

Adolescents' Coping Socialization: The Interactive Role of Maternal Coping Suggestions
and Adolescents' Coping in Predicting Symptoms of Anxiety and Depression

By

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To my parents, Ralph Anderson, Rosa Atkinson, and Melveta Anderson,
who have provided unconditional love and support in all of my endeavors

and

To my advisor Bruce Compas,
for his guidance, patience, and constant encouragement

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INTRODUCTION

Adolescence is a developmental period characterized by increased exposure to stress in several life domains and a concomitant increase in risk for several types of internalizing and externalizing problems. Of particular salience is a marked increase in exposure to peer stress, such as social exclusion or peer victimization, which co-occurs with a rise in time spent with peers separate from adults (Sontag et al., 2008). As a consequence, adolescence represents an important time for the development of effective emotion regulation skills and strategies for coping with interpersonal stress. These strategies, including problem solving, acceptance, and cognitive reappraisal require complex cognitive skills that emerge in adolescence. An important factor that is heavily involved in shaping and influencing how adolescents cope with stress is the type of coping socialization they receive from their parents. This process, referred to as the socialization of coping, involves either a parent's explicit coaching or modeling of coping strategies for adolescents and plays a crucial role in not only the development of effective coping strategies, but also in adolescents' internalizing symptoms (Abaied & Rudolph, 2010a; 2011). Accordingly, the current study examined the relationship between maternal socialization of coping, adolescent coping with peer stress, and adolescents' symptoms of anxiety and depression.

Chronic stress is a significant risk factor for the etiology of psychological and behavioral problems throughout childhood and adolescence (Grant et al., 2003; 2004). Extant research suggests that exposure to chronic stress increases the risk for a wide range of internalizing and externalizing problems (Grant et al., 2004; Kushner, 2015; Zandstra et al., 2015). Furthermore, particular types of stress may be especially pertinent depending on an individual's developmental level. Notably, ongoing stress in peer relationships, such as social exclusion, rejection, or victimization by peers, is a salient stressor for adolescents (Conley & Rudolph, 2009; Davila et al., 1995; Ladd et al., 2019).

During adolescence, peer relationships become a critical component of social support systems and relationships as youth become increasingly independent (Wong et al., 2019; Bukowski et al., 2011; Sontag et al., 2008). During adolescence, time spent separately with peers also increases dramatically, further emphasizing the importance of peer relationships (Abaied & Rudolph, 2011). As such, chronic stress in peer relationships poses a heightened threat to youth, potentially contributing to increased symptoms of depression and anxiety (Coiro et al., 2017; Flynn & Rudolph, 2007; Gazelle & Rubin, 2019; Sontag et al., 2008).

There is a large body of research indicating that the association between stress and psychopathology is mediated and moderated in part by the ways in which youth cope with stress and regulate their emotions (Compas et al., 2017; Eisenberg et al., 2010). For instance, primary control (e.g., problem solving, emotional expression) and secondary control coping (e.g., cognitive reappraisal, acceptance) strategies are associated with fewer internalizing symptoms and increased positive mood (e.g., Compas et al., 2014; Gruhn et al., 2019; Jaser et al., 2007; Murphy et al., 2017), whereas disengagement coping strategies (e.g., avoidance, denial) are associated with increased internalizing and externalizing psychopathology (Compas et al., 2017).

The type of coping strategies that benefit youth may also vary as a function of the characteristics and severity of the source of stress (Compas et al., 2017). For instance, in contexts for which the stressor is uncontrollable (e.g., a significant childhood illness such as cancer), secondary control coping strategies are found to be more effective in reducing symptoms of depression and anxiety (Compas et al., 2012). Accordingly, secondary control coping strategies focus on how to adapt oneself to the stressor when it cannot be directly altered. For instance, rather than attempting to find a solution for or directly changing a source of stress, an individual may accept the reality of the situation and attempt to distract themselves with an enjoyable activity. Alternatively, in contexts for which the stressor is at least in part controllable (e.g., conflict with

peers), primary control coping strategies have been found to predict more adaptive outcomes in youth (e.g., Jaser et al., 2007). Primary control coping strategies are direct efforts to change or alter the problem or one's emotional response to the stressor. For instance, during arguments with friends, adolescents may engage in problem solving strategies to resolve the conflict. In the context of a controllable stressor, this coping mechanism may circumvent or alleviate some of the stress associated with the argument. Collectively, the use of effective coping strategies in appropriate contexts provides a crucial foundation for facilitating adaptation in youth exposed to acute and chronic peer stress.

Parents can either buffer or exacerbate the effects of stress by communicating messages to adolescents about adaptive or maladaptive coping and emotion regulation mechanisms, either through explicit coaching or modeling such strategies. This process, referred to as the socialization of coping, may have a significant influence on the coping strategies that youth employ (Abaied & Rudolph, 2010a). For instance, research suggests that parental socialization of coping is correlated with children's coping behavior per mother report (Miller et al., 1994), child report (Kliewer & Lewis 1995), and observations from a parent-child discussion task (Kliewer et al., 2006; Abaied & Rudolph, 2010a). Specifically, Abaied and Rudolph (2011) demonstrated that when mothers socialize engagement coping suggestions, including both primary control and secondary control coping, their children exhibited lower levels of stress reactivity. These findings were extended in a study of late adolescence in emerging adults, such that parental engagement suggestions were associated with higher levels of engagement coping (Abaied et al., 2014). When parents initiate socialization of adaptive forms of coping, they facilitate affective, cognitive, and behavioral strategies that may bolster or modify their adolescents' routine responses to stress. Alternatively, when parents encourage the use of more maladaptive forms of coping (e.g., avoidance or denial), they promote their adolescents' ineffective responses to stress (Abaied & Rudolph, 2011).

In addition to influencing the coping strategies used by their adolescents, prior research suggests that parental socialization of coping is directly related to youth's adjustment, potentially as a function of the inherent support, investment, and interest conveyed by the parent when they engage in coaching coping behaviors. For instance, parental secondary control coping suggestions have been shown to predict fewer internalizing symptoms in youth (Stanger et al., 2018). Engagement coping suggestions have predicted less externalizing psychopathology over time for girls, while disengagement coping suggestions have predicted heightened depression symptoms in youth. Specifically, the impact of these coping suggestions may be most impactful when youth encounter heightened levels of stress (Abaied & Rudolph, 2010a). This may be due to the fact that during adolescence, youth frequently engage in unsupervised time with peers, and thus are tasked with independently navigating and coping with peer conflict, which may tax their coping resources (Abaied & Rudolph, 2011). In part to compensate for their reduced ability to cope independently, youth who experience heightened peer stress may rely more upon external guidance and resources, such as mothers' coping suggestions. Accordingly, maternal socialization of coping may not only be associated with the type of coping strategies that youth employ, but also subsequent internalizing and externalizing symptoms in youth. Further, it is possible that maternal coping suggestions may interact with adolescents' use of coping strategies to predict their internalizing symptoms. That is, the association between maternal socialization of a specific type of coping and adolescents' internalizing problems may be stronger when mothers provide more coping suggestions and in turn, their adolescents use more of these strategies in response to peer stress.

While maternal coping suggestions have been shown to be associated with youths' adjustment and coping, characteristics of the family environment may also affect the process of parental socialization of adolescents' coping. Foremost would be the risk presented by current and past parental depression, which has been shown in extensive research to be a risk factor for youths'

psychological adjustment (e.g., Angold & Costello, 1995; Barker et al., 2012; Goodman & Gotlib, 1999; Matijasevich et al., 2015; McLaughlin et al., 2012). The ways in which adolescents cope with stress related to parental depression has been shown to be important, such that secondary control coping is a strong predictor of reduced depressive symptoms (Compas et al., 2017). Moreover, prior research suggests that maternal depression is associated with specific socialization styles (e.g., fewer cognitive reappraisal suggestions) involved in the development of youth's coping and adjustment (Monti et al., 2014a).

Previous research on the socialization of coping during adolescence has been limited in several ways. First, while prior studies have examined the interaction between engagement and behavioral avoidance coping suggestions, it is unclear if the relationship between adolescent coping and internalizing symptoms is moderated by the extent to which mothers socialize their adolescents to cope. For instance, the association between the use of a particular type of coping (e.g., primary control coping) and adolescents' internalizing symptoms may be stronger when adolescents use those strategies in the context of high levels of socialization of that type of coping. Second, prior research examining the relationship between maternal coping suggestions, youth coping and internalizing symptoms have aggregated subtypes of engagement coping into one broad category (e.g., Abaied & Rudolph, 2010a; 2010b; 2011; Monti et al., 2014b). However, extensive research demonstrates that engagement coping is comprised of primary and secondary control coping strategies (e.g., Compas et al., 2017). Thus, it is unclear if socializing both primary and secondary control coping strategies is effective in the context of peer stress. Third, research regarding the impact of socializing disengagement coping strategies has yielded mixed findings. Evidence exists that encouraging disengagement coping strategies predicts increased depressive symptoms in youth at heightened levels of stress. However, these findings were only significant for youth who received low (but not moderate or high) levels of engagement coping suggestions (Abaied & Rudolph,

2010a). Alternatively, recent research suggests that disengagement coping suggestions may be protective against externalizing problems for youth with higher skin conductance level reactivity (Stanger et al., 2018). Accordingly, the impact of socializing disengagement coping strategies is in need of further examination.

In sum, to address these issues, the present study used a multi-informant design to investigate the contributions of maternal coping suggestions to youth coping and anxious/depressed symptoms and responses to peer stress. First, I expected that maternal coping suggestions would predict the coping strategies used by their adolescents and that adolescents' engagement coping strategies would be negatively correlated with their symptoms of anxiety and depression. Further, I anticipated that disengagement coping strategies would be positively correlated with their anxious/depressed symptoms. Second, I hypothesized that maternal engagement coping suggestions would be negatively correlated with their adolescents' anxious/depressed symptoms, while maternal disengagement coping suggestions would be positively correlated with their adolescents' symptoms of anxiety and depression. Third, given prior research demonstrating the relationship between maternal coping suggestions, adolescents' coping strategies, and subsequent internalizing symptoms in youth (Abaied & Rudolph, 2010a; 2011; Stanger et al., 2018), I hypothesized that the relationship between adolescent coping and anxious/depressed symptoms would differ as a function of the degree to which parents socialize their adolescents to cope. Specifically, I expected that under conditions of high support (e.g., more maternal engagement coping suggestions), adolescents would employ more effective coping strategies, and thus, experience fewer symptoms of depression and anxiety. Alternatively, I anticipated that increased disengagement coping suggestions would interact with their adolescents' use of maladaptive coping strategies to predict increased anxious/depressed symptoms. All hypotheses were tested using single-informant (i.e., using mother-report of both adolescent coping and adolescent symptoms) and cross-informant (i.e., using mother-report of

adolescent coping and adolescent self-report of symptoms) analyses. Further, given the relations among maternal depression and adolescent adjustment, maternal depression symptoms were accounted for in all linear regression analyses.

METHOD

Participants

The sample includes 120 mother-child dyads (45% female) between the ages of 9 and 15 years old ($M = 12.27$, $SD = 1.89$). The sample was predominately Euro-American (66.7%). With regard to maternal education, 60% of mothers reported earning at least a college degree, 6.6% had a high school degree or less, and 33.3% reported completing some college or technical schooling. The majority of mothers were either married or co-habiting (64.2%). The range of annual income in the sample was less than \$10,000 to greater than \$300,000, with a median income of \$65,000.

Procedure

Mothers and adolescents were invited to participate in a study designed to better understand how mother-child dyads communicate about emotions and stress. Participants were recruited through a range of sources, including mass emails distributed through the Family Care Partners Database, a university-based study finder, and fliers placed in waiting rooms at public and private mental health clinics in a large southeastern metropolitan area. Participants who expressed interest in the study were contacted and subsequently screened via telephone by trained doctoral students in clinical psychology to determine eligibility. Exclusion criteria included a maternal history of schizophrenia, bipolar I, bipolar II, a pervasive developmental disorder, or intellectual disability in the adolescent. The oldest eligible adolescent and mother completed a battery of questionnaires.

The University Institutional Review Board approved all procedures. Families were

compensated for the assessment and received a packet of information about parenting, parent-adolescent communication, and the impact of parental depression on parenting.

Measures

Maternal depressive symptoms. Mothers completed the 21-item Beck Depression Inventory (BDI-II; Beck et al., 1996) to assess their current depressive symptoms within the past two weeks, including sadness, anhedonia, indecisiveness, appetite, guilt, and suicidality. Symptoms were rated on a 4-point Likert scale ranging from 0 to 3. Internal consistency in the present sample was $\alpha = 0.93$.

Anxiety/depression symptoms. The Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) and the Youth Self-Report (YSR; Achenbach, 1991) were used to assess adolescents' symptoms of anxiety and depression. The CBCL is a 118-item parent report of their adolescents' behaviors based on the rating of statements on a 3-point Likert scale (0 = *not at all true*, 1 = *somewhat true*, 2 = *very true*). Similarly, the YSR is a 112-item self-report of youth behaviors. The mixed Anxious/Depressed scale was used and presents a measure of adolescents' anxiety and depressive symptoms. The scale consists of 13 items and example items include: fears going to school; feels worthless or inferior; cries a lot; is nervous, high strung, or tense; and worries. The *T* score on the scale was used for ease of comparison with norms. The internal consistencies of the Anxious/Depressed scales of the YSR and CBCL in the current sample were $\alpha = 0.83$ and $\alpha = 0.81$, respectively.

Adolescent coping responses. Adolescents and mothers completed the 57-item Responses to Stress Questionnaire – Peer Stress version (RSQ; Connor-Smith et al., 2000) to assess adolescents' coping strategies. The measure is designed to assess the ways in which individuals cope with and react to peer stress. Analyses in the present study focus on all three coping factors confirmed in factor analytic studies (e.g., Compas et al., 2006a; 2006b; Connor-Smith et al., 2000): primary

control coping (e.g., emotional modulation, problem solving, emotional expression), secondary control coping (e.g., acceptance, distraction, positive thinking, cognitive reappraisal), and disengagement coping (e.g. avoidance, denial, wishful thinking). To control for response bias in item endorsement, proportion scales were calculated by dividing the total score of each coping factor by the total score received on the RSQ (e.g., Vitaliano et al., 1987). Internal consistencies of adolescents' coping with peer-stress by mother-report on adolescent and adolescent self-report, respectively, in the current study were: $\alpha = .78$ and $\alpha = .87$ on primary control coping, $\alpha = .82$ and $\alpha = .86$ on secondary control coping, and $\alpha = .81$ and $\alpha = .76$ on disengagement coping.

Socialization of coping. The Socialization of Coping Questionnaire (SOC; Abaied, 2010; Abaied & Rudolph, 2010a; 2010b) is a 24-item measure that was administered to the mother to examine the coping strategies they encourage their adolescent to use in response to peer stress. The development of the questionnaire was guided by the coping factor structure of the RSQ: primary control, secondary control, distraction (e.g., items from both the secondary control and disengagement scales), and behavioral avoidance (e.g., disengagement) coping suggestions. Example items for the factors of interest included: deal with the situation head-on instead of ignoring it (e.g., primary control coping), and look for something good that is happening (e.g., secondary control coping). For each item, mothers rated on a 5-point Likert scale (1 = *not at all*, 3 = *some*, and 5 = *very much*) the extent to which they suggest to their adolescent to use the referenced coping strategy in response to a peer stressor. The internal consistencies of the coping factors were $\alpha = .80$ for secondary control coping messages, $\alpha = .78$ for primary control coping messages, and $\alpha = .76$ for behavioral avoidance coping messages.

RESULTS

Descriptive Statistics

As shown in Table 1, adolescents' anxious/depressed symptoms across both respondents were approximately half a standard deviation above the mean ($M = 55.06$ and 55.22). On the RSQ, the proportions of reported use of primary control, secondary control, and disengagement coping strategies are similar to that of prior studies (e.g., Jaser et al., 2007). On the Socialization of Coping Questionnaire (SOC; Abaied, 2010; Abaied & Rudolph, 2010a; 2010b), mothers reported primarily primary control coping suggestions, followed by behavioral avoidance and secondary control coping strategies. At the assessment visit, six of the mothers were in a current depressive episode, 53 mothers met criteria for a past depressive episode in the lifetime of their child, six of the mothers met criteria for a past depressive episode *only* prior to their child's birth, and 55 of the mothers never experienced an episode of depression in their lifetime. Notably, there was considerable variability in maternal depressive symptoms at the assessment visit (Range = 0 to 51, $M = 10.40$, $SD = 10.30$). For reference, the following score ranges have been suggested for interpretation: 0-13 (minimal range), 14-19 (mild depression), 20-28 (moderate depression), and 29-63 (severe depression; Beck et al., 1996).

Bivariate Correlational Analyses

Consistent with the first hypothesis, adolescents' coping strategies were significantly associated with symptoms in both single-informant (ranging from $r = -.20$ to $-.50$, $p < .05$) and cross-informant (ranging from $r = -.06$ to $-.33$) correlational analyses. Of the cross-informant correlational analyses, mother-report of adolescent primary and secondary control coping was significantly negatively correlated with adolescent self-report of anxious/depressed symptoms ($r = -.21$ and $-.33$, respectively, $p < .05$). Mother-report of adolescent disengagement coping was

significantly positively correlated with adolescent self-report of anxious/depressed symptoms ($r = .26, p < .01$), while self-report of adolescents' secondary control coping was significantly negatively correlated with mother-report of adolescent anxious/depressed symptoms ($r = -.26, p < .01$).

Also consistent with our first hypothesis, maternal coping socialization messages were significantly associated with adolescent's coping strategies per mother-report. Specifically, maternal primary control coping suggestions were negatively associated with adolescents' use of secondary control coping strategies ($r = -.18, p < .05$). Alternatively, maternal secondary control coping suggestions were positively associated with adolescents' use of primary control ($r = .20, p < .05$) and secondary control ($r = .32, p < .01$) coping strategies, and negatively associated with adolescents' use of disengagement coping strategies ($r = -.20, p < .05$). Last, maternal behavioral avoidance suggestions were negatively associated with adolescents' use of primary control coping strategies ($r = -.22, p < .01$), but positively associated with their use of disengagement coping strategies ($r = .20, p < .05$).

In partial support of our second hypothesis, maternal secondary control coping socialization messages were significantly negatively correlated with mother-report of adolescents' anxious/depressed symptoms ($r = -.26, p < .01$).

Multiple Linear Regression Analyses

A series of linear regression analyses (presented in Tables 3-8) were conducted to test the hypothesis that the relationship between adolescent coping and anxious/depressed symptoms would differ as a function of the degree to which parents socialize their adolescents to cope. For all analyses, maternal socialization messages, adolescent coping, and adolescents' anxious/depressed symptoms served separately as dependent variables; age, maternal BDI-II scores and gender were included as covariates.

Regression analyses using mother-report of primary control coping are presented in Table 3.

For the single-informant multiple linear regression analyses (i.e., using mother-report of adolescents' symptoms as the dependent variable), there was a main effect for adolescents' use of primary control coping ($\beta = -.29, p < .01$). When the socialization of primary control coping was added into the model, this main effect remained significant. However, there was no main effect for the socialization of primary control coping ($\beta = .13, p > .05$). When the interaction variable of socialization of primary control coping X mother-report of adolescents' use of primary control coping was included in step 4, neither the main effects of adolescent coping or socialization were significant (β s = $-.36$ and $.10, p$ s $> .05$). Further, the interaction variable was not significant ($\beta = .07, p > .05$). In the cross-informant analyses (i.e., using adolescent self-report of symptoms as the dependent variable; Table 3) each step in the model reached significance. However, there were no main effects of adolescent primary control coping or socialization of primary control coping in any of the steps. Further, the interaction variable of socialization of primary control coping X mother-report of adolescents' use of primary control coping was not significant.

Regression analyses using adolescents' self-report of primary control coping are presented in Table 4. For the single-informant linear regression analyses (i.e., using adolescent self-report of symptoms as the dependent variable), there was a main effect for adolescents' use of primary control coping ($\beta = -.23, p < .05$). When the socialization of primary control coping was added into the model, this main effect remained significant. However, there was no main effect for the socialization of primary control coping ($\beta = .14, p > .05$). When the interaction variable of socialization of primary control coping X self-reported use of primary control coping was included in step 4, neither the main effects nor the interaction variable were significant. In the cross-informant analyses (i.e., using mother-report of adolescent symptoms as the dependent variable; Table 4), each step in the model reached significance. However, there were no main effects of adolescent primary control coping or socialization of primary control coping in any of the steps.

Additionally, the interaction variable of primary control coping X self-reported use of primary control coping was not significant.

Regression analyses using mother-report of secondary control coping are presented in Table 5. For the single-informant linear regression analyses, there was a main effect for adolescents' use of secondary control coping ($\beta = -.37, p < .01$). When the socialization of secondary control coping was added into the model, this main effect remained significant. However, there was no main effect for the socialization of secondary control coping. When the interaction variable of socialization of secondary control coping X mother-report of adolescents' use of secondary control coping was included in step 4, the main effect of adolescent coping remained significant ($\beta = -1.13, p < .01$). However, neither the main effect of the socialization of secondary control coping nor the interaction variable were significant.

In the cross-informant analyses (Table 5), there was a main effect for adolescents' use of secondary control coping ($\beta = -.27, p < .01$) and this main effect remained significant when the socialization of secondary control coping was added into the model. However, there was no main effect for the socialization of secondary control coping ($\beta = .10, p > .05$). When the interaction variable of socialization of secondary control coping X mother-report of adolescents' use of secondary control coping was included in step 4, the main effect of adolescent coping remained significant ($\beta = -1.25, p < .01$). The main effect for the socialization of secondary control coping was not significant in this step. However, the interaction variable was a significant predictor of adolescent anxious/depressed symptoms ($\beta = 1.40, p < .05$), such that at low and average levels of socialization, adolescents who used more secondary control coping strategies reported less anxious/depressed symptoms (Figure 1).

Regression analyses using adolescents' self-report of secondary control coping are presented in Table 6. For the single-informant linear regression analyses, there was a main effect for

adolescents' use of secondary control coping ($\beta = -.42, p < .01$). When the socialization of secondary control coping was added into the model, this main effect remained significant. However, there was no main effect for the socialization of secondary control coping ($\beta = .05, p > .05$). When the interaction variable of socialization of secondary control coping X self-reported use of secondary control coping was included in step 4, the main effects of adolescent coping and socialization of secondary control coping were both significant (β s = -1.43 and -.82, $p < .05$). In addition, the interaction variable was a significant predictor of adolescent anxious/depressed symptoms ($\beta = 1.38, p < .05$), such that at low and average levels of socialization, adolescents who used more secondary control coping strategies reported less anxious/depressed symptoms (Figure 3).

In the cross-informant analyses (Table 6), there was a main effect for adolescents' use of secondary control coping ($\beta = -.17, p < .05$), which remained significant when the socialization of secondary control coping was added into the model. However, there was no main effect for the socialization of secondary control coping ($\beta = -.08, p > .05$). When the interaction variable of socialization of secondary control coping X self-reported use of secondary control coping was included in step 4, the main effects of adolescent coping and socialization of secondary control coping were both significant (β s = -1.17 and -.93, $p < .01$). Further, the interaction variable was significant ($\beta = 1.37, p < .05$), such that at low levels of socialization, adolescents who used more secondary control coping reported less anxious/depressed symptoms (Figure 2).

Regression analyses using mother-report of adolescents' disengagement coping are presented in Table 7. For the single-informant linear regression analyses, there was a main effect for adolescents' use of disengagement coping ($\beta = .16, p < .05$). When the socialization of behavioral avoidance was added into the model, this main effect remained significant. However, there was no

main effect for the socialization of behavioral avoidance ($\beta = -.04, p > .05$). When the interaction variable of socialization of behavioral avoidance X mother-report of adolescents' use of disengagement coping was included in step 4, neither the main effects of adolescent coping nor the socialization of behavioral avoidance was significant. Additionally, the interaction variable was not significant.

In the cross-informant analyses (Table 7), there was a main effect for adolescents' use of disengagement coping ($\beta = .23, p < .05$), which remained significant when the socialization of behavioral avoidance was added into the model. However, there was no main effect for the socialization of behavioral avoidance ($\beta = -.13, p > .05$). When the interaction variable of socialization of behavioral avoidance X mother-report of adolescents' use of disengagement coping was included in step 4, neither the main effects of adolescent coping nor the socialization of behavioral avoidance was significant. Additionally, the interaction variable was not significant.

Regression analyses using self-report of adolescents' disengagement coping are presented in Table 8. For the single-informant linear regression analyses, there was a main effect for adolescents' use of disengagement coping ($\beta = .19, p < .05$). When the socialization of behavioral avoidance was added into the model, this main effect remained significant. However, there was no main effect for the socialization of behavioral avoidance ($\beta = -.09, p > .05$). When the interaction variable of socialization of behavioral avoidance X self-reported use of disengagement coping was included in step 4, neither the main effects of adolescent coping nor the socialization of behavioral avoidance was significant. Additionally, the interaction variable was not significant.

In the cross-informant analyses (Table 8), each step in the model reached significance. However, there were no main effects of adolescent disengagement coping or socialization of behavioral avoidance in any of the steps. Further, the interaction variable of socialization of behavioral avoidance X self-reported use of disengagement coping was not significant.

DISCUSSION

The present study utilized a multi-informant design to examine the unique associations of maternal coping suggestions with adolescents' coping and anxious/depressed symptoms. The findings suggest that maternal coping suggestions are directly associated with adolescents' coping strategies and that adolescents' coping strategies best predict their symptoms of anxiety and depression. Moreover, this study expanded upon previous work, demonstrating that the relationship between adolescent coping and anxious/depressed symptoms varies as a function of the degree to which parents socialize their adolescents to cope.

Because of previous research showing the relationship between parental depression and adolescent adjustment, maternal depressive symptoms were included as a covariate in the linear regression models. Consistent with prior research (e.g., Matijasevich et al., 2015; McLaughlin et al., 2012), maternal depressive symptoms were associated with greater symptoms of anxiety and depression in youth for both the linear regression and correlational analyses. Maternal depressive symptoms were negatively correlated with adolescents' use of primary and secondary control coping, suggesting that adolescents of depressed mothers are less likely to use more traditionally effective forms of coping. Further, mothers with more depressive symptoms were less likely to socialize secondary control coping strategies, but more likely to encourage behavioral avoidance in response to peer stress, indicating that maternal depression may interfere with the coaching of more adaptive coping strategies while promoting the use of less adaptive strategies. Collectively, these findings suggest that maternal depression has negative implications for parenting, as well as for adolescent coping and adjustment.

In support of the first hypothesis, as expected, adolescents' coping strategies were significantly associated with their symptoms of anxiety and depression. With regard to primary

control coping, both self and mother-report of adolescents' use of primary control coping strategies were negatively correlated with adolescents' anxious/depressed symptoms in single and cross-informant analyses. Additionally, there were main effects for both self and mother-report of adolescents' coping on symptoms of anxiety and depression such that greater use of primary control coping was associated with decreased symptoms. However, the latter effects only emerged in the single-informant regression analyses. Similar findings were evident for secondary control coping such that both self and mother-report of adolescents' use of secondary control coping strategies was negatively correlated with anxious/depressed symptoms in single and cross-informant analyses. Further, there were main effects for both self and mother-report of adolescent secondary control coping on anxious/depressed symptoms, such that greater use of secondary control coping was associated with decreased symptoms. This was evident in both within and cross-informant linear regression analyses. These findings are consistent with prior research demonstrating that when coping with peer stress, greater use of primary and secondary control coping is related to decreased symptoms of anxiety and depression (e.g., Jaser et al., 2007). With regard to disengagement coping, self and mother-report of adolescents' disengagement coping strategies were positively correlated with anxious/depressed symptoms in both single and cross-informant analyses. In addition, in both single and cross-informant linear regression analyses, there were main effects for self and mother-report of adolescents' coping on anxious/depressed symptoms, such that greater use of disengagement coping predicted increased symptoms. These findings are consistent with prior research suggesting that greater use of disengagement coping is associated with higher levels of internalizing symptoms (e.g., Compas et al., 2017; Connor-Smith et al., 2000, Wadsworth & Compas, 2002).

In further support of our first hypothesis, maternal coping socialization messages were significantly associated with adolescents' coping strategies per mother-report. In contrast with prior

research suggesting that greater engagement coping suggestions (e.g., greater socialization of primary and secondary control coping) are associated with increased engagement coping in youth (Abaied et al., 2014), in the current study, socialization of primary control coping was *negatively* correlated with adolescents' use of secondary control coping. However, it is notable that the majority of prior research on this topic collapses primary and secondary control coping into engagement coping strategies (e.g., Abaied & Rudolph, 2010a; 2010b; 2011; Monti et al., 2014b), preventing differentiation between the two types of coping. It is possible that parents who encourage greater use of primary control coping may be inadvertently discouraging their adolescents from using secondary control coping by focusing their efforts on other coping strategies. However, consistent with prior research (e.g., Abaied & Rudolph, 2010a; 2011; Abaied et al., 2014), in the current study, maternal secondary control coping suggestions were positively correlated with adolescents' use of primary and secondary control coping but negatively correlated with their use of disengagement coping. Further, in support of prior research demonstrating that maternal disengagement coping suggestions predict maladaptive responses to stress (Abaied & Rudolph, 2011), socialization of behavioral avoidance was negatively correlated with adolescents' use of primary control coping but positively correlated with their use of disengagement coping. Notably, these findings emerged exclusively in the single-informant correlational analyses. Collectively, findings from the current study suggest that maternal coping suggestions are associated with the coping strategies that adolescents employ. However, novel differences were apparent when examining the socialization of primary and secondary control coping strategies separately.

Partial support was found for the second hypothesis, i.e., that maternal engagement coping suggestions would be negatively associated with their adolescents' anxious/depressed symptoms. In total, we tested the main effects of adolescent coping and maternal coping suggestions in 12

regression models, all controlling for adolescent age, gender, and maternal BDI-II scores. Although socialization of secondary control coping was negatively correlated with mother-report of adolescents' anxious/depressed symptoms, it did not emerge as a significant predictor of adolescents' adjustment in the third step of any of the linear regression models. On the other hand, in nine of the 12 linear regression models, adolescent coping emerged as a significant predictor of anxious/depressed symptoms. Further, the tests were most consistent for secondary control coping, such that greater use of secondary control coping strategies predicted decreased symptoms of anxiety and depression. Findings may suggest that secondary control coping is more adaptive for coping with interpersonal stress. This is in contrast with prior research suggesting that secondary control coping is most effective for dealing with uncontrollable stressors, while primary control coping is the most adaptive for dealing with relatively controllable stressors, such as peer stress (e.g., Jaser et al., 2007). However, there may be aspects of peer stress that are predominately uncontrollable, such as peer victimization. In these contexts, the use of secondary control coping strategies may be the most adaptive.

In addition, these findings suggest that the main effect of maternal coping suggestions on adolescents' adjustment appears to be better explained by adolescents' use of coping. There are a variety of possible interpretations of this finding. First, the current study utilized a cross-sectional design, and thus, cannot clarify if the impact of maternal coping suggestions would be more pronounced over time. It is possible that the main effect of maternal socialization of coping was lost by examining its impact at an isolated point in time. In addition, while maternal socialization of coping is important for youths' coping development, adolescents may be receiving impactful coping suggestions in other contexts. For instance, adolescents may also be influenced by coping suggestions from their fathers, friends, and extended family members. Accordingly, maternal coping suggestions may not predict adolescents' adjustment in isolation. Last, the current study did

not examine possible interactions between maternal coping suggestions and levels of peer stress or the socialization of different types of coping (e.g., how maternal engagement coping suggestions interact with disengagement coping suggestions to predict adolescent adjustment). As these factors have been important predictors in prior research (e.g., Abaied & Rudolph, 2010a), it is possible that more pronounced effects for maternal coping suggestions may have emerged under varying contexts of peer stress and/or types of coping suggestions.

Although support was found for the third hypothesis, (i.e., that the relationship between adolescent coping and anxious/depressed symptoms would differ as a function of the degree to which parents socialize their adolescents to cope), the direction of these effects was counter to what was expected. Specifically, we hypothesized that under conditions of high support (e.g., more maternal engagement coping suggestions), adolescents would use more effective coping strategies, and thus, experience fewer symptoms of anxiety and depression. With regard to secondary control coping, the interaction of both self and mother-report of adolescents' coping X socialization of secondary control coping was a significant predictor of adolescents' self-reported anxious/depressed symptoms. Specifically, at low and average levels of socialization, adolescents who used more secondary control coping strategies reported decreased symptoms of anxiety and depression (Figures 1 & 3). A similar pattern emerged in predicting mother-report of adolescents' anxious/depressed symptoms, such that at low levels of socialization of secondary control coping, adolescents who used more secondary control coping reported decreased anxious/depressed symptoms (Figure 2).

Notably, this is the first study to examine the interaction between maternal coping suggestions and adolescent coping as a predictor of their anxious/depressed symptoms. Findings suggest that under lower levels of parental socialization of coping, adolescents who utilize more effective coping strategies have lower symptoms of anxiety and depression. While in contrast with

the original hypothesis, these findings may be indicative of the psychological wellbeing of adolescents who receive greater coaching from their parents. For instance, adolescents who received greater amounts of maternal coping suggestions may have already been experiencing heightened symptoms. In this context, mothers may have responded to their adolescents' distress by increasing the amount of coaching they provide.

Further, the current findings suggest that while there is a relationship between maternal coping suggestions and adolescents' internalizing symptoms, there is a stronger effect associated with the coping strategies that adolescents use. Thus, while maternal coping suggestions are important for the development of emotion regulation in youth, the coping strategies adolescents employ appear to have the strongest association with their psychological wellbeing. However, the present study provides novel evidence that the impact of adolescent coping may be bolstered or tempered by the level of coaching youth receive from their parents.

We found no support for the third hypothesis in the primary control and disengagement models. Notably, the majority of studies on this topic (e.g., Abaied & Rudolph, 2010a; 2010b; 2011; Abaied et al., 2014; Monti et al., 2014b) have not distinguished between the socialization of secondary and primary control coping, instead grouping them together as "engagement coping." This crucial distinction may clarify the lack of findings with regard to primary control coping, as primary and secondary control coping suggestions may have a differential impact on adolescents' adjustment. Further, the current study examined the relationship between maternal behavioral avoidance suggestions, adolescents' use of disengagement coping, and adolescents' adjustment. However, behavioral avoidance is a singular strategy within the larger category of disengagement coping. Thus, the effects associated with maternal behavioral avoidance suggestions may not be equivalent to that of disengagement coping suggestions more broadly. This may explain our lack of findings with regard to the interaction between maternal behavioral avoidance suggestions and

adolescents' use of disengagement coping.

Limitations and Future Directions

A few limitations to the current study should be noted. First, because the study was cross-sectional, causal inferences cannot be made regarding the relations between maternal coping suggestions, adolescents' coping and their adjustment. In light of findings suggesting that adolescents' use of secondary control coping is most adaptive in the context of lower levels of maternal coping suggestions, it would be useful to clarify if adolescents who received more coping suggestions were already experiencing heightened levels of anxiety and depression. In addition, effective coping may be contingent on the timing or perceived inevitability of the stressor. Extant research supports the utility of anticipatory coping, or efforts to manage the stress associated with imminent threats (Schwarzer & Luszczynska, 2008). It is possible that mothers who socialize their children to cope in preparation for common stressors, such as conflict with peers, may impart a greater influence on their children's emotional development.

Future research utilizing longitudinal designs will be necessary to clarify if encouraging effective coping strategies proactively may be more adaptive for youth.

Second, the socialization of coping measure used in the current study, the Socialization of Coping Questionnaire (Abaied, 2010; Abaied & Rudolph, 2010a; 2010b), only examined socialization of behavioral avoidance as opposed to assessing disengagement coping suggestions more broadly. Confirmatory factor analyses have supported a three-factor structure including primary control, secondary control, and disengagement coping (e.g., Compas et al., 2006a; 2006b; Connor-Smith et al., 2000; Connor-Smith & Calvete, 2004; Wadsworth et al., 2004; Yao et al., 2010). Within this framework, behavioral avoidance constitutes only a single strategy within the broader category of disengagement coping. As such, examining the relations between maternal behavioral avoidance suggestions and adolescents' use of disengagement coping more broadly may

inadequately capture the impact of other disengagement coping suggestions (e.g., avoidance or denial). In addition, the majority of prior research has failed to distinguish between the socialization of primary and secondary control coping suggestions (e.g., Abaied & Rudolph, 2010a; 2010b; 2011; Abaied et al., 2014; Monti et al. 2014b). However, findings from a recent study that made this distinction suggest that primary control and secondary control suggestions may differentially influence youth adjustment (Stanger et al., 2018). Specifically, while no findings emerged for primary control coping, secondary control coping suggestions were predictive of fewer internalizing problems over time. The authors contend that secondary control coping suggestions may be learned more readily by youth as they learn to regulate their emotions in varying contexts, which may provide greater protection against internalizing symptoms relative to primary control coping suggestions. Future research would benefit from a measure of socialization of coping that differentiates between primary, secondary, and disengagement coping.

Third, the current study used a self-report measure to assess maternal coping suggestions, which may be susceptible to social desirability bias. For instance, mothers may be more reluctant to report encouraging their adolescents to use less traditionally effective forms of coping, such as behavioral avoidance. Future research using observational, in-the-moment coaching may circumvent potential biases associated with self-report questionnaires.

Last, the current study focused on maternal socialization of coping. However, a growing body of research suggests that fathers also support their children's coping development (e.g., Cassano et al., 2007, McDowell & Parke, 2005; McElwain et al., 2007). Further, fathers and mothers may provide disparate types of coping suggestions which may, in turn, be perceived and responded to differently by youth (Cassano & Zeman, 2010; Zeman & Shipman, 1997). However, to our knowledge, no studies to date have specifically examined the longitudinal contributions of fathers' coping suggestions. As such, future studies may benefit from including measures of

paternal socialization of coping.

CONCLUSION

In sum, the present research suggests that maternal coping suggestions are related both to adolescents' coping strategies and emotional wellbeing. Furthermore, the impact of adolescents' coping strategies appears to vary as a function of the extent to which mothers encourage specific types of coping. Findings emphasize a need for researchers to further clarify the impact of maternal coping suggestions on youth coping and adjustment as they navigate interpersonal stressors encountered during adolescence.

Appendix

Table 1. *Descriptive Statistics for Key Study Variables*

Variable	M	SD	Min	Max
Demographic				
Adolescent Age	12.27	1.90	9	15
Symptoms Variables				
BDI-II Maternal Depressive Symptoms (M)	10.40	10.30	0	51
CBCL Anxious/Depressed (M on A)	55.06	7.38	50	86
YSR Anxious/Depressed (A)	55.22	6.57	50	78
Coping Variables				
RSQ Adolescent Primary Control Coping (M on A)	.20	.04	.07	.30
RSQ Adolescent Secondary Control Coping (M on A)	.25	.06	.10	.39
RSQ Adolescent Disengagement Coping (M on A)	.15	.03	.08	.22
RSQ Adolescent Primary Control Coping (A)	.19	.05	.08	.31
RSQ Adolescent Secondary Control Coping (A)	.26	.06	.11	.39
RSQ Adolescent Disengagement Coping (A)	.16	.03	.09	.24
Socialization Messages				
SOC Proportion of Primary Control (M)	.32	.05	.23	.47
SOC Proportion of Secondary Control (M)	.22	.04	.10	.32
SOC Proportion of Behavioral Avoidance (M)	.16	.03	.08	.22

Note. M on A = Mother-Report on adolescent, A = Adolescent Self-Report, BDI-II = Beck Depression Inventory-2, CBCL = Child Behavior Checklist, YSR = Youth Self-Report, RSQ = Responses to Stress Questionnaire, SOC = Socialization of Coping.

Table 2. *Bivariate Correlation Matrix among Key Study Variables*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Adolescent Age	--												
2. Adolescent Gender	-.10	--											
3. RSQ Adolescent PCC (M on A)	-.18*	.13	--										
4. RSQ Adolescent SCC (M on A)	.19*	-.01	.44**	--									
5. RSQ Adolescent DC (M on A)	.03	-.12	-.57**	-.39**	--								
6. RSQ Adolescent PCC (A)	.16	.11	.11	.01	-.14	--							
7. RSQ Adolescent SCC (A)	.21*	-.08	.13	.29**	-.17	.20*	--						
8. RSQ Adolescent DC (A)	-.12	.06	-.14	-.01	.19*	-.58**	-.20*	--					
9. SOC Proportion of PCC (M)	-.24**	-.08	.14	-.18*	-.02	-.17	-.17	.06	--				
10. SOC Proportion of SCC (M)	.07	.06	.20*	.32**	-.20*	.01	.06	-.05	-.08	--			
11. SOC Proportion of Behavioral Avoidance (M)	.07	-.02	-.22*	-.14	.20*	.15	.05	.02	-.39**	-.68**	--		
12. CBCL Anx/Dep (M on A)	-.08	.03	-.35**	-.50**	.22*	-.08	-.26**	.06	.11	-.26**	.10	--	

13. YSR Anx/Dep (A)	.07	.02	-.21*	-.33**	.26**	-.25**	-.43**	.20*	.12	-.08	.00	.47**	--
14. Maternal BDI-II Scores (M)	-.09	-.03	-.21*	-.38**	.12	-.13	-.18	.12	.03	-.38**	.22*	.52**	.34**

Note. RSQ = Responses to Stress Questionnaire; PCC = Primary Control Coping; SCC = Secondary Control Coping; DC = Disengagement Coping; M on A = Mother-Report on adolescent; A = Adolescent Self-Report; SOC = Socialization of Coping; CBCL = Child Behavior Checklist; YSR = Youth Self-Report; BDI II= Beck Depression Inventory-2.

Table 3. Hierarchical linear regression analyses predicting adolescent anxious/depressed symptoms from mother-report of adolescent coping and maternal PCC suggestions

	CBCL (Parent-Report)		YSR (Adolescent-Report)	
	β	t	β	T
Step 1	F(3,114) = 13.53**, adjusted R^2 = .24		F(3,113) = 4.93**, adjusted R^2 = .09	
Adolescent Age	-.03	-.41	.11	1.20
Adolescent Gender	.05	.60	.06	.62
Maternal BDI-II Scores	.51	6.26**	.33	3.74**
Step 2	F(1,113) = 14.49**, adjusted R^2 = .32		F(1,112) = 4.47**, adjusted R^2 = .11	
Adolescent Age	-.09	-1.14	.08	.86
Adolescent Gender	.08	1.07	.07	.83
Maternal BDI-II Scores	.44	5.48**	.30	3.24**
Adolescent Primary Control Coping (M on A)	-.29	-3.62**	-.16	-1.69
Step 3	F(1,112) = 12.32**, adjusted R^2 = .33		F(1,111) = 4.45**, adjusted R^2 = .13	
Adolescent Age	-.06	-.75	.12	1.31
Adolescent Gender	.10	1.27	.10	1.09
Maternal BDI-II Scores	.43	5.47**	.29	3.22**
Adolescent Primary Control Coping (M on A)	-.31	-3.82**	-.18	-1.94
Socialization of Primary Control Coping	.13	1.66	.18	1.98
Step 4	F(1,111) = 10.18**, adjusted R^2 = .32		F(1,110) = 4.05**, adjusted R^2 = .14	
Adolescent Age	-.06	-.75	.12	1.30
Adolescent Gender	.10	1.27	.09	1.03

Maternal BDI-II Scores	.43	5.21**	.32	3.48**
Adolescent Primary Control Coping (M on A)	-.36	-.60	.74	1.09
Socialization of Primary Control Coping	.10	.23	.80	1.72
Adolescent PCC (M on A) x Soc of PCC	.07	.09	-1.18	-1.36

Note. BDI-II = Beck Depression Inventory-2; M on A = Mother-Report on adolescent; PCC = Primary Control Coping; Soc of PCC = Socialization of primary control coping; CBCL = Child Behavior Checklist; YSR = Youth Self-Report.

Table 4. Hierarchical linear regression analyses predicting adolescent anxious/depressed symptoms from adolescent self-report of coping and maternal PCC suggestions

	CBCL (Parent-Report)		YSR (Adolescent-Report)	
	β	t	β	t
Step 1	F(3,112) = 13.05**; adjusted R^2 = .24		F(3,111) = 4.75**; adjusted R^2 = .09	
Adolescent Age	-.03	-.38	.11	1.26
Adolescent Gender	.05	.55	.05	.55
Maternal BDI-II Scores	.50	6.15**	.33	3.67**
Step 2	F(1,111) = 9.70**; adjusted R^2 = .23		F(1,110) = 5.39**; adjusted R^2 = .13	
Adolescent Age	-.03	-.35	.15	1.68
Adolescent Gender	.05	.55	.07	.84
Maternal BDI-II Scores	.50	6.08**	.31	3.48**
Adolescent Primary Control Coping (A)	-.01	-.11	-.23	-2.57*
Step 3	F(1,110) = 8.06**; adjusted R^2 = .24		F(1, 109) = 4.85**; adjusted R^2 = .14	
Adolescent Age	-.01	-.06	.19	2.03*
Adolescent Gender	.05	.65	.09	.99
Maternal BDI-II Scores	.50	6.10**	.31	3.52**
Adolescent Primary Control Coping (A)	.00	.04	-.21	-2.37*
Socialization of Primary Control Coping	.10	1.17	.14	1.55
Step 4	F(1,109) = 6.75**; adjusted R^2 = .23		F(1, 108) = 4.25**; adjusted R^2 = .15	
Adolescent Age	-.00	-.04	.18	1.99*

Adolescent Gender	.06	.67	.08	.95
Maternal BDI-II Scores	.49	5.87**	.33	3.66**
Adolescent Primary Control Coping (A)	-.37	-.64	.45	.74
Socialization of Primary Control Coping	-.12	-.34	.54	1.45
Adolescent PCC (A) x Soc of PCC	.40	.65	-.72	-1.10

Note. BDI-II = Beck Depression Inventory-2; A = Adolescent Self-Report; PCC = Primary Control Coping; Soc of PCC = Socialization of primary control coping; CBCL = Child Behavior Checklist; YSR = Youth Self-Report.

Table 5. Hierarchical linear regression analyses predicting adolescent anxious/depressed symptoms from mother-report of adolescent coping and maternal SCC suggestions

	CBCL (Parent-Report)		YSR (Adolescent-Report)	
	β	t	β	t
Step 1	F(3,114) = 13.62**, adjusted R^2 = .24		F(3,113) = 5.03**, adjusted R^2 = .09	
Adolescent Age	-.02	-.29	.11	1.22
Adolescent Gender	.06	.73	.06	.63
Maternal BDI-II Scores	.51	6.28**	.34	3.78**
Step 2	F(1,113) = 17.14**, adjusted R^2 = .36		F(1,112) = 6.03**, adjusted R^2 = .15	
Adolescent Age	.03	.44	.15	1.65
Adolescent Gender	.06	.77	.05	.58
Maternal BDI-II Scores	.37	4.64**	.24	2.53*
Adolescent Secondary Control Coping (M on A)	-.37	-4.55**	-.27	-2.84**
Step 3	F(1,112) = 13.59**, adjusted R^2 = .35		F(1, 111) = 5.06**, adjusted R^2 = .15	
Adolescent Age	.03	.43	.15	1.66
Adolescent Gender	.06	.76	.05	.52
Maternal BDI-II Scores	.37	4.41**	.27	2.74**
Adolescent Secondary Control Coping (M on A)	-.37	-4.42**	-.29	-3.00**
Socialization of Secondary Control Coping	-.00	-.03	.10	1.07
Step 4	F(1,111) = 12.20**, adjusted R^2 = .37		F(1, 110) = 5.12**, adjusted R^2 = .18	
Adolescent Age	.04	.55	.16	1.80
Adolescent Gender	.06	.83	.05	.59

Maternal BDI-II Scores	.36	4.24**	.24	2.52*
Adolescent Secondary Control Coping (M on A)	-1.13	-2.78**	-1.25	-2.73**
Socialization of Secondary Control Coping	-.59	-1.85	-.66	-1.80
Adolescent SCC (M on A) x Soc of SCC	1.10	1.91	1.40	2.15*

Note. BDI-II = Beck Depression Inventory-2; M on A = Mother-Report on adolescent; SCC = Secondary Control Coping; Soc of SCC = Socialization of secondary control coping; CBCL = Child Behavior Checklist; YSR = Youth Self-Report.

Table 6. Hierarchical linear regression analyses predicting adolescent anxious/depressed symptoms from adolescent self-report of coping and maternal SCC suggestions

	CBCL (Parent-Report)		YSR (Adolescent-Report)	
	β	t	β	t
Step 1	F(3,113) = 13.12**, adjusted R^2 = .24		F(3,112) = 4.80**, adjusted R^2 = .09	
Adolescent Age	-.03	-.35	.11	1.21
Adolescent Gender	.05	.59	.05	.49
Maternal BDI-II Scores	.50	6.17**	.33	3.71**
Step 2	F(1,112) = 11.08**, adjusted R^2 = .26		F(1,111) = 10.45**, adjusted R^2 = .25	
Adolescent Age	.00	.05	.19	2.27*
Adolescent Gender	.04	.43	.01	.12
Maternal BDI-II Scores	.48	5.87**	.27	3.26**
Adolescent Secondary Control Coping (A)	-.17	-1.99*	-.42	-4.94**
Step 3	F(1,111) = 9.01**, adjusted R^2 = .26		F(1, 110) = 8.36**, adjusted R^2 = .24	
Adolescent Age	.01	.09	.19	2.24*
Adolescent Gender	.04	.49	.01	.09
Maternal BDI-II Scores	.45	5.14**	.29	3.22**
Adolescent Secondary Control Coping (A)	-.17	-1.99*	-.42	-4.92**
Socialization of Secondary Control Coping	-.08	-.90	.05	.52
Step 4	F(1,110) = 9.07**, adjusted R^2 = .30		F(1, 109) = 8.49**, adjusted R^2 = .28	
Adolescent Age	-.01	-.16	.17	2.02*

Adolescent Gender	.03	.33	-.01	-.09
Maternal BDI-II Scores	.42	4.92**	.26	2.96**
Adolescent Secondary Control Coping (A)	-1.17	-3.01**	-1.43	-3.63**
Socialization of Secondary Control Coping	-.93	-2.78**	-.82	-2.41*
Adolescent SCC (A) x Soc of SCC	1.37	2.64*	1.38	2.63*

Note. BDI-II = Beck Depression Inventory-2; A = Adolescent Self-Report; SCC = Secondary Control Coping; Soc of SCC = Socialization of secondary control coping; CBCL = Child Behavior Checklist; YSR = Youth Self-Report.

Table 7. Hierarchical linear regression analyses predicting adolescent anxious/depressed symptoms from mother-report of adolescent coping and maternal behavioral avoidance suggestions

	CBCL (Parent-Report)		YSR (Adolescent-Report)	
	β	t	β	t
Step 1	F(3,115) = 13.60**; adjusted R^2 = .24		F(3,114) = 4.98**; adjusted R^2 = .09	
Adolescent Age	-.03	-.38	.10	1.16
Adolescent Gender	.05	.64	.05	.56
Maternal BDI-II Scores	.51	6.27**	.34	3.78**
Step 2	F(1,114) = 11.51**; adjusted R^2 = .26		F(1,113) = 5.64**; adjusted R^2 = .14	
Adolescent Age	-.04	-.43	.10	1.11
Adolescent Gender	.07	.87	.07	.84
Maternal BDI-II Scores	.49	6.08**	.31	3.54**
Adolescent Disengagement Coping (M on A)	.16	2.03*	.23	2.61*
Step 3	F(1,113) = 9.20**; adjusted R^2 = .26		F(1, 112) = 4.95**; adjusted R^2 = .14	
Adolescent Age	-.03	-.38	.11	1.25
Adolescent Gender	.07	.88	.08	.88
Maternal BDI-II Scores	.50	6.04**	.34	3.78**
Adolescent Disengagement Coping (M on A)	.17	2.09*	.25	2.83**
Socialization of Behavioral Avoidance Coping	-.04	-.52	-.13	-1.41
Step 4	F(1,112) = 7.77**; adjusted R^2 = .26		F(1, 111) = 4.12**; adjusted R^2 = .14	
Adolescent Age	-.02	-.25	.11	1.29
Adolescent Gender	.07	.90	.08	.89

Maternal BDI-II Scores	.50	6.08**	.34	3.79**
Adolescent Disengagement Coping (M on A)	.46	1.29	.40	1.03
Socialization of Behavioral Avoidance Coping	.25	.69	.02	.05
Adolescent DC (M on A) x Soc of B.A.	-.46	-.83	-.23	-.39

Note. BDI-II = Beck Depression Inventory-2; M on A = Mother-Report on adolescent; DC = Disengagement Coping; Soc of B.A. = Socialization of behavioral avoidance; CBCL = Child Behavior Checklist; YSR = Youth Self-Report.

Table 8. Hierarchical linear regression analyses predicting adolescent anxious/depressed symptoms from adolescent self-report of coping and maternal behavioral avoidance suggestions

	CBCL (Parent-Report)		YSR (Adolescent-Report)	
	β	t	β	t
Step 1	F(3,113) = 13.12**; adjusted R^2 = .24		F(3,112) = 4.80**; adjusted R^2 = .09	
Adolescent Age	-.03	-.35	.11	1.21
Adolescent Gender	.05	.59	.05	.49
Maternal BDI-II Scores	.50	6.17**	.33	3.71**
Step 2	F(1,112) = 9.75**; adjusted R^2 = .23		F(1,111) = 4.79**; adjusted R^2 = .12	
Adolescent Age	-.03	-.34	.13	1.42
Adolescent Gender	.05	.58	.04	.41
Maternal BDI-II Scores	.50	6.09**	.31	3.49**
Adolescent Disengagement Coping (A)	.00	.02	.19	2.08*
Step 3	F(1,111) = 7.74**; adjusted R^2 = .23		F(1, 110) = 4.02**; adjusted R^2 = .12	
Adolescent Age	-.03	-.32	.14	1.51
Adolescent Gender	.05	.58	.04	.40
Maternal BDI-II Scores	.51	5.96**	.33	3.61**
Adolescent Disengagement Coping (A)	.00	.02	.19	2.08*
Socialization of Behavioral Avoidance Coping	-.02	-.19	-.09	-.97
Step 4	F(1,110) = 6.54**; adjusted R^2 = .22		F(1, 109) = 3.52**; adjusted R^2 = .12	
Adolescent Age	-.03	-.32	.14	1.51
Adolescent Gender	.05	.59	.04	.41

Maternal BDI-II Scores	.51	5.95**	.33	3.61**
Adolescent Disengagement Coping (A)	.39	.80	.71	1.34
Socialization of Behavioral Avoidance Coping	.33	.76	.37	.80
Adolescent DC (A) x Soc of B.A.	-.53	-.81	-.71	-1.00

Note. BDI-II = Beck Depression Inventory-2; A = Adolescent Self-Report; DC = Disengagement Coping; Soc of B.A. = Socialization of behavioral avoidance; CBCL = Child Behavior Checklist; YSR = Youth Self-Report.

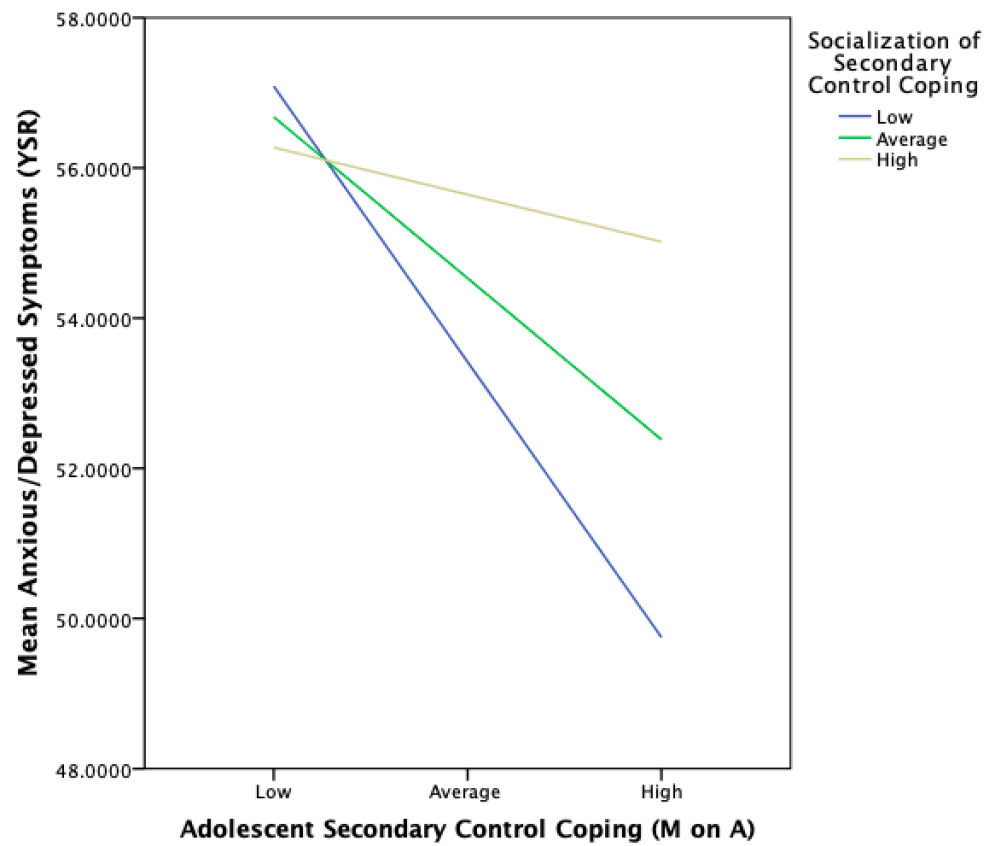


Figure 1. *Interaction between the socialization of secondary control coping and mother-report of adolescents' use of secondary control coping as a predictor of self-reported anxious/depressed symptoms.* YSR = Youth Self-Report; M on A = Mother-Report on adolescent.

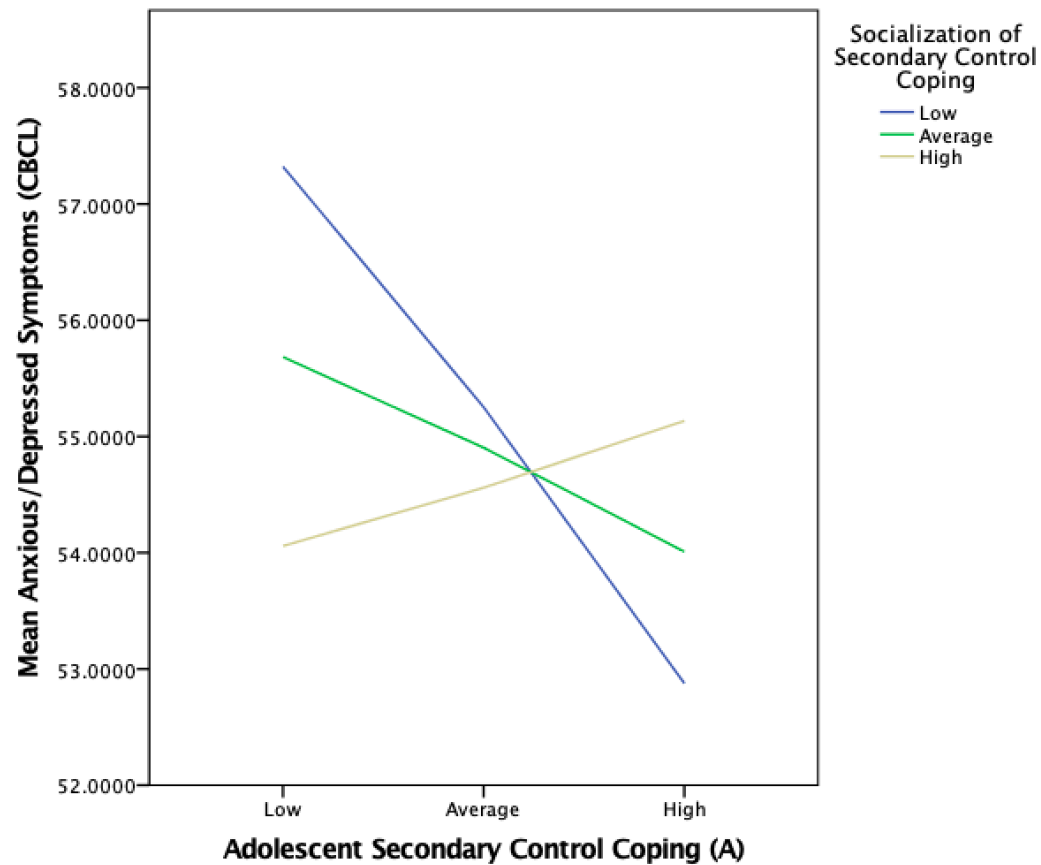


Figure 2. Interaction between the socialization of secondary control coping and adolescent self-reported use of secondary control coping as a predictor of mother-report of adolescent anxious/depressed symptoms. CBCL = Child behavior checklist; A = Adolescent Self-Report.

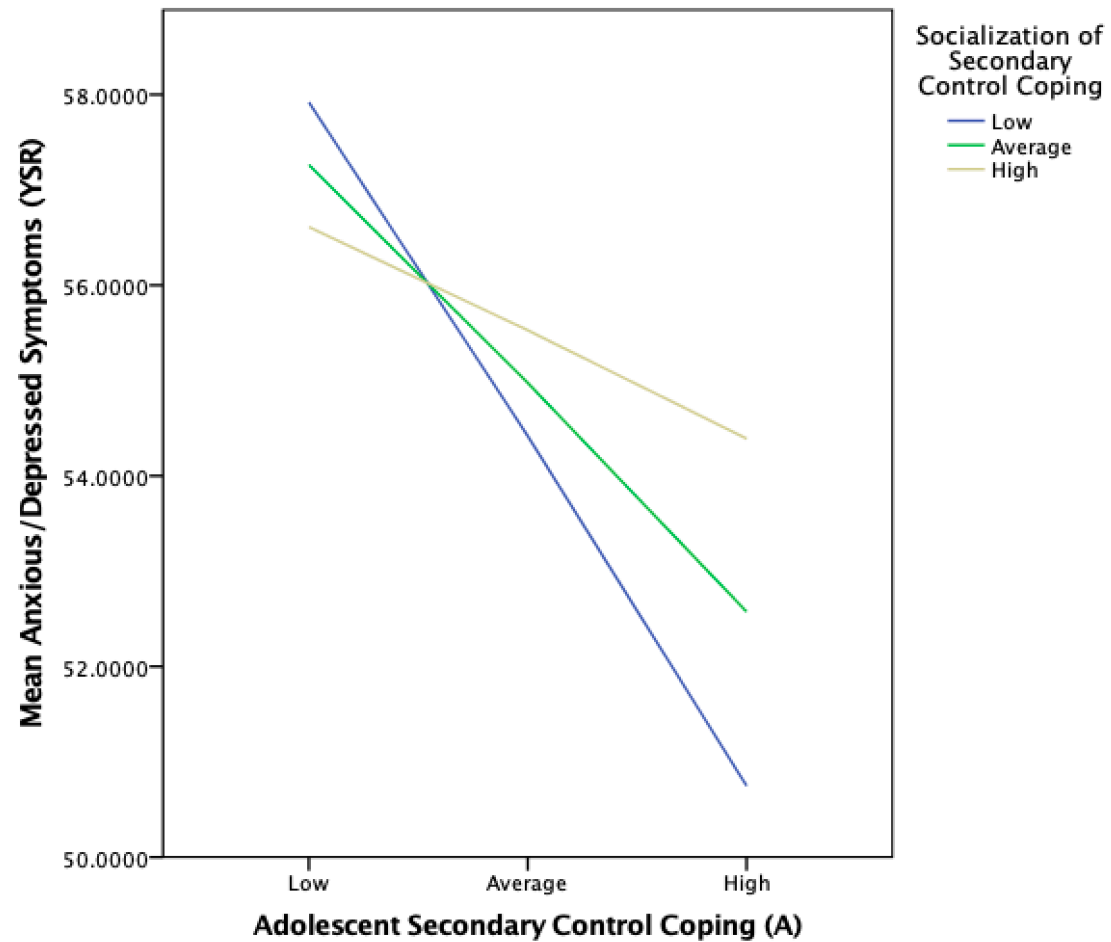


Figure 3. Interaction between the socialization of secondary control coping and adolescent self-reported use of secondary control coping as a predictor of adolescent self-reported anxious/depressed symptoms. YSR = Youth Self-Report; A = Adolescent Self-Report.

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