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ORIGINAL PAPER

Coping and Positive Affect in Adolescents of Mothers With and Without a History of Depression

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Abstract The adolescent children of depressed mothers are at increased risk for depression, but little is known about protective factors for these children. Maintenance of positive affect in a stressful context may be an important marker of resilience. Mothers with ($n = 34$) and without ($n = 38$) a history of depression and their adolescent children completed questionnaires regarding adolescents' coping and depressive symptoms and engaged in a 15 min videotaped interaction about family stress. Adolescents' observed behaviors were coded using the Iowa Family Interaction Rating Scales. No significant differences emerged in observed behavior between adolescents of mothers with and without a history of depression. Higher levels of primary and secondary control coping and lower levels of disengagement coping were related to higher levels of observed positive mood and fewer depressive symptoms in adolescents. Observed positive mood was related to fewer depressive symptoms in adolescents, even after accounting for maternal history of depression and current maternal depressive symptoms. Results suggest the importance of considering positive affect in the context of family stress as a marker of resilience in adolescents at risk for depression. The current study provides evidence for coping as a protective factor, related to higher levels of positive affect and fewer depressive symptoms, in adolescents exposed to maternal depressive symptoms.

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Introduction

It is now well established that children of depressed mothers are at risk for developing internalizing and externalizing problems, with a specific risk for depression (Beardslee et al. 1998; Beck 1999; Goodman and Tully 2006). Children of depressed parents are almost 5 times more likely to develop a depressive disorder than children of non-depressed parents, and even relatively brief maternal major depression has been shown to increase risk for depression in adolescents (Hammen and Brennan 2003). Hypothesized mechanisms of the transmission of depression from mothers to children include genetic influences, innate dysfunctional neuroregulatory systems, exposure to negative maternal cognitions, affect, and behaviors, and the stressful family environment (Goodman and Gotlib 1999). It is important to note, however, that most children of depressed parents do *not* develop problems. Therefore, examining protective factors in this population could inform interventions by building upon and promoting resilience in the adolescent children of depressed mothers.

Resilience as Maintenance of Positive Affect

Current perspectives on resilience range widely, but a common thread across definitions is the presence of positive outcomes in the context of a potentially adverse environment (e.g., Compas and Reeslund 2009; Luthar et al. 2000; Masten 2007). Davidson's definition of resilience, "the maintenance of high levels of positive affect

and well-being in the face of significant adversity," has important implications for adolescents at risk for depression (Davidson 2000, p. 1198). One of the hallmark symptoms of depression, anhedonia, is the inability to experience pleasure, and it has been shown that depressed adults are less able to maintain positive emotions (Tomarken and Keener 1998). Thus, the ability to generate and sustain positive affect during chronic stress may serve as a protective factor, preventing depression (Folkman and Moscowitz 2000).

Observational Research of Affect in Children of Depressed Mothers

The majority of observational research of positive and negative affect in the children of depressed mothers has been conducted with infants, and differences in affect related to maternal depression have been identified. Several studies have found, for example, that infants of depressed mothers are less attentive and more aroused than infants of non-depressed mothers (e.g., Hernandez-Reif et al. 2006). Other studies demonstrate that infants are less positive (i.e., show fewer expressions of interest and affection) during interactions with depressed mothers than those with non-depressed mothers (e.g., Cohn et al. 1990; Dawson et al. 1999). Researchers have hypothesized that these infants may be responding to mothers' lack of positive affect. However, infant research is often limited by the reliance on observations as the sole measure of the child's functioning.

Observational research in young children of depressed mothers provides evidence that observed affect in children is related to mothers' symptoms and children's outcomes. For example, one study of children (ages 4–7) found that children of mothers with a history of depression exhibited less positive affect (but not more negative affect) than children of non-depressed mothers (Silk et al. 2006). A study of the same sample found that observed positive reward anticipation (displays of joy and information seeking) was associated with fewer internalizing problems in children (Silk et al. 2006). Further, higher levels of positive reward anticipation were associated with lower rates of internalizing symptoms for children of mothers who were currently depressed, but not for children of mothers who were not depressed (Silk et al. 2006). These results suggest that the experience of positive emotion in a negative situation may be a protective factor for internalizing symptoms in children of depressed mothers, particularly among mothers with a history of depression who are also currently depressed.

While limited, the observational research of school age and adolescent children of depressed parents has also found some differences related to affect. In one study, children of non-depressed mothers were more likely to exhibit comfortable/happy behavior than children of depressed mothers, even when mothers had not had a depressive episode in the past month (Tarullo et al. 1994). Similarly, depressed children and children at high risk for depression (i.e., family history of depression) were less likely to be positive in interactions with their mothers than children at low risk for depression (Dietz et al. 2008). Taken together, these observational studies suggest differences in behavior—particularly for positive affect—in children of depressed parents, from infancy through adolescence. Further, mothers' current depressive symptoms are important to consider, since mothers' negative affect may have a stronger effect on child outcomes than diagnostic history (Lovejoy et al. 2000; Sameroff 2000).

Coping/Emotion Regulation and Positive Affect

The ways that youth cope with the stress of living with a depressed parent may offer insight into the question of why some children of depressed parents fare better than others. The ability to cope adaptively with stress has been associated with better outcomes in youth at risk, and coping processes that generate and sustain positive affect in the context of chronic stress are important to consider (Compas et al. 2001; Folkman and Moscowitz 2000). Confirmatory factor analytic studies have supported a model of coping and stress reactivity in adolescence that includes primary control coping (problem solving, emotional expression, emotional modulation), secondary control coping (acceptance, cognitive restructuring, positive thinking, distraction), and disengagement (avoidance, denial, wishful thinking), as well as two categories of involuntary responses to stress: stress reactivity (emotional and physiological arousal, intrusive thoughts) and involuntary disengagement (e.g., numbing) (Compas et al. 2007; Connor-Smith et al. 2000). Previous research indicates that higher levels of secondary control coping, or attempts to adapt to the situation by regulating attention and cognition, among adolescents of depressed parents were related to fewer symptoms of internalizing and externalizing problems (Jaser et al. 2005; Langrock et al. 2002). Similarly, higher levels of primary control coping, or attempts to change the situation or one's response to it, were related to lower levels of externalizing problems in adolescents of depressed parents (Jaser et al. 2005; Langrock et al. 2002). However, there is still a need to examine coping in relation to positive outcomes, including positive affect, in adolescents at risk for depression. Early adolescence may be a particularly important developmental period to examine, given the increase in parent–child conflict and depressive symptoms during the transition to adolescence (Hankin and Abramson 2001).

The Present Study

The purpose of this study was to examine whether coping was related to observed affect and symptoms of depression in adolescent children of mothers with and without a history of depression. We expected that adolescents of mothers with a history of depression would exhibit less positive affect and more sadness during a stressful interaction, use less primary and secondary control coping, and report more depressive symptoms than adolescents of mothers without a history of depression. Second, we hypothesized that higher levels of current maternal depressive symptoms would be associated with lower levels of observed positive affect and primary and secondary control coping in adolescents and with higher levels of observed sadness and depressive symptoms in adolescents. Third, we planned to explore the association between coping (i.e., primary control coping, secondary control coping, and disengagement coping) and observed positive affect. Finally, we tested whether observed positive affect contributed to adolescents' symptoms of affective problems above and beyond maternal history of depression and current maternal depressive symptoms.

Method

Procedure

Mothers with and without a history of depression were recruited through an email advertisement circulated to the staff of a large university medical center. Interested mothers were screened through a diagnostic phone interview using the major depressive disorder (MDD) section of the Structured Clinical Diagnostic Interview (SCID, First et al. 2001). Mothers were eligible either if they had experienced at least one episode of MDD or if they had not been diagnosed with any Axis I disorder during the lifetime of the child. Mothers with a history of depression were not eligible if they met the criteria for bipolar disorder or reported psychotic symptoms, or if they were currently depressed. Adolescents were eligible if they were currently living with their mother and were between the ages of 11 and 14, the high-risk period of early adolescence, during which parent–child conflict and depressive symptoms are likely to increase (Hankin and Abramson 2001).

Eligible mothers and their adolescent children gave informed assent (consent) in compliance with the university's Internal Review Board. Data were collected during a laboratory visit, during which mothers and adolescents completed questionnaires and participated in two videotaped 15 min interactions, one positive and one negative (the current study uses data from the negative interaction only). The topic for the negative interaction was determined by mothers' and adolescents' answers to the 12 stressor items on the parental depression version of the Responses to Stress Questionnaire (Connor-Smith et al. 2000; Langrock et al. 2002). These items reflect areas of parent behavior shown to be affected by depression, such as maternal withdrawal, intrusiveness, and marital conflict (Cummings and Davies 1994; Gelfand and Teti 1990), but many of the items generalize to families without depression. Mothers and adolescents reported on how often the stressors occurred in the past 6 months and ranked the top three "most stressful for me." A common stressor was selected from the top three ranked by mothers and adolescents, or from the item that had the highest combined mother–child total. The pair was given a cue card to prompt discussion on this topic, (e.g., "What happened the last time [Mom was upset or tense]? What can we do to reduce this stress?"). After this interaction, the experimenter debriefed the participants and compensated them for their time ($25 each).

Participants

Participants were 72 mothers—34 with a history of depression and 38 without a history of depression—and their adolescent children. Adolescents' mean age was 12.2 years (SD = 1.1), and 50% were female. Mothers' mean age was 41.7 years (SD = 5.1), and the majority were Caucasian (82%), with 14% African American/black, and 4% Asian. Most of the mothers (68%) were married/partnered, 28% were divorced, and 4% were single. Mothers' median education was 16 years (4 year college degree), and the median occupation level on the Hollingshead scale (Hollingshead 1975) was 6 (e.g., office managers and technicians).

Measures

Demographic Information

Demographic information was obtained from a questionnaire completed by mothers, including questions regarding mothers' age, education, occupation, and marital status, and child's age and gender.

Maternal Diagnostic History

Mothers' history of depression during the lifetime of the child was determined during the screening process using the MDD section of the SCID (First et al. 2001). This section of the SCID was administered over the phone by a trained graduate student in clinical psychology. Mothers were rescreened prior to beginning the study if a month or more had passed since the phone screen.

Maternal Depressive Symptoms

Mothers completed the Beck Depression Inventory (Beck et al. 1996) as a measure of current depressive symptoms. The BDI consists of 21 questions, and higher scores indicate higher levels of current depressive symptoms. The BDI is one of the most widely used measures of depressive symptoms and has excellent reliability and validity; internal consistency for the current sample was $\alpha = .94$.

Adolescents' Coping

The parental depression version of the Responses to Stress Questionnaire (Connor-Smith et al. 2000; Langrock et al. 2002) was used to assess how adolescents responded to family stress. Items cover 5 factors of coping and stress responses: primary control engagement coping, secondary control engagement coping, disengagement coping, involuntary engagement/stress reactivity, and involuntary disengagement (Connor-Smith et al. 2000). Adolescents and their mothers were asked to rate degree/frequency with which the adolescent responded to the identified stressors. To control for response bias and individual differences in base rates of item endorsement, proportion scores were calculated by dividing the total score for each factor by the total score for the entire RSQ (Vitaliano et al. 1987). For the current analyses, we chose to focus on the voluntary coping strategies (i.e., primary control, secondary control, and disengagement coping). Internal consistency for the current sample was as follows: for primary control coping $\alpha = .70$ for mothers and .73 for adolescents; for secondary control coping $\alpha = .75$ for mothers and .78 for adolescents; and for disengagement coping, $\alpha = .79$ for mothers and .86 for adolescents.

Observed Affect

The 15 min negative interaction was coded using the Iowa Family Interaction Rating Scales (IFIRS, Melby et al. 1998), a global coding system that provides a measure of behavioral and emotional characteristics of individuals and dyads. The validity of the IFIRS system has been confirmed against reports from parents and children (Melby and Conger 2001), and it has been deemed "well-established" as a family measure for use with diverse populations (Alderfer et al. 2008). Each code is scored on a scale from 1 to 9, with 1 being "not at all characteristic" and 9 being "mainly characteristic" of the person during the interaction. The current study used the Positive Mood and Sadness codes as the best indicators of adolescents' positive and negative affect. The Positive Mood code captures the degree to which the person "appears content, happy, and optimistic and/or demonstrates positive behavior toward self, others, or things in general" (Melby et al. 1998). The Sadness code captures the extent to which the person's behavior "communicates emotional distress that is conveyed as sadness, unhappiness, despondency, depression, and regret" (Melby et al. 1998). Codes include both verbal statements (e.g., "things are going really well") and nonverbal behaviors (e.g., tearfulness). All interactions were coded by the first author, who was trained by the authors of IFIRS, and by another coder who completed extensive training on the IFIRS system. Coders were blind to participants' history of depression, coping style, and current symptoms. Coders met to reconcile discrepancies of greater than one point; the current study uses the consensus codes in all data analyses. Inter-coder reliability (intraclass correlation) was .82 for Positive Mood and .77 for Sadness.

Adolescent Depressive Symptoms

The Child Behavior Checklist (CBCL) and Youth Self Report (YSR) were used as measures of parents' and adolescents' perceptions of adolescent's functioning over the previous 6 months (Achenbach and Rescorla 2001). The CBCL and YSR are widely used, and normalized *T* scores allow an individual's data to be compared to norms for the same age and sex in the general population (Achenbach and Rescorla 2001). In the current study, we used the DSM-Oriented Affective Problems scale as the most specific indicator of depressive symptoms.

Results

Preliminary Analyses

Analyses were performed using SPSS (v. 16.0, Chicago, IL) statistical packages. Preliminary analyses indicated no significant differences between the groups on any demographic variables and no gender differences on key variables. The only significant association between child age and key variables was with observed sadness (older children exhibited lower levels of sadness). To reduce the number of analyses and control for method variance, we created composite variables from parent and child reports of coping and affective symptoms by converting parent and child reports to standardized scores (z-scores) and summing the z-scores for each variable.

Group Differences

To test for group differences between adolescents of mothers with and without a history of depression we conducted a series of one-way analyses of variance. Table 1

Table 1 Group differences in adolescent children of mothers with and without a history of depression

	History of depression Mean (SD)	No history of depression Mean (SD)	*F* value	Effect size
Primary control coping	−.47 (1.48)	.42 (1.81)	5.16*	.56
Secondary control coping	−.32 (1.92)	.29 (1.45)	2.30	.36
Disengagement coping	.22 (1.56)	−.20 (1.53)	1.34	.27
Observed sadness	4.15 (2.06)	4.05 (1.30)	.06	.05
Observed positive mood	3.59 (1.46)	4.16 (1.59)	2.50	.38
CBCL affective T score	57.12 (8.21)	53.00 (4.08)	7.50**	.69
YSR affective T score	56.24 (6.87)	53.39 (4.48)	4.41*	.52

Coping scores are composite scores (summed *z* scores) of parent and child reports

* $p < .05$; ** $p < .01$

indicates a significant difference for primary control coping, such that adolescents whose mothers had a history of depression used significantly less primary control coping than adolescents whose mothers had no history of depression, representing a medium-sized effect ($d = .56$). There was no significant difference in secondary control coping, disengagement coping, observed sadness, or observed positive mood between the adolescent children of mothers with and without a history of depression. There was a medium to large effect for affective symptoms, such that both parent-reported ($d = .69$) and self-reported ($d = .52$) symptoms of affective problems were significantly greater in the adolescent children of mothers with history of depression than mothers without a history of depression.

Maternal Depression and Adolescents' Coping, Observed Behavior, and Affective Symptoms

We conducted bivariate correlations to examine the relation between current maternal depressive symptoms, coping (composite scores from parent and child RSQ), observed affect, and affective symptoms (composite scores from CBCL and YSR). Table 2 indicates that, as hypothesized, higher levels of current maternal depressive symptoms on the BDI were associated with lower levels of primary control coping ($r = -.40$), secondary control coping ($r = -.32$), and observed positive mood ($r = -.23$), and higher levels of disengagement coping ($r = .26$) and affective problems ($r = .38$, all $p < .05$). Maternal depressive symptoms were not significantly related to observed sadness in adolescents.

In line with our hypothesis, greater use of primary control coping was associated with higher levels of observed positive mood ($r = .35$) and lower levels of affective problems ($r = -.53$, both $p < .01$). Similarly, greater use of secondary control coping was associated with higher levels of observed positive mood ($r = .34$) and lower levels of affective problems in adolescents ($r = -.59$, both $p < .01$). In contrast, greater use of disengagement coping was associated with lower levels of observed positive mood ($r = -.35$) and higher levels of affective problems ($r = .50$). However, coping was not significantly related to observed sadness in adolescents.

Finally, we used linear regression analysis to determine whether adolescents' observed positive affect contributed to symptoms of affective problems after accounting for maternal history of depression and current maternal depressive symptoms. As seen in Table 3, the model predicting affective problems was significant, explaining 22% of the variance in symptoms of affective problems. Even after accounting for maternal history of depression and current maternal depressive symptoms, adolescents' observed positive affect explained an additional 7% of the variance in affective problems, such that lower levels of

Table 2 Correlations between maternal depressive symptoms, coping, and adolescents' symptoms

	1	2	3	4	5	6	7
1. BDI-II	–						
2. Primary control coping	−.40***	–					
3. Secondary control coping	−.32**	.29*	–				
4. Disengagement coping	.26*	−.61***	−.53***	–			
5. Child sadness	.16	−.09	−.20	.02	–		
6. Child positive mood	−.23*	.35**	.34**	−.35*	−.01	–	
7. Affective problems	.38*	−.53**	−.59***	.50***	.17	−.36**	–

Coping scales and Affective problems are composite scores of parent and child reports

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

Table 3 Linear regression predicting affective problems

	Affective problems	
Block 1 R^2 $\Delta = .19$***	β	sr^2
History of depression	.24*	.22
BDI-II	.29*	.26
Block 2 R^2 $\Delta = .07$*		
History of depression	.21	.19
BDI-II	.24*	.22
Observed positive mood	−.26*	−.25
Model $R^2 = .22$***		

Model value is adjusted R^2. β = standardized beta; sr^2 = semi-partial correlation squared

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

observed positive behavior predicted higher levels of affective problems ($\beta = -.26$, $p = .018$).

Discussion

This study is one of the first to use observed indicators of emotion during a stressful parent–child interaction as a marker of resilience in adolescents at risk for depression. Results from the current study indicate that, in this high-risk sample of early adolescents, greater use of primary and secondary control coping to deal with family stress was related to higher levels of observed positive mood and fewer symptoms of affective problems. Thus, these types of coping may serve as a protective factor for adolescents at risk for depression. In contrast, greater use of disengagement coping strategies was related to lower levels of positive mood and greater symptoms of affective problems in adolescents. Most importantly, higher levels of observed positive affect were related to lower levels of affective problems in adolescents, even after accounting for maternal history of depression and current maternal depressive symptoms, supporting the idea that generating and maintaining positive affect during a stressful situation is a marker of resilience in adolescents at risk for depression.

As a first step, we examined the effects of maternal history of depression on adolescents' coping and observed affect. We found a medium-sized effect for maternal history of depression on the use of primary control coping strategies ($d = .56$). This suggests that adolescents whose mothers had a history of depression used fewer primary control coping strategies—including problem solving, emotional expression, and social support seeking—to cope with the stress they experienced related to maternal depression or their emotional response to it than adolescents whose mothers did not have a history of depression. It is possible that mothers with a history of depression are less likely to model these coping strategies for their children (Goodman and Gotlib 1999). Although we did not find significant group differences in secondary control coping, disengagement coping, or observed affect between groups, there were small effects of maternal diagnostic history in the expected direction for observed positive affect ($d = .38$) and secondary control coping ($d = .36$), suggesting that adolescents of mothers without a history of depression exhibited more positive affect during a stressful interaction and reported using more secondary control coping strategies than adolescents of mothers with a history of depression. Larger sample sizes may be needed to detect differences of this size.

When testing the effects of current maternal depression, we found that, as expected, current maternal depressive symptoms were associated with less use of primary and secondary control coping (per both parent and self-reports) and greater use of disengagement coping. Further, in line with other observational studies (e.g., Dietz et al. 2008; Silk et al. 2006), we found that current maternal depressive symptoms were significantly associated with lower levels of observed positive affect (but not negative affect) in adolescents. These findings suggest that mothers' current depressive symptoms and observed negative affect may have a stronger effect on adolescents' behavior than a diagnostic history of maternal depression (Jaser et al. 2009; Lovejoy et al. 2000; Sameroff 2000).

As hypothesized, adolescents' coping was related to observed affect, as well as parent- and self-reported symptoms of affective problems. In line with previous research of adolescent children of depressed parents (Jaser et al. 2005; Langrock et al. 2002), adolescents' use of secondary control coping to deal with family stress appears to be adaptive. For example, accepting that maternal depression is not their fault, or engaging in pleasant activities to distract themselves from family stress seem to be effective strategies for adolescents. In our sample, greater use of primary and secondary control coping and less use of disengagement coping was associated with lower levels of parent- and self-reported affective problems. Further, our results suggest that greater use of primary and secondary control coping and less use of disengagement coping was associated with adolescents' ability to maintain and generate positive affect during a stressful experience (i.e., a negative interaction with mother).

It is important to acknowledge the possible bidirectional nature of positive affect and coping. The broaden-and-build hypothesis (Fredrickson 1998, 2001) suggests that positive affect leads to a broadening of attention and cognition, enhancing creativity and flexibility in coping strategies. There appears to be a reciprocal relationship between positive emotions and adaptive coping—better coping leads to more positive emotions, which make it more likely

that people will use better coping strategies, creating an "upward spiral" (Fredrickson 2001). During a stressful period, the experience of positive affect may provide a sort of respite, giving individuals a chance to recover and cope more effectively (Lazarus et al. 1980). Similarly, positive emotions may allow people to rebuild social, intellectual, and physical resources that may be depleted under chronic stress (Fredrickson 1998). Longitudinal studies are needed to determine whether positive affect in a stressful situation predicts later adaptation or vice versa.

Limitations

The current study is limited by the cross-sectional sample, which precludes any testing of directionality. Longitudinal studies are needed to determine the effects of coping on positive affect over time. We also did not include measures of genetic influences or brain functioning, which may provide a more complete picture of the relationship between coping and affect in children of depressed and non-depressed mothers. In addition, our sample is relatively high SES, and results may not generalize to lower-income adolescents. Finally, additional information on the course of mothers' depression, such as timing and number of past episodes, could have implications for the current results (e.g., Hammen and Brennan 2003). It should also be noted that the lack of significant associations between observed sadness and coping and depressive symptoms may be due, in part, to the fact that observable cues of sadness may be more difficult to detect than those of positive affect.

Conclusions

These limitations notwithstanding, results from the current study have important implications. First, our results highlight the importance of considering positive affect in the context of family stress as a marker of resilience in adolescents at risk for depression. As such, the current study provides evidence for coping as a protective factor, related to higher levels of observed positive affect in adolescents exposed to maternal depressive symptoms. Because these coping strategies can be taught, interventions that promote adaptive coping strategies, particularly secondary control coping strategies, such as cognitive reframing and distraction, may be particularly beneficial to this population. For example, a family-based cognitive behavioral intervention developed by Compas et al. 2009 that includes a component to teach children of depressed parents these coping strategies shows promise for preventing adverse outcomes in this population. Similarly, interventions designed to help children learn strategies for self-regulation of negative affect, may promote resilience (Kovacs et al. 2006). Future studies should include larger sample sizes, in order to detect age/gender differences, as well as additional measures of positive and negative affect. In conclusion, results from the current study using behavioral observations provide some of the first evidence that coping may contribute to resilience in adolescents at risk for depression through the regulation of positive emotions.

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References

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

Alderfer, M. A., Fiese, B. H., Gold, J. I., Cutuli, J. J., Holmbeck, G. N., Goldbeck, L., et al. (2008). Evidence-based assessment in pediatric psychology: family measures. *Journal of Pediatric Psychology, 33*(9), 1046–1061.

Beardslee, W. R., Versage, E. M., & Gladstone, T. (1998). Children of affectively ill parents: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*, 1134–1141.

Beck, C. T. (1999). Maternal depression and child behaviour problems: A meta-analysis. *Journal of Advanced Nursing, 29*, 623–629.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for the beck depression inventory—II*. San Antonio, TX: Psychological Corporation.

Cohn, J. F., Campbell, S. B., Matias, R., & Hopkins, J. (1990). Face-to-face interactions of postpartum depressed and nondepressed infant-mother pairs at 2 months. *Developmental Psychology, 26*, 15–23.

Compas, B. E., & Reeslund, K. L. (2009). Processes of risk and resilience during adolescence. In M. R. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed.). Hoboken, NJ: John Wiley and Sons.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Progress, problems, and potential in theory and research. *Psychological Bulletin, 127*, 87–127.

Compas, B. E., Forehand, R., Keller, G., Champion, J. E., Rakow, A., Reeslund, K. L., et al. (2009). Randomized controlled trial of a family cognitive-behavioral preventive intervention for children of depressed parents. *Journal of Consulting and Clinical Psychology, 77*, 1007–1020.

Connor-Smith, J. K., Compas, B. E., Wadsworth, M. E., Thomsen, A. H., & Saltzman, H. (2000). Responses to stress in adolescence: Measurement of coping and involuntary stress responses. *Journal of Consulting and Clinical Psychology, 68*, 976–992.

Cummings, M. E., & Davies, P. T. (1994). Maternal depression and child development. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 35*, 73–112.

Davidson, R. (2000). Affective style, psychopathology, and resilience: Brain mechanisms and plasticity. *American Psychologist, 55*, 1196–1214.

Dawson, G., Frey, K., Self, J., Panagiotides, H., Hessl, D., Yamada, E., et al. (1999). Frontal brain electrical activity in infants of depressed and nondepressed mothers: Relation to variations in

infant behavior. *Development and Psychopathology, 11*(3), 589–605.

Dietz, L. J., Birmaher, B., Williamson, D. E., Silk, J. S., Dahl, R. E., Axelson, D. A., et al. (2008). Mother-child interactions in depressed children and children at high risk and low risk for future depression. *Journal of the American Academy of Child and Adolescent Psychiatry, 47*, 574–582.

First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (2001). *Structured clinical interview for DSM-IV-TR Axis I disorders, research version, patient edition (SCID-I/P)*. New York: Biometrics Research, New York State Psychiatric Institute.

Folkman, S., & Moscowitz, J. T. (2000). Positive affect and the other side of coping. *American Psychologist, 55*, 647–654.

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300–319.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build hypothesis of positive emotions. *American Psychologist, 56*, 218–226.

Gelfand, D. M., & Teti, D. M. (1990). The effects of maternal depression on children. *Clinical Psychology Review, 106*, 329–353.

Goodman, S. H., & Gotlib, I. H. (1999). Risk for psychopathology in the children of depressed mothers: A developmental model for understanding mechanisms of transmission. *Psychology Review, 106*, 458–490.

Goodman, S. H., & Tully, E. E. (2006). Depression in women who are mothers: An integrative model of risk for the development of psychopathology in their sons and daughters. In C. L. M. Keyes & S. H. Goodman (Eds.), *Women and depression: A handbook for the social, behavioral, and biomedical sciences* (pp. 241–282). New York: Cambridge University Press.

Hammen, C., & Brennan, P. A. (2003). Severity, chronicity, and timing of maternal depression, and risk for adolescent offspring diagnoses in a community sample. *Archives of General Psychiatry, 60*, 253–258.

Hankin, B. L., & Abramson, L. Y. (2001). Development of gender differences in depression: An elaborated cognitive vulnerability-transactional stress theory. *Psychological Bulletin, 127*, 773–796.

Hernandez-Reif, M., Field, T., Diego, M., & Ruddock, M. (2006). Greater arousal and less attentiveness to face/voice stimuli by neonates of depressed mothers on the brazelton neonatal behavioral assessment scale. *Infant Behavior and Development, 29*(4), 594–598.

Hollingshead, A. B. (1975). *Four-factor index of social status*.Unpublished manuscript, Yale University, Department of Sociology, New Haven.

Jaser, S. S., Langrock, A. M., Keller, G., Merchant, M. J., Benson, M. A., Reeslund, K. L., et al. (2005). Coping with the stress of parental depression II: Adolescent and parent reports of coping and adjustment. *Journal of Clinical Child and Adolescent Psychology, 34*, 193–205.

Jaser, S. S., Fear, J. M., Reeslund, K. L., Champion, J. E., Reising, M. M., & Compas, B. E. (2009). Maternal sadness and adolescents' responses to stress in offspring of mothers with and without a history of depression. *Journal of Clinical Child and Adolescent Psychology, 37*, 736–746.

Kovacs, M., Sherrill, J., George, C. J., Pollock, M., Tumuluru, R. V., & Ho, V. (2006). Contextual emotion-regulation therapy for childhood depression: description and pilot testing of a new intervention. *Journal of the American Academy of Child and Adolescent Psychiatry, 45*(8), 892–903.

Langrock, A. M., Compas, B. E., Keller, G., & Merchant, M. J. (2002). Coping with the stress of parental depression: Parents' reports of children's coping and emotional/behavioral problems. *Journal of Clinical Child and Adolescent Psychology, 31*, 312–324.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543–562.

Masten, A. S. (2007). Resilience in developing systems: Progress and promise as the fourth wave rises. *Development and Psychopathology, 19*, 921–930.

Melby, J. N., & Conger, R. D. (2001). The iowa family interaction rating scales: Instrument summary. In P. K. Kerig & K. M. Lindahl (Eds.), *Family observational coding systems* (pp. 33–58). Mahway, NJ: Lawrence Erlbaum.

Melby, J. N., Conger, R. D., Book, R., Reuter, M., Lucy, L., & Repinski, D. (1998). *The Iowa Family interaction rating scales* (5th Ed.).Unpublished manuscript, Ames Institute for Social and Behavioral Research, Iowa State University.

Silk, J. S., Shaw, D. S., Forbes, E. E., Lane, T. L., & Kovacs, M. (2006a). Maternal depression and child internalizing: The moderating role of child emotion regulation. *Journal of Clinical Child and Adolescent Psychology, 35*, 116–126.

Silk, J. S., Shaw, D. S., Skuban, E. M., Oland, A. A., & Kovacs, M. (2006b). Emotion regulation strategies in offspring of childhood-onset depressed mothers. *Journal of Child Psychology and Psychiatry, 47*, 69–78.

Tarullo, L. B., DeMulder, E. K., Martinez, P. E., & Radke-Yarrow, M. (1994). Dialogues with preadolescents and adolescents: Mother-child interaction patterns in affectively ill and well dyads. *Journal of Abnormal Child Psychology, 22*, 33–50.

Vitaliano, P. P., Maiuro, R. D., Russo, J., & Becker, J. (1987). Raw versus relative scores in the assessment of coping strategies. *Journal of Behavioral Medicine, 10*, 1–18.