

Maternal Avoidant Coping Mediates the Effect of Parenting Stress on Depressive Symptoms during Early Adolescence

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Abstract We examined maternal avoidant coping as a mediator between maternal parenting stress and maternal depressive symptoms during early adolescence. Three years of self-report data were collected from 173 mothers, beginning when mothers' adolescents were in 6th grade and aged 11–13 years. Utilizing longitudinal path analysis, results indicated that avoidant coping at time two mediated the association between parenting stress at time one and depressive symptoms at time three. Additionally, the reverse direction of effects was examined, revealing that the relation between parenting stress and avoidant coping was unidirectional, while the relation between avoidant coping and depressive symptoms was bidirectional. Our results suggest that during early adolescence, mothers who experience more stress in the parenting role are more likely to engage in higher levels of avoidant coping when faced with parenting problems. In turn, a mother's long-term avoidant reactions to parenting problems may predict increases in depressive symptoms. Moreover, our findings of a bidirectional relation between avoidant coping and depressive symptoms suggest that prior levels of depression might serve as a barrier to efficient and effective coping. The present study may inform preventive intervention efforts aimed at decreasing the use of avoidance in response to parenting stressors by increasing adaptive parental coping with stressors, and providing appropriate support and resources for parents.

Keywords Parenting stress · Avoidant coping · Depressive symptoms · Early adolescence · Longitudinal

Introduction

Parenting stress is a robust predictor of maternal emotional distress, including depressive symptoms (e.g., Crnic and Low 2002; Deater-Deckard 1998, 2004; Gerdes et al. 2007; Levy-Shiff et al. 1998; Quittner et al. 1990). Furthermore, maternal parenting stress and depression are associated with negative outcomes for children, attesting to the broader significance of such problems (Cummings and Davies 1994; Downey and Coyne 1990; Goodman 2007; Lovejoy et al. 2000; Webster-Stratton 1990). Although multiple studies have demonstrated that maternal parenting stress and emotional distress are correlated, few studies have examined the mediating processes or mechanisms that may underlie the connection. The examination of potential mediators is important for a better understanding of how stress can affect the development of maladaptive outcomes over time, and is consistent with a process-oriented perspective on development (Cummings et al. 2000). We contribute to such a perspective by examining maternal avoidant coping as a mediator of the relation between mothers' parenting stress and depressive symptoms during their children's transition to early adolescence.

Our particular mediation model was derived from Lazarus and Folkman's theoretical perspective on psychological stress and coping (e.g., Folkman 1984; Lazarus 1984; Lazarus 1966; Lazarus and Folkman 1984). In brief, their theory asserts that cognitive appraisals and coping strategies mediate the relationship between stressful events and emotional outcomes. According to this view, coping efforts are partially directed toward regulating the emotions that arise from initial perceptions of stress (Folkman and Lazarus 1986). In addition, coping processes shape subsequent emotions by influencing person-environment interactions through appraisals (Lazarus 1993). More

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specifically, the coping process begins with identification of the stressor and appraisal of the resources available to meet concomitant challenges. To execute a response, a coping strategy is used, which is followed by evaluation of outcomes and subsequent positive or negative emotions. According to stress and coping theory, individuals can use different coping strategies in response to stress. Broadly, these strategies consist of problem-focused coping that involves planful action, and emotion-focused coping, which includes seeking of social support or avoidant strategies such as distancing, ignoring, and other forms of escape (Amirkhan 1990; Folkman and Lazarus 1986).

Avoidant coping with parenting challenges may mediate the connection between mothers' global, evaluative parenting stress and their depressive symptoms. According to the stress and coping perspective, avoidance is an attempt to regulate negative emotions that arise when stressors are perceived as important, long-term, and unsolvable (Lazarus and Folkman 1984). Therefore, mothers who experience such global stress in the parenting role are likely to engage in some level of avoidance when attempting to regulate their emotions and assess their resources (Coyne et al. 1981; Deater-Deckard 2004; Dill and Feld 1982). Accumulated parental stress and distress create global impairments in cognitive resources, which contribute to frequent and long-term use of avoidant coping strategies in the parenting realm (Deater-Deckard 2004). Although avoidance may help mothers manage negative emotions in the short-term (Lazarus and Folkman 1984), chronic avoidance has been associated with diminished well-being (Blalock and Joiner 2000; Dill and Feld 1982; Folkman and Moskowitz 2004; Holahan et al. 1999). Furthermore, frequent, long-term avoidance appears to impede the use of problem-solving strategies typically associated with more positive outcomes (Carver et al. 1989; Deater-Deckard 2004). Thus, the experience of chronic parenting stress may set in motion a process in which avoidance is enacted, and ultimately leads to depression over time.

A number of studies provide empirical support for the separate links in our hypothesized mediation model. First, several cross-sectional studies have demonstrated a positive relation between stress and avoidant coping strategies in the parenting context. Jarvis and Creasey (1991), for example, examined relations among parenting stress and parental escape-avoidance coping among parents of infants. The authors found that for both mothers and fathers, parenting stress was positively related to escape-avoidance coping, suggesting that stress in the parenting role may provoke avoidance. Similarly, Barnett et al. (1990) found that for parents of young children, parenting stress was related to greater use of inactive or passive coping strategies characterized by avoidance. In addition, Miller et al. (1992) explored the association between

parenting stress and coping strategies among mothers of young disabled and nondisabled children. Miller and colleagues found that for mothers of disabled children, parenting stress predicted greater avoidance. In sum, several empirical studies demonstrate that parenting stress and avoidance appear to be related. However, most literature in this area is cross-sectional. To better examine the direction of effects between parenting stress and avoidance, a longitudinal test of these relations is needed.

Second, a strong and consistent association has been found between avoidance and maternal psychological distress. Specifically, avoidant coping has frequently been linked to greater levels of depressive symptoms, anxiety, and general psychological distress (Folkman and Moskowitz 2004; Holahan et al. 1999; Taylor and Stanton 2007). In a cross-sectional study, Eisengart et al. (2003) found that mothers' use of avoidant coping predicted greater maternal psychological distress in a sample of mothers of low birth weight infants. Similarly, Levy-Shiff et al. (1998) found that emotion-focused coping with parenting stress among mothers of infants was associated with increased maternal emotional distress one year later. In a 6-month longitudinal study, Rayburn et al. (2005) considered the connections between traumatic events, coping, and depression in a sample of impoverished women. The authors found that traumatic events predicted the use of avoidant coping strategies, which, in turn, elevated the risk of experiencing depression. Additionally, Aldwin and Revenson (1987) found that escapism predicted increased depressive symptoms nine months later in a community sample of adults. The authors also found support for the reverse direction of effects, in which those who experienced poorer mental health and greater life stress used less adaptive coping strategies over time, suggesting that an examination of this reverse direction of effects is warranted (see also Coyne et al. 1981; Folkman and Lazarus 1986). Taken together, the extant studies demonstrate that avoidant coping is associated with, and might predict, diminished well-being, including depression. However, longitudinal research in this area is quite limited and should be expanded.

Furthermore, virtually all studies that have examined associations among parenting stress, coping, and depression have utilized samples of parents with infants or young children. An examination of parenting stress in other developmental periods is also important, given that other time periods certainly present unique challenges and opportunities for stress, coping, and distress. In particular, parenting during early adolescence may present increased parenting demands, including more frequent and intense parent-child conflict, and an increased adolescent drive for autonomy that can exacerbate parental role strain (Peterson and Mathieson 2000; Putnick et al. 2010). In conceptual work, Silverberg (1996) suggested that models of stress

and coping (e.g., Lazarus and Folkman 1984) might be applied to the parenting context during adolescence. Moreover, an examination of parental coping strategies during this developmental period might provide important insights into parental psychological well-being (e.g., Silverberg 1996). Surprisingly, however, research on parental coping strategies during adolescence has been neglected, despite the widespread acknowledgment that parenting adolescents, particularly during the transition to adolescence, is uniquely stressful (Steinberg 2001). This important limitation should be addressed by examining connections between parenting stress, avoidant coping, and depressive symptoms among mothers of young adolescents.

We investigated the temporal connections among parenting stress, avoidant coping, and depressive symptoms by examining a theoretically-derived, longitudinal path model. Our hypothesized model specified that maternal parenting stress at time one (T1) predicted greater maternal avoidant coping at time two (T2), which, in turn, predicted greater maternal depressive symptoms at time three (T3). Given some empirical evidence for the reverse direction of effects (e.g., Coyne et al. 1981; Holahan et al. 2005), we simultaneously examined a pathway in which maternal depressive symptoms at T1 predicted greater maternal avoidant coping at T2, which, in turn, predicted greater maternal parenting stress at T3. Our longitudinal data afforded the opportunity to evaluate our core, theoretically-derived model, as well as explore simultaneous directions of effects within the same model, particularly bidirectional effects between coping and depression (e.g., Aldwin and Revenson 1987; Felton and Revenson 1984).

Method

Participants and Procedure

The data were collected as part of a project examining parenting and child outcomes during the transition to adolescence. Initial contact letters were distributed by primary schools in a medium-sized, Midwestern, US city. The letters briefly described the study and instructed mothers of 4th graders to contact the research office if interested in participating.

Once annually, mothers and adolescents visited a university research laboratory and separately and independently completed self-report questionnaires. As compensation, participants were paid US\$30.00 in the first year of the study, and this rate increased by US\$10.00 each year that they continued. The present analyses focus on maternal reports collected over three years of the study.

To ensure that mothers had the same degree of experience with the adolescent transition, mothers were eligible if the 4th-grader was the oldest child in the family (i.e., mothers had not previously parented adolescents). In addition, mothers were eligible if they were currently married to the child's father and had never been divorced, or were currently divorced. Mothers were not eligible if the mother was currently remarried. Remarried mothers were not recruited because these families had substantial variability in marital transitions, and also reflected differing patterns of co-residence of older and younger children. Eligibility was determined by screening questions administered over the phone by doctoral-level research assistants. Five hundred thirty-seven mothers contacted the research office. Of these 537, 198 mothers met the criteria. One hundred eighty-one (91 %) of the eligible mothers completed the study at Year 1. Due to attrition over the course of the study, data were available from 173 mothers for the present analyses.

The analyses for the current study were based on data collected while the mothers' adolescents completed 6th to 8th grades. This time period was selected for pragmatic, conceptual, and empirical reasons. First, the measures assessing maternal stress, coping, and depression were available during all 3 years. Second, this period reflected the children's transition to early adolescence. Finally, this time-period is similar to other recent longitudinal studies examining the correlates of parenting stress within families of young adolescents (e.g., Putnick et al. 2010), permitting comparisons with prior research. The mothers were between the ages of 29–53 years ($M = 39.40$, $SD = 4.44$) at the 6th-grade assessment, and the adolescents were between the ages of 11–13 ($M = 11.65$, $SD = 0.51$). Most of the sample identified themselves as European American (94.8 %); many fewer identified themselves as African American (1.7 %), Latina/o (1.2 %), Asian American (0.6 %), or "other," including combinations of races (0.6 %). At the 6th-grade assessment, mothers had been married an average of 15.2 years ($SD = 4.03$), and there was an average of 2.5 children in the families ($SD = .99$). The families were generally well-educated and middle-class. Mothers had completed, on average, three years of education after receiving their high school diplomas, 77.5 % worked full- or part-time outside the home, and the annual household income per family ranged from US\$8,892 to US\$450,000 with a mean annual income of US\$86,169 ($SD = US$63,945$).

Maternal Parenting Stress

The Parental Stress Items scale (Bonds et al. 2002; Pearlin and Schooler 1978; Sturge-Apple et al. 2003) was used to measure maternal perceptions of global, evaluative stress in

the parenting role. The 11-item scale instructed mothers to show how much they experienced each of the distressed feelings described in their parenting role. Sample items included, *when you think of your experiences as a parent to this child*, “How frustrated do you feel?”, “How emotionally worn out do you feel?”, and “How unsure of yourself do you feel?” Mothers responded on a four-point Likert-type scale ranging from 1 (*not at all*) to 4 (*very much so*). Higher scores indicated greater stress. Across the three years of data collection, internal consistency reliability, as measured by Cronbach’s alpha, ranged from .90 to .92. Other studies utilizing the Parental Stress Items scale have reported alphas of .87 (Bonds et al. 2002) and .89 (Ekas et al. 2009). The scale has demonstrated good convergent and divergent validity with parenting perceptions and behaviors (e.g., parenting competence, efficacy, parent–child emotional cohesion; Sturge-Apple et al. 2003). Furthermore, factor analyses have demonstrated good construct validity for the Parental Stress Items scale (e.g., Lavee et al. 1996; Pearlin and Schooler 1978).

Avoidant Coping

Maternal avoidant coping behaviors in the parenting realm were assessed using the 11-item avoidance subscale of the Coping Strategies Indicator (CSI; Amirkhan 1990). The CSI was developed such that it would demonstrate reasonable independence from measures of psychological symptoms, including depression (Amirkhan 1990). For the present study, mothers were asked to keep in mind a parenting challenge, and report on the extent of avoidant coping with that challenge. Items were rated using a three-point scale ranging from 1 (*not at all*) to 3 (*a lot*). Higher scores indicated greater avoidant coping strategies. Sample items included, “Tried to distract yourself from the problem?”, “Buried yourself in a hobby or other activity to avoid the problem?”, and “Fantasized about how things could have been different?” Across the three time points, Cronbach’s alpha for avoidant coping ranged from .74 to .83 in the present sample. The CSI subscales have demonstrated good test–retest reliability, high internal consistency, and good criterion and construct validity (Amirkhan 1990, 1994). Additionally, the avoidance subscale of the CSI has shown adequate convergent and discriminant validity with other coping measures assessing avoidance, problem solving, and seeking social support (Clark et al. 1995).

Maternal Depressive Symptoms

Maternal depressive symptoms were measured with the Center for Epidemiologic Studies Depression Scale, a 20-item scale that focuses on depressed mood in the past

7 days (CES-D; Radloff 1977). Mothers were asked to rate how frequently they experienced symptoms using a 4-point scale ranging from 0 (*less than 1 day in the past week*) to 3 (*5–7 days during the past week*), and items were scored such that higher scores indicated greater depressive symptoms. Sample items included, *how many days during the past week did you*, “Feel bothered by things that usually don’t bother you?”, “Feel afraid or fearful?”, and “Feel that everything you did took a lot of effort?” Across the three years of data collection, Cronbach’s alpha ranged from .85 to .92. Other studies have demonstrated high internal consistency and adequate test–retest reliability, criterion, and discriminant validity coefficients for the CES-D (e.g., Devins et al. 1988; Ekas et al. 2009; Radloff 1977).

Results

Descriptive Statistics and Correlations

Means, standard deviations, and correlations are displayed in Table 1. As expected for a predominantly middle-class sample with substantial resources, the descriptive data illustrated low to moderate levels of parenting stress, avoidant coping, and depressive symptoms. Correlations among the study variables were moderate, statistically significant, and in the expected directions. For instance, correlations between parenting stress and avoidant coping ranged from .28 to .45 ($p < .01$), while correlations between avoidant coping and depression ranged from .31 to .51 ($p < .01$).

Plan of Model Testing

A longitudinal path model was evaluated to examine the relations among maternal parenting stress, maternal avoidant coping, and maternal depressive symptoms across the three-year period. Consistent with recommendations for testing longitudinal mediation, we measured all variables in our models at all three time points, and included all autoregressive paths (Cole and Maxwell 2003). Models were estimated using the Mplus program 5.2 (Muthén and Muthén 2007), using the Full Information Maximum Likelihood estimation procedure (FIML; Arbuckle 1996) to accommodate missing data in four of the 173 included dyads. To evaluate model fit, the Chi-square statistic was examined, where non-significant p -values ($p > .05$) indicate acceptable model fit, and the relative Chi-square statistic ($\chi^2/\text{model degrees of freedom}$) in which values below five indicate good fit (Wheaton et al. 1977). We also examined the comparative fit index (CFI; Bentler 1990), in which values above .95 suggest acceptable model fit, the

Table 1 Means, standard deviations, and intercorrelations of study variables

Variable	1	2	3	4	5	6	7	8	9
1. T1 parenting stress	–								
2. T2 parenting stress	.74**	–							
3. T3 parenting stress	.73**	.75**	–						
4. T1 avoidant coping	.45**	.35**	.28**	–					
5. T2 avoidant coping	.45**	.44**	.40**	.54**	–				
6. T3 avoidant coping	.27**	.24**	.25**	.41**	.36**	–			
7. T1 depressive symptoms	.42**	.35**	.42**	.41**	.36**	.32**	–		
8. T2 depressive symptoms	.36**	.39**	.39**	.36**	.51**	.36**	.61**	–	
9. T3 depressive symptoms	.37**	.28**	.32**	.31**	.41**	.33**	.41**	.54**	–
<i>M</i>	17.27	17.84	17.42	12.96	13.09	12.89	7.20	6.73	7.32
<i>SD</i>	4.94	5.71	5.12	2.49	2.83	2.84	6.62	6.32	8.51

Correlations using mothers' reports. *N*'s range from 169 to 172 due to missing data and pairwise deletion

** $p < .01$

root mean square error of approximation (RMSEA; Hu and Bentler 1999; Steiger 1990), in which values at or below .08 indicate acceptable fit, and the standardized root mean square residual (SRMR; Hu and Bentler 1999), in which values below .05 indicate good fit.

The significance of the indirect effect (*ab*) was determined by the PRODCLIN procedure (MacKinnon et al. 2007). The PRODCLIN method accommodates for the non-normal distribution of the indirect effect by constructing confidence limits for *ab*, and thus provides power to detect the strength of the mediated effect (MacKinnon et al. 2007). If the confidence interval (CI) of the indirect effect does not include zero, the mediating pathway is significant. Currently, there is consensus among most methodologists that a significant *ab* indicates that the independent variable has an effect on the dependent variable. Most also agree that in the case of longitudinal data, the test of the total effect between independent and dependent variables is best accomplished by evaluating the significance of *ab*. That is, the test of *ab* provides increased power to detect a distal (longitudinal) total effect of the independent variable on the dependent variable. Furthermore, most methodologists currently believe that the only necessary condition that must be met to establish mediation is that *ab* significantly differs from zero (for further discussion, see Judd and Kenny 2010; MacKinnon et al. 2002; Preacher and Hayes 2008; Shrout and Bolger 2002).

Hypothesized Model: Parenting Stress, Avoidant Coping, and Depressive Symptoms

We began by testing our core hypothesis that maternal avoidant coping would mediate the relation between parenting stress and depressive symptoms. This model fit the data well, χ^2 ($df = 10$, $N = 173$) = 19.291, $p = .0367$;

relative $\chi^2 = 1.929$; CFI = .984, RMSEA = .073; SRMR = .040 (see Fig. 1). As illustrated by the main downward diagonal arrows, maternal parenting stress at T1 predicted higher levels of maternal avoidant coping at T2. In turn, higher avoidant coping at T2 predicted increased depressive symptoms at T3. The 95 % CI for the indirect effect of parenting stress on depressive symptoms via avoidant coping was [.0059, .0798], indicating that the specific indirect path among parenting stress, avoidant coping, and depressive symptoms was significant.

We also examined the reverse direction of effects, in which maternal avoidant coping was entered as a mediator between T1 depressive symptoms and T3 parenting stress (see Fig. 1). As illustrated by the main upward diagonal arrows, maternal depressive symptoms at T1 did not predict maternal avoidant coping at T2, nor did avoidant coping at T2 predict parenting stress at T3. Therefore, mediation was not present in the reverse direction of effects. As expected and concurrent with the theoretical framework of our study (e.g., Folkman and Moskowitz 2004; Lazarus and Folkman 1984), avoidant coping did not predict parenting stress at either time point (T1–T2 or T2–T3). However, there was some evidence of bidirectionality between avoidant coping and depressive symptoms, as illustrated by T1 avoidance predicting T2 depressive symptoms, T2 avoidance predicting T3 depressive symptoms, and T2 depressive symptoms predicting T3 avoidance.

Discussion

The use of coping strategies in response to chronic stressors and life events, and their relation to mental health outcomes, has been widely studied in community samples

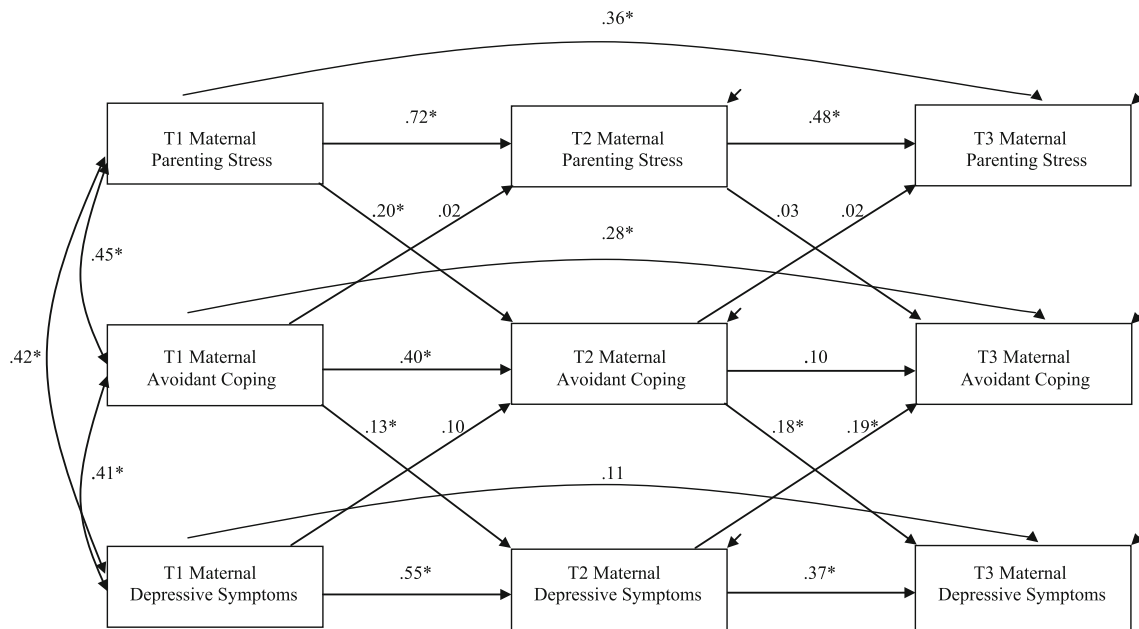


Fig. 1 Maximum likelihood estimation of maternal avoidant coping as a mediator between parenting stress and depressive symptoms from T1 to T3. * $p < .05$. $N = 173$ mothers. Error variances at concurrent

time points are correlated but not depicted for ease of presentation. The specific indirect effect from T1 parenting stress to T3 depressive symptoms via T2 avoidant coping is significant at $p < .05$

(e.g., Aldwin and Revenson 1987; Lazarus and Folkman 1984). Within the specific context of parenting young adolescents, we examined the longitudinal associations among maternal parenting stress, avoidant coping with parenting problems, and maternal depressive symptoms. Results revealed that avoidant coping mediated the effect of parenting stress on depressive symptoms, a finding consistent with Lazarus and Folkman’s stress and coping theory (e.g., Lazarus and Folkman 1984). According to this theory, avoidant cognitive and behavioral coping strategies in response to stressful encounters are likely to result in maladaptive emotional outcomes (Folkman and Lazarus 1986; Lazarus and Folkman 1984). Furthermore, our results suggest that the relation between mothers’ parenting stress and depressive symptoms was more complex than a simple direct effect; rather, avoidant reactions to parenting stress were part of a process that unfolded over time and ultimately predicted increased maternal depressive symptoms.

In our sample, maternal avoidant coping appeared to be an ineffective long-term strategy for managing parenting stress. Miller et al. (1992) suggested that avoidant-type strategies may keep a mother involved in a cycle of self-blame, withdrawal, and internalized frustration, rather than freeing her energies for problem-solving that could lead to enhanced feelings of competence and a greater sense of control. Our data suggest that mothers who experience higher levels of global, evaluative parenting stress are more likely to avoid parenting challenges as they arise. Over

time, such avoidance predicted mothers’ depressive symptoms, which is consistent with Miller et al.’s (1992) discussion of the connections between persistent avoidance and pervasive depressed affect. Thus, while occasional or intermittent avoidance of parenting challenges might not negatively affect maternal well-being, more characteristic or persistent withdrawal might promote depression.

We also examined the reverse direction of effects to determine whether avoidant coping mediated the effect of maternal depressive symptoms on parenting stress, given the limited findings of bidirectional or reverse effects among life stress, coping, and depression reported in the stress and coping literature (e.g., Aldwin and Revenson 1987; Holahan et al. 2005). Our model results indicated a unidirectional relation for parenting stress predicting avoidant coping, and a bidirectional relation between avoidant coping and depressive symptoms. Although avoidant coping has been found to predict life stress in one longitudinal study with adults (Holahan et al. 2005), our results did not support this direction of effects. Rather, in our sample, parenting stress preceded coping and no bidirectional relation between these variables was observed. Holahan and colleagues hypothesized that the use of avoidant coping can create a route to subsequent acute and chronic stressors. However, Folkman and Moskowitz (2004) suggested that stress precedes coping because coping processes are induced by negative emotions in response to stress, rather than prior to stress. Our results are consistent with Folkman and Moskowitz’s (2004) view of

the temporal ordering of stress and coping (see also Folkman and Lazarus 1986; Lazarus and Folkman 1984; Miller et al. 1992).

Our findings of a bidirectional relation between avoidant coping and depressive symptoms are consistent with prior research finding either bidirectional effects in the same study (Aldwin and Revenson 1987), or support for both directions of effects in separate studies (Coyne et al. 1981; Felton and Revenson 1984; Folkman and Lazarus 1986; Rayburn et al. 2005). Felton and Revenson (1984) suggested that prior levels of depression might serve as a barrier to efficient and effective coping in a mutually reinforcing cycle of emotional distress and avoidant coping strategies. Furthermore, depressive symptoms are associated with a reliance on avoidant coping strategies, and these symptoms induce an environment of frustration and disappointment. In a cyclical nature, this type of environment likely promotes continuous distress that a mother might feel she can manage only by using avoidant behaviors such as withdrawal or wishful thinking (Hammen 2003, 2005).

Some evidence exists that avoidant coping may have short-term benefits of reducing stress and anxiety. For example, some research has shown that for terminally ill patients, avoidant coping could be adaptive because one might not have control over the situation (Taylor and Stanton 2007). However, this coping strategy may be counterproductive in long-term, more normative circumstances because it prevents assimilation and resolution of chronic stressors that can lead to poor mental health outcomes (Rayburn et al. 2005). Furthermore, McKenry and Price (2000) stated that coping strategies are not inherently adaptive or maladaptive, but rather, their usefulness is situation-specific. In the parenting context, long-term avoidant coping might be maladaptive because it may limit coping flexibility, which has been found to be positively associated with well-being (Lester et al. 1994). Avoidance also does not effectively address the parenting problems that cause stress, and thus such problems, and the negative emotions surrounding them, likely remain unresolved.

Avoidant coping strategies in response to parenting stressors are therefore a potential point of intervention for decreasing the mental health risks of stress (Taylor and Stanton 2007). While most mothers negotiate their children's adolescence without experiencing substantial psychological problems, parenting young adolescents presents unavoidable and chronic stress (Silverberg 1996; Silverberg and Steinberg 1987; Steinberg 2001), and mothers of adolescents are therefore at risk for avoidance and depressive symptoms. Interventions could be designed to decrease the use of mothers' avoidance during this time-period by increasing personal resources, including building knowledge about adolescent development and bolstering

communication and family management skills (Patterson and Forgatch 1987; Robin and Foster 1989; Steinberg 2001). Such intervention might be particularly important during the transition to adolescence, when mothers are negotiating novel parenting demands and changes in parent-child relationships (Silverberg and Steinberg 1987). Overall, comprehensive parent preventive interventions should aim to address multiple risk domains and vulnerabilities in the family environment, in addition to focusing on specific coping deficits and current mental health symptoms (Hammen 2003; Taylor and Stanton 2007).

From a broader perspective, our study highlights potential antecedents and processes that predict poor mental health outcomes in mothers of young adolescents. Mothers who experience high levels of parenting stress when their children are at the cusp of adolescence may be at greater risk for future emotional distress. Moreover, maternal depression and subsequent poor parenting behaviors negatively affect adolescents' adjustment outcomes (Cummings and Davies 1994). Multiple studies confirm that maternal depression is the strongest risk factor for depression in adolescents (see Downey and Coyne 1990), demonstrating the pertinence of early identification and intervention that targets the antecedents of maternal depression. Thus, through interventions that promote adaptive responses to heightened parenting stress, positive parent and child outcomes during significant developmental transition periods may be enhanced.

To our knowledge, the present study is the first to examine the longitudinal associations among maternal parenting stress, avoidant coping, and depressive symptoms in the context of parenting young adolescents, and with a community sample of mothers. Although our study makes an important contribution to the literature, some limitations should be addressed. First, because the data used in the present study were obtained from only mothers, shared method variance may have inflated some of the associations among the variables (Kazdin 1998). However, a mother's reports of her own perceived stress, coping, and psychological well-being seem most relevant and important for our research questions. Future research could examine such variables with observational data, significant others' reports, and perhaps physiological assessments for additional measures of the constructs investigated in this study. Second, consistent with most research in this area (e.g., Eisengart et al. 2003; Levy-Shiff et al. 1998; Miller et al. 1992) we did not include fathers in our study. Although it would be interesting to examine fathers' stress and coping processes, we note that in studies which have included mothers and fathers, similar relations between stress and coping have emerged for both parents (e.g., Jarvis and Creasey 1991). Additionally, other studies typically have combined data from community sample men

and women to examine the relation between coping strategies and mental health (e.g., Aldwin and Revenson 1987), suggesting that gender differences in such processes may not be notable.

Third, the majority of our participants were middle-class, and European-American. Although we did obtain significant relations among the model variables, it is possible that such relations would have been even more substantial had our sample demonstrated greater variation in stressors, resources, and concomitant well-being (Holahan and Moos 1987). For example, some research indicates that those with fewer resources are especially likely to utilize avoidance strategies rather than active approaches (Dill and Feld 1982; Rayburn et al. 2005). Future efforts could certainly examine our model relations among diverse families, as differing levels of stressors and resources could affect the obtained relations. In any case, replication of our model with a diverse sample would increase the generalizability of the present findings. Furthermore, variation in environmental and psychological resources might moderate the effects among parenting stress, appraisals of stress, coping strategies, and subsequent psychopathology (Deater-Deckard 2004; McKenry and Price 2000). Future efforts with larger and more diverse samples could explore such moderating possibilities.

Future research might also undertake a number of other directions not possible in the current study. First, our model could be examined using a different parenting stress measure. Our parenting stress measure assessed global, evaluative parenting stress. Other measures, focused on stressful events and their appraisal, might be useful to examine as well. Measures of events and appraisals may overlap less with measures of coping and depression, and so a more distinct assessment of stress might be made. Although our measure of parenting stress showed only moderate overlap with our measures of coping and depression, assessments of stress, coping, and psychopathology often do overlap considerably. Assessment of specific events may help minimize problematic overlap and may facilitate interpretation of model associations. Measurement of specific events also may help elucidate the kinds of stressors experienced by parents of adolescents, as well as identify change in such stressors as adolescents mature (Deater-Deckard 2004; Putnick et al. 2010). Second, it would be useful to examine our model with more time points reflecting a larger span of the adolescent era. Multiple time points also would allow for the application of other techniques to assess change. For example, growth modeling could be used to examine individual trajectories of parental stress, coping, and psychopathology.

In summary, we tested a longitudinal mediation model that elucidated how the stress and coping process affects maternal well-being in the context of parenting young

adolescents. The present study illustrated that the association between maternal parenting stress, avoidant coping, and depressive symptoms is complex, with a unidirectional effect between stress and coping, and a bidirectional effect between coping and depressive symptoms. More research needs to examine longitudinal and indirect processes that might account for the complex relations between variables, as well as examine the sources of parenting stress and parental vulnerability to stress for a better understanding of adaptive and maladaptive outcomes. Through intervention efforts, researchers can aim to promote positive or adaptive appraisals and coping with stressors, and increase appropriate personal resources in the parental role. These efforts to improve cognitive and behavioral responses to stress may lead to better maternal well-being, which can ultimately impact multiple functional domains in the family.

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