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Contributions of Maternal Adult Attachment to Socialization of Coping

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Abstract

This research examined whether maternal adult attachment predicted the coping suggestions mothers made to their children. A sample of 157 youth (M age = 12.42, SD = 1.20) and their maternal caregivers completed semi-structured interviews and questionnaires in a two-wave longitudinal study. Results revealed that maternal insecure attachment predicted fewer engagement coping suggestions (orienting toward stress) and heightened disengagement coping suggestions (avoiding or denying stress) both concurrently and over time. These associations were found after adjusting for other relevant characteristics of the child, mother, and family context. This study contributes to our understanding of the implications of adult attachment for parenting behavior, suggesting that insecure attachment undermines a parent's ability to provide adaptive coping guidance to their children.

Keywords

Adult Attachment; Coping; Parenting; Responses to Stress; Socialization

Parents are a key resource for children as they learn to cope with stress (Bradley, 2007; Skinner & Zimmer-Gembeck, 2007; for a review, see Power, 2004), making socialization of coping a critical parenting task. Research documents individual differences in the explicit suggestions parents make to their children about how to cope (Kliewer, Fearnow & Miller, 1996; Kliewer & Lewis, 1995; Kliewer et al., 2006); in turn, these suggestions have consequences for children's coping behavior and emotional adjustment (Abaied & Rudolph, 2009; Kliewer & Lewis, 1995; Kliewer et al., 2006). Yet, why parents socialize their children to cope in particular ways is not well understood. The goal of this study was to examine the contribution of mothers' adult attachment to socialization of coping.

Conceptual Framework for Socialization of Coping

Socialization of coping refers to parenting behaviors that communicate messages to youth about possible methods of coping with stress. Such messages may be conveyed through parental modeling of their own coping or through explicit instruction or coaching of youth (e.g., "try not to think about it," "try to do something to calm yourself down"). The present study focused on explicit socialization of coping, examining whether maternal attachment contributes to the specific suggestions mothers make to their children about coping with stress.

Drawing from Compas and colleagues' framework of responses to stress (Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000), we distinguished between *engagement*

versus *disengagement* coping suggestions. Engagement coping includes voluntary responses directed toward the source of stress or stress-related cognitions and emotions, such as problem solving, positive thinking, reflection, or emotion expression. Dysregulated, compulsive direction of attention toward stress and emotions, such as brooding, rumination, or heightened emotional arousal, are considered involuntary responses to stress rather than coping behaviors and are excluded from engagement coping (Connor-Smith et al., 2000). Disengagement coping includes voluntary responses directed away from the source of stress or stress-related cognitions and emotions, such as purposeful cognitive avoidance (e.g., trying not to think about a problem), behavioral avoidance (e.g., staying away from upsetting situations) or denial (e.g., pretending/acting like a problem never occurred). Dysregulated, compulsive direction of attention away from stress or emotions, such as compulsive avoidance/escape behaviors, emotional numbing, or freezing are considered involuntary responses to stress and excluded from disengagement coping (Connor-Smith et al., 2000). Voluntary forms of coping responses may be socialized in that parents may encourage children to select certain strategies rather than others, whereas involuntary responses to stress may be largely influenced by temperament (Compas et al., 2001) or alternate forms of parenting, such as modeling of responses to stress (e.g., Kliewer et al., 1996), parent emotional expressivity (e.g., Halberstadt & Eaton, 2002), or parents' immediate responses to children's emotional displays (e.g., Eisenberg et al., 1999).

Some research documents positive associations between engagement and disengagement coping (Sandler, Tein & West, 1994; Sandler, Tein, Mehta, Wolchik, & Ayers, 2000; Zimmer-Gembeck & Locke, 2007), perhaps reflecting a general tendency to engage in more or fewer coping efforts. However, these dimensions of coping are differentially associated with youth maladjustment and psychopathology: Engagement coping typically represents a protective factor whereas disengagement coping typically represents a risk factor (Sandler et al., 1994, 2000; Wadsworth & Berger, 2006; for a review, see Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). For example, Abaied and Rudolph (in press) found that under highly stressful conditions, engagement coping suggestions predicted less subsequent youth psychopathology, whereas disengagement suggestions predicted heightened subsequent youth psychopathology.

Adult Attachment and Socialization of Coping

Attachment theory is a unique domain in which interpersonal relationships and responses to stress intersect. Bowlby (1969, 1982) proposed that the attachment system allows infants to elicit caregivers' responsiveness when experiencing distress. Over time, infants develop internal representations of their attachment experiences, or internal working models, which organize their approach to stress across development. Internal working models include implicit beliefs about the caregiver (e.g., his/her availability in times of distress) as well as the self (e.g., one's ability to overcome distress, one's worthiness of the caregiver's support; Bowlby, 1969, 1973, 1982). Internal working models are thought to be continuously updated across development, eventually incorporating experiences in romantic attachments (e.g., Cassidy, 2000). Indeed, research shows that internal working models, assessed via reflections about past caregiving experiences (Hesse, 1999) or conceptions of current adult romantic relationships (Cassidy, 2000; Hazan & Shaver, 1987), continue to shape the way adults approach stress (Shaver, Collins, & Clark, 1996). To assess adult attachment in romantic relationships, Hazan and Shaver (1987) developed classifications corresponding to Ainsworth's (1978) original infant attachment categories. *Secure* adults feel comfortable having close relationships, depending on partners, and providing partners with support. *Insecure-avoidant* adults are uncomfortable with close relationships, mutual dependence, and intimacy. *Insecure-ambivalent* adults have an unsatisfied desire for extreme closeness with others, and fear abandonment (for reviews, see Fraley & Shaver, 2000; Shaver et al.,

1996). Studies examining the correlates of self-reported adult attachment suggest that each classification is associated with a distinct pattern of responding to stressful situations. Consistent with attachment theory, adults' internal working models of attachment experiences are thought to contribute to these response patterns.

Secure internal working models facilitate a flexible, generally capable response pattern that allows the individual to effectively confront and resolve stressors (Mikulincer & Shaver, 2003; Shaver et al., 1996). Indeed, research indicates that secure adults are likely to employ productive engagement coping strategies in response to stress, such as problem solving or seeking support (Berant et al., 2001; Simpson, Rholes, Orina, & Grich, 2002; for a review, see Mikulincer & Florian, 1998). Furthermore, research using the Adult Attachment Interview (AAI) suggests that secure adults show little physiological change during the interview or during conflict discussion with marital partners, providing physiological evidence for effective emotion regulation in the face of attachment-related stressors (Roisman, Tsai, & Chang, 2004; Roisman et al., 2007).

Avoidant internal working models contribute to a deactivated pattern of responding to stress through which avoidant adults attempt to dampen arousal (Mikulincer & Shaver, 2003; Shaver et al., 1996). Research indicates that avoidant adults attempt to cut themselves off from emotions or stress-related stimuli (including romantic partners), to halt or conceal their negative arousal, and to use disengagement coping strategies (e.g., avoidance, denial) to respond to stress (Berant et al., 2001; Simpson, Rholes, & Nelligan, 1992; Wei Vogel, Ku, & Zakalik, 2005). Furthermore, highly dismissing-avoidant individuals as assessed by the AAI show physiological evidence of emotional inhibition (i.e., heightened electrodermal reactivity) both during the interview and during conflict discussion with marital partners (Roisman et al., 2004; Roisman, 2007).

Ambivalent (or highly anxious) internal working models contribute to a hyperactivated, dysregulated pattern of responding to stress. Research suggests that in response to stress, ambivalent adults, become compulsively over-involved with their own emotional distress while failing to achieve relief or to resolve stressors (Berant, Mikulincer, & Florian, 2001; Lopez, Mauricia, Gormley, Simko, & Berger, 2001; Simpson, Rholes, & Nelligan, 1992; Wei et al., 2005). Adults high on attachment anxiety also score high on implicit measures of ineffective emotion regulation and helpless responses to stress (Berant, Mikulincer, Shaver, & Segal, 2005). Furthermore, highly anxious-preoccupied individuals as assessed by the AAI show evidence of heightened physiological arousal (i.e., increased heart rate) during conflict discussion with marital partners (Roisman, 2007).

Although avoidant and ambivalent adults appear to have different strategies for responding to distress, some studies have observed similar patterns of ineffective coping among both avoidant and ambivalent groups, including voluntary disengagement and dysregulated emotional reactivity (Wei, Heppner & Mallinckrodt, 2003; Wei, Heppner, Russell & Young, 2006). Furthermore, insecure adults are less aware of their own emotions (Mallinckrodt & Wei, 2005) and recall less attachment-related emotional information (Fraley, Garner, & Shaver, 2000) compared to secure adults.

In addition to self-regulatory processes, adult attachment has implications for parenting. A key tenet of adult attachment theory is that internal working models contribute to the intergenerational transmission of attachment (i.e., the quality of parents' adult attachment predicts the quality of their attachment relationship with offspring) in part by shaping adults' behaviors in interactions with their children (Bretherton, 1990, van IJzendoorn, 1995; Slade, Grienenberger, Bernbach, Levy, & Locker, 2005). Work conducted using developmental measures of attachment (e.g., the AAI) has revealed associations between maternal

attachment status and their behaviors toward children in emotional or conflictual interactions. For example, Adam, Gunnar, and Tanaka (2004) found that mothers classified as preoccupied (similar to attachment anxiety or ambivalence) were more angry and intrusive than secure mothers when assisting children with a challenging task. Moreover, DeOliveira, Moran, and Pederson (2005) found that mothers classified as dismissing (similar to high attachment avoidance) were less responsive to children's fear and sadness than were secure mothers. Interestingly, Bost et al. (2006) found that high maternal attachment security predicted more frequent references to both positive and negative emotions during a parent-child memory reminiscence task, suggesting that secure mothers felt comfortable overtly discussing emotions with their children.

Research also supports a connection between self-reported adult attachment and parenting-related cognitions and behaviors. Fivush and Sales (2006) found that mothers high on attachment anxiety were more involved than were less anxious mothers in a parent-child discussion of a conflictual memory; however, children of highly anxious mothers experienced more internalizing and externalizing symptoms, suggesting this involvement failed to support the child's recovery from distress. Studies that examine perceptions of parenting reveal that insecure adults report lower self-efficacy (Berandt et al., 2001) and heightened stress (Rholes, Simpson, & Freidman, 2006) in their parental role than do secure adults. Insecure mothers also report feeling less close to their children, and are less supportive, less responsive, and more intrusive during mother-child interactions than secure mothers (Edelstein et al., 2004; Rholes, Simpson, & Blakely, 1995). Insecure college undergraduates show a lack of desire to become parents and anticipate parenting to be an unpleasant task (Rholes, Simpson, Blakely, Lanigan & Allen, 1997). This pattern of maladaptive parenting behaviors and beliefs is likely a function of insecure adults' discomfort with intimacy and dependence in relationships.

In sum, research suggests that secure attachment provides resources for adaptive coping with distress and success in the parenting role, whereas insecure attachment represents a risk factor for ineffective coping and maladaptive parenting. Socialization of coping represents the intersection of these two systems, making adult attachment a potential key contributing factor to the coping suggestions parents make to their children. Specifically, we expected that insecure attachment would lead mothers to encourage more disengagement and less engagement coping for two reasons. First, previous research has shown that insecure adults are at risk for maladaptive patterns of coping with stress, including a tendency to disengage rather than productively engage with stress. Second, encouraging children to engage with stress implies that the parent is available as a source of support, and insecure parents are unlikely to present themselves as providers of support given their discomfort with the caregiving role.

Given that attachment is a theory about close relationships, one might expect attachment to be most relevant to parent socialization in the context of children's interpersonal stress. However, research also links attachment to coping behavior in the context of a variety of general and noninterpersonal stressors (e.g., Mikulincer & Florian, 1995; Mikulincer, Florian, & Weller, 1993; Wei et al., 2003; 2006). Furthermore, socialization of coping takes place in the context of the parent-child relationship, which may be a sufficient interpersonal cue to activate the parent's attachment system regardless of the type of stressor the child encounters. Thus we chose to examining parent coping suggestions in response to children's general exposure to stress.

Study Overview

To provide a basis for elucidating the direction of effect between maternal attachment and socialization of coping, we followed criteria outlined by Bollen (1989). First, in light of existing theory and empirical findings as discussed earlier, we formed a theoretical basis for why insecure attachment would influence socialization of coping. Second, using a longitudinal design, we examined the relation between maternal self-reported insecure attachment and maternal socialization of coping one year later, establishing that mothers' insecure attachment preceded their coping suggestions in time. Third, we controlled for possible alternative predictors of socialization of coping to isolate the specific effect of insecure attachment. Several characteristics of the child, mother, or family context might shape what types of coping suggestions mothers view as appropriate or feasible. First, children's maladjustment, including psychopathology (depression, anxiety) or elevated exposure to stress, potentially overextends their personal coping resources. Consequently, mothers of youth who are experiencing high levels of psychopathology or stress may encourage less engagement, due to their children's difficulty applying engagement coping strategies effectively, and more disengagement, in an effort to temporarily alleviate their children's frequent distress. Similarly, mothers' own psychopathology (depression, anxiety) as well as the socioeconomic context of the family might overwhelm mothers' own emotional and material resources for helping their children engage with stress, predicting fewer engagement suggestions and more disengagement suggestions. Finally, a conflictual parent-child relationship might make mothers less likely to present themselves as a source of support, fostering fewer engagement suggestions and more disengagement suggestions. Thus, we adjusted for the potential role of child, maternal, and family characteristics when examining the contribution of maternal adult attachment to coping socialization. This approach provided a sensitive test of whether maternal adult attachment prospectively contributes to coping socialization.

Method

Participants

Participants included 157 youth (82 girls, 74 boys, M age = 12.42, SD = 1.20) and their primary female caregivers (90% biological mothers, 3.8% adoptive mothers, 6.2% other) involved in a longitudinal study examining youth development during the transition to adolescence (for previous reports on this study, see *authors omitted for blind review*). Most participants were White (79.5%); the remainder was African American (10.9%) or represented other ethnic groups and biracial youth (9.6%). The participants came from a wide range of socioeconomic classes as reflected in annual income (16.1% below \$30,000; 49.3% \$30-59,999; 21.8% \$60,000–89,999, and 12.8% over \$90,000).

To recruit participants for the longitudinal study, school-wide screenings were conducted using the Children's Depression Inventory (CDI; Kovacs, 1981). Youth with a range of CDI scores were recruited, oversampling slightly for youth with severe depressive symptoms. Families were invited to participate based on CDI scores, the presence of a maternal caregiver in the home, and a one-hour driving proximity to the university. Exclusion criteria included having a non-English speaking maternal caregiver or a severe developmental disability that would prevent completion of the assessment.

Participants and nonparticipants in the longitudinal study did not significantly differ in sex, $\chi^2(N = 468, df = 1) = .39, ns$, ethnicity (White versus minority), $\chi^2(N = 468, df = 1) = .02, ns$, or CDI scores, $t(280) = 1.11, ns$. Participants ($M = 12.42, SD = 1.20$) were slightly younger than nonparticipants ($M = 12.65, SD = .89$), $t(275) = 2.28, p < .05$. Of the 167 participants in the longitudinal study, 157 families (94%) had relevant data for these analyses. Participants

in this subsample did not differ from those without relevant data in age, $t(165) = -.21, ns$, or sex, $\chi^2(N = 167, df = 1) = .56, ns$, but were significantly more likely to be White, $\chi^2(N = 167, df = 1) = 4.78, p < .05$. At Wave 2 (W_2), data were available for 146 families (93% of W_1 participants). Participants with incomplete W_2 data did not differ from those with complete data in age, $t(155) = .57, ns$, sex, $\chi^2(N = 156, df = 1) = 1.19, ns$, ethnicity, $\chi^2(N = 156, df = 1) = .35, ns$, W_1 maternal attachment, $t(155) = -.47, ns$, W_1 engagement coping suggestions, $t(154) = .87, ns$, or W_1 disengagement coping suggestions, $t(154) = .97, ns$.

Procedure

Families were invited to participate via phone calls to the primary female caregivers. Researchers conducted an in-person, three- to four-hour initial assessment with interested families. Caregivers provided written informed consent, and youth provided written assent. Youth and their maternal caregivers completed the assessment separately. To avoid biases during the interview process, two different interviewers conducted the diagnostic and life stress interviews. A follow-up assessment was completed one year later. At each assessment, caregivers were compensated for their time with a monetary reimbursement, and youth were given a gift certificate.

Measures

Table 1 presents descriptive information for the measures.

Socialization of coping—A 17-item Socialization of Coping (SOC) Questionnaire was developed to assess general coping suggestions that parents commonly make to their children. The measure was designed to include coping suggestions appropriate for youth from middle childhood through adolescence in accordance with the engagement-disengagement framework of responses to stress (Compas et al., 2001). Eleven items were adapted from several subscales of the Responses to Stress Questionnaire (RSQ; Connor-Smith et al., 2000). These items were slightly reworded or truncated to reflect coping suggestions rather than coping behavior. Because direct socialization of coping only involves encouragement of purposeful coping responses, items reflecting involuntary responses to stress were not included. To provide a comprehensive coverage of types of coping that were deemed important but were not included in the RSQ, six additional items were written or adapted from other child coping measures. The resulting 17 items reflected cognitive, affective, and behavioral responses to stress. Mothers were prompted with the question: “When your child has a problem or is upset, how much do you do each of the following?” Mothers rated each item on a five-point scale (1 = Not at all to 5 = Very much).

To confirm the validity of the proposed engagement-disengagement framework of coping socialization, a maximum likelihood confirmatory factor analysis was conducted using AMOS 7.0 (Arbuckle, 2006). Two latent variables were created. The latent variable *Engagement* was composed of eight indicators, each representing a suggestion that youth orient themselves toward the source of stress or negative emotion either cognitively (e.g., “Encourage him/her to think about things he/she is learning from the situation.”), affectively (e.g., “Encourage him/her to discuss his/her feelings with me or others.”), or behaviorally (e.g., “Encourage him/her to do something to try to fix the problem or take action to change things.”). Based on preliminary analyses, one Engagement item (“Encourage or allow him/her to cry about the problem”) was omitted due to a nonsignificant factor loading, leaving seven indicators on the Engagement latent variable. The latent variable *Disengagement* was composed of nine indicators, each representing a suggestion that youth distance themselves from stress or negative emotion either cognitively (e.g., “Encourage him/her not to think about the problem.”), affectively (e.g., “Encourage him/her not to focus on his/her negative feelings.”), or behaviorally (e.g., “Encourage him/her to stay away from people and things

that make him/her upset or remind him/her of the problem.”). Given prior evidence that different dimensions of coping are often positively correlated (Sandler et al., 1994, 2000; Zimmer-Gembeck & Locke, 2007), the Engagement and Disengagement latent variables were allowed to correlate with one another, but indicators were only allowed to load on one factor. Correlations between certain error terms for the indicators were allowed based on modification indices and consistency with the theoretical model.

This model showed an excellent fit to the data, $\chi^2(N = 156, df = 92) = 128.91, p < .01, \chi^2/df = 1.40, CFI = .97, IFI = .97, RMSEA = .05$. All items loaded significantly on their respective factors ($\beta_s = .54 - .89, ps < .001$, for engagement; $\beta_s = .56 - .76, ps < .001$, for disengagement). Mean scores for engagement ($\alpha = .87$) and disengagement ($\alpha = .89$) coping suggestions were computed. As anticipated, engagement and disengagement suggestions were moderately positively correlated, $r(161) = .39, p < .01$. Strong cross-temporal stability was found for engagement suggestions, $r(150) = .71, p < .001$, and disengagement suggestions, $r(150) = .73, p < .001$, suggesting that these are relatively stable tendencies in mothers. Establishing construct validity of the measure, coping suggestions significantly predicted youth-reported responses to stress both concurrently and over time. These suggestions also predict youth psychopathology in the context of stress (Abaied & Rudolph, in press).

Adult attachment—Mothers’ adult attachment was assessed using Hazan and Shaver’s (1987) self-report measure. This questionnaire was designed to place the three primary infant attachment styles, as identified by Ainsworth, Blehar, Waters, and Wall (1978), into the context of adult romantic relationships, translating infant classifications into the terms of adult affectional bonds. Mothers reported on three items, each consisting of a description of secure, avoidant, or ambivalent adult romantic attachment styles. Using a nine-point scale, mothers rated the extent to which each item described their orientation toward close relationships. Higher scores reflect a greater identification with the described relationship style. Although originally designed as a categorical measure, several studies have successfully distinguished between attachment groups using a continuous measure (Cooper, Shaver, & Collins, 1998; Davila, Burge, & Hammen, 1997; Roberts, Gotlin, & Kassel, 1996; Scott & Cordova, 2002). This approach reflects the general trend of using dimensional measures in the social-psychological attachment literature (see Fraley & Shaver, 2000). The construct validity of categorical and continuous versions of this measure has been established across a large number of studies among multiple geographic and cultural groups (for a review, see Shaver & Hazan, 1993).

In light of recent methodological trends toward using multiple-item scales to examine adult attachment (Fraley & Shaver, 2000), the factor structure of the measure was investigated. Two maximum likelihood confirmatory factor analyses were conducted using AMOS 7.0 (Arbuckle, 2006). In the first analysis, a single latent variable of adult attachment was created composed of three indicators, each representing one item from the adult attachment scale (secure, avoidant, and ambivalent). Correlations among the error terms of the indicators were permitted. In order to achieve identifiability, the variances of the error terms of the indicators were constrained to be equal. This model provided an excellent fit to the data, $\chi^2(N = 167, df = 1) = .01, ns, \chi^2/df = .01, CFI = 1.00, IFI = 1.02, RMSEA = .00$. Secure attachment loaded negatively on the attachment factor, whereas avoidant and ambivalent attachment loaded positively (average loading = $.50, ps < .05$). In the second analysis, separate factors were created for secure and insecure attachment. One latent variable was composed of a single indicator representing the secure attachment item, and the other latent variable was composed of two indicators, each representing one insecure attachment item (avoidant and ambivalent). Intercorrelations among indicators for the insecure latent variable and between the secure and insecure latent variables were initially permitted, but resulted in

an unidentified model. In order to achieve identifiability, the intercorrelations were dropped and the variances of the error terms of the indicators were constrained to be equal. The two-factor model provided a poor fit to the data, $\chi^2(N = 167, df = 1) = 25.01, ns, \chi^2/df = 12.51$, CFI = .57, IFI = .60, RMSEA = .26. A chi-square difference test, $\Delta\chi^2(2) = 25.00, p < .01$, revealed that the one-factor model fit significantly better than the two-factor model. Consequently, the secure attachment item was reverse-coded and the mean of the three attachment items was computed, resulting in a single mean score reflecting more insecure attachment.

Socioeconomic status—Mothers reported three indices of socioeconomic status: their total gross family income for the past year, and the highest educational achievement of the youth's mother and father. For family income, mothers responded on a seven-point scale: (1) 0–14,999, (2) 15–29,999, (3) 30–44,999, (4) 45–59,999, (5) 60–74,999, (6) 75–89,999, (7) 90,000 and over. For each parent's highest educational achievement, mothers responded on a four-point scale: (1) elementary/junior high school (2) high school (3) college/university, and (4) advanced degree/graduate work (e.g., M.A., Ph.D., M.D.).

Youth psychopathology—To assess youth depression and anxiety, interviewers individually administered the Schedule for Affective Disorders and Schizophrenia for School-Age Children-Epidemiologic Version-5 (K-SADS-E; Orvaschel, 1995) to youth and their caregivers. Interviewers included a faculty member in clinical psychology, a post-doctoral fellow in clinical psychology, several trained psychology graduate students, and a post BA-level research assistant. All interviews were coded in consultation with a clinical psychology faculty member or post-doctoral fellow. A best-estimate approach (Klein, Lewinsohn, Rohde, Seeley, & Olino, 2005; Klein, Ouimette, Kelly, Ferro, & Riso, 1994) was used to combine caregiver and youth information regarding the nature, severity, frequency, duration, and resulting impairment of the reported symptoms according to DSM-IV-TR criteria (American Psychiatric Association, 2000).

For each period and type depression (e.g., major depression, dysthymia) and anxiety disorder (e.g., generalized anxiety disorder, separation anxiety disorder, social phobia), interviewers provided ratings on a continuous 5-point scale: 0 = No symptoms, 1 = Mild symptoms, 2 = Moderate symptoms, 3 = Diagnosis with mild impairment, and 4 = Diagnosis with severe impairment. Ratings were assigned for psychopathology (both diagnosable episodes and subthreshold symptoms) that occurred during the month preceding the interview, including the present. Subthreshold symptoms (i.e., mild or moderate) reflected the presence of symptoms that failed to meet one or more of the DSM criteria for a diagnosis. Ratings were summed across period and type of disorder to create continuous scores of depression severity and anxiety severity for each wave of the study (for similar rating approaches, see Davila, Hammen, Burge, Paley, & Daley 1995; Hammen, Shih, Altman, & Brennan, 2003; Hammen, Shih, & Brennan, 2004; Rudolph et al., 2000). Based on independent coding of audiotapes of 42 interviews, strong inter-rater reliability was found for the depression ratings (one-way random-effects intraclass correlation coefficient [ICC] = .97 and the anxiety ratings (ICC = .89).

At Wave 1, 17.9% of children experienced diagnostic-level symptoms of one or more types of depression (e.g., major depression, dysthymia), and an additional 12.2% experienced subclinical symptoms of depression. Also at Wave 1, 26.3% of children experienced diagnostic-level symptoms of one or more types of anxiety disorder (e.g., generalized anxiety disorder, specific phobias), and an additional 43.6% experienced subclinical symptoms of anxiety.

Life stress—Interviewers individually administered the Youth Life Stress Interview (Rudolph & Flynn, 2007), an adaptation of the Child Episodic Life Stress Interview (Rudolph & Hammen, 1999; Rudolph et al., 2000), to youth and their caregivers. This semi-structured interview applies the contextual threat method (Brown & Harris, 1978) to assess the type and severity of episodic stress encountered by youth during the preceding year. This interview is designed to provide an objective measure of children’s stressful experiences that are independent of informants’ subjective appraisals. Standardized probes elicit objective information about stressful events occurring across multiple life domains (e.g., peer relationships, parent-child relationships, school, health). Interviewers began with a general open-ended question about youths’ exposure to stressful events in the past year, and then prompted youth regarding specific stressful events within each domain (e.g., end of a friendship, an argument with parents, receiving detention, an injury). Follow-up questions were used to elicit detailed information about each event, the timing and duration of the event, and the objective consequences of the event. Interviewers compiled this information into a narrative summary of each event, which was then presented to a team of coders with no knowledge of the youth’s diagnosis or subjective response to the event.

Integrating information from youth and caregivers, the coding team provided a rating of the objective stress or negative impact associated with the event for a typical youth in those circumstances, from 1 (No negative stress) to 5 (Severe negative stress). A composite score reflecting overall stress exposure were calculated by summing the stress ratings across all events with a stress rating above 1. To assess reliability, 160 life events were coded by two independent teams. High reliability was found for ratings of objective stress ($ICC = .90$).

Maternal psychopathology—Interviewers individually administered the nonpatient version of the Structured Clinical Interview for the DSM (SCID IV-NP; First, Spitzer, Gibbon, & Williams, 1996) to caregivers to assess maternal psychopathology. Each period and type of depression and anxiety was coded using the same procedures as used for the K-SADS. Based on independent coding of audiotapes of 42 interviews, strong inter-rater reliability was found for the depression ratings ($ICC = .94$) and the anxiety ratings ($ICC = .97$).

At Wave 1 of the study, 15.4% of mothers experienced diagnostic-level symptoms of one or more types of depression (e.g., major depressive disorder, dysthymia), and an additional 11.5% experienced subclinical symptoms of depression. Also at Wave 1, 34.6% of mothers experienced diagnostic-level symptoms of one or more anxiety disorder (e.g., generalized anxiety disorder, specific phobias), and an additional 34% experienced subclinical symptoms of anxiety.

Parent-child relationship quality—Interviewers individually administered a revised version of the Chronic Strain Interview (Rudolph & Hammen, 1999; Rudolph et al., 2000) to youth and their caregivers to assess parent-child relationship quality. Behavioral probes were used to elicit information separately from parents and children about positive and negative aspects of parent-child relationships such as degree of closeness, communication, and trust, availability of parents, and the presence versus absence of ongoing parent-child conflict (e.g., “How often do you argue/fight with your parents? Do you usually stay mad at each other or do things work out?” “Can you trust your parents? Do you go to them if you’re upset about something?” “Do you feel like you can talk to your parents/tell them how you’re feeling? Are they around when you need them?”). In addition to a series of structured prompts, interviewers asked follow-up questions as needed to elicit a detailed picture of the quality of each youth’s relationships with their caregivers.

Interviewers took detailed notes and verbally described the relationship to a group of coders, providing additional detail as needed. Based on both child and parent reports, a coding team assigned a rating for parent-child relationship quality on a continuum ranging from 1 (highly stressful relationships) to 5 (highly supportive relationships). A relationship was coded as highly stressful if it involved several significant problems (e.g., frequent, poorly resolved arguments, lack of communication or trust, unavailability of parents) without any significant positive characteristics. A relationship was coded as highly supportive if it involved high levels of communication, trust, and availability, as well as low levels of conflict and anger. Each rating point was anchored by specific behavioral indicators to provide an objective rating that was independent of parent or child subjective judgments. Ratings of 41 participants by two independent teams demonstrated high reliability ($ICC = .97$).

Results

Table 2 presents intercorrelations among all measures included in the study. As anticipated, insecure attachment was significantly negatively associated with engagement suggestions and positively associated with disengagement suggestions. Correlations among attachment and the control variables, as well as correlations among the control variables, were generally small to moderate, suggesting that these measures are tapping independent constructs.

Overview of Analyses

Hierarchical multiple regression analyses were conducted to examine the concurrent and prospective contribution of maternal adult attachment to engagement and disengagement coping suggestions. We anticipated that parents would have formed a relatively stable approach toward coping suggestions by late childhood to early adolescence; indeed, maternal coping suggestions were highly stable over time ($r_s > .70, p_s < .001$). Consequently we did not adjust for prior levels of coping suggestions. However, to rule out alternative explanations for the association between maternal insecure attachment and socialization of coping, analyses did adjust for other relevant characteristics of the child, mother, and family environment. To examine the unique prediction of engagement versus disengagement coping suggestions, each analysis adjusted for the concurrent alternate type of coping suggestions at the first step. Indicators of family socioeconomic status (maternal education, paternal education, and annual family income) were also entered at the first step. Child characteristics (depression, anxiety, and stress exposure) were entered at the second step, maternal characteristics (depression, anxiety) were entered at the third step, parent-child relationship quality was entered at the fourth step, and maternal insecure attachment was entered at the final step. In the prospective analyses, Wave 1 predictor variables were entered to predict Wave 2 socialization of coping.

Table 3 presents multiple regression analyses predicting engagement and disengagement coping suggestions concurrently and over time.

Maternal Attachment Predicting Engagement Coping Suggestions

Concurrent regression analysis predicting W_1 engagement suggestions revealed significant positive effects for W_1 disengagement suggestions and maternal education. The effects of all other control variables were nonsignificant. As predicted, there was a significant negative effect of maternal insecure attachment, which accounted for 10% of unique variance after controlling for socioeconomic status, child adjustment, maternal adjustment, and parent-child relationship quality, $\Delta F(1, 144) = 21.02, p < .001$.

Prospective regression analysis predicting W_2 engagement suggestions revealed a significant positive effect of W_2 disengagement suggestions. The effects of all other control variables

were nonsignificant. Replicating concurrent findings, there was a significant negative effect of W_1 maternal insecure attachment, which accounted for 10% of unique variance after controlling for W_1 socioeconomic status, W_1 child adjustment, W_1 maternal adjustment, and W_1 parent-child relationship quality, $\Delta F(1, 134) = 18.65, p < .001$. Thus analyses supported the hypothesis that maternal insecure attachment would predict fewer concurrent and subsequent engagement coping suggestions.

Maternal Attachment Predicting Disengagement Coping Suggestions

Concurrent regression analysis predicting W_1 disengagement suggestions revealed a significant positive effect of W_1 engagement suggestions and a significant negative effect of maternal education. The effects of all other control variables were nonsignificant. As predicted, there was a significant positive effect of maternal insecure attachment, which accounted for 7% of unique variance after controlling for socioeconomic status, child adjustment, maternal adjustment, and parent-child relationship quality, $\Delta F(1, 144) = 13.94, p < .001$.

Prospective regression analysis predicting W_2 disengagement suggestions revealed a significant positive effect of W_2 engagement suggestions, marginal negative effects of W_1 paternal education and W_1 maternal depression, and a marginal positive effect of W_1 maternal anxiety. The effects of all other control variables were nonsignificant. Replicating concurrent findings, there was a significant positive effect of W_1 maternal insecure attachment, which accounted for 6% of unique variance after controlling for W_1 socioeconomic status, W_1 child adjustment, W_1 maternal adjustment, and W_1 parent-child relationship quality, $\Delta F(1, 134) = 11.94, p < .01$. Thus analyses supported the hypothesis that maternal insecure attachment would predict heightened concurrent and subsequent disengagement coping suggestions.

Discussion

The present study investigated whether maternal insecure attachment contributes to the suggestions that mothers make to their children about coping with stress. The results supported the prediction that maternal insecure attachment represents a risk factor for maladaptive socialization of coping. Both concurrently and one-year later, mothers who rated themselves as insecure were less likely to make engagement coping suggestions, or encourage their children to direct resources toward dealing actively with stress and emotions. Mothers who rated themselves as insecure also were more likely to make disengagement suggestions, or encourage their children to direct resources away from stress and emotions. These results expand upon previous research that documents a connection between insecure adult romantic attachment and impaired coping skills (Berandt et al., 2001; Simpson et al., 1992; 2002; Wei et al., 2005) as well as impaired parenting behavior (Berandt et al., 2001; Edelstein et al., 2004; Rholes et al., 1995; 1997; 2006), suggesting that socialization of coping represents an arena in which these two attachment-related vulnerabilities merge.

Contributions to Theory and Research on Parenting

This study contributes to a growing body of research showing that adult attachment in the romantic domain has implications for attitudes and behaviors in the parenting domain. Previous studies have identified insecure adult attachment as a risk factor for less supportive parenting (Edelstein et al., 2004; Rholes et al., 1995). A tendency for insecure parents to encourage less engagement coping and more disengagement coping perhaps represents a specific way in which insecure parents fail to effectively support their children's coping development. Insecure parents also struggle with the caregiving role, reporting low self-

efficacy and high parenting stress (Berant et al., 2001; Rholes et al, 2006). These negative feelings may contribute to parents' coping suggestions. For example, it is possible that helping children to face stressors directly via problem solving or emotion regulation is overwhelming to a parent who feels unskilled and stressed as a caregiver.

An additional goal of the present research was to contribute to a broader understanding of how parenting behavior develops. We followed criteria proposed by Bollen (1989) to elucidate the direction of effect between insecure adult attachment and socialization of coping. First, our results were consistent with existing attachment and parenting theory and research. Second, insecure adult attachment predicted coping suggestions one year later, satisfying the criteria of temporal precedence. Finally, insecure adult attachment made a prospective contribution to coping suggestions after controlling for several aspects of the child, mother, and family context that could potentially influence the choices parents make about how to socialize coping in their children. The contribution of adult attachment to socialization of coping is consistent with theoretical models of the determinants of parenting, which posit that psychosocial characteristics of individuals influence the emotional and cognitive resources they have available to devote to parenting tasks (Belsky & Jaffe, 2006; Conley, Caldwell, Flynn, Dupre, & Rudolph, 2004; Darling & Steinberg, 1993). In this way, maternal adult attachment might influence coping suggestions by supporting or depleting the emotional and cognitive resources that are needed to provide adaptive coping guidance to children. In addition to psychological resources, access to material resources such as income, employment, and education potentially foster adaptive parenting behavior (Belsky & Jaffe, 2006; McLoyd, 1990) as well as provide mothers with more options for effectively coping with stress. Consistent with this view, higher levels of maternal education were concurrently associated with more adaptive coping suggestions (more engagement and less disengagement).

Contributions to Theory and Research on Adult Attachment

The present study both corroborates and builds upon previous findings linking insecure adult attachment to ineffective coping strategies, revealing that insecure adults communicate their maladaptive approaches toward stress to their children via coping suggestions. This suggests that the risk associated with insecure adult attachment is not limited to an individual's coping strategies, but rather extends to one's broad approach toward distress and challenge. A parent's insecure attachment potentially interferes with children's exposure to both parental modeling and direct parental guidance about effective strategies for coping with stress. As a result, the children of insecurely attached parents may be less prepared in the face of challenge and consequently more prone to adjustment difficulties. In this way, socialization of coping may represent one mechanism underlying the transmission of risk from insecure parents to their offspring.

It is important to note that the insecure attachment variable incorporated both avoidant and ambivalent attachment, yet these two subgroups may avoid engagement coping suggestions and prefer disengagement coping suggestions for different reasons. Representations of avoidant attachment include beliefs that one is incapable of independently dealing with stress, and others cannot be trusted to provide support (Bowlby, 1969, 1982). Consequently, avoidant adults exhibit deactivating regulatory processes, preemptively disengaging from arousing situations that may trigger distress, which they feel unequipped to manage (Fraley, Davis, & Shaver, 1998). Representations of ambivalent attachment include beliefs that one cannot independently deal with stress, and support from others must be actively sought out and clung to (Bowlby, 1969, 1982). Accordingly, ambivalent adults tend to ruminate about others' availability and quality of support, feeling compelled to express extreme distress to ensure that their needs are noticed (Rholes, Simpson, & Stevens, 1998). Thus, ambivalent adults do not choose to employ productive engagement coping strategies, but instead engage

toward their own distress in an unproductive and involuntary manner. For ambivalent adults, disengagement coping may be an easier *voluntary* coping response than engagement as well as a method of escaping their frequent heightened emotional distress.

Furthermore, encouraging children to use engagement coping strategies (e.g., problem solving, seeking support from others, purposefully expressing emotion) may imply that the mother is available to help the child enact these strategies. Avoidant adults may fail to encourage engagement due to their discomfort with intimacy and dependency with others. Conversely, ambivalent adults' preoccupation with their own distress and feelings of helplessness in the face of threat may prevent them from presenting themselves as a resource for their children's coping process. More detailed assessment of maternal coping suggestions, obtained through either observations of parent-child discussion tasks (e.g., Kliever et al., 2006) or qualitative interviews, might reveal potential differences in the suggestions made by avoidant versus ambivalent mothers.

Given these patterns, coping socialization in avoidant and ambivalent mothers may be differentiated by their involuntary responses to stress, particularly rumination. Recent work suggests that rumination manifests in two ways: reflection—an active cognitive process of problem solving, and brooding—a passive process of worrying about discrepancies between one's current versus desired state (Treynor et al., 2003). By definition, ambivalent adults engage in brooding, with an insatiable need for support serving as their unattainable standard for comparison. Reflection, on the other hand, is consistent with secure adults' ability to productively engage with their distress. Avoidant adults likely avoid both brooding and reflection. Our coping socialization measure could not capture involuntary processes, which are more likely to be passively modeled than actively encouraged by parents. Future research with measures of parent rumination as well as coping socialization will potentially reveal distinct patterns of active and passive coping socialization associated with the three types of adult attachment.

Limitations and Future Directions

The attachment measure used in this study, although widely used and well-validated, has undergone some revision. Many researchers now favor measures that assess two dimensions of adult attachment, *anxiety* and *avoidance*, with multiple-item scales¹. These dimensions correspond to those assessed with the Hazan and Shaver (1987) measure; in fact, revisions began by splitting Hazan and Shaver's (1987) single-item paragraphs into multiple-item scales (for a review, see Fraley & Shaver, 2000). As a result, our hypotheses regarding insecure attachment would be identical regardless of which adult attachment measure was used. However, some newer measures distinguish between *fearful* avoidance, which is motivated by insecurity and fear of rejection, versus *dismissing* avoidance, which is motivated by a lack of need for emotional bonds with others (Brennan, Clark, & Shaver, 1998). Future research using this additional distinction may illuminate different coping socialization patterns among subtypes of insecure attachment. For example, dismissing-avoidant parents may encourage disengagement coping, whereas fearful-avoidant parents may model brooding rumination.

Another interesting avenue for exploration would involve examining the role of children's attachment status in shaping parenting behavior, particularly in emotion-laden contexts. A

¹To examine whether avoidant and ambivalent attachment were related to socialization of coping distinct ways, we ran concurrent and longitudinal regression analyses, parallel to those reported in the Results section, with the single-item avoidant and ambivalent attachment scores as separate predictors of coping suggestions. The results for avoidant and ambivalent attachment were nearly identical; thus, we retained the results using the three-item scale that combines avoidant, ambivalent, and reverse-scored secure attachment.

number of studies have found that in parent-child discussions of emotion-laden information (e.g., positive and negative memory reminiscence tasks), parents communicate and respond to young children differently as a function of the child's attachment security (e.g., Fivush & Vasudeva, 2002; Laible & Thompsen, 2000; Raikes & Thompsen, 2006). Examining the joint or interactive contributions of adult and child attachment security to socialization of coping may be a fruitful direction for future research. For example, it is possible that the effect of attachment on socialization of coping will be amplified in a mother-child dyad with congruent internal working models. This design also would allow the investigation of whether parent socialization of coping is a mechanism contributing to the intergenerational transmission of attachment.

Interpersonal relationships lie at the heart of attachment theory. Accordingly, much of the adult attachment literature focuses on responses to stress in an interpersonal setting (e.g., interactions with romantic partners). A similar focus on the interpersonal context will be a fruitful next step for socialization of coping research. Indeed, maternal coping suggestions appear to have differential effects on children's adjustment depending on children's exposure to interpersonal stress (e.g., romantic breakup, peer conflict, family conflict) versus noninterpersonal stress (e.g., academic failure, school transition) (Abaied & Rudolph, in press). Examining the contribution of adult attachment to parental coping suggestions targeted toward helping children cope with interpersonal versus noninterpersonal stress might shed further light on parent contributions to children's adjustment.

Finally, examining whether maternal insecure attachment in the romantic domain has long-term consequences for children's social or emotional adjustment, and whether parental coping suggestions operate as a mediator, is an important next step for this area of research. It is possible that socialization of coping is a behavioral mechanism through which mothers' insecure internal working models contributes to children's heightened risk for maladaptive responses to stress, relationship difficulties, or symptoms of psychopathology. Given that little research has examined links between self-reported adult attachment and child adjustment, future tests of this mediational model will provide a valuable extension of the current study.

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Table 1

Descriptive Statistics at Wave 1

Variable	W ₁		
	<i>M</i>	<i>SD</i>	<i>Range</i>
Socialization of Coping			
Engagement Suggestions	4.06	.65	1.86 – 5
Disengagement Suggestions	2.74	.79	1.44 – 5
Maternal Insecure Attachment	2.96	1.48	1 – 5.67
Socioeconomic Status			
Family Income	4.07	1.65	1 – 7
Maternal Education	2.77	.67	2 – 4
Paternal Education	2.59	.77	1 – 4
Child Adjustment			
Depression	.68	1.38	0 – 7
Anxiety	2.79	3.49	0 – 29
Stress Exposure	15.37	9.05	2 – 52
Maternal Adjustment			
Depression	.78	1.40	0 – 6
Anxiety	3.04	3.43	0 – 16
Parent-Child Relationship Quality	3.57	.97	1 – 5

Table 2

Intercorrelations of the Measures at Wave 1

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Engagement Suggestions											
2. Disengagement Suggestions	.39 ^{***}										
3. Family Income	.02	-.14 [^]									
4. Maternal Education	.09	-.24 ^{**}	.37 ^{***}								
5. Paternal Education	-.05	-.26 ^{**}	.43 ^{***}	.54 ^{***}							
6. Child Depression	-.07	.05	-.14 [^]	-.07	-.17 [*]						
7. Child Anxiety	.02	.04	.01	.12	.08	.34 ^{***}					
8. Stress Exposure	.05	-.02	-.22 ^{**}	-.00	-.27 ^{***}	.28 ^{***}	.16 [*]				
9. Maternal Depression	.04	-.05	-.02	.09	-.07	.29 ^{***}	.19 [*]	.13 [^]			
10. Maternal Anxiety	.03	.10	-.17 [*]	-.19 [*]	-.18 [*]	.16 [*]	.16 [*]	.19 [*]	.28 ^{**}		
11. Parent-Child Relationship Quality	.09	.01	.34 ^{***}	.20 [*]	.29 ^{***}	-.47 ^{***}	-.05	-.44 ^{***}	-.22 ^{**}	-.19 [*]	
12. Insecure Attachment	-.25 ^{**}	.16 [*]	-.26 ^{**}	-.09	-.15 [^]	.15 [^]	.03	.11	.26 ^{**}	.23 ^{**}	-.28 ^{***}

[^] $p < .10$.
^{*} $p < .05$.
^{**} $p < .01$.
^{***} $p < .001$.

Table 3
Hierarchical Multiple Regression Analyses Predicting Maternal Coping Suggestions

Predictors	Engagement Suggestions			Disengagement Suggestions		
	β	<i>t</i>	ΔR^2	β	<i>t</i>	ΔR^2
<i>Concurrent</i>						
Step 1						
W ₁ Alternate Coping Suggestions	.40	5.23***	.17	.38	5.23***	.22
W ₁ Family Income	.01	.16		.01	.17	
W ₁ Maternal Education	.22	2.46*		-.20	-2.30*	
W ₁ Paternal Education	-.03	-.36		-.15	-1.64	
Step 2						
W ₁ Child Depression	-.13	-1.56	.01	.05	.60	.01
W ₁ Child Anxiety	.04	.43		.04	.53	
W ₁ Stress Exposure	.05	.54		-.12	-1.56	
Step 3						
W ₁ Maternal Depression	.06	.68	.01	-.08	-1.01	.01
W ₁ Maternal Anxiety	.05	.62		.04	.48	
Step 4						
W ₁ Parent-Child Relationship Quality	.08	.82	.00	.09	.94	.01
Step 5						
W ₁ Maternal Insecure Attachment	-.36	-4.59***	.10	.30	3.73***	.07
<i>Longitudinal</i>						
Step 1						
W ₂ Alternate Coping Suggestions	.38	4.83***	.16	.37	4.83***	.18
W ₁ Family Income	.06	.66		.03	.34	
W ₁ Maternal Education	.08	.82		-.02	-.25	
W ₁ Paternal Education	-.05	-.47		-.19	-1.97 [^]	
Step 2						
W ₁ Child Depression	.00	.02	.00	.05	.63	.01

Predictors	Engagement Suggestions			Disengagement Suggestions		
	β	t	ΔR^2	β	t	ΔR^2
W ₁ Child Anxiety	.02	.26		.08	.98	
W ₁ Stress Exposure	-.04	-.52		-.08	-1.01	
Step 3						
W ₁ Maternal Depression	.05	.51	.01	-.15	-1.76 [^]	.03
W ₁ Maternal Anxiety	.06	.69		.16	1.90 [^]	
Step 4						
W ₁ Parent-Child Relationship Quality	.09	.85	.00	.08	.84	.00
Step 5						
W ₁ Maternal Insecure Attachment	-.35	-4.32 ^{***}	.10	.28	3.46 ^{***}	.06

[^] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Note. β s represent regression coefficients for each step of the hierarchical regression. ΔR^2 values represent variance accounted for by each step of the hierarchical regression. For each regression, the concurrent alternate type of coping suggestions was entered in the first step (i.e., for regressions predicting engagement, concurrent disengagement coping was entered; for regressions predicting disengagement, concurrent engagement coping was entered).