyses built on this previous research. We had the unique opportunity to examine relations between observed parenting and children's coping strategies across time and in the context of an intervention program that was specifically designed to change both of these domains. Observed parenting behaviors significantly predicted changes in children's coping strategies across the 6-month assessment period, and children's coping strategies significantly predicted changes in observed parenting behaviors across time, with a number of these relations being dependent on the family's participation in the intervention study. Future research should replicate and build on the findings from the present study, and continue to examine parenting behaviors as an important and influential pathway by which parents may indirectly socialize their children to cope with difficulties in their lives, as this information may lead to the development of parental education and skills training programs.

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