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ORIGINAL PAPER

Testing Specificity: Associations of Stress and Coping with Symptoms of Anxiety and Depression in Youth

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Abstract Research has documented the co-occurrence of symptoms of anxiety and depression across the lifespan, suggesting that these symptoms share common correlates and etiology. The present study aimed to examine potential specific and/or transdiagnostic correlates of symptoms of anxiety and depression in at-risk youth. The present study examined youth stress associated with parental depression and youth coping as potential correlates of symptoms of anxiety and depression in a sample of children of depressed parents. One hundred eighty parents with a history of depression and their children ages 9–15 completed measures assessing youths' stress associated with parental depression (RSQ), symptoms of anxiety and depression (YSR and CBCL), and coping (RSQ). The results support the hypothesis that secondary control coping is a transdiagnostic correlate of symptoms of anxiety and depression in youth. Youth stress related to parental depression and primary control coping were specific correlates of youth depressive symptoms and not anxiety symptoms. Disengagement coping was not a significant correlate of symptoms of anxiety or depression in youth. Results suggest that there are both transdiagnostic and specific correlates of symptoms of anxiety and depression in youth. The current study provides evidence to suggest specific types of stress and strategies to cope with this stress demonstrate specificity to symptoms of anxiety and depression in high-risk offspring of depressed parents. These findings highlight the importance of understanding the relationship between stress, coping, and symptoms to inform prevention and treatment research.

Keywords Specificity · Depression · Anxiety · Stress · Coping

Introduction

Anxiety disorders and depression are highly prevalent in adolescence (e.g., Merikangas et al. 2010) and show high rates of diagnostic comorbidity (e.g., Kessler et al. 2005; Moffitt et al. 2007). Further, dimensional approaches support the frequent co-occurrence of symptoms of anxiety and depression during adolescence and across the lifespan (e.g., Krueger et al. 2003; Seeley et al. 2011). Considerable evidence also supports the occurrence of these symptoms independently in youths, indicating that anxiety and depression are distinct yet related sets of symptoms or disorders (e.g., Achenbach et al. 2003; Boots and Wareham 2010; van Lang et al. 2005).

High levels of diagnostic comorbidity and symptom co-occurrence suggest that these symptoms may share common correlates. Identifying shared and non-shared correlates of these symptoms will help us to further our understanding of how and where symptoms of anxiety and depression converge and diverge. Identification of transdiagnostic and specific correlates of symptoms of anxiety and depression could be important in understanding the development of symptoms and helpful in refining targets for intervention. Research has begun to identify correlates

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that may be transdiagnostic to both anxiety and depressive symptoms, with many studies focusing on cognitive vulnerabilities as correlates of these symptoms in adolescent and adult populations (e.g., Bird et al. 2013; D'Avanzato et al. 2013; Epkins et al. 2013; McLaughlin and Nolen-Hoeksema 2011).

Current understanding of transdiagnostic and specific correlates associated with these symptoms in children and adolescents remains limited, and more stringent tests of specificity are needed to understand these associations. Unique specificity analyses provide a stringent test of specificity, particularly for highly correlated symptoms like anxiety and depression. For unique effects, a correlate must predict one set of symptoms after controlling for the second type of symptoms (e.g., predicting anxiety symptoms when controlling for depressive symptoms and vice versa; Caron et al. 2006). To further test for specificity, using methods described by Cohen and Cohen (1983) and utilized by Mesman and Koot (2000), the comparison of part correlations between a correlate and symptoms of anxiety and depression provides an additional criterion for specificity.

Given the high rates of co-occurring symptoms of anxiety and depression in parents with a history of depression and their offspring (Goodman et al. 2011; Sellers et al. 2013), this population offers an opportunity to study correlates of these symptoms. Offspring of depressed parents are at significantly greater risk for developing depression and other internalizing problems, including anxiety, than children of non-depressed parents (Goodman et al. 2011). Research suggests that parental internalizing psychopathology may be a non-specific correlate of symptoms in their offspring (Starr et al. 2014). However, a number of factors associated with parental depression may or may not act as transdiagnostic correlates of symptoms in youth.

One path through which parental depression increases risk in offspring is exposure to stress in the family environment associated with parents' depressive symptoms. Youth living with a depressed parent experience increased stress in their environment, driven by the unpredictability in interactions with their parent, and this stress is associated with increased internalizing problems in youth (Goodman and Gotlib 1999). In parent–child interactions, depressed parents' behavior is characterized by withdrawal and intrusiveness, as well as low rates of positive parenting behaviors (Lovejoy et al. 2000). Depressed parents vacillate between these two patterns, contributing to a negative and unpredictable family environment (e.g., Jaser et al. 2005). Furthermore, parental depression is associated with increased interparental conflict and marital discord (e.g., Hammen et al. 2004). Parental withdrawal, intrusiveness, and interparental conflict are related to increased symptoms of mixed anxiety/depression in offspring of depressed parents (e.g., Fear et al. 2009; Jaser et al. 2005); however, distinct measures of anxiety and depression symptoms have not been examined in these studies. Evidence demonstrating associations between stress related to parental depression and symptoms of anxiety and depression in offspring suggests that, consistent with the broader literature on stress and psychopathology in youth (McMahon et al. 2004), stress associated with parental depression may be a transdiagnostic correlate of symptoms in youth.

Given high levels of stress in the family environment associated with parental depression, the way in which offspring of depressed parents cope with this stress may function as a source of increased risk or resilience. Coping is defined as "conscious volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances" (Compas et al. 2001, p. 89). Drawing on the work of Weisz et al. (1994), this control-based model of coping organizes strategies into three categories: primary control coping (i.e., changing the stressor or acting directly upon your emotions), secondary control coping (i.e., adapting to the stressor), and disengagement coping (i.e., avoiding the stressor). Coping is associated with both internalizing and externalizing problems in youth (Compas et al. 2014). Increased use of both primary and secondary control coping has been linked to fewer internalizing symptoms and specifically fewer symptoms of anxiety and depression across a number of samples. Increased use of disengagement coping has been linked to increased symptoms in these samples (e.g., Raviv and Wadsworth 2010; Wadsworth and Compas 2002).

In offspring of depressed parents, symptoms of mixed anxiety/depression have consistently been negatively associated with secondary control coping (Dunbar et al. 2013; Fear et al. 2009; Jaser et al. 2005). Findings associated with primary control and disengagement coping in offspring of depressed parents are less consistent. A number of studies have found no significant associations between symptoms and primary control or disengagement coping in this population (Fear et al. 2009; Jaser et al. 2005), while others have shown a negative association between symptoms and primary control coping and a positive association between symptoms and disengagement coping (e.g., Jaser et al. 2011).

Although there is considerable evidence to support the relationship between coping and symptoms in offspring of depressed parents, most studies have used measures of mixed symptoms, broad internalizing symptoms, or focused on depressive symptoms only. As a result, our understanding of how coping with the stress of parental depression may be a specific correlate of symptoms of anxiety versus depression is limited. Research examining measures of mixed anxiety/depression suggests that secondary control coping may be a transdiagnostic correlate of

both symptoms. Less evidences exists for whether primary control and disengagement coping are specific or transdiagnostic correlates of symptoms in youth.

The current study aims to explore whether stress associated with parental depression and strategies used to cope with this stress in youth demonstrate specificity to symptoms of anxiety and depression. Past findings examining predictors of symptoms of anxiety and depression inform hypotheses for the current study: (1) Youth stress associated with parental depressive symptoms will be a transdiagnostic correlate of symptoms of anxiety and depression in youth. (2) Secondary control coping will be a transdiagnostic correlate of symptoms of anxiety and depression in youth. Previous research does not provide consistent evidence for primary control and disengagement coping as either specific or transdiagnostic correlates of symptoms in youth; analyses of these two types of coping were considered exploratory.

Method

Participants

The sample for the current study was drawn from a sample of 180 families with 242 children (121 boys, 121 girls) ages of 9–15 years from the area in and around two cities in southeastern and northeastern U.S. Parents met criteria for at least one episode of MDD during the lifetime of their child(ren) and met the following criteria: (a) parent had no history of bipolar I, schizophrenia, or schizoaffective disorders and did not meet current criteria for alcohol or substance use; (b) children had no history of autism spectrum disorders, intellectual disability, bipolar I disorder, or schizophrenia; and (c) children did not currently meet criteria for MDD, conduct disorder or substance/alcohol abuse. One child was randomly selected from each multiple-child family for analyses to address the possible non-independence of children within the same family. The final sample included 180 parents (88.9 % female; $M_{age} = 41.96$) and 180 children (49.4 % female; $M_{age} = 11.46$, SD = 2.00). Of the parents and children, 82.2 % were Caucasian, 11.7 % African American, 2.2 % Hispanic, 1.1 % Asian, 0.6 % American Indian or Alaska Native, and 2.2 % mixed race/ethnicity. Annual family income ranged from less than $5,000 to over $180,000 (median income = $40,000). Of parents, 61.7 % were married, 21.7 % divorced, 5.0 % separated, 1.1 % widowed, and 10.6 % never married. Twenty-seven percent of parents were in currently depressed at the time of assessment and 73 % were not in episode at the time of the baseline assessment. At baseline, 82 % of parents reported experiencing multiple episodes of depression during the youth's lifetime (median number of episodes = 3), 15 % of parents reported experiencing a single episode in the youth's lifetime, and 2.7 % of parents reported dysthymia in the youth's lifetime.

Procedure

Participants were enrolled in a study testing the efficacy of a family group cognitive-behavioral intervention to prevent depression in offspring of parents with a history of MDD. Informed consent was obtained from all parents and assent was obtained from all youth. Baseline data are utilized in the current study.

Measures

Youth Symptoms of Anxiety and Depression

Parents completed the Child Behavior Checklist (CBCL; Achenbach and Rescorla 2001) about their child. The CBCL includes a 118-item checklist of problem behaviors during the previous 6 months. Youths completed the Youth Self Report (YSR; Achenbach and Rescorla 2001), the self-report version of the CBCL for adolescents 11–18 years of age. Children who were 9 or 10 years of age completed the YSR to allow for complete data on all measures. The CBCL and YSR assess a number of problem areas in youth, including anxiety, depression, oppositional behaviors, and attention, and reliability and validity of the CBCL and YSR are well established.

The DSM Affective Problems and Anxiety Problems scales were selected for analyses. These scales were derived based on items that reflect DSM symptoms of depression and anxiety disorders. The Affective Problems scale is comprised of 13 items, including symptoms such as sadness, sleep problems, and feelings of worthlessness. The Anxiety Problems scale includes 6 items assessing symptoms such as nervousness, fears, and worries. The DSM-oriented scales have demonstrated strong test-retest reliability, internal consistency, and cross-informant agreement (Achenbach et al. 2003), and good convergent and divergent validity (Nakamura et al. 2009). These scales are correlated with diagnoses targeted by each DSM scale (Ebesutani et al. 2010), and the Anxiety and Affective Problems scales have predicted their target diagnoses (Ferdinand 2008). Internal consistency reliability for the current sample was $\alpha = .71$ for the CBCL Affective Problems scale; $\alpha = .64$ for the CBCL Anxiety Problems scale; $\alpha = .78$ for the YSR Affective Problems scale; and $\alpha = .71$ for the YSR Anxiety Problems scale.

Youth Stress Associated with Parental Depression and Youth Coping

Parents and their children completed the parental depression version of the Responses to Stress Questionnaire

(RSQ; Connor-Smith et al. 2000), a self-report measure of youth stress related parental depression and how children cope with this stress. The RSQ consists of two sections—frequency of stressful events related to parental depression in the past 6 months and how the child responds to those stressors. The RSQ demonstrates excellent reliability and validity (Connor-Smith et al. 2000). In the first section, 12 stressful events capturing three areas of parent behavior affected by parental depression (inter-parental conflict, withdrawal, and intrusiveness) are assessed. Items are rated on a scale from 1 to 4 that indicates the frequency with which the child experiences these stressors. Pro-rated scores were calculated for the total stress score in order to account for missing items.

The second portion of the RSQ includes 57 items assessing how often the child engaged in or enacted specific coping responses in the past 6 months. A five-factor model on the ways in which youths cope with and respond to stress has been established and supported by confirmatory factor analyses across diverse samples of adolescents reporting on a wide range of stressors (e.g., Benson et al. 2011; Compas et al. 2006; Connor-Smith et al. 2000; Wadsworth et al. 2004; Yao et al. 2010). The five factors include three coping factors and two stress reactivity factors. The present study focuses on the three coping factors: primary control coping (i.e., problem solving, emotional expression, emotional modulation), secondary control coping (i.e., cognitive restructuring, positive thinking, acceptance, distraction), and disengagement coping (i.e., avoidance, denial, wishful thinking). Proportion scores were used to control for response bias and individual differences in base rates of item endorsement. Proportion scores are calculated by taking the total score for a factor and dividing by the RSQ total score (e.g., Osowiecki and Compas 1999; Vitaliano et al. 1987). Internal consistencies for the current sample were $\alpha = .77$ for RSQ primary control coping, $\alpha = .73$ for secondary control coping, and $\alpha = .79$ for disengagement coping.

Parent Symptoms of Depression

Parents completed the Beck Depression Inventory-II (BDI-II; Beck et al. 1996; Steer et al. 2001), a widely used 21-item self-report measure assessing depressive symptoms over the previous 2 weeks. The BDI-II assesses depressive symptoms on a scale from 0 (no change/not at all) to 3 (significant change/severely). The internal consistency in the current sample was $\alpha = .93$.

Data Analyses

Consistent with previous research (e.g., Compas et al. 2010; Dunbar et al. 2013; Watson et al. 2014), composite variables were created from parent and youth reports of stress related to parental depression, coping, and symptoms of anxiety and depression by converting scores to standardized scores (z-scores) and calculating the mean of the parent and youth z-scores for each variable. Means and standard deviations for youth symptoms of anxiety and depression, youth coping, and total stress related to parental depression were calculated. Bivariate Pearson's correlations were calculated to examine associations between symptoms, coping, and total stress for both composite and parent and child report. Linear multiple regression analyses were conducted to examine the extent to which total youth stress related to parental depression and youth coping demonstrate specificity to youth symptoms of anxiety versus depression. The part (semi-partial) correlations were compared using Fisher's z test to confirm findings from the linear multiple regression analyses for the between-subjects specificity of youth stress and coping to symptoms of anxiety and depression. Because the sample relied on parent depression history in the child's lifetime, parents' depressive symptoms at the time of assessment were included as a control in regression analyses.

Results

For the purposes of describing the sample and allowing for comparison to other studies, means and standard deviations for youth symptoms of anxiety and depression, youth coping, and youth total stress scores are presented in Table 1. As expected in this at-risk sample, youth depressive symptoms as measured by the YSR Affective Problems Scale (mean $T = 64.54$) and the CBCL Affective Problems scale (mean $T = 60.43$) reflected moderate levels of depressive symptoms. Similarly, youth Anxiety Problems on the YSR (mean $T = 55.36$) and CBCL (mean $T = 58.22$) were moderately elevated. Parents' depressive symptoms as measured by the BDI-II ranged from 0 to 52.5, with a mean score of 19.23 ($SD = 12.58$). Scores between 13 and 19 are in the mild range on the BDI, and scores 20 and above are in the moderate to severe range.

Correlational analyses were conducted to examine the associations between youth anxiety and depressive symptoms, total stress, and child coping. First, correlations were examined between parent and youth report. Parent and youth report on total stress associated with parental depression, primary control, secondary control, and disengagement coping, and symptoms of anxiety and depression were all significantly correlated and ranged from .17 to .43. Next, correlations were examined for the composite of parent and youth report on symptoms, stress, and coping (see Table 2). Youth stress related to parental depression was significantly associated with symptoms of anxiety and

Table 1 Means and standard deviations for measures of youth depressive symptoms, anxiety symptoms, stress related to parental depression, and coping

Youth symptoms	Mean	Standard deviation
Self-report depressive symptoms (YSR)	56.54	7.39
Self-report anxiety symptoms (YSR)	55.36	6.98
Parent-report depressive symptoms (CBCL)	60.43	8.04
Parent-report anxiety symptoms (CBCL)	58.22	7.76
Youth stress related to parental depression		
Self-report total stress (RSQ)	9.73	6.27
Parent report total stress (RSQ)	13.05	5.58
Youth coping		
Self-report primary control coping (RSQ)	.17	.04
Self-report secondary control coping (RSQ)	.23	.05
Self-report disengagement coping (RSQ)	.20	.03
Parent-report primary control coping (RSQ)	.17	.04
Parent-report secondary control coping (RSQ)	.21	.05
Parent-report disengagement coping (RSQ)	.20	.03

YSR Youth Self Report, *CBCL* Child Behavior Checklist, *RSQ* Responses to Stress Questionnaire

Table 2 Bivariate correlations between measures of youth stress related to parental depression, youth symptoms of anxiety and depression, and youth coping

	Youth stress[a]	Depressive symptoms	Anxiety symptoms	Primary control coping	Secondary control coping	Disengagement
Youth stress[a]	–					
Depressive symptoms	.46**	–				
Anxiety symptoms	.30**	.62**	–			
Primary control coping	−.54**	−.41**	−.20**	–		
Secondary control coping	−.35**	−.53**	−.44**	.33**	–	
Disengagement coping	.48**	.20**	.03	−.71**	−.23**	–

Scores are composite scores of parent and child reports of youth stress related to parental depression, symptoms, and coping

[a] Youth Stress refers specifically to stress related to parental depression as measured on the RSQ

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

depression. Additionally, youth stress related to parental depression was significantly associated with primary control, secondary control, and disengagement coping. Youth primary control coping was significantly negatively associated with symptoms of anxiety and depression. Secondary control coping was also significantly negatively associated with youth anxiety and depression. Youth disengagement coping was positively associated with youth depressive symptoms, but not anxiety symptoms. Fisher's z tests were performed to analyze differences in the strength of the correlation between youth symptoms and the hypothesized correlates. Youth depressive symptoms were more strongly associated with primary control coping ($z = 3.44$, $p < .001$), disengagement coping ($z = 2.63$; $p < .01$), and stress associated with parental depression ($z = 2.71$, $p < .01$) than was youth anxiety. In addition, parental depressive symptoms were significantly correlated with youth anxiety ($r = .18$, $p < .05$) and depressive symptoms ($r = .36$, $p < .01$).

Linear regressions to examine the whether youth stress from parental depression and youth coping were significant and unique predictors of symptoms of anxiety and depression are presented in Table 3. Youth stress associated with parental depression and youth primary and secondary control coping were significant independent predictors after accounting for youth anxiety symptoms.

Table 3 Linear multiple regression analyses testing youth stress related to parental depression and coping as predictors of symptoms of anxiety and depression

Variable	β	t value	R^2 change	Total R^2	Part correlation
DV: Youth depressive symptoms					
			.13***	.55	
Parent depressive symptoms	.16	2.71***			.141
Youth stress	.14	2.00*			.104
Primary control coping	−.23	−2.80**			−.146
Secondary control coping	−.23	−3.75***			−.195
Disengagement coping	−.14	−1.81			−.094
Anxiety symptoms	.42	6.91***			.359
DV: Youth anxiety symptoms					
			.17***	.40	
Parent depressive symptoms	−.04	.60			−.036
Youth stress	.06	.71			.043
Primary control coping	.01	.14			.008
Secondary control coping	−.17	−2.32*			−.140
Disengagement coping	−.13	−1.41			−.084
Depressive symptoms	.55	6.91***			.415

Scores are composite scores of parent and child reports of youth stress related to parental depression, symptoms, and coping

[a] Youth Stress refers specifically to stress related to parental depression on the RSQ

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

Disengagement coping was not a significant unique predictor of youth depressive symptoms. Youth anxiety symptoms were also a significant predictor of youth depressive symptoms. In total, youth stress associated with parental depression, primary and secondary control coping, and anxiety symptoms accounted for 49 % of the variance in youth depressive symptoms. In addition, current parent depressive symptoms were a significant predictor of youth depressive symptoms, indicating higher self-reported depressive symptoms in the parent predicted higher levels of depressive symptoms in the child.

Only youth secondary control coping and youth depressive symptoms were significant unique predictors of youth anxiety symptoms. Youth stress associated with parental depression, primary control coping, and disengagement coping were not significant predictors of youth anxiety symptoms. Youth secondary control coping and depressive symptoms accounted for 39 % of the variance in youth anxiety symptoms. Parent self-reported depressive symptoms did not significantly predict youth anxiety symptoms.

Part correlations were compared as a second test of specificity of the hypothesized predictors (Lee and Preacher 2013). Analyses confirmed findings from the linear regression analyses, demonstrating that the part correlation between primary control coping ($z = -2.37$; $p < .01$) and youth depressive symptoms was significantly stronger than the part correlation between primary control coping and youth anxiety symptoms. However, Fishers z test indicates that the part correlation between total stress associated with parental depression and youth depressive symptoms was not significantly different than total stress and anxiety symptoms ($z = 0.94$; $p = .16$). Additionally, the part correlation between youth secondary control coping ($z = -0.85$; $p = .20$) and youth depressive and anxiety symptoms was not significantly different, confirming findings from the regression analyses.

Discussion

The present study confirmed previous work showing that anxiety and depressive symptoms are highly correlated but separable sets of symptoms in youth. The high correlation between the Anxiety and Affective Problems scales in this study is similar to other studies (e.g., Achenbach et al. 2005; Boots and Wareham 2010). Further, specificity analyses found that while some correlates of symptoms of anxiety and depression are transdiagnostic, others demonstrate specificity to symptoms of anxiety or depression.

Similar to previous research with this population (e.g., Jaser et al. 2005), bivariate correlational analyses indicated youth stress associated with parental depression was associated with higher symptoms of both anxiety and depression. Contrary to our hypothesis, youth stress associated with parental depression demonstrated specificity to

symptoms of depression but not anxiety in linear regression analyses. However, in a third more stringent test of specificity, there were no differences between the part correlations of symptoms of depression or anxiety and stress associated with parental depression. Previous research supports stress as a non-specific correlate of psychopathology across the lifespan (Hammen 2005; McMahon et al. 2004; Monroe and Reid 2009). However, the current study examined stress specific to living with a depressed parent, rather than general life stress. Given substantial research to support specific biological and cognitive risk factors for depression, these risk factors may predispose youth to be uniquely vulnerable to the type of stress created by parental depression (e.g., Conway et al. 2014; Hankin et al. 2004, 2012; Vrshek-Schallhorn et al. 2013). These findings suggest that examining more distinct types of stress experienced by youth (e.g., stress specific to parental depression), rather than general overall life stress, may further inform our understanding of how stress is associated with symptoms of psychopathology in a sample of youth of depressed parents.

In bivariate analyses, higher reported primary control coping in the face of stress associated with parental depression was associated with lower reported anxiety and depressive symptoms. In specificity analyses, primary control coping in response to stress due to parental depression was associated with symptoms of depression but not anxiety. Previous studies showed varied evidence for primary control coping as a correlate of mixed anxiety/depression symptoms in offspring of depressed parents (e.g., Fear et al. 2009; Jaser et al. 2005, 2011). Given that primary control coping was found to be a specific correlate of depressive symptoms, this may account for mixed findings across studies using a mixed anxiety/depression measure. Primary control coping reflects strategies that involve taking action to change the stressful situation or one's emotions associated with the stressful situation. The active component of primary control coping strategies may parallel the process of behavioral activation, which has been supported as an effective treatment for depressive symptoms but not symptoms of anxiety (e.g., Sturmey 2009). Primary control coping also involves the modulation of and controlled expression of emotions, which may be particularly important in coping with the stress associated with parental depression.

As hypothesized, in both bivariate and specificity analyses, secondary control coping was a transdiagnostic correlate of symptoms in youth. Analyses replicate prior studies that show secondary control coping is related to lower internalizing symptoms (e.g., Compas et al. 2010; Fear et al. 2009; Jaser et al. 2005). Secondary control coping reflects strategies that involve altering or adapting the self to a stressful situation, including cognitive reappraisal and positive thinking. Automatic negative cognitions have been shown to predict both symptoms of anxiety and depression (e.g., Bird et al. 2013). Therefore, using strategies to reframe or manage those negative thoughts through secondary control coping may decrease symptoms in youth at high risk for depression. In addition, parental depression is experienced as relatively uncontrollable, suggesting that secondary control coping may be a particularly important strategy for children of depressed parents when coping with the stress associated with their parent's depression. Findings from Compas et al. (2010) demonstrated that secondary control coping mediated the impact of a preventive intervention for children of depressed parents on internalizing symptoms in youth. The present study further suggests that secondary control coping may be an important target for transdiagnostic interventions for anxiety and depression.

Findings for disengagement coping as a predictor of symptoms of anxiety and depression in youth were mixed. In bivariate correlations, youth depressive symptoms and disengagement coping were positively correlated. Symptoms of anxiety were not significantly correlated with disengagement coping at this level. In linear regression analyses, disengagement coping was not a significant predictor of either symptom in youth. Disengagement coping includes strategies of orienting away from a stressful situation. While these strategies intuitively appear to be strategies that would exacerbate internalizing symptoms, these findings suggest that in the presence of primary and secondary control coping, disengagement coping in response to stress associated with parental depression is not a significant correlate of symptoms in youth. Further research is needed to explore this relationship in the context of more adaptive coping strategies. Exploration of potential moderators of the effects of disengagement coping will be an important next step in order to understand whether these strategies may work or be more harmful for some groups but not others.

The present study has several limitations. First, the sample was based on parents' depression history. Although parents experienced heightened levels of anxiety symptoms in this sample, no parents in the sample had a history of anxiety only. In future research it will be important to include a sample of parents with a history of anxiety only, depression only, and both anxiety and depression to best test specificity to youth outcomes. In addition, the Affective Problems and Anxiety Problems scales are comprised of 13- and 6-items, respectively. The alphas for these scales ranged from .64 to .78, with only the parent report on the child's anxiety problems falling below the acceptable range ($\alpha < .70$). These coefficients are within the range of those reported by Achenbach and Rescorla (2001). Given that alpha is a function of the number of items per scale, it is not

surprising that the Anxiety Problems scale demonstrated lower reliability when compared to the Affective Problems scale. Future research may benefit from using additional measures of symptoms of anxiety that capture a wider range of symptoms or include a greater number of items. Further, the RSQ parental depression version probes for ways in which youth cope with parental depression, an uncontrollable source of stress in their lives. Secondary control coping includes strategies that are most useful in situations that are uncontrollable; therefore, secondary control coping may show stronger associations with uncontrollable stressors (e.g., depression) than controllable ones. Additional tests of the specificity of secondary control coping as it relates to symptoms of anxiety and depression in controllable stressful situations are needed to strengthen these findings. Finally, the present study examined cross-sectional relations among symptoms and their correlates. Cross-sectional analyses provide an important first step in understanding specificity in coping and symptoms of anxiety and depression in this sample of high-risk youth. However, causality cannot be inferred from these analyses. In order to better understand the relationship between these mechanisms of risk and symptoms in youth, the next step in this research are prospective studies. Although it is plausible that coping may be a risk or protective factor for symptoms in children and adolescents, it is also plausible that symptoms of anxiety and depression in youth may impact youth's ability to effectively employ adaptive coping strategies. Therefore, longitudinal studies are needed to allow for causal inferences to be made regarding the relationship between stress, coping, and symptoms.

Identifying specific and transdiagnostic correlates of depression and anxiety symptoms in youth has important implications for prevention and treatment. The field has moved toward the development of promising transdiagnostic treatments for youth anxiety and depression (e.g., Craske 2012; Ehrenreich-May and Bilek 2012). Transdiagnostic treatments may offer a number of benefits over disorder-specific approaches, including the potential to better address comorbidity in youth and a consolidation of resources for clinicians in real world settings. Although these symptoms frequently co-occur and have potentially shared mechanisms of risk, it is important to also recognize that these symptoms also have specific factors that may impact intervention. Additionally, findings inform specific risk and protective factors for depressive symptoms in youth, suggesting that youth experiencing elevated depressive symptoms may uniquely benefit from learning certain coping skills. While transdiagnostic treatment protocols may address a number of useful skills for both symptoms of anxiety and depression in youths, specific predictors of symptoms in youth should not be overlooked. Future work that focuses on the use of stringent tests of specificity to identify those mechanisms that are truly transdiagnostic versus specific will inform our understanding of the development, prevention, and treatment of these problems in youth. The current study provides evidence to suggest specific types of stress and the use of primary and secondary control strategies to cope with this stress demonstrate specificity to symptoms of anxiety and depression in high-risk children and adolescents. These findings highlight the importance of understanding the relationship between stress, coping, and symptoms in order to inform prevention and treatment research.

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