PARENTING AND ADOLESCENT DEPRESSION:
EMOTION REGULATION SOCIALIZATION AS A PATHWAY

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by

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CHAPTER 1

INTRODUCTION

Over the past several decades, a greater focus has been placed on understanding
how interactions within an individual's family might contribute to depression in
adolescence. Specifically, aspects of parenting have been turned to as an important
influence. Depression has been found to be related to certain parenting approaches as
well as more general aspects of family environment such as level of conflict (Sheeber,
Hops, & Davis, 2001; Sander & McCarty, 2005 for a review). Parenting techniques
which induce guilt (e.g., psychological control), as well as parenting approaches which
interfere with the development of autonomy (e.g., perceptions of parents as
overprotective; an autocratic parenting style) have been associated with increased
symptoms of depression in adolescents (Garber, Robinson, & Valentiner, 1997;
Gallimore & Kurdek, 1992; Radziszewska, Richardson, Dent, & Flay, 1996; Allen,
Hauser, Eickholt, Bell, & O'Connor, 1994). Additionally, parents who offer low
amounts of support and demonstrate less warmth and availability are also more likely to
have adolescents who experience depression (Sander & McCarty, 2005). In terms of the
family environment, higher levels of family conflict and difficulty resolving conflict are
associated with more severe symptoms of depression and also predict future depression in
children and adolescents (Kashani, Burbach, & Rosenberg, 1988; Sheeber, Hops, Alpert,

Davis, & Andrews, 1997; Stice, Ragan, & Randall, 2004). Thus, there is a good understanding of some possible pathways through which parents contribute to adolescent depression. However, it is less clear how or if parents might influence an adolescent's vulnerability to depression through parenting practices related to emotion regulation.

Recently, difficulties in emotion regulation have gained interest as a possible vulnerability for psychopathology, and empirical evidence has emerged which links emotion regulation to depression (e.g., Compas, Jaser & Benson, 2009; Durbin & Shafir, 2008). Despite the current focus on emotion regulation, there is limited research, as well as a lack of comprehensive theoretical models, regarding how parental socialization of emotion regulation might lead to depression in adolescence. In this paper, it is posited that the socialization of emotion regulation is one pathway through which parenting impacts an adolescent's vulnerability to depression. Specifically, it was hypothesized that mothers implicitly and explicitly socialize emotion regulation in adolescents, which in turn impacts the adolescent's vulnerability to depression. A specific framework of emotion regulation socialization is delineated, and a new conceptual model is proposed which outlines a pathway through which parenting impacts an adolescent's vulnerability to depression through the socialization of emotion regulation. The current support for this model is evaluated and the existing gaps are discussed.

This pathway may be particularly important to understand in adolescence, when individuals undergo a multitude of changes not only in their affective functioning, but also in cognitive, biological, and interpersonal domains (Allen & Sheeber, 2009). Cognitive changes allow adolescents to think more abstractly, make inferences about

what other individuals are thinking or feeling, and consider what might occur in the future (Larson & Sheeber, 2009).   Individuals also undergo numerous physical changes during puberty which may impact the ability to regulate their emotions (Allen & Sheeber, 2009). Additionally, adolescents seek more autonomy from their families and spend increasingly more time with their peers and friends (Steinberg, 2001; Hartup & Stevens, 1997). Moreover, developmental changes in mood and emotion occur in adolescence. Larson and Sheeber (2009) present evidence from three studies which support the view of adolescence as a time of emotional turbulence. Specifically, using the Experience Sampling Method, they found that adolescents, when compared to adults, report experiencing more frequent and extreme fluctuations in mood, both positive and negative (Larson, Csikszentmihalyi, & Graef, 1980; Larson & Richards, 1994). Additionally, when comparing adolescents to pre-adolescents, they found that negative emotions begin to occur more frequently in adolescence and positive emotions begin occurring less frequently. Adolescents also experience more extreme mood swings when compared to pre-adolescents (Larson & Lampman-Petraitis, 1989). Thus, adolescence is a time of numerous novel life changes that can be very stressful and may strain an individual's emotional resources (Graber & Brooks-Gunn, 1996). Furthermore, these life changes may require the use of new or different emotion regulation strategies in order to ensure that adolescents are well-adjusted and able to handle novel stressors. Given evidence that emotion regulation and depression are related (Compas et al., 2009), having a better understanding of how parents contribute to adolescent depression through socializing emotion regulation will increase the current understanding of pathways to depression in

adolescence. This knowledge, in turn, can contribute to finding more efficacious treatments and preventions for depression in adolescents.

Moreover, depression is particularly important to study in adolescence due to increasing rates beginning in this developmental period (Allen & Sheeber, 2009). One meta-analysis of studies examining rates of depressive disorders in children and adolescents found that while children under the age of 13 have an estimated 2.8% prevalence of unipolar depression, adolescents have a prevalence of approximately 5.6% (Costello, Erkanli, & Angold 2006). Adolescent girls are twice as likely as adolescent boys to become depressed (Seeley & Lewinsohn, 2009). Moreover, up to 50% of children and adolescents report experiencing depressive symptoms according to community surveys (Kessler, Avenevoli & Ries Merikangas, 2001). Experiencing depression in adolescence may negatively impact individuals in a number of ways. Adolescents who experience depression are also more likely to exhibit numerous psychosocial impairments including interpersonal and academic deficits, and decreased life satisfaction (Fergusson & Woodard, 2002; Seeley & Lewinsohn, 2009). Furthermore, studies have indicated that experiencing an episode of depression increases your risk of experiencing subsequent episodes of depression across the life span (Horowitz & Garber, 2006). Kovacs (1996), in a review of the literature, found that around 70% of previously depressed children and adolescents experienced a recurrent episode of depression when monitored for at least five years. Thus, adolescence is an integral developmental period in which to study depression and attempt to understand

possible pathways through which it might develop. The current study assessed depressive symptoms experienced by adolescents rather than clinical levels of depression.

The Link between Emotion Regulation and Depression in Adolescence

A single definition of emotion regulation is not easily agreed upon by researchers. However, one conceptualization that has been widely used is Thompson's (1994), that states that "[e]motion regulation consists of the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals" (pp. 27-28). Gross and Thompson (2007) further elaborate that emotion regulation can include escalating, diminishing, or sustaining an emotion. Moreover, since the emotion regulation strategies an individual uses often depend on his or her goal, specific strategies cannot easily be classified as innately successful or maladaptive (Thompson & Meyer, 2007). Instead, strategies should be evaluated based on the individual's goal in a specific scenario. Thompson and Meyer (2007) acknowledge that while emotion regulation strategies may serve specific goals in the short-term, they may also have long-term negative consequences, which is often the case with children suffering from psychopathology. For instance, a depressed adolescent may distract herself from feelings of sadness temporarily by watching TV, but since the adolescent is not actually addressing her negative emotions (e.g., by engaging in problem-solving), her depression may be exacerbated later on. Additionally, Thompson (1994) highlights the importance of regulation through external forces, such as the child's social context. That is, not only do children engage in self-

regulation of their emotions, but their parents, for example, may also play a valuable role in influencing emotion management.

Without any existing evidence linking emotion regulation and depression in adolescents, it becomes less important to consider how parenting might influence these constructs. Thus, empirical evidence examining aspects of emotion regulation and depression is first reviewed. Difficulties in regulating one's emotions have frequently been linked to psychopathology (Gross & Munoz, 1995). As depression is often described as excessive negative affect and decreased positive affect, it is likely that difficulties in emotion regulation play a crucial role in the development and course of depression (Yap, Allen, & Sheeber, 2007). Consistent with this, empirical research has demonstrated a link between emotion regulation and depression in adolescents (Compas et al., 2009). Silk, Steinberg, and Morris (2003) found that early to mid adolescents (ages 12 to 17) who experienced more depressive symptoms also experienced more lability of their emotions as well as greater intensity of anger, sadness, and anxiety. In addition, children (ages 8 to 13) experiencing depression are not able to produce as many emotion regulation strategies, and those that they do produce are not as effective (Garber, Braafladt, and Zeman, 1991) as those produced by adolescents without depressive symptoms. This research would suggest that depressed adolescents use less adaptive emotion regulation strategies and exhibit greater dysregulation.

Thompson's (1994) definition of emotion regulation stated that one component of emotion regulation involves evaluation of one's emotions. Empirical research has indicated that depressed adolescents often evaluate emotionally charged events in biased

ways. For example, depressed children and adolescents (ages 8 to 16) experience problems inhibiting negative emotional stimuli when attempting to concentrate on a different task (Ladouceur et al., 2005). Another way in which depressed adolescents engage in biased evaluation of their emotions is through making cognitive errors. These cognitive errors (e.g., overgenerlization, catastrophizing) were originally proposed by Beck (1976) and have been found to be related to depression in adults. However, there is also evidence tying cognitive errors to depression in adolescents (Abela & Hankin, 2009). Siener and Kerns (2012) found that depression in pre-adolescents (ages 10-12 years old) was associated with increased cognitive errors (i.e., catastrophizing, overgeneralization, personalizing and selective abstraction). Thus, there is some existing evidence which supports the biased evaluation of emotions in adolescents with depressive symptoms. Thompson (1994) also included monitoring, or awareness, of one's emotions as an important part of emotion regulation. Again, there is some support for a lack of awareness of one's emotions and a link to depression in adolescents. Ciarrochi, Heaven & Supavadeeprasit (2008) found that poor emotion identification skills were associated with increased negative affect in adolescents (ages 13 – 16). Relatedly, poor awareness of one's emotions has been linked to internalizing symptoms and, more specifically, depressive symptomatology in children (ages 9 - 12; Penza-Clyve & Zeman, 2002) and preadolescents (ages 10-12; Siener & Kerns, 2012).

The last component of emotion regulation included by Thompson (1994) involves the modification of affect. One way in which affect is modified is through coping with situations which elicit emotion. However, it may be that adolescents who do not attempt

to modify their emotions or the event eliciting the emotion in a meaningful way are more prone to experiencing depressive symptoms. For example, the use of disengagement coping strategies has been linked to increased internalizing symptoms in childhood and adolescence (see Compas et al., 2001, for a review). Compas defines disengagement coping as responses to situations which are directed away from the problem or one's emotions and thoughts regarding the problem (e.g., avoidance, denial). Additionally, there is evidence linking rumination to depression in adolescents (Compas, Jaser & Benson, 2009). Rumination is defined as "the tendency to repetitively and passively dwell on one's negative emotions without engaging in active problem-solving" (Nolen-Hoeksema, 2000). Abela and Hankin (2009), in a review chapter, state that at least nine studies have found empirical support for a link between rumination and more severe symptoms of depression over time. Additionally, it also has been found that adult females are more prone to engage in rumination, which partially explains the gender difference in rates of depression between men and women (Nolen-Hoeksema, Larson, & Grayson, 1999), although findings have been much more mixed among adolescents thus far (Hilt & Nolen-Hoeksema, 2009). One longitudinal study did find that the onset of Major Depressive Disorder in adolescent girls was predicted by rumination (Nolen-Hoeksema, Stice, Wade & Bohon, 2007), but other studies have failed to find the same evidence. Hilt and Nolen-Hoeksema (2009) suggest the lack of support may be due to small sample sizes and that the tendency for adolescent girls to engage in rumination more frequently may worsen their depressive symptoms in adolescence, which leads to the experience of major depressive episodes over time.

In sum, there are varying degrees of empirical support linking different aspects of adolescent emotion regulation to depression. Empirical evidence linking adolescents' awareness and clarity of their emotions to depression is less well established. There is also mixed evidence regarding the link between rumination and depression in adolescents. There is a need for additional research to replicate findings (e.g., that poor awareness and biased evaluations of emotion are linked to depression) as well as clarify other findings (e.g., under what specific circumstances is disengagement coping adaptive?). Furthermore, as demonstrated above, much of the existing research has been conducted with children and there is a need to expand the literature into adolescence. However, there is firm evidence linking evaluation (i.e., cognitive errors) and modification (i.e., coping) of emotions to adolescent depression. Thus, taking these findings into consideration, there is support for the link between adolescent emotion regulation and depression, and evidence to suggest that emotion regulation may be a mediator of the relationship between parental socialization and adolescent depression. Consequently, it is important to consider the role of parental socialization.

The Socialization of Emotion Regulation

Children and adolescents learn how to communicate, interpret, and manage their emotions in social contexts (Thomspon, 1994; Hunter, Hessler, & Katz, 2009). For example, adolescents may observe and model others as well as receive feedback and support regarding their emotions. Despite the changing relationships adolescents experience with peers and family, support from parents has still been found to be better at predicting emotional adjustment than support received from peers (Helsen, Vollebergh, &

Meeus, 2000).   More specifically, studies have found that family relationships, particularly those with parents, are more strongly associated with depression in adolescence than are peer relationships (Barrera & Garrison-Jones, 1992).   Given the continuing importance of the role of parents and parenting in adolescent adjustment (Barrera & Garrison-Jones, 1992), it becomes imperative to examine the mechanisms through which parents influence the socialization of emotion regulation. It is likely that parents play a different role in socializing emotion regulation in adolescence than during infancy or childhood. For example, parents shift from more directly influencing their children's regulation of emotion (e.g., physically comforting a crying child) to acting as more of an advisor who adolescents are able to consult for help with challenging situations (Hunter et al., 2009).

One previous model proposed that parental socialization directly influences a child's emotion regulation abilities, which in turn influences vulnerability to depression. Morris, Silk, Steinberg, Myers, and Robinson's (2007) model classified emotion regulation socialization in three ways: observation (e.g., modeling), parenting practices (e.g., emotion coaching), and the emotional climate of the family (e.g., marital relations). However, this model has some limitations. First, the way socialization is defined blurs some important boundaries. For example, this model makes a clear distinction between the emotional climate and the modeling of that climate; however, there is likely a great deal of overlap between emotional climate and modeling. That is, children and adolescents likely observe and model aspects of the emotional climate. Additionally, some aspects of the family's emotional environment depicted in the model, such as

parenting style, are proposed to influence emotion regulation directly. However, as will be discussed later, it may be that parenting style shapes an adolescent's emotion regulation by impacting how receptive adolescents are to socialization from their parents rather than directly influencing their affect modulation strategies. Thus, the currently proposed model clarifies the definition of the socialization of emotion regulation and proposes an alternative approach to classifying emotion socialization. Additionally, whereas Morris et al. (2007) considered both children and adolescents, the current model concentrates on adolescents as much as research allows. This is particularly important as parenting likely contributes to emotion regulation and depression differently in adolescence than it does in childhood (Hunter et al., 2009). Finally, the current model also extends previous models in that it includes several moderating factors of the relationship between parental socialization and adolescent emotion regulation.

For the purposes of this paper, emotion regulation socialization includes both explicit and implicit parenting that can influence an adolescent's emotion regulation. Following the distinction proposed by Ladd (1992) explicit socialization of emotion regulation involves overt specific parenting practices which aim to teach or further develop emotion regulation strategies, whereas implicit socialization involves parenting that may influence emotion regulation strategies even though the parenting is not engaged in for that specific purpose. It is hypothesized that maternal socialization impacts the development of emotion regulation in adolescents, which in turn contributes to the development of depressive symptoms (see Figure 1). The discussion of specific methods of socialization will be guided by those methods proposed to be particularly relevant in
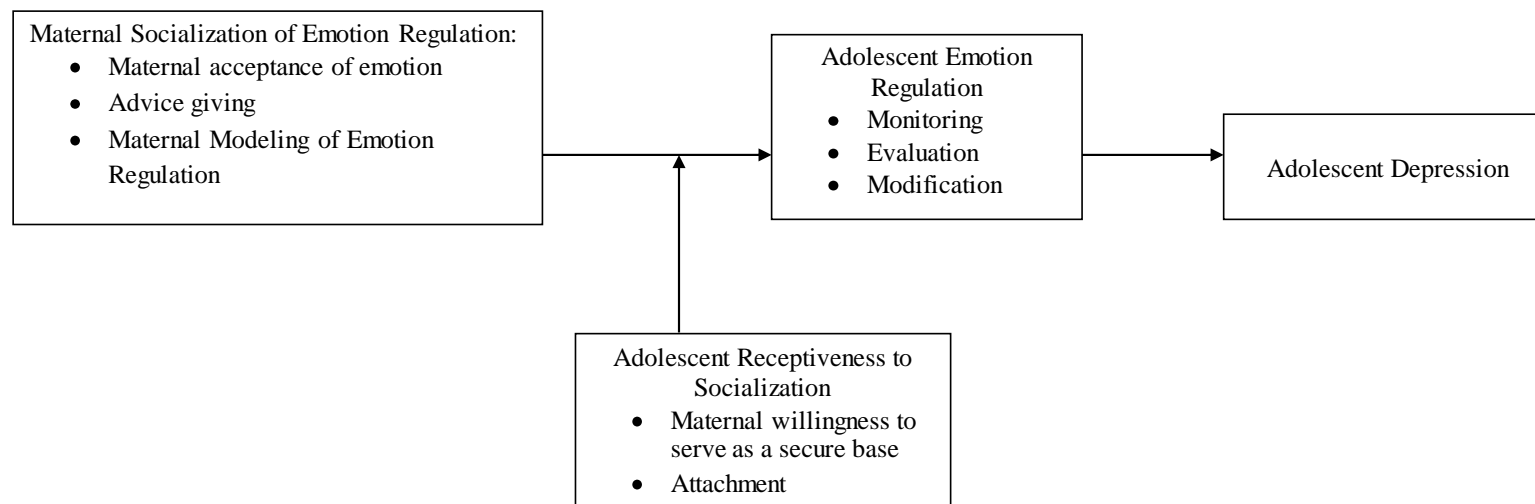
Figure 1. Proposed model of emotion regulation socialization as a pathway to depression in adolescence.

adolescence. Specifically, evidence regarding parental awareness and acceptance of adolescent emotions, advice giving, and parental modeling of emotion regulation strategies is examined. Potential limitations and gaps in the extant literature are discussed. Additionally, adolescent receptivity to socialization is discussed as a proposed moderator of the relationship between socialization and emotion regulation.

Parental Socialization of Emotion Regulation

   Parental awareness and acceptance of adolescent emotion. Several lines of evidence suggest that greater awareness and acceptance of children's emotions fosters emotional competence. Gottman, Katz, and Hooven (1996) first posited the construct of parental meta-emotion philosophy. They defined this term as referring to "an organized set of feelings and thoughts about one's own emotions and one's children's emotions" (pp. 243). Further, they hypothesized that parents who are aware of their own emotions as well as their children's are able to assist their children in coping with their emotions. Thus, parental awareness of their adolescent's emotions would be an important facet of emotion regulation socialization. Katz and Hunter (2007) conducted a study which examined aspects of a parents' meta-emotion philosophy (e.g., awareness of their own emotions and adolescent's emotions) as well as parents' attempts to aid their adolescent (ages 12-14) in problem solving (which will be discussed later) during an interaction task. They did not find any links between parental awareness of their adolescent's emotions and the adolescent's self-reported symptoms of depression. However, they did not measure the adolescent's emotion regulation strategies, and so it is unknown whether

or not there was a relationship between parental awareness of their adolescent's emotions and which emotion regulation strategies their adolescents utilized. Additionally, this is the only known study examining these constructs in adolescence.

How a parent reacts to his or her child's emotions is another key component in socializing emotion regulation and emotional competence (Eisenberg, Cumberland, & Spinrad, 1998). Eisenberg and colleagues (1998) emphasized the importance of how parents react to their child's negative emotions in particular. Parents can respond to their child's emotions in a supportive way, or they might respond in nonsupportive ways. Parents might avoid the child when he or she is exhibiting negative emotions, or punish or play down the negative emotion. Alternatively, parents may comfort the child or help the child to achieve optimal arousal. It has been found that mothers who are not supportive in their reactions to their children's negative emotions negatively impact their children's social and emotional outcomes. Specifically, preadolescents whose mothers minimized their children's emotions were less socially competent and more likely to use avoidant coping (Eisenberg, Fabes, & Murphy, 1996). Similarly, Yap, Allen, and Ladouceur (2008) found that adolescents (ages 11-13 years old) whose mothers responded to their emotions in a way that was minimizing or invalidating exhibited more emotion dysregulation and self-reported that they used less adaptive strategies for modulating their emotions. Additionally, adolescents whose mothers minimized their positive emotions during the interaction reported more depressive symptoms. Moreover, they found that the utilization of less adaptive emotion regulation strategies mediates the relationship between mothers minimizing their adolescent's emotions and self-reported

symptoms of depression.   This supports the piece of the model which hypothesizes that mothers who respond negatively to their children's emotions socialize their children to have less adaptive emotion regulation skills, which lead them to experience more depressive symptoms.

Research has also been conducted regarding how parents respond to the affect of their clinically depressed adolescents. Cole and Rehm (1986) recruited clinically depressed and non-depressed early adolescents (ages 12 – 14) and instructed parents to help them play a maze game. They found that parents rewarded their depressed adolescents much less frequently throughout the interaction. That is, parents of depressed adolescents were less likely to use positive affect (e.g., saying "good job!") as a reward than parents of non-depressed adolescents. Conversely, Sheeber, Hops, Alpert, Davis, and Andrews (1998) found that during a problem-solving task in which the adolescent and parent discussed a conflict, parents were more likely to respond sympathetically to their clinically depressed adolescents than to non-depressed adolescents (ages 14 – 19) as well as try harder to assist them in problem-solving in response to their displays of depressive behavior (e.g., dysphoric affect, whining, self-disparaging remarks). These results would suggest that mothers of depressed adolescents may be reinforcing their depressive behavior by responding with more sympathy and assistance. To build upon this idea, they again had parents and adolescents (ages 12 to 19) participate in a problem-solving task and coded the adolescent's affect as well as parental responses (Sheeber, Allen, Davis, & Sorenson, 2000).   They found that the same facilitative behavior displayed by mothers (i.e., sympathy and offering more help in response to depressive

behaviors) was also related to the duration of episodes of negative affect throughout the interaction. They again concluded that this is likely due to the responses mothers have to their adolescents being inadvertently reinforcing of depressive behavior. Taken together, the findings from these three studies would suggest that depressed adolescents do not receive as much positive reinforcement from their mothers for positive affect. However, when they are given positive reinforcement, it is in response to the adolescent displaying depressive behavior.

Advice Giving. Several authors have suggested that parents can function as consultants, providing advice to their children (e.g., Ladd, 1992; Mounts, 2000). As a consultant, parents assist their children in resolving difficult emotional situations through giving advice and engaging in didactic conversations. In middle childhood, Cohen (1989) found that one of the most frequent types of maternal participation in peer relationships involved giving advice and offering support. Mounts (2000) indicated that the need for parents to act as a consultant may be more frequent during adolescence. This may be particularly true as adolescents often experience novel emotional challenges which may require them to look to their parents for information about how to manage their emotions. For example, individuals often begin experiencing new emotions, such as hopelessness and romantic love, for the first time during adolescence due to advances in cognition and an expanding network of close relationships. (Steinberg & Silk, 2002). Other new situations might also arise such as navigating new schools (e.g., school transitions) and cliques. Thus, parents are likely important sources of information on the effective expression and management of emotions. Providing guidance may be more

effective with adolescents than more direct approaches as it is less intrusive and allows adolescents to think through situations themselves. The current model proposes that parents who engage in emotion coaching through advice-giving will have adolescents with better emotion regulation competencies, and, in turn, fewer symptoms of depression.

Emotion coaching is another way advice giving has been conceptualized. Gottman and colleagues (1996) proposed that parents utilized emotion coaching, which involves recognizing the negative emotions of their children as opportunities to further encourage intimacy or as moments for teaching. As a part of emotion coaching, parents validate the emotion their child is experiencing, help the child label the emotion, and then also aid in problem solving. It is posited that parents who engage in emotion coaching help their children better develop emotion regulation strategies. As mentioned earlier, Katz and Hunter (2007) examined the role of emotion coaching (operationally defined as finding behavioral strategies to help adolescents problem-solve) in adolescent adjustment (participants were ages 12 – 14) and emotion regulation during an interaction task. Although they did not find support for a relationship between more depressive symptoms and less parental coaching of problem solving, they did find that mothers who facilitated more problem-solving throughout the interaction had adolescents who reported fewer internalizing and externalizing symptoms and better overall adjustment. Additionally, these adolescents also did not respond with as much dysphoric affect during the interaction. With the exception of this study, to date, there has been no research exploring the construct of coaching in adolescence.

As mentioned previously, disengagement coping has been linked to increased internalizing symptoms in childhood and adolescence (see Compas et al., 2001). Consistent with this, there has been some evidence found linking the parental socialization of disengagement coping to depression in adolescents. Abaied and Rudolph (2010) found that children and adolescents (4th-8th graders) experiencing high levels of stress whose parents suggested disengagement coping strategies (e.g., avoidance) were much more likely to experience depression over time. Although they also examined parental suggestions of engagement coping (which would include strategies such as problem solving) they did not find any evidence linking it directly to adolescent depression. The research reviewed above provides some initial support for the importance of parents suggesting active strategies (e.g., problem solving) rather than disengagement strategies (e.g., avoidance). It is important to further examine the relationships among parental advice giving, adolescent emotion regulation, and depression. The proposed model (Figure 1) suggests that mothers socialize their adolescents to use certain strategies through advice giving, which then impacts how adolescents regulate their emotions and, in turn, their vulnerability to depression.

Additionally, parental acceptance of their adolescent's emotions may be linked to advice giving. Specifically, Hunter et al. (2009) suggested that how accepting parents are of emotions in their adolescents impacts how comfortable adolescents feel approaching their parents for emotional support or advice, which could play an important role in the emotional adjustment of adolescents. If adolescents feel that their parents may respond negatively to certain emotions, such as being sad, they would be less likely to approach

them for help when they are feeling upset or dealing with upsetting situations.

Consequently, if adolescents do not feel comfortable enough to approach their parents

when they are feeling certain emotions, parents lose out on the chance to engage in

explicit emotion regulation socialization. Parents cannot aid their child's emotion

regulation by helping to problem solve or offering advice if they are not given the

opportunity to do so in the first place. Even if parents may be able to suggest a more

adaptive way of regulating one's emotions, if they do not have the chance to

communicate that to their adolescent, adolescents may continue to use maladaptive

strategies which could potentially place them at increased risk for experiencing

symptoms of depression. That is, it is likely that parental awareness and acceptance of

emotion impacts opportunities for other forms of socialization.

     Modeling. Children and adolescents may implicitly learn about emotion

regulation through observing their parents' own expressions of emotion and how parents

modulate these emotions (Hunter et al., 2009). As Bandura (1977) established, children

often learn behaviors through modeling. Thus, parents act as important influences in this

process. Through observing their parents' own emotional reactions to situations and

how these reactions are modulated, children learn how they are expected to react in

similar scenarios (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997).

Consequently, children may learn through observation which emotions are deemed

acceptable within a certain family and also how to regulate these emotions by watching

their parents (Thompson & Meyer, 2007).

One important question is whether parents who model less adaptive emotion regulation strategies have children who use less adaptive strategies themselves. First, it is important to consider what is known about parents who model maladaptive strategies. Empirical studies have demonstrated that depressed mothers experience deficits in the way they regulate their own emotions (Gross, & Muñoz, 1995). In fact, there is a developing body of literature that supports a connection between maladaptive emotion regulation strategies and depression in adults. Moreover, Campbell-Sills and Barlow (2007) proposed that these maladaptive strategies are important to the development and maintenance of adult depression. Specific to depressed parents of adolescents, Garber and colleagues (1991) found that when adolescents and depressed mothers were independently asked to produce strategies of emotion regulation, they were able to come up with fewer possible strategies, and those they did come up were rated as less effective than those produced by nondepressed mothers and their adolescents. This could be interpreted as depressed mothers modeling less effective strategies to their adolescents. The current model proposes that mothers who are depressed model ineffective emotion regulation strategies for their children and adolescents, which in turn leads these children and adolescents to use maladaptive strategies themselves, which contributes to the development of depressive symptoms.

In addition, it is important to address how children of depressed parents regulate their own emotions, and whether or not they may model their parents' use of maladaptive strategies. Silk, Shaw, Skuban, Oland and Kovacs (2006) compared children (ages 4-7) of mothers who had a history of depression to children whose mothers had no history of

depression. They found that during a delay task, children of mothers with a history of depression used less constructive coping strategies (i.e., strategies that were more passive than active). These differences may be due to the ineffective emotion regulation strategies depressed mothers model for their children. Although this study did not measure depressive symptoms in the child participants, as was discussed, there is evidence suggesting that difficulties in emotion regulation are related to the experience of depression in children and adolescents. Moreover, children of depressed parents are at higher risk for depression (Beardslee, Bemporad, Keller, & Klerman, 1983). One possible reason for this elevated risk may be that children are using the maladaptive strategies their depressed parents are modeling. This line of research provides empirical support for modeling as a pathway to depression in adolescents. However, most of the research done thus far has concentrated on pre-adolescents. Although it is thought that modeling a depressed mother's emotion regulation strategies would operate similarly in adolescents, future research needs to confirm this. For example, it is also possible that adolescents are more able to effectively evaluate the efficacy of their mothers' coping efforts, and may react by purposefully adopting alternative strategies if their mother has difficulty modulating her own emotions. Additional research also needs to be conducted to see if modeling also occurs with fathers experiencing depression.

Next, research will be considered which does not involve parents with a history of psychopathology. Parents may also implicitly socialize emotion regulation in their adolescents through modeling more adaptive emotion regulation strategies. If an adolescent's parents have an awareness of their own emotions and subsequently regulate

them successfully, they are modeling adaptive emotion regulation. In addition to studying the role of emotion coaching in the previously mentioned study, Katz and Hunter (2007) also examined the impact of a mother's awareness and acceptance of her own emotions on adolescent adjustment. Thus, how aware and accepting parents are of their own emotions may model to children which emotions are deemed appropriate or how aware of their own emotions children should be. In their study, they found that adolescents (12-14 years of age) whose mothers were aware of their own emotions and able to express them reported fewer symptoms of depression. This lends support to the idea that parents who are able to model the process of effectively modulating their own emotions impact their children and adolescent's emotion regulation skills, which, in turn, may impact their experience of depressive symptoms. In conclusion, it seems that mothers who model ineffective emotion regulation, either because they themselves are experiencing depression or because they lack awareness and the ability to appropriately express their own emotions, are more likely to have adolescents who also have less adaptive emotion regulation skills and experience more depressive symptoms.

Receptivity as a Moderator

Another important component of the proposed model is a moderator between the socialization of emotion regulation and an adolescent's actual emotion regulation competencies (see Figure 1). Although parents may attempt to explicitly or implicitly socialize emotion regulation, the degree to which they are successful likely depends on how receptive the adolescent is to socialization. If adolescents are more receptive to parental socialization, their emotion regulation competencies will be more strongly

related to socialization attempts. However, if adolescents are not receptive to parental socialization, the relationship between socialization and emotion regulation will be weaker. Thus, it is proposed that receptivity to socialization moderates the relationship between socialization and emotion regulation in adolescents. The degree to which adolescents are receptive likely depends on whether or not the family environment is conducive to socialization. Specifically, the model proposes that maternal emotion socialization will be more effective if it takes place in a climate of warmth and acceptance or if children are more securely attached to their parents.

Parental willingness to serve as a secure base. Darling and Steinberg (1993) suggested that parenting style (the emotional environment in which socialization takes place) moderates the relationship between parenting practices and developmental outcomes. They posited that the emotional environment influences how children and parents interact as well as the child's receptiveness to parental influence. Building on this model, it is proposed that a mother's willingness to serve as a secure base influences adolescent receptivity to socialization. Specifically, mothers who demonstrate more warmth and acceptance are more likely to have adolescents who are more open to socialization. Support for this particular moderator exists in areas outside of emotion regulation socialization. For example, Kochanska and Aksan (2006) proposed, and found supporting evidence, that children who were provided with sensitive and responsive caregiving would cooperate more with parental socialization. Specifically, they found that parents who were more responsive and shared positive emotions with their children promote guilt development in their children. Furthermore, Kochanska, Forman, Aksan,

and Dunbar (2005) found that maternal responsiveness and shared positive emotion during the first two years of a child's life led to children experiencing more enjoyment when interacting with their mothers, and, in turn, later led to children developing moral conduct and cognition.

Attachment. Attachment is posited to be another way through which adolescent receptivity might be influenced. Specifically, Richters and Waters (1991) proposed that "attachment contributes to socialization outcomes by rendering children more socializable" (pp. 16). That is, a secure attachment between the parent and child makes children more open to socialization in that they are more cooperative with parental socialization, and are more concerned about social norms. Waters, Hay, and Richters (1985) also stressed the importance of secure parent-child attachment and children being more open to parental socialization. In support of this, Kochanska, Aksan, Knaack, & Rhines (2004) found that the link between gentle, responsive parenting and the child's future conscience (at 4.5 years old) was moderated by attachment security at 14 months old. They suggest that secure attachment creates an environment which is more conducive to the maternal socialization of moral behavior. Given this evidence, it seems that secure attachment plays an important role in how receptive children are to socialization and would be important to consider in relation to emotion regulation socialization.

Hypotheses

The current study tested the proposed model by examining associations among emotion socialization, emotion regulation, and depressive symptoms. Generally, the study addressed whether adolescent emotion regulation mediated the relationship between maternal socialization and adolescent depressive symptoms. Specifically, three socialization mediation models were tested (i.e., maternal acceptance of adolescent emotion, maternal advice giving, and maternal modeling of emotion regulation strategies). Adolescent emotion regulation strategies (i.e., lack of emotional awareness, lack of emotional clarity, nonacceptance of emotion, engagement coping and disengagement coping) were included as mediators. Additionally, adolescent receptivity to socialization was tested as a moderator (i.e., parental willingness to serve as a secure base and attachment). The specific hypotheses for each pathway are outlined as follows:

(1) It was hypothesized that mothers who are more accepting of their adolescent's emotions will have adolescents with better emotion regulation strategies and, subsequently, less depressive symptomatology.

(2) It was hypothesized that mothers who give better quality advice will have adolescents with better emotion regulation strategies, and subsequently, less depressive symptomatology.

(3) It was hypothesized that mothers who utilize effective emotion regulation strategies themselves will have adolescents who also use effective strategies and subsequently will experience less depressive symptomatology.

(4) It was hypothesized that receptivity to socialization moderates the relationship between socialization and emotion regulation in adolescents. Specifically, there were two constructs which were proposed to influence an adolescent's receptivity to maternal socialization of emotion regulation:

a. Mothers who are more willing to serve as a secure base will have adolescents who are more receptive to parental socialization of emotion regulation. That is, the link between maternal socialization and adolescent emotion regulation will be stronger when mothers are more warm and accepting.

b. Securely attached adolescents will be more receptive to maternal socialization of emotion regulation. That is, the link between maternal socialization and adolescent emotion regulation will be stronger when adolescents report being more securely attached.

As emotion regulation has thus far been described in a broad way, it is important to specify that several specific emotion regulation processes, guided by Thompson's (1994) definition of emotion regulation, were selected as potential mediators. Coping was selected as one such process as it is considered to capture the construct of modifying one's emotions. Acceptance of one's emotional responses as well as whether or not one engages in rumination is meant to capture ways in which individuals may evaluate their emotions. Additionally, the adolescent's awareness and clarity of their emotions is intended to capture monitoring of emotions.

CHAPTER 2

METHOD

Sample

For the current study, 103 children (51 girls, 52 boys) and their mothers were recruited from local schools. Letters were sent home to families with a child in the targeted age range and those who were interested in participating were directed to call or email the laboratory to schedule an appointment. The study included children who were in the 7th or 8th grade at the time of recruitment (ages 11.92 – 14.67 years; M = 13.41, SD = .72). Approximately 87% of the participants identified themselves as Caucasian, 6% African American, 3% Hispanic, and 4% Other/Biracial. Around 55% of the participants reported coming from households in which parents were married, while 45% reported coming from divorced or separated households. Years of maternal education ranged from 10 to 20 years (M = 14.32, SD = 2.05) with the mean level of education corresponding to an Associate's Degree.

Procedure

As a part of a larger study, each adolescent participant and his or her mother came to the laboratory on campus for two separate visits. During the first visit, mothers and adolescents independently filled out questionnaires assessing a number of constructs and

adolescents were interviewed using the Child Depression Rating Scale (Poznanski et al., 1984). Additionally, mothers and adolescents filled out daily questionnaires on palm pilots after the first visit. Two months after the initial laboratory visit, the mother-adolescent pairs were contacted to schedule a second visit to the laboratory. The second visit again included the dyads completing a number of questionnaires as well as another adolescent interview to assess their depressive symptoms. Dyads also participated in a six minute videotaped interaction task in which they discussed a recent time that the adolescent felt anxious about something. This interaction was then coded for quality of maternal advice giving as well as well as maternal openness to and acceptance of emotion, which will be discussed below in more detail. Dyads were compensated $40 for the first visit and $60 for the second. Additionally, participants were entered into a raffle for a laptop.

Maternal Awareness and Acceptance of Adolescent Emotion

Coping with children's negative emotions scale. Mothers completed the Coping with Children's Negative Emotions Scale (CCNES; Fabes, Eisenberg & Bernzweig, 1990) during the second laboratory visit (see Appendix A). This measure was designed to assess how parents respond to their children's emotions. Mothers answered 10 items on which they rated how likely they were to respond to the child's emotion in a certain way on a scale from 1 (very unlikely) to 7 (very likely). This measure was slightly modified for the current study in that situations were adjusted to be developmentally appropriate for adolescents. For example, item 2 originally indicates "if

my child falls off his/her bike and breaks it, and then gets upset and cries, I would:," but is changed to "If my child breaks an expensive electronic item (i.e. iPod, Playstation, computer, etc.) and then gets sad or upset, I would: ." Three subscales are of interest in relation to maternal reactions to emotions: minimization of reactions (items 1d, 2c, 3b, 4c, 5b, 6d, 7d, 8c, 9f, 10a) punitive reactions (items 1a, 2f, 3f, 4a, 5d, 6e, 7e, 8e, 9b, 10c), and acceptance of emotion (items 1e, 2e, 3e, 4b, 5e, 6f, 7a, 8a, 9c, 10f). The minimizing response option for the sample question is: "Tell my child that he/she is over-reacting." The punitive response option is: "Tell my child to stop being upset or he/she won't be allowed to use his/her electronic again any time soon." The accepting response option is: "Tell my child it's ok to be upset."

While the minimization of reactions and punitive reactions subscales were left in their original form, the acceptance of emotion subscale was modified. Previously the subscale had included items that assessed both acceptance and encouragement of emotions. This subscale was modified with the aim of assessing how accepting parents are of their adolescents' emotions rather than to what degree they encourage certain emotions.

In previous studies, this measure has demonstrated adequate reliability and validity (Fabes, Poulin, Eisenberg, & Madden-Derdich, 2002). Specifically, internal reliabilities of subscales ranged from .69 to .85. Test-retest reliability was also adequate with scores from the scale at time 1 consistently correlated to scores from the scale at time 2 (separated by four months). Correlations ranged from .56 to .83. Construct validity has also been demonstrated to be adequate, in that parents who reported

themselves to be more controlling of their child's emotional expressiveness (as measured by the Parent Attitude Toward Children's Expressiveness Scale, Saarni, 1985) also had higher scores on the punitive and minimization subscales. In the current study, reliability of the subscales of interest ranged from adequate to good (minimization of reactions $\alpha =$ .80; punitive reactions $\alpha = .65$; acceptance of emotion $\alpha = .86$).

Mothers' openness to/acceptance of emotion coding. To augment the maternal questionnaire assessing maternal acceptance of adolescent emotion, an observational measure is also included (see Appendix B). The rating scale ranges from 1 (lack of openness to and acceptance of emotion) to 5 (very open and accepting of emotions). Mothers who are rated highly are more likely to attend to and validate the adolescent's emotions as well as initiate discussion regarding emotions and create a climate of emotional openness. Two independent coders rated 10 interactions, part of the data set, until a minimum intraclass correlation of .60 was reached, at which point the coders were considered trained (actual intraclass correlation from training subset = .65). Subsequently, the individual serving as the primary coder independently rated the remaining videos. The secondary coder independently rated 20% of the interactions to serve as a reliability coder. Coders met approximately once per week and discussed scores that differed by one point or more to minimize drift in ratings. Actual data consists of an aggregation of the two coders' original independent ratings. Inter-rater reliability was acceptable (intraclass correlation = .61).

Data reduction and associations among variables within the domain. It was

expected that measures of maternal acceptance and awareness of emotion would be

significantly correlated, and that subscales would be combined if they correlated at .60 or

higher (see Table 1). Regarding the domain of maternal acceptance of emotion, two

subscales from the CCNES, maternal punitive reactions and minimization of reactions in

response to adolescent emotion, were aggregated as they were adequately correlated.

This aggregate is called nonsupportive maternal reactions to emotion. Although it had

been proposed that the acceptance scale from the CCNES would be aggregated with the

observational rating of mothers' openness to/acceptance of emotion, the two variables

were not sufficiently correlated, and will thus remain separate. Several relationships

Table 1. *Associations among Variables in Maternal Acceptance of Emotion Domain.*

	Maternal punitive reactions	Maternal minimization of reactions	Maternal acceptance of emotion	Observed maternal openness to emotion
<u>Maternal Acceptance of Emotion:</u>				
Maternal punitive reactions	-			
Maternal minimization of reactions	**.61****	-		
Maternal acceptance of emotion	**-.34****	**-.24***	-	
Observed maternal openness to emotion	**-.23***	-.18	.11	-

Note. * p < .05, ** p < .01.

among the variables within the acceptance of emotion domain were significant. As

would be expected, mothers who reported having nonsupportive reactions to their

adolescents' emotions were significantly less likely to report being accepting of their

adolescents' emotions, and were also rated by observers as being significantly less open

to and accepting of their adolescents' emotions.

Advice Giving

  Coping with children's negative emotions scale. As mentioned above, mothers

completed the Coping with Children's Negative Emotions Scale (Fabes et al., 1990). The

problem-focused reactions subscale (items 1c, 2d, 3c, 4f, 5f, 6a, 7b, 8d, 9e, 10d) is of

interest in that it assesses the extent to which parents help the adolescent actively solve

the problem causing the adolescent's distress. An example item with a problem-focused

response is "If my child becomes disappointed or upset because he/she cannot go to a

friend's party, I would: Help my child think about ways that he/she can still be with

friends (e.g., invite some friends over another time." In the current study, reliability was

good ($\alpha = .83$).

  Quality of maternal advice coding. In addition to the problem-focused reactions

subscale, an observational measure of maternal advice giving is included (see Appendix

C). The rating scale ranges from 1 (very poor quality of advice) to 5 (very good quality

of advice). Mothers who are rated highly in quality of advice giving offer solutions that

are plausible and geared toward problem solving. Additionally, highly rated mothers

encourage the child to be active in handling the situation. Two independent coders rated

10 interactions, part of the data set, until a minimum intraclass correlation of .60 was

reached, at which point the coders were considered trained (actual intraclass correlation

from training subset = .85). Subsequently, the individual serving as the primary coder

independently rated the remaining videos. The secondary coder independently rated 20%

of the interactions to serve as a reliability coder. Coders met approximately once per

week and discussed scores that differed by one point or more to minimize drift in ratings.

Actual data consists of an aggregation of the two coders' original independent ratings.

The observational measure demonstrated good inter-rater reliability (intraclass correlation

coefficient = .81).

Data reduction and associations among variables within the domain.

Although it had been proposed that the maternal problem-focused reactions subscale

from the CCNES and the observational rating of maternal advice giving would be

aggregated into a single construct of advice giving, the two were not sufficiently

correlated ($r = .03$, $p = .81$).

Parents' Modeling of Emotion Regulation

COPE inventory. To address how mothers model the modification of their

emotions, a revised COPE inventory (Carver, 1997) was administered during the second

laboratory visit (see Appendix D). The scale was adapted from its original form in that it

was shortened to include only subscales currently of interest. Additionally, it was

modified to direct participants to consider one particular stressful event occurring in the

past two months which caused depression or anxiety. Participants were asked to describe

this stressor and their feelings related to it. This was done to aid the participant in more clearly remembering the way in which they coped with a stressor and also to identify a specific situation as the efficacy of coping depends on the controllability of the stressor (Folkman and Moskowitz, 2004). The questionnaire includes 24 items which asks participants how likely they are to use a certain coping strategy on a scale ranging from 1 (I usually don't do this at all) to 4 (I usually do this a lot). Subscales were chosen based on engagement (subscales include active coping, e.g., "I concentrated my efforts on doing something about it."—items 2, 10, 19, 24, and planning, e.g., "I made a plan of action."—items 7, 13, 16, 22) and disengagement (behavioral disengagement subscale, e.g., "I admitted to myself that I can't deal with it, and quit trying."—items 4, 9, 15, 20) coping constructs. Disengagement coping is meant to capture the lack of modifying one's emotions or the situation that is eliciting emotions.

The COPE has previously demonstrated adequate reliability and validity (Carver, 1997). Specifically, the internal reliability for subscales of interest ranged from .62 to 85. In regard to test-retest reliability, 85 undergraduate students completed the COPE at two time points separated by 8 weeks. Correlations ranged from .54 to .77 for the subscales of interest. Carver (1997) suggests that this indicates self-report of coping strategies through the COPE is relatively stable over time. Additionally, Carver states that previous research has indicated that optimism is associated with active coping as people who are more optimistic have positive expectations about the future and do the best they can to manage negative events (Scheier & Carver, 1987). Furthermore, previous research has supported this relationship empirically using other measures of coping (Scheier,

Weintraub, & Carver, 1986). The COPE was also related to optimism in the expected

direction, providing some evidence of convergent validity. In the current study,

reliability was adequate for the active coping ($\alpha = .61$), planning ($\alpha = .87$), and behavioral

disengagement ($\alpha = .68$) subscales. The overall reliability for the eight items included in

the engagement composite was also adequate ($\alpha = .75$).

Response Styles Questionnaire. Rumination is another construct which has

been found to be related to depression. Thus, maternal rumination was assessed using the

Response Styles Questionnaire (RSQ; Nolen-Hoeksema & Morrow, 1991) during the

first laboratory visit (see Appendix E). The RSQ is thought to capture how often

individuals engage in ruminative responses when experiencing depression (e.g., "think

about how alone you feel"). The measure includes 25 items on which participants

indicate how frequently they engage in certain responses when experiencing sadness on

scale of 1 (almost never) to 5 (almost always). The questionnaire has previously

demonstrated adequate reliability and validity (Nolen-Hoeksema & Morrow, 1991).

Specifically, the internal consistency was found to be .89 and the measure correlated

significantly with the use of ruminative responses to depressed mood as measured in a

diary study (Nolen-Hoeksema, Morrow, & Fredrickson, 1990). In the current study, the

scale demonstrated excellent reliability ($\alpha = .93$).

Data reduction and associations among variables within the domain. It was

proposed that the planning and active coping subscales would be aggregated to form a

maternal engagement coping composite. As the two constructs were adequately related

(see Table 2), they were aggregated and demonstrated adequate reliability ($\alpha = .75$). One

significant relationship emerged among the variables within this domain (see Table 3).

As would be expected, mothers who reported using more engagement coping also

reported using significantly less disengagement coping. Neither engagement nor

disengagement coping were significantly related to maternal rumination.

Table 2. *Associations among Variables in Modeling Domain.*

	Active coping	Planning	Behavioral disengagement	Maternal rumination
Maternal Modeling of Emotion Regulation:				
Active coping	-			
Planning	**.61****	-		
Behavioral disengagement	-.16	**-.21***	-	
Maternal rumination	.07	-.04	.07	-

Note. * $p < .05$, ** $p < .01$.

Associations among Emotion Regulation Socialization Variables

Although associations within domains of socialization have been discussed, a

small number of significant associations across domains also emerged (see Table 3, note

that significant associations across socialization domains are bolded). Specifically,

mothers who were more accepting of their adolescents' emotions also reported having

Table 3. *Associations among Maternal Socialization Variables.*

	1.	2.	3.	4.	5.	6.	7.	8.
1. Nonsupportive maternal reactions to emotion	-							
2. Maternal acceptance of emotion	**-.32****	-						
3. Observed maternal openness to emotion	**-.22***	.11	-					
4. Maternal problem-focused reactions to adolescents' emotions	-.09	**.69****	-.07	-				
5. Observed maternal quality of advice	-.16	.08	**.35****	.03	-			
6. Maternal rumination	-.08	.16	.21	.16	.05	-		
7. Maternal engagement coping	-.06	.18	-.14	**.24***	.05	.01	-	
8. Maternal disengagement coping	.02	.17	.06	-.01	-.10	.20	**-.21***	-

Note. * p < .05. ** p < .01.

more problem-focused reactions to adolescent emotion. Additionally, mothers who were

rated by observers as being more accepting of adolescent emotion were also rated as

giving better quality advice to adolescents. Moreover, mothers who were rated by

observers as giving better quality of advice also reported engaging in more problem-

focused reactions to adolescent emotion.

As few significant relationships were found among maternal socialization

variables, it is possible that the proposed model did not appropriately measure

socialization of emotion regulation. That is, perhaps the proposed domains are not valid.

In the interest of finding another possible representation of maternal socialization of

emotion regulation, a factor analysis was conducted using Oblimin rotation. Maternal

punitive reactions, maternal minimization of reactions, maternal acceptance of emotion, maternal problem-focused reactions, observed quality of maternal advice, and observed maternal openness to emotion were the variables included in the factor analysis. An a priori decision was made that factors would be retained on the basis of an inspection of the scree plot. However, subsequent inspection of the scree suggested the presence of five factors, with no factor having more than the minimum of three or more significant loadings. Therefore, the analysis did not identify a smaller and more coherent set of factors in the data (i.e., the scales behaved somewhat independently of each other), so the original maternal socialization variable set was retained for the main analyses.

Adolescent Emotion Regulation

    Difficulties in emotion regulation scale. Adolescents completed the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) to assess several aspects of emotion regulation (see Appendix F). The measure consists of 36 items designed to capture common difficulties individuals experience when regulating their affect. Individuals indicated how frequently the items applied to them using a scale of 1 (almost never) to 5 (almost always). The lack of emotional awareness (items 2 reversed, 6 reversed, 8 reversed, 10 reversed, 17 reversed, 34 reversed) and lack of emotional clarity (items 1 reversed, 4, 5, 7 reversed, 9) subscales are of interest in the current study as they capture the awareness component of emotion regulation. Additionally, the nonacceptance of emotional responses subscale (items 11, 12, 21, 23, 25, 29) is also of interest as it assesses the evaluation component of emotion regulation.

The DERS has previously demonstrated adequate reliability and validity in adult (Gratz & Roemer, 2004) and adolescent samples (Neumann, van Lier, Gratz, & Koot, 2010). Specifically, the internal consistency of the overall DERS was .93 and all subscales were above .80. Additionally, the DERS was reported to have adequate construct validity in that it was significantly related to the Generalized Expectancy for Negative Mood Regulation Scale (NMR; Catanzaro & Mearns, 1990). The DERS also demonstrated good test-retest reliability when individuals were asked to complete it a second time 4-8 weeks later with intra-class correlations ranging from .69 to .89 for the subscales of interest. In the current study, the DERS demonstrated adequate to good reliability for each scale of interest (lack of emotional awareness α = .82; lack of emotional clarity α = .63; nonacceptance of emotional responses α = .85).

COPE inventory. Adolescents also completed the revised COPE inventory (Carver, 1997) during their second laboratory visit to assess how they modify their emotions through coping (see Appendix D). The same items and modifications described above for mothers were also used for the adolescent version of the COPE (i.e., the coping dimensions of engagement and disengagement). As mentioned previously, the COPE inventory has demonstrated adequate reliability and validity. The COPE has also demonstrated adequate reliability for adolescent populations (Phelps & Jarvis, 1994). In an adolescent sample (ages 14-18), internal consistency ranged from .66 to .83 for the subscales of interest, suggesting that the measure demonstrates sufficient reliability when used with adolescents. In the current study, internal reliability was good for both the engagement composite (α = .88) and disengagement composite (α = .81).

Data reduction and associations among variables among emotion regulation variables. As adolescent coping constructs were meant to map onto maternal coping constructs within the socialization domain of modeling, engagement coping subscales were aggregated in a similar way. The aggregation was done although the active coping and planning subscales were slightly short of the previously stated .60 criteria ($r = .57$, $p = .00$). Several significant relationships emerged among adolescent emotion regulation variables (see Table 4). Specifically, adolescents who reported a lack of awareness of their emotions were significantly less likely to report using engagement coping. Additionally, adolescents who reported using disengagement coping also were significantly more likely to report nonacceptance of their emotions as well as a lack of clarity of emotion.

Table 4. *Associations among Adolescent Emotion Regulation Variables.*

	Adolescent engagement coping	Adolescent disengagement coping	Nonacceptance of emotion	Lack of awareness	Lack of clarity
Adolescent engagement coping	-				
Adolescent disengagement coping	-.10	-			
Nonacceptance of emotion	-.07	**.23***	-		
Lack of awareness	**-.44****	.09	.12	-	
Lack of clarity	-.18	**.43****	**.50****	**.56****	-

Note. * p < .05, ** p < .01.

Adolescent Depression

  Children's depression rating scale. The Children's Depression Rating Scale Revised (CDRS-R; Poznanski et al., 1984) is a brief semi-structured interview designed to assess the severity of depression experienced by children and adolescents. The interview was administered at both the first and second laboratory visits and contains 17 items which assess the degree of impairment individuals are experiencing in a number of areas of functioning (e.g., schoolwork, social withdrawal, appetite disturbance). Fourteen items are rated by a trained interviewer on a 7-point scale and the remaining three items are rated on a 5-point scale where higher scores are indicative of more severe depression. A single summary score is obtained from the measure which serves as a continuous measure of depression. The summary scores from the first and second visits were aggregated to provide a more stable measure of adolescent depression.

  This instrument has previously demonstrated adequate reliability and validity (Brooks & Kutcher, 2001). Specifically, over a two week period, the CDRS-R demonstrated good reliability (r = 0.86) in a sample of children ages 6 to 12 (Poznanski et al., 1984). Internal consistency has also been found to be adequate, ranging from .74 to .92 over the three time points at which depression was assessed in a study using the CDRS-R (Mayes, Bernstein, Haley, Kennard, & Emslie, 2010). Additionally, the same study found that scores on the CDRS-R are highly correlated with global severity and functioning scales (ranging from r = .80 to .93 at the three time points). A sample of approximately 20% of the interviews were be scored by an independent rater. The measure demonstrated good inter-rater reliability (intraclass correlation at time 1 is .91

and .78 at time 2). For the current study, scores from time 1 and time 2 ($r = .55$, $p = .00$)

are averaged to provide an overall depression score.

Center for epidemiological studies-depression scale. Adolescents also

completed the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff,

1977), a questionnaire assessing their depressive symptomatology (see Appendix G)

during both the first and second visits. The CES-D is a 20 item questionnaire which asks

participants to indicate how frequently they experienced symptoms of depression over the

past week (e.g., "I did not feel like eating; my appetite was poor"). Adolescents respond

a scale ranging from 1 (rarely or none of the time—less than 1 day) to 4 (most or all of

the time—5-7 days). Higher scores are indicative of higher levels of depressive

symptomatology. The adolescent's score from the first and second visits were

aggregated to provide a more stable measure of depression.   Previous research indicates

that the CES-D has demonstrated adequate validity and reliability (Brooks & Kutcher,

2001). Garrison et al. (1991) found that the CES-D demonstrated good internal

consistency in a sample of adolescents ages 12 to 14 ($\alpha = .87$). Additionally, Doerfler et

al. (1988) found that the CES-D was moderately correlated ($r = .58$) with the Children's

Depression Inventory (Kovacs, 1992), another commonly used measure of child and

adolescent depression. In the current study, the reliability of the aggregate was excellent

($\alpha = .91$).

Data reduction. Although depression was measured both by adolescent self-

report (CES-D) as well as via interview (CDRS-R), and the two measures were modestly

correlated (r = .55), only the clinician's rating from the interview was used for the current study. This was done for several reasons. First, it significantly reduces the number of analyses that are conducted, which also reduces the likelihood of finding a Type I error. Additionally, the interview is considered to be the gold standard for this particular study as it is a semi-structured clinical interview which allows for the interviewer to explore all potential symptoms of depression and make clinical judgments regarding severity. Furthermore, it also provides multiple methods of assessment as adolescents report was the sole method used to assess emotion regulation variables. The clinician's rating provides for a more objective assessment of depression as well as further variability in sources of data.

Adolescent Receptivity to Socialization

Parental willingness to serve as a secure base. Mothers completed the Child Rearing Practices scale (Kerns, Aspelmeier, Gentzler, & Grabill, 2001), which assesses their acceptance of and willingness to serve as an attachment figure for their adolescents, during the first laboratory visit (Appendix H). The subscale of interest is parental acceptance and willingness to serve as a secure base (items 1, 3 reversed, 5, 7 reversed, 9, 11, 13, 15, 17 reversed, 19 reversed), which would be indicative of a parenting style hypothesized to lead adolescents to be more receptive to socialization. Mothers responded to statements such as "I respect my child's opinion and encourage him/her to express them" and "I feel a child should be given comfort and understanding when he/she is scared or upset." Participants were asked to indicate how descriptive statements are of

them on a scale ranging from 1 (not at all descriptive of me) to 6 (highly descriptive of me). This questionnaire has previously been found to exhibit good reliability and validity (Kerns et al., 2001; Kerns, Klepac, & Cole, 1996). Specifically, the scale demonstrated adequate internal consistency ($\alpha = .73$) for maternal report (Kerns et al., 1996). Additionally, maternal report of willingness to serve as an attachment figure was significantly associated with child report of security. In the current study, reliability was adequate ($\alpha = .60$).

Attachment. Adolescents completed the Security Scale (Kerns et al., 2001) during the first laboratory visit to assess their perceptions of their relationship with their mother (Appendix I). This measure assesses the extent to which an adolescent sees his or her mother as available and responsive, how well he or she is able to communicate with his or her mother, and how much the adolescent depends on his or her mother when experiencing distress. Items are presented in the Harter (1982) format in which adolescents are presented with statements about two different kinds of children and asked to pick which child they are most like. The individual is then asked to rate the extent to which they are like the child (i.e., "really like" or "sort of like"). Scores are averaged across items to obtain a continuous measure of security. Higher scores are indicative of a more secure attachment. Specifically, the 15 items from the original security scale were of interest (items 1, 2, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 21). In previous studies, this scale has demonstrated adequate reliability and validity (Kerns et al., 1996; Kerns, Tomich, Aspelmeier, & Contreras, 2000; Kerns et al., 2001). Kerns et al. (1996) reported good internal consistency for two studies with children ages 10 to 12 ($\alpha = .84$ and $\alpha =$

.88). Test-retest reliability for a two week period was also found to be adequate (r = .75).

Furthermore, children's scores on security were correlated with peer ratings of liking,

maternal acceptance of the child, and the child's rating of self-concept. Child security

scores have also been found to be significantly correlated with attachment classifications

based on an attachment-doll interview (Granot & Mayseless, 2001). In the current study,

the scale demonstrated good reliability (α = .88).

CHAPTER 3

RESULTS

Prior to testing mediation and moderation, the relationships among the main study variables are first examined in several different ways (see Table 5 for descriptive statistics of main study variables). First, the relationship between depression and emotion regulation is examined at is common to all proposed hypotheses. Next, each domain of emotion regulation socialization (i.e., acceptance of emotion, advice giving and modeling) is examined separately in relation to adolescent emotion regulation and adolescent depression. Finally, moderation and mediation hypotheses were considered.

Table 5. Descriptives of Main Study Variables.

Variable	Mean	Standard Deviation	Minimum	Maximum
Nonsupportive maternal reactions to emotion	2.31	.77	1.00	4.65
Observed maternal openness to emotion	2.73	.99	1.00	5.00
Maternal problem-focused reactions	6.28	.67	4.20	7.00
Observed quality of maternal advice	2.99	.99		
Maternal rumination	44.20	12.96	25.00	77.00
Maternal engagement coping	12.22	2.56	5.00	16.00
Maternal disengagement coping	6.03	2.16	2.00	11.00
Adolescent engagement coping	10.03	2.83	4.00	15.50
Adolescent disengagement coping	6.27	2.58	4.00	15.00
Adolescent nonacceptance of emotion	9.95	4.55	5.00	24.00
Adolescent lack of awareness of emotion	17.19	5.51	7.00	30.00
Adolescent lack of clarity of emotion	9.73	3.24	5.00	18.00
Adolescent depression (CDRS)	23.93	6.48	17.00	50.50
Maternal willingness to serve as a secure base	5.22	.48	4.00	6.00
Adolescent attachment	3.22	.51	1.80	3.87

To test the meditational hypotheses, bootstrapping was used. Hayes (2009) states that

utilizing bootstrapping is a preferred method to the traditional Baron and Kenny (1986)

approach as it has more power and better controls for Type I error (Hayes, 2009).

Additionally, bootstrapping does not make the assumption that the indirect effect's

sampling distribution is normal, unlike the Sobel test. This is particularly important as

the indirect effect is measured by a product term (a*b) and product terms are inherently

non-normal regardless of whether or not the original variables were normally distributed

(MacKinnon, 2002). The bootstrapping method "generates an empirical representation of

the sampling distribution of the indirect effect by treating the obtained sample size n as a

representation of the population in miniature, one that is repeatedly resampled during

analysis as a means of mimicking the original sampling process" (pp. 7; Hayes, 2009).

This resampling is done with replacement, which allows for cases to be redrawn as n is

created. Each time, the indirect effect is estimated, and this process is repeated over and

over until the specified number is reached. A confidence interval is then generated based

on the specified resamplings. If 0 is not contained within this confidence interval, the

null hypothesis (i.e., that there is not an indirect effect) can then be rejected.

Additionally, rather than conducting several simple mediation analyses, multiple

mediation was used to test all adolescent emotion regulation variables simultaneously

(see Figure 2 for an example). Doing so allows the total indirect effect of all mediators to

be assessed as well as the specific indirect effects of individual mediators. Specifically,

an SPSS macro to bootstrap indirect effects in a multiple mediator model was utilized

(Preacher & Hayes, 2008). Mediational analyses were only conducted for hypotheses in
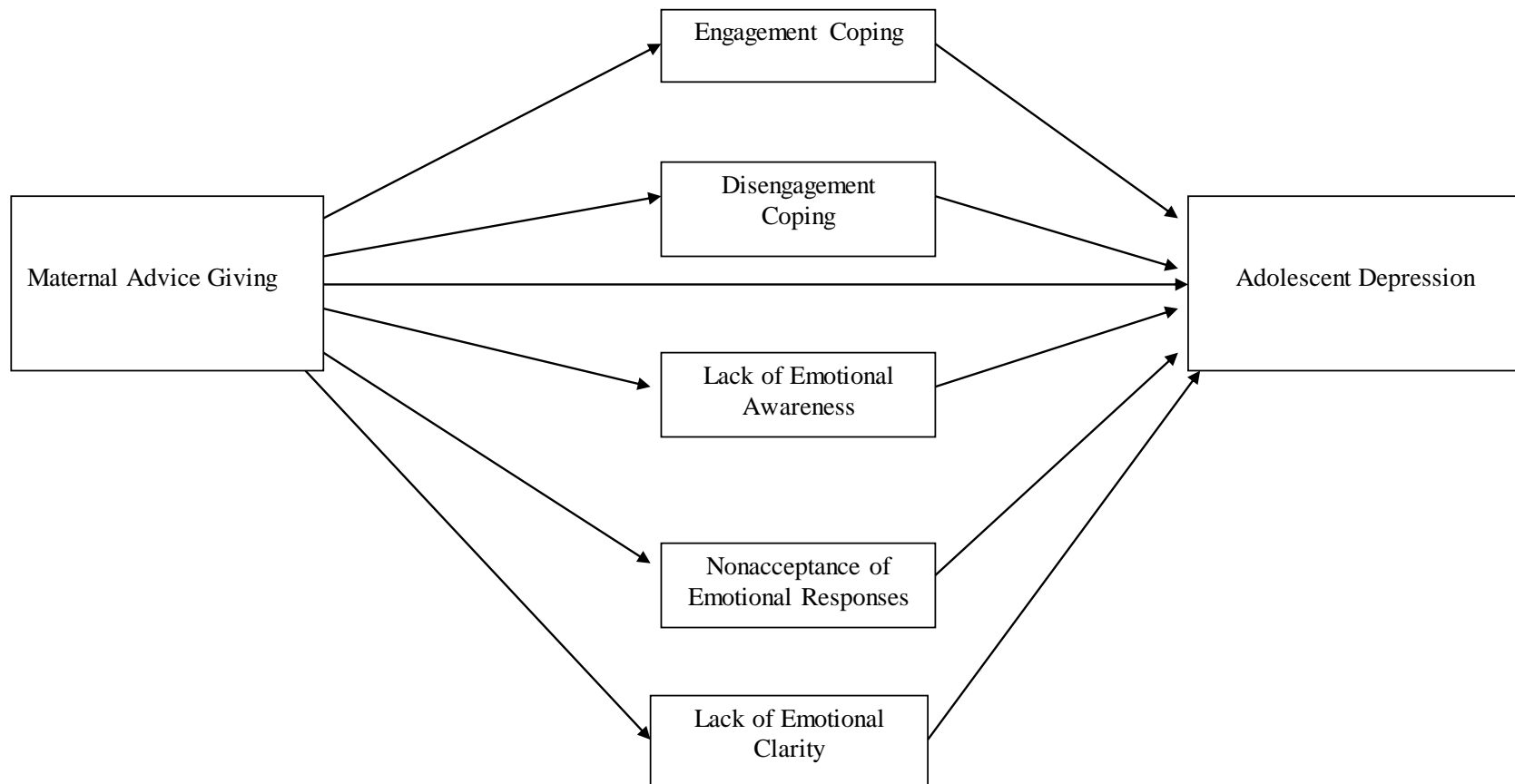
Figure 2. Example of multiple mediation for hypothesis 2.

which the maternal socialization variable was significantly related to either adolescent emotion regulation variables (i.e., the indirect path), or adolescent depression (i.e., the direct path).

As the current sample is primarily European American, ethnicity was examined in relation to all main study variables to determine if it should be included as a control variable in subsequent analyses. However, no significant associations emerged. Additionally, adolescent age and gender, as well as maternal education, were examined in relation to all variables. None of these key demographic variables were related to adolescent emotion regulation or depression. However, adolescent age and gender as well as maternal education were related to some, but not all, of the socialization variables. Subsequently, the relation between these demographic variables (i.e., adolescent age and gender and maternal education) and each maternal socialization variable will be explicitly discussed for each domain below and analyses were conducted controlling for these demographic variables when significant associations were found.

Adolescent depression and emotion regulation. Several significant relations emerged between adolescent depression and emotion regulation variables (see Table 6). Specifically, adolescents who reported using disengagement coping were significantly more likely to receive higher ratings of depression. Additionally, adolescents who had less awareness and clarity of their emotions were also more likely to be depressed. However, ratings of adolescent depression were not significantly associated with adolescent engagement coping or nonacceptance of emotion. Thus, there is some

evidence to support a link between specific emotion regulation difficulties (i.e.,

disengagement coping, lack of awareness and clarity) and depression in adolescence.

Table 6. *Associations between Adolescent Emotion Regulation and Adolescent Depression Variables.*

	CDR-S (interviewer rating of adolescent depression)
Adolescent engagement coping	-.14
Adolescent disengagement coping	**.27***
Adolescent nonacceptance of emotion	.17
Adolescent lack of awareness of emotion	**.43****
Adolescent lack of clarity of emotion	**.39****

Note. * p < .05 ** p < .01.

Maternal acceptance of adolescent emotion. Two key demographic differences

emerged for this domain of socialization. That is, mothers of older adolescents were less

accepting of their emotions ($r = -.25$, $p = .01$). Additionally, mothers who reported

having more years of education were rated by a trained observer as being more open to

and accepting of their adolescent's emotions ($r = .29$, $p = .01$). Thus, additional analyses

were conducted to control for these demographic variables as will be outlined below.

Next, correlations were examined among maternal acceptance of emotion (i.e.,

nonsupportive maternal reactions to emotion, maternal acceptance of emotion, observed

maternal acceptance), adolescent emotion regulation variables, and adolescent depression

(see Table 7). Only one significant association was revealed. That is, mothers who

report having nonsupportive reactions to adolescent emotion had adolescents who were

less aware of their emotions.

Table 7. *Associations among Maternal Acceptance of Emotion, Adolescent Emotion Regulation, and Adolescent Depression.*

	Adolescent engagement coping	Adolescent disengagement coping	Adolescent nonacceptance of emotion	Adolescent lack of awareness	Adolescent lack of clarity	Adolescent depression (CDRS)
Acceptance of Emotion:						
Nonsupportive maternal reactions to emotion	-.10	-.02	.17	**.22***	-.11	.13
Maternal acceptance of emotion	.10	-.19	-.16	.10	-.05	-.09
Observed maternal acceptance	.00	.00	-.03	-.04	.05	-.08

Note. * p < .05.

As only one significant relationship emerged when examining associations among

maternal acceptance, adolescent emotion regulation, and adolescent depression, only one

multiple mediation analysis was conducted. Specifically, a multiple mediation analysis

was conducted to test whether or not adolescent emotion regulation competencies (i.e.,

engagement coping, disengagement coping, lack of emotional awareness, nonacceptance

of emotional responses, and lack of emotional clarity) mediated the relation between

nonsupportive maternal reactions to adolescent emotion and adolescent depressive

symptomatology. It was found that adolescent lack of awareness of emotions

significantly mediated the relationship between nonsupportive maternal reactions to

emotions and adolescent depression (bias corrected confidence intervals ranged from .10

to 1.58) such that nonsupportive maternal reactions was positively associated with lack of awareness, which in turn was related to increased ratings of adolescent depression (see Figure 3). The multiple mediation analysis was also conducted controlling for demographic variables found to be related to the main study variables. Specifically, the adolescent's age and gender were controlled for as well as maternal education. However, including these covariates did not change the pattern of results.

Thus, there is limited support for the impact of maternal acceptance of emotion. Mothers who are nonsupportive in their reactions to adolescent emotion have adolescents who are less aware of their own emotions. Moreover, lack of awareness does significantly mediate the relationship between nonsupportive maternal reactions and adolescent depression.

Maternal advice giving. Regarding demographic variables, three differences were found for the domain of advice giving. With respect to gender, mothers were rated as giving better quality advice to their sons ($M = 3.20$, $SD = .97$) than their daughters ($M = 2.78$, $SD = .97$). Additionally, mothers who reported having more years of education were rated as giving higher quality of advice ($r = .39$, $p = .000$). Finally, mothers reported responding less with problem-focused reactions ($r = -.23$, $p = .03$) as adolescents' age increased.

Next, correlations were examined among the two measures of advice giving (i.e., maternal problem-focused reactions and observed quality of advice), adolescent emotion regulation variables, and adolescent depression (see Table 8). Contrary to expectations, no significant relationships were found among these variables, suggesting that in the
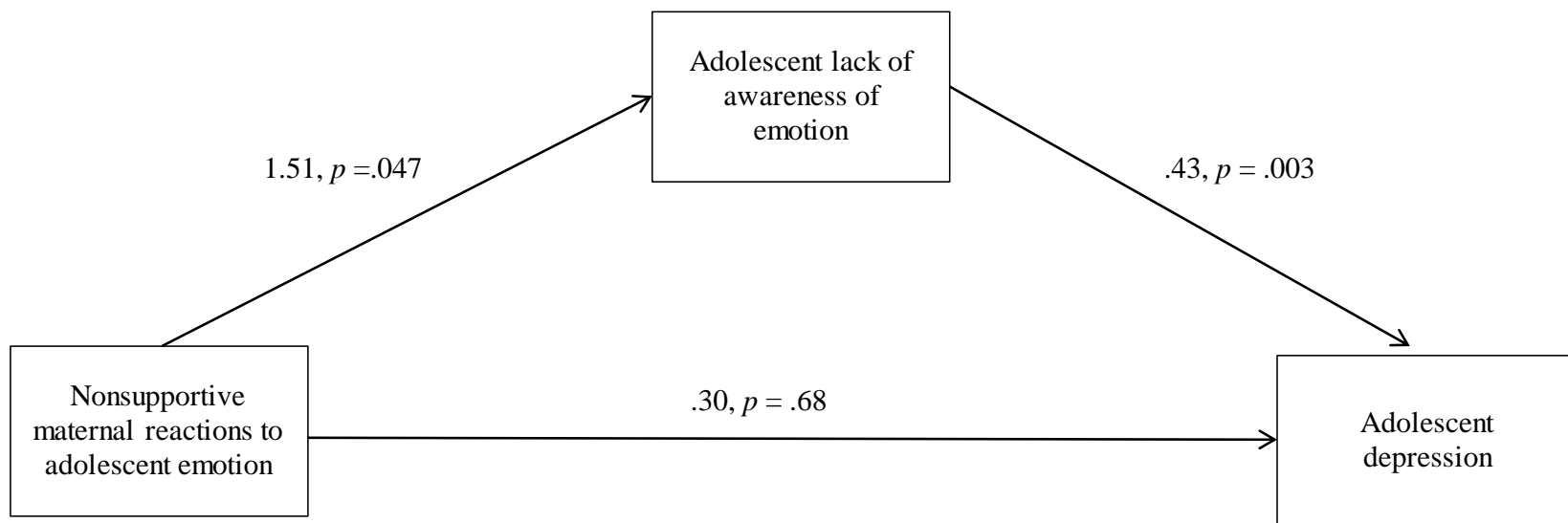
Figure 3. Significant mediation model

Table 8. *Associations among Maternal Advice Giving, Adolescent Emotion Regulation, and Adolescent Depression.*

	Adolescent engagement coping	Adolescent disengagement coping	Adolescent nonacceptance of emotion	Adolescent lack of awareness	Adolescent lack of clarity	Adolescent depression (CDRS)
Advice Giving:						
Maternal problem-focused reactions	.04	-.06	-.14	.15	.00	-.06
Observed quality of maternal advice	-.16	.11	.03	.00	.04	.07

current sample advice giving was not related to any aspect of adolescent emotion regulation or adolescent depression. As no significant relationships were found between either of the two advice giving variables and adolescent emotion regulation or depression, no subsequent mediation analyses were conducted. In conclusion, no support was found for the link between maternal advice giving and adolescent emotion regulation or adolescent depression. Partial correlation analyses were also conducted controlling for maternal education and adolescent age and gender. However, controlling for these relevant demographic variables did not change the pattern of results.

Modeling. Again, demographic variables were first examined in relation to the three modeling variables (i.e., maternal engagement coping, maternal disengagement coping, and maternal rumination). No demographic differences were found with respect to maternal modeling of emotion regulation.

Next, the relations among maternal modeling variables (i.e., maternal engagement coping, maternal disengagement coping, and maternal rumination), adolescent emotion regulation variables, and adolescent depression were examined (see Table 9). One significant association was revealed. Specifically, mothers who report utilizing engagement coping strategies have adolescents who are less aware of their emotions.

Table 9. *Associations among Maternal Modeling, Adolescent Emotion Regulation, and Adolescent Depression.*

	Adolescent engagement coping	Adolescent disengagement coping	Adolescent nonacceptance of emotion	Adolescent lack of awareness	Adolescent lack of clarity	Adolescent depression (CDRS)
Modeling:						
Maternal engagement coping	-.07	.16	.13	.11	**.22***	.15
Maternal disengagement coping	.00	-.11	.05	.03	-.01	-.04
Maternal rumination	.00	-.07	-.16	.10	-.05	.07

Note. * p < .05.

As only one significant relationship emerged when examining associations among maternal modeling, adolescent emotion regulation, and adolescent depression, only one mediation analysis was conducted. Specifically, an analysis was conducted to test whether or not adolescent emotion regulation mediated the relation between maternal engagement coping and adolescent depression. However, no significant findings emerged. The pattern of findings did not change after controlling for adolescent age or

gender and maternal education. In conclusion, no support was found for the link between

modeling and adolescent emotion regulation or adolescent depression.

Receptivity to socialization. Next, adolescent attachment and a climate of

warmth and acceptance were examined as potential moderators of the relations between

maternal socialization and adolescent emotion regulation. With respect to demographic

variables, mothers who reported having more years of education had adolescents who

reported greater attachment security ($r = .29$, $p = .004$).

For each moderator hypothesis, all relevant variables were centered by subtracting

the mean of the variable from each observed value, which is recommended when testing

interactions (Cohen, Cohen, West, & Aiken, 2003). An interaction term was created for

each emotion regulation socialization independent variable and the moderator variable

(i.e., climate of warmth and acceptance or adolescent security) by creating a product of

the two variables. Next, a series of linear regressions was conducted in which the

maternal socialization of emotion regulation independent variable and the moderator

variable were entered on Step 1, and each interaction term was entered individually on

Step 2. An examination of the *F change* test determined that only 2 of 80 moderation

analyses were significant. First, a climate of warmth and acceptance significantly

moderated the relation between nonsupportive maternal reactions to emotion and

adolescent lack of clarity of emotion (R^2 *change* $= .05$, $F = 4.85$, $p = .03$). Specifically,

the association between nonsupportive maternal reactions to emotion and adolescent lack

of clarity is stronger when mothers provide a less warm and accepting climate.

Additionally, adolescent security significantly moderated the relation between maternal

rumination and adolescent nonacceptance of emotion (R^2 *change* = .07, F = 6.72, p = .01). Specifically, maternal rumination and adolescent nonacceptance of emotion were more strongly correlated when adolescents were lower in security. While only two moderation analyses were found to be significant, they were both in the predicted direction. As so few were significant, it is likely that these results were due to a type I error and therefore will not subsequently be interpreted. Furthermore, moderation analyses were also conducted controlling for adolescent age and gender and maternal education. However, including these covariates did not change the results.

CHAPTER 4

DISCUSSION

Three specific domains of emotion regulation socialization were proposed: maternal acceptance of adolescent emotion, maternal advice giving, and modeling. It was hypothesized that these domains of socialization would be related to adolescent emotion regulation competencies, which would in turn be linked to symptoms of adolescent depression. Thus, these constructs were examined in relation to each other, and tests of mediation were also conducted to determine if adolescent emotion regulation mediated the relations between maternal socialization and adolescent depression. Moreover, two constructs influencing receptivity to maternal socialization were proposed as moderators of the relations between socialization and adolescent emotion regulation competencies: adolescent security and a climate of warmth and acceptance.

Associations of Maternal Emotion Regulation Socialization with Adolescent Emotion Regulation and Adolescent Depressive Symptoms

Contrary to expectations, few significant associations were found among the maternal socialization variables. Moreover, socialization variables within the three domains were not related as had been hypothesized. Maternal punitive reactions and minimization were related as expected, as were planning and active coping, but no other variables were highly related enough to be combined within domains. Despite the failure to obtain convergence of different measures, the low correlations among the variables

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suggest the different domains were, in fact, somewhat distinct. Thus, it is important to consider the possibility that there are limitations arising from measurement. For example, the observational measure of maternal advice giving focused on rating whether or not mothers made problem-focused suggestions rather than qualitative considerations such as whether the adolescent wanted advice for the particular situation. Thus, it is possible that a mother who was domineering with her adolescent could have obtained a high score. This would be contrary to the idea of mothers functioning as a consultant for their adolescents (Mounts, 2000). Moreover, giving unsolicited advice may even serve to undermine the adolescent's competence in emotion regulation as the adolescent might not learn how to independently regulate his or her emotions. Advice giving in the current study was meant to capture a less intrusive way to provide adolescents with guidance which would be consistent with their developing autonomy. Therefore, future studies might concentrate more on the dynamic between the adolescent and mother and whether or not the adolescent is seeking advice. Additionally, ensuring that each socialization construct is measured through multiple methods (e.g., observational, maternal report, adolescent report) would likely provide more clarity. For example, maternal acceptance of adolescent emotions is assessed through maternal report and observational coding, but no adolescent report was obtained. The adolescent's perception of whether his or her mother is accepting of their emotions may vary from what a mother might report or even from what is observed during an interaction.

Alternatively, it may be that a broader construct is necessary to capture the socialization of emotion regulation. That is, it may be important to examine the more

global emotional environment within an adolescent's home rather than parsing out specific domains of socialization. For instance, Hardy, Power, and Jaedicke (1993) found that children ages nine to ten years old with more supportive mothers had knowledge of a wider range of emotion regulation strategies and were more likely to utilize adaptive strategies. Thus, how generally responsive mothers are to the emotions of their adolescents may play an important role in developing emotion regulation strategies. It may be useful to obtain an adolescent report of what his or her perceptions are of the family environment. It would also likely be beneficial to obtain an observational rating of the level of supportiveness present in the family environment. Future research might concentrate on assessing more global aspects of the familial environment.

Also contrary to expectations, correlations revealed only two significant associations between emotion regulation socialization and adolescent emotion regulation. That is, mothers who exhibit nonsupportive reactions to adolescent emotion have adolescents who are less aware of their emotions, and mothers who report utilizing engagement coping strategies have adolescents who are less aware of their emotions. Additionally, no links were found between maternal socialization and adolescent depressive symptoms. It may be that mothers who are not accepting of their adolescent's emotions fail to teach children how to analyze, interpret, and understand their emotions. This is consistent with the previous finding that adolescents whose mothers minimized their emotions exhibited greater emotion dysregulation and used less adaptive emotion regulation strategies (Yap et al., 2008). However, the present finding that mothers who

report using more engagement coping have adolescents who report poorer awareness of their emotions is unexpected.

One consideration is that mothers who reported using more engagement coping were not necessarily acting in an adaptive way. That is, the efficacy of a coping strategy may depend on whether or not the situation is controllable. Folkman and Moskowitz (2004) suggest that utilizing engagement coping strategies would be more adaptive when a situation is controllable, but utilizing disengagement coping strategies would be more adaptive when a situation is out of an individual's control. Thus, it may be that mothers who attempt to alter uncontrollable situations model poor emotion regulation competencies. Additionally, engagement coping in this study is comprised of active coping and planning, which are both oriented toward taking action to change a situation, but do not emphasize attending to feelings. As such, an alternative possibility is that mothers who report more engagement coping focus on action-oriented steps as a way to avoid experiencing or coping with an emotion. Consequently, these mothers would likely model poor awareness of emotions to their adolescents.

Moreover, although there has been limited past research examining the link between maternal modeling of emotion regulation and adolescent emotion regulation competencies, some empirical evidence has emerged suggesting that children of depressed mothers have fewer adaptive emotion regulation strategies available (Garber et al., 1991; Silk et al., 2006). However, in the current study, exploratory analyses examining relationships among maternal depression and engagement and disengagement coping revealed no significant associations. Thus, an alternative possibility is that the

way in which coping was measured in the present study was a limitation. Future studies might consider examining other aspects of maternal coping potentially related to depression and emotional regulation competencies in adolescents. For example, Beck (1979) emphasizes the importance of cognitive restructuring in the treatment of depression, which includes positive reframing through viewing situations in an alternative way (e.g., focusing on the positive aspects of a situation). Thus, a mother's use of reframing might be an important aspect of coping to consider in future studies of maternal modeling.

Next, it is important to consider alternative explanations regarding the socialization of emotion regulation in adolescents. For example, there may be something important about the mother-adolescent dyadic relationship that is not captured by solely examining individual mechanisms of maternal socialization. While the current model proposes a unidirectional path between maternal socialization of emotion regulation and adolescent emotion regulation, it may be that it is important to consider bidirectional influences. For example, Morris and colleagues (2007) posited that adolescents who are more emotionally reactive (i.e., experience more intense and frequent emotions) would benefit most from parenting which aims to develop emotion regulation competencies as these individuals require a strong skillset of emotion regulation strategies to modulate their intense affect. While no research has been conducted yet to address this potential interaction in adolescence, it is possible that individual characteristics of an adolescent may influence the methods mothers utilize to socialize emotion regulation or how effective they are in doing so. Furthermore, the current model makes an assumption

regarding the ability of mothers to properly identify their adolescent's emotions and assist them in emotion regulation accordingly (e.g., through advice giving). However, mothers of 4 1/2-year-old children misidentified their children's emotions 60% of the time when asked how their children were feeling during a frustration task, when compared to self-report and observational ratings of their children's emotions (Thompson & Goodman, 2011). Furthermore, adolescents are even more skilled than younger children at masking their emotions (Saarni, 1984). If mothers of adolescents are similarly inaccurate in identifying how their adolescents are feeling, they may attempt to give advice that is irrelevant as it does not apply to the emotional reaction the adolescent is experiencing. Thus, socialization of this nature would not likely have a helpful impact on adolescent emotion regulation.

Additionally, it is important to consider the appropriateness of the proposed domains of emotion regulation socialization within the developmental period of adolescence. Although Helsen and colleagues (2000) found that support from parents was better at predicting adolescent emotional adjustment than support received by peers, peers likely also play an important role in the development of emotion regulation competencies. Thompson and Goodman (2010) emphasized that peer relationships arising in middle childhood and adolescence present an individual with different emotional demands than those encountered within a family. Accordingly, interactions with peers also become important to successfully navigating different social contexts. It may be that as adolescents become more autonomous they look to others for advice (e.g., their peers) rather than asking their mothers. Adolescents may also look to different

individuals other than their parents as models for how to regulate their emotions. For

example, adolescents could be more influenced by their friends, siblings, or the media in

what they see to be typical examples of how people regulate their emotions.

Adolescent Emotion Regulation and Adolescent Depressive Symptoms

Consistent with the proposed model, links were found between adolescent

emotion regulation competencies and adolescent depression. Specifically, adolescents

who reported using disengagement coping, those who had less awareness of their

emotions and those with less clarity of their emotions were more likely to be depressed.

These findings are consistent with previous empirical findings (Compas, Jaser & Benson,

2009). Specifically, the link between poor awareness and clarity of one's emotions and

increased depression has previous support in the literature (Penza-Clyve & Zeman, 2002;

Ciarrochi, Heaven & Supavadeeprasit, 2008). However, it should be noted that the

current findings expand the literature in that prior research has been conducted with pre-

adolescents rather than an adolescent population (i.e., 9-12 year olds; Penza-Clyve &

Zeman, 2002) or has related emotion regulation competencies more generally to negative

affect in adolescents rather than specifically to symptoms of depression (i.e., Ciarrochi,

Heaven & Supavadeeprasit, 2008). Additionally, the link between disengagement coping

and depression in adolescence has also had previous empirical support (i.e., Compas et

al., 2001). These findings lend further support to the link between emotion regulation

difficulties and depression in adolescence.

However, no significant association was found between adolescent depression and

engagement coping or nonacceptance of emotion. The lack of evidence for engagement

coping is somewhat surprising as previous studies have found that engagement coping (i.e., attempting to either change the situation or one's fit to the situation) is associated with better psychological adjustment in children (for a review, see Compas et al., 2001). However, as the success of a coping strategy may depend on the controllability of the stressor (Folkman and Moskowitz, 2004), the context of the stressful situation should be explored in future research. Additionally, as mentioned previously in relation to maternal coping, assessment of other forms of engagement coping should be considered (e.g., cognitive restructuring). The lack of support for the relationship between nonacceptance of emotion and depression was also somewhat surprising. Limited support has begun to emerge for the relationship between nonacceptance of emotion and depressive symptoms in adolescents (Weinberg & Klonsky, 2009). Additionally, Ciesla and colleagues (2012) found that adolescents who responded to their emotions in a non-judgemental way (e.g., being able to experience an emotion without engaging in self-blame) were less likely to experience sadness. Given that acceptance of one's emotions is an important aspect of some treatments shown to ameliorate depressive symptoms in adolescents and adults (e.g., Dialectical Behavioral Therapy; James, Winmill, Anderson, & Alfoadari, 2011 and Mindfulness-Based Cognitive Therapy; Segal, Williams, & Teasdale, 2013), it is important for future research to replicate the relationship between nonacceptance and depressive symptoms in adolescence.

Adolescent Emotion Regulation as A Mediator of the Link between Maternal Emotion Regulation Socialization and Adolescent Depressive Symptoms

Mediational analyses were only conducted for hypotheses in which the maternal socialization variable was significantly related to either adolescent emotion regulation variables (i.e., the indirect path), or adolescent symptoms of depression (i.e., the direct path). Consequently, only two mediation analyses were conducted and only one revealed significant results. Specifically, adolescent lack of awareness mediated the relationship between nonsupportive maternal reactions to emotion and adolescent depression such that nonsupportive maternal reactions were positively associated with lack of awareness, which in turn was related to increased ratings of adolescent depressive symptomatology. This finding suggests that mothers who react to their adolescents' display of emotion in a punitive or minimizing way may socialize their adolescents to be less aware of their emotions subsequently leading adolescents to experience more symptoms of depression.

This is consistent with previous literature that found a link between nonsupportive maternal reactions to emotions and emotion regulation competencies (i.e., Eisenberg et al., 1996). Morevoer, Yap and colleagues (2008) found that adolescents whose mothers minimized their emotions exhibited more emotion dysregulation and reported using less adaptive coping strategies and experiencing more depressive symptoms. Furthermore, the adolescent's use of less adaptive coping strategies mediated the relationship between maternal minimizing responses and adolescent depression. In this study, coping strategies were measured by asking adolescents to identify strategies they would use after fighting with a good friend and maladaptive strategies were considered responses such as talking back to parents or continuing to fight with the friend. The current study expands

on these findings by identifying a lack of awareness of one's emotions as another specific emotion regulation competency which mediates the relationship between nonsupportive maternal reactions to emotion and adolescent depressive symptoms. As stated earlier, it may be that mothers who react to their adolescent's emotions in a minimizing or punitive way fail to teach their children how to appropriately evaluate and understand their emotions, subsequently leading to depression. Additionally, perhaps mothers who respond in nonsupportive ways to their adolescent's emotions teach adolescents that it is not appropriate to express negative emotions, which causes adolescents to internalize their feelings. Moreover, if mothers do not respond to their adolescent's negative emotions in a supportive way, they may attempt to dissuade adolescents from obtaining treatment to ameliorate depressive symptoms or adolescents may resist discussing their negative emotions as a part of psychological treatment.

Receptivity to Socialization

Moderation analyses were conducted to determine whether adolescent attachment or a climate of warmth and acceptance significantly moderated the relationship between maternal socialization and adolescent emotion regulation. Of 80 moderation analyses, two significant findings emerged. That is, the relationship between nonsupportive maternal reactions to emotion and adolescent lack of clarity is stronger when mothers provide a less warm and accepting climate. Additionally, the relationship between maternal rumination and adolescent nonacceptance of emotion is stronger when adolescents are lower in security. While in the predicted direction, as only two of 80 analyses were significant, fewer than expected by chance, these results will not be

interpreted. However, given previous empirical support that maternal responsiveness is associated with children being more cooperative with socialization in the domain of moral development (Kochanska & Aksan, 2006; Kochanska et al., 2005), it seems that receptivity to socialization remains an important area for further exploration. As it was hypothesized that adolescents would be more receptive to socialization if the family environment was conducive to socialization (e.g., warm and accepting), perhaps an observational measure would be more apt in capturing the family dynamic. Alternatively, perhaps there are other important aspects of adolescent receptivity. For example, an adolescent's perception of his or her mother's competence in emotion regulation may influence receptivity. That is, if an adolescent perceives her mother as not able to successfully regulate her own emotions, she may not be open to her mother attempting to influence her affect modulation skills.

Limitations, Clinical Implications and Future Directions

The present findings need to be interpreted in the context of the study's limitations. The design was limited in that although data were collected at two different time points, independent and dependent variables were taken from both visits. Thus, no conclusions can be drawn regarding causality. Additionally, it should be noted that in editing the COPE to have participants report on one particular stressful event occurring within the past two months, the anchors provided for the scale were not modified. Specifically, anchors included the word usually (e.g., "I usually don't do this at all") although participants were answering based on one specific situation, which they may or may not have coped with on several occasions. Thus, some caution should be exercised

in interpreting results related to coping. Moreover, although the sample was diverse on SES markers such as maternal education and occupation, the sample was primarily Caucasian (87%) and thus not ethnically diverse. Consequently, it is unknown how these results might generalize to adolescents from other ethnic backgrounds. Very limited research exists addressing differences in how emotion regulation is socialized among minority populations. However, Julian and colleagues (1994) found that African American mothers placed more of an emphasis on their children controlling emotional expression than did Caucasian, Asian American, and Hispanic American mothers. This would suggest that African American mothers may have different socialization goals for their children and adolescents pertaining to emotion regulation. Moreover, Supplee, Skuban, Shaw, and Prout (2009) found that ethnic culture moderated the association between children's emotion regulation strategies as assessed at two years of age and externalizing problems occurring one to two years later. Specifically, physical comfort seeking was significantly associated with externalizing behavior for African American children as compared to European American children. Thus, future research should address how emotion regulation socialization might vary for adolescents from different ethnic backgrounds.

As significant links were found among adolescent emotion regulation competencies and adolescent depressive symptomatology, it is important to consider potential clinical implications. Therapeutic interventions have been developed for adults that specifically aim to address emotion regulation deficits (Garber, 2006). For example, dialectical behavior therapy (DBT), educates individuals about several important emotion

regulation skills including identifying and appropriately labeling one's emotions,

understanding the purpose of emotions (e.g., to serve as motivation for an individual's

behavior), and utilizing strategies to change one's emotions (Linehan, 1993). Although

DBT was originally developed for use with individuals diagnosed with Borderline

Personality Disorder, empirical evidence has demonstrated its effectiveness in reducing

depressive symptoms in older adults (Lynch, Morse, Mendelson & Robins, 2003).

Additionally, some empirical evidence has begun to emerge demonstrating the efficacy of

DBT within an adolescent population. Specifically, James and colleagues (2011) found

that DBT was successful in significantly reducing depressive symptomatology in a

sample of adolescents. DBT has also been effective in reducing suicidal ideation in

adolescents (Rathus & Miller, 2002). Thus, one important area to address in future

research is to determine whether or not treatments aimed at teaching emotion regulation

skills to adults are empirically valid within an adolescent population.

Additionally, given the finding that nonsupportive maternal reactions to emotion

contribute to adolescent emotion regulation difficulties (i.e., lack of awareness of

emotions), and that lack of adolescent awareness of emotion mediates the relationship

between nonsupportive maternal reactions and adolescent depression, it is also important

to consider potential parenting interventions. Although research has emphasized the role

of the family and family environment in child and adolescent depression, there has been

mixed evidence as to the effectiveness of including families in treatment for depression

(Tompson, Pierre, Haber, Fogler, Groff & Arsarnow, 2007). However, Katz and Hunter

(2007) suggest that interventions which aim to address a parent's meta-emotion

philosophy (i.e., the feelings and thoughts parents have about their own emotions and their children's emotions) could be helpful in addressing symptoms of adolescent depression. It might be valuable to include a psychoeducational component for parents as a part of treatment for depressed adolescents. Such a component could emphasize to parents the importance of validating their children's emotions.

In conclusion, the current study expanded the literature by including a clear conceptualization of maternal emotion regulation socialization, concentrating specifically on the developmental period of adolescence, and including receptivity to socialization as a potential moderator of the relationship between maternal socialization of emotion regulation and adolescent emotion regulation. This study found that several aspects of emotion regulation—the use of disengagement coping, lack of awareness of emotions, and lack of clarity of emotions— were linked to adolescent depressive symptomatology. Maternal socialization of emotion showed limited associations with adolescent emotion regulation or depression, but the findings do highlight one important pathway. Specifically, when mothers react in nonsupportive ways (i.e.,. punitive, minimizing) to their adolescent's emotions their adolescents show poor awareness of their emotions, which in turn is related to higher levels of depression. Interestingly, the effects of maternal emotion socialization were not moderated by global qualities of the parent-child relationship, which were interpreted as markers of children's receptivity to socialization. Future research may benefit from measuring maternal socialization in an alternative way (e.g., obtaining adolescent report of maternal reactions to emotion, concentrating more on the mother as a consultant) or conceptualizing maternal socialization in an alternative

way (e.g., as a broader construct, taking into account bidirectional effects arising from adolescent characteristics). In addition, in studying emotion socialization it may be important to consider a parent's skill in interpreting their adolescent's emotion, as this could in turn affect whether socialization efforts are appropriate to a given situation. Finally, it may be important to consider sources of emotion socialization outside the family that could be influential in adolescence (e.g., friends, romantic partners, media influences).

APPENDICES

APPENDIX A

**PARENT ATTITUDE/BEHAVIOR QUESTIONNAIRE --
COPING WITH CHILD'S NEGATIVE EMOTIONS**

PARENT ATTITUDE/BEHAVIOR QUESTIONNAIRE
COPING WITH CHILD'S NEGATIVE EMOTIONS

Instructions: In the following items, please indicate on a scale from 1 (very unlikely) to 7 (very likely) the likelihood that you would respond in the ways listed for each item. Please read each item carefully and respond as honestly and sincerely as you can. For each response, please circle a number from 1-7.

1	2	3	4	5	6	7
Very Unlikely			Somewhat Likely			Very Likely

1. If my child becomes disappointed or upset because he/she cannot go to a friend's party, I would:

   a   Send my child to his/her room to calm down   1   2   3   4   5   6   7

   b   Feel uneasy or uncomfortable   1   2   3   4   5   6   7

   c   Help my child think about ways that he/she can still be with friends (e.g. invite some friends over another time)   1   2   3   4   5   6   7

   d   Tell my child not to make a big deal out of missing the party   1   2   3   4   5   6   7

   e   Allow my child to express his/her feelings   1   2   3   4   5   6   7

   f   Soothe my child and do something fun with him/her to make him/her feel better about missing the party   1   2   3   4   5   6   7

	1	2	3	4	5	6	7
	Very Unlikely			Somewhat Likely			Very Likely

2. If my child breaks an expensive electronic item (i.e. IPod, Playstation, computer, etc.) and then gets sad or upset, I would:

a	Remain calm and not let myself get anxious	1	2	3	4	5	6	7
b	Show my child I understand how he/she is feeling and comfort him/her	1	2	3	4	5	6	7
c	Tell my child that he/she is over-reacting	1	2	3	4	5	6	7
d	Help my child figure out how to get the electronic fixed or replaced	1	2	3	4	5	6	7
e	Tell my child its ok to be upset	1	2	3	4	5	6	7
f	Tell my child to stop being upset or he/shewon't be allowed to use his/her electronic again any time soon	1	2	3	4	5	6	7

3. If my child loses some prized possession and gets upset, I would:

a	Become upset or anxious	1	2	3	4	5	6	7
b	Tell my child that he/she blowing things out of proportion	1	2	3	4	5	6	7
c	Help my child think of places he/she hasn'tlooked yet	1	2	3	4	5	6	7
d	Be available for my child to talk to and to provide comfort	1	2	3	4	5	6	7
e	Tell him/her it's completely understandable that he/she is upset	1	2	3	4	5	6	7
f	Tell him/her that's what happens when you're not careful	1	2	3	4	5	6	7

1	2	3	4	5	6	7
Very Unlikely			Somewhat Likely			Very Likely

4. If my child is afraid of injections and becomes anxious while waiting his/her turn to get a shot, I would:

a   Tell him/her to shape up or he/she won't beallowed to do something he/she likes to do (e.g. watch TV)   1   2   3   4   5   6   7

b   Tell my child its ok to be afraid or anxious   1   2   3   4   5   6   7

c   Tell my child not to make a big deal of the shot   1   2   3   4   5   6   7

d   Feel embarrassed or upset by my child's fearful reaction   1   2   3   4   5   6   7

e   Comfort him/her before and after the shot   1   2   3   4   5   6   7

f   Talk to my child about ways to make it hurt less (e.g. relaxing so it won't hurt or taking deep breaths)   1   2   3   4   5   6   7

5. If my child is participating in an activity with his/her friends and makes a mistake and looks embarrassed, I would:

a   Be available if my child wanted to talk about it or needed comfort   1   2   3   4   5   6   7

b   Tell my child that he/she is over-reacting   1   2   3   4   5   6   7

c   Feel uncomfortable and embarrassed myself   1   2   3   4   5   6   7

d   Tell my child to straighten up or he/she won't be allowed to spend time with friends again any time soon   1   2   3   4   5   6   7

e   Allow my child to express feelings of embarrassment   1   2   3   4   5   6   7

f   Help my child identify ways to handle embarrassing situations   1   2   3   4   5   6   7

	1	2	3	4	5	6	7
	Very Unlikely			Somewhat Likely			Very Likely

6. If my child is about to appear in a recital or sports activity and becomes visibly nervous about people watching him/her, I would:

a Help my child think of things that he/she could do to get ready for his/her turn (e.g. to do some warm-ups and not to look at the audience)   1   2   3   4   5   6   7

b Be there to help soothe my child's nerves   1   2   3   4   5   6   7

c Remain calm and not get nervous myself   1   2   3   4   5   6   7

d Tell my child that he/she is being a baby about it   1   2   3   4   5   6   7

e Tell my child that if he/she doesn't calm down he/she won't be allowed to do anything fun when we get home   1   2   3   4   5   6   7

f Tell him/her it's ok to feel nervous   1   2   3   4   5   6   7

7. If my child receives a low grade on an important test at school and looks obviously disappointed, I would:

a Allow my child to express his/her disappointment   1   2   3   4   5   6   7

b Help my child think of better studying and test-taking strategies   1   2   3   4   5   6   7

c NOT feel anxious or uncertain   1   2   3   4   5   6   7

d Tell my child that he/she is over-reacting   1   2   3   4   5   6   7

e Scold my child for not trying/studying harder   1   2   3   4   5   6   7

f Be available to listen to how my child feels and remind him/her of other things they've done well in the past   1   2   3   4   5   6   7

1	2	3	4	5	6	7
Very Unlikely			Somewhat Likely			Very Likely

8. If my child is frightened and can't go to sleep after watching a scary movie, I would:

a	Listen as my child talks about what scared him/her	1	2	3	4	5	6	7
b	Get upset or feel unsettled by my child's distress	1	2	3	4	5	6	7
c	Tell my child to stop being a baby about it	1	2	3	4	5	6	7
d	Help my child think of something to do so that he/she can get to sleep (e.g. leave the lights on)	1	2	3	4	5	6	7
e	Tell him/her to go to bed or he/she won't be allowed to watch anymore movies	1	2	3	4	5	6	7
f	Do something to soothe my child (e.g. talk about a happy memory or listen to calming music)	1	2	3	4	5	6	7

8. If my child is at a social event and appears sad or anxious because other kids exclude him/her from the group, I would:

a	NOT get upset myself	1	2	3	4	5	6	7
b	Tell my child that if he/she gets upset and "makes a scene" then we'll have to go home right away	1	2	3	4	5	6	7
c	Tell my child it's ok to feel sad or anxious	1	2	3	4	5	6	7
d	Let me child know I am available if he/she wants to talk or that we can go home soon if he/she is uncomfortable	1	2	3	4	5	6	7
e	Help my child think of ways to approach the other kids	1	2	3	4	5	6	7
f	Tell my child it really isn't a big deal	1	2	3	4	5	6	7

1	2	3	4	5	6	7
Very Unlikely			Somewhat Likely			Very Likely

9. If my child is insulted or called names by other kids, and my child becomes visibly distressed, I would:

a	Tell my child not to make a big deal out of it	1	2	3	4	5	6	7
b	Feel distressed myself	1	2	3	4	5	6	7
c	Tell my child to calm down or she/he won't beallowed to hang out with friends again anytime soon	1	2	3	4	5	6	7
d	Help my child think of constructive things to do when other children tease him/her (e.g. find other things todo)	1	2	3	4	5	6	7
e	Comfort him/her and point out that sometimes kids say mean things that aren't true	1	2	3	4	5	6	7
f	Listen as he/she talked about how it hurts to be teased	1	2	3	4	5	6	7

APPENDIX B

MOTHERS' OPENNESS TO/ACCEPTANCE OF EMOTION

APPENDIX B

MOTHERS' OPENNESS TO/ACCEPTANCE OF EMOTION

This code assesses the mothers' openness to and acceptance of emotions when discussing an anxiety-provoking event. Openness/acceptance is based on the extent to which the mother attends to and/or validates the child's emotions, initiates discussion of emotions, and creates a general climate of emotional openness through her attitude towards and encouragement of emotions, as well as reactions to the child's emotional expressions.

5 = Very open to and accepting of emotions
> The mother responds to the child's emotional expressions with openness and acceptance, evident in her facial expressions, body language, and verbalizations. The mother listens to the child as he/she speaks and attends to, labels, and validates the child's emotions. If the child does not explicitly verbalize his/her feelings, the mother initiates discussion of emotions and may ask the child to discuss how he/she felt about the situation. Throughout the entire interaction, there is a general climate of openness to and acceptance of emotion created by the mother's attitude towards and encouragement of emotions as well as reactions to the child's emotional expressions.

4 = Open to and accepting of emotions
> Most of the interaction is characterized by openness to and acceptance of emotion, although the mother's openness to and acceptance of emotions is not so *exceptional* as to earn a score of 5. There may be less elaboration or encouragement by the mother.

3 = Moderately open to and accepting of emotions
> The mother does not exhibit any overtly negative attitudes or behaviors, but she also does not elaborate on emotions or encourage emotional discussion or expression that would indicate explicit efforts to create a climate of openness to and acceptance of emotions.

2 = Not open to and accepting of emotions
> There are instances when the mother listens to the child and attends to, labels, and validates the child's emotions, but there also instances when she may ignore what the child has to say (not respond to, dismiss, or interrupt the child) or minimize the child's feelings. She may also ignore emotions expressed by the child or fail to validate those emotional expressions. The mother may initiate some discussion of emotion or ask the child how he/she felt in some instances, but she may fail to do so in other instances. The mother may also ask appropriate questions, but the way she asks the child questions (i.e. close-ended questions, "drilling" the child for info) does not create a climate of openness and acceptance.

1 = Lack of openness to and acceptance of emotions
> Most of the interaction is characterized by lack of openness to and acceptance of emotion, however there are some instances which are not. The mother creates an overall climate of being closed-off to and non-accepting of emotion. The mother does not really listen to the child as he/she speaks, and may ignore what the child says or interrupt the child while speaking. If the child does not explicitly verbalize his/her feelings, the mother makes no attempt to initiate discussion of emotions.

APPENDIX C

QUALITY OF MATERNAL ADVICE

APPENDIX C

QUALITY OF MATERNAL ADVICE

This code assesses the quality of advice given by the mother to the child when discussing an anxiety-provoking event. The quality of advice rating is based on the degree to which the solutions are realistic, geared towards problem solving (rather than avoidance), and encouraging the child to be active/engaged in handling the situation.

5 = very good quality of advice
> The mother encourages the child to actively problem solve as a way of coping with anxiety and helps/encourages the child to come up with proactive, realistic solutions to the problem or validates his/her decisions in the past when coping with an anxiety-provoking situation. The mother may reframe the situation that makes it appear as more benign and less threatening. She also encourages the child to focus on goals, strategies for, and potential positive outcomes of the situation. The mother encourages the child to have confidence in his/her ability to effectively cope with the anxiety-provoking situation.

4 = good quality of advice
> Overall, the quality of advice the mother offers to the child is good, but it may not be as elaborate or consistent to earn a score of 5. There may be an instant or two when the mother does not encourage problem-solving or confidence in the child and/or offers avoidance as a solution.

3 = average quality of advice
> The mother may briefly encourage the child to solve the problem or think about positive outcomes to the problem. However, she may not elaborate on how to use problem solving as a way of coping or help the child come up with proactive solutions to the problem. The mother may not encourage the child to have confidence in his/her ability to cope with anxiety-provoking situations or to regulate his/her emotions.

2 = poor quality of advice
> The mother does not encourage the child to problem solve or help the child come up with realistic, proactive solutions to the problem. She may avoid thinking or talking about the problem.

1 = very poor quality of advice
> The mother may suggest avoiding the situation as a way of coping or responding in an aggressive way. She also may not validate the child's past coping skills. The mother focuses on the negative outcomes of the anxiety-provoking situation, does not mention any positive outcomes, and/or does not reframe the situation to offer a benign interpretation. The mother does not encourage and may even discourage the child to have confidence in his/her ability to effectively deal with the situation. The mother may also deny that the child encountered a problem or that the situation was anxiety-provoking.

APPENDIX D

COPE-REVISED

COPE-REVISED

We are interested in how people respond when they confront difficult or stressful events in their lives. This questionnaire asks you to think of a time in the last two months when you felt depressed, anxious or upset.

What happened? (Short description)

Where were you?

Who was with you?

How were you feeling at the time? (Pick 2 or 3 words that describe how you felt)

Why did you pick this event?

Now, thinking about this event, and what you did, respond to each of the following items by circling one number. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU--not what you think "most people" would say or do. Indicate what YOU did in this situation.

> 1 = I usually don't do this at all
> 2 = I usually do this a little bit
> 3 = I usually do this a medium amount
> 4 = I usually do this a lot

1. I tried to get advice from someone about what to do.	1	2	3	4
2. I concentrated my efforts on doing something about it.	1	2	3	4
3. I said to myself "this isn't real."	1	2	3	4
4. I admitted to myself that I can't deal with it, and quit trying.	1	2	3	4
5. I discussed my feelings with someone.	1	2	3	4
6. I talked to someone to find out more about the situation.	1	2	3	4
7. I made a plan of action.	1	2	3	4
8. I tried to get emotional support from friends or relatives.	1	2	3	4
9. I just gave up trying to reach my goal.	1	2	3	4
10. I took additional action to try to get rid of the problem.	1	2	3	4
11. I refused to believe that it has happened.	1	2	3	4
12. I talked to someone who could do something concrete about the problem.	1	2	3	4
13. I tried to come up with a strategy about what to do.	1	2	3	4
14. I got sympathy and understanding from someone.	1	2	3	4
15. I gave up the attempt to get what I want.	1	2	3	4
16. I thought about how I might best handle the problem.	1	2	3	4
17. I pretended that it hasn't really happened.	1	2	3	4
18. I asked people who have had similar experiences what they did.	1	2	3	4
19. I took direct action to get around the problem.	1	2	3	4
20. I reduced the amount of effort I'm putting into solving the problem.	1	2	3	4
21. I talked to someone about how I feel.	1	2	3	4
22. I thought hard about what steps to take.	1	2	3	4
23. I acted as though it hasn't even happened.	1	2	3	4
24. I did what had to be done, one step at a time.	1	2	3	4

APPENDIX E

RSQ-25

RSQ-25

People think and do many different things when they feel depressed. Please read each of the items below and indicate whether you never, sometimes, often or always think or do each one when you feel down, sad, or depressed. Please indicate what you *generally* do, not what you think you should do.

	Almost Never	Sometimes	Often	Almost Always
1. Think about how alone you feel	O	O	O	O
2. Think "I won't be able to do my work/job because I feel so badly"	O	O	O	O
3. Think about your feelings of fatigue and achiness	O	O	O	O
4. Think about how hard it is to concentrate	O	O	O	O
5. Think about how passive and unmotivated you feel	O	O	O	O
6. Analyze recent events to try to understand why you are depressed	O	O	O	O
7. Think about how you don't seem to feel anything any more	O	O	O	O
8. Think "Why can't I get going?"	O	O	O	O
9. Think "Why do I always react this way?"	O	O	O	O
10. Go away by yourself and think about why you feel this way	O	O	O	O
11. Write down what you are thinking about and analyze it	O	O	O	O

12. Think about a recent situation, wishing it had gone better	O	O	O	O
13. Think "Why do I have problems other people don't have?"	O	O	O	O
14. Think about how sad you feel	O	O	O	O
15. Think about all your shortcomings, failings, faults, mistakes	O	O	O	O
16. Think about how you don't feel up to doing anything	O	O	O	O
17. Analyze your personality to try to understand why you are depressed	O	O	O	O
18. Go someplace alone to think about your feelings	O	O	O	O
19. Think about how angry you are with yourself	O	O	O	O
20. Listen to sad music	O	O	O	O
21. Isolate yourself and think about the reasons why you feel sad	O	O	O	O
22. Try to understand yourself by focusing on your depressed feelings	O	O	O	O
23. Think "What am I doing to deserve this?"	O	O	O	O
24. Think "Why can't I handle things better?"	O	O	O	O
25. Think "I won't be able to concentrate if I keep feeling this way"	O	O	O	O

APPENDIX F

DIFFICULTIES IN EMOTION REGULATION SCALE

APPENDIX F

DIFFICULTIES IN EMOTION REGULATION SCALE

Please indicate how often the following statements apply to you by filling in the appropriate numbered bubble from the scale below

1 =   Almost never (0-10%)
2 =   Sometimes (11-35%)
3 =   About half the time (36-65%)
4 =   Most of the time (66-90%)
5 =   Almost always (91-100%)

	Almost never	Sometimes	About half the time	Most of the time	Almost Always
1. I am clear about my feelings.	1	2	3	4	5
2. I pay attention to how I feel.	1	2	3	4	5
3. I experience my emotions as overwhelming and out of control.	1	2	3	4	5
4. I have no idea how I am feeling.	1	2	3	4	5
5. I have difficulty making sense out of my feelings.	1	2	3	4	5
6. I am attentive to my feelings.	1	2	3	4	5
7. I know exactly how I am feeling.	1	2	3	4	5
8. I care about what I am feeling.	1	2	3	4	5

	Almost never	Sometimes	About half the time	Most of the time	Almost Always
9. I am confused about how I feel.	1	2	3	4	5
10. When I'm upset, I acknowledge my emotions.	1	2	3	4	5
11. When I'm upset, I become angry with myself for feeling that way.	1	2	3	4	5
12. When I'm upset, I become embarrassed for feeling that way.	1	2	3	4	5
13. When I'm upset, I have difficulty getting work done.	1	2	3	4	5
14. When I'm upset, I become out of control	1	2	3	4	5
15. When I'm upset, I believe that I will remain that way for a long time.	1	2	3	4	5
16. When I'm upset, I believe that I'll end up feeling very depressed.	1	2	3	4	5
17. When I'm upset, I believe that my feelings are valid and important.	1	2	3	4	5
18. When I'm upset, I have difficulty focusing on other things.	1	2	3	4	5
19. When I'm upset, I feel out of control.	1	2	3	4	5

	Almost never	Sometimes	About half the time	Most of the time	Almost Always
20. When I'm upset, I can still get things done.	1	2	3	4	5
21. When I'm upset, I feel ashamed with myself for feeling that way.	1	2	3	4	5
22. When I'm upset, I know that I can find a way to eventually feel better.	1	2	3	4	5
23. When I'm upset, I feel like I am weak.	1	2	3	4	5
24. When I'm upset, I feel like I can remain in control of my behaviors.	1	2	3	4	5
25. When I'm upset, I feel guilty for feeling that way.	1	2	3	4	5
26. When I'm upset, I have difficulty concentrating.	1	2	3	4	5
27. When I'm upset, I have difficulty controlling my behaviors.	1	2	3	4	5
28. When I'm upset, I believe that there is nothing I can do to make myself feel better.	1	2	3	4	5
29. When I'm upset, I become irritated with myself for feeling that way.	1	2	3	4	5
30. When I'm upset, I start to feel very bad about myself.	1	2	3	4	5

	Almost never	Sometimes	About half the time	Most of the time	Almost Always
31. When I'm upset, I believe that wallowing in it is all I can do.	1	2	3	4	5
32. When I'm upset, I lose control over my behaviors.	1	2	3	4	5
33. When I'm upset, I have difficulty thinking about anything else.	1	2	3	4	5
34. When I'm upset, I take time to figure out what I'm really feeling.	1	2	3	4	5
35. When I'm upset, it takes me a long time to feel better.	1	2	3	4	5
36. When I'm upset, my emotions feel overwhelming.	1	2	3	4	5

APPENDIX G

CES-D

CES-D

Using the scale below, indicate the number which best describes how often you felt or behaved this way –DURING THE PAST WEEK.

    1 = Rarely or none of the time (less than 1 day)
    2 = Some or a little of the time (1-2 days)
    3 = Occasionally or a moderate amount of time (3-4 days)
    4 = Most or all of the time (5-7 days)

DURING THE PAST WEEK:

___   1.   I was bothered by things that don't usually bother me.

___   2.   I did not feel like eating; my appetite was poor.

___   3.   I felt that I could not shake off the blues even with help from my family or friends.

___   4.   I felt that I was just as good as other people.

___   5.   I had trouble keeping my mind on what I was doing.

___   6.   I felt depressed.

___   7.   I felt that everything I did was an effort.

___   8.   I felt hopeful about the future.

___   9.   I thought my life had been a failure.

___   10.   I felt fearful.

___   11.   My sleep was restless.

___   12.   I was happy.

___   13.   I talked less than usual.

___   14.   I felt lonely.

___   15.   People were unfriendly.

___   16.   I enjoyed life.

___   17.   I had crying spells.

___   18.   I felt sad.

___   19.   I felt that people disliked me.

___   20.   I could not get "going."

APPENDIX H

CES-D

CES-D

In trying to gain more of an understanding of children and how they develop, we would like to know what is important to you as a parent and what kinds of methods you use in raising your child.

Please rate each of the following statement on a 6-point scale from 1 (not at all descriptive of me) to 6 (highly descriptive of me). If you have more than one child, please indicate your attitudes or beliefs that pertain to the child participating in this study. For each sentence, you will only circle <u>one</u> number.

Rating Scale:

    1   = not at all descriptive of me   6 =highly descriptive of me

1. I respect my child's opinions and encourage him/her to   1   2   3   4   5   6

   express them.

2. I want my child to make good impression on others.   1   2   3   4   5   6

3. I often feel angry with my child.   1   2   3   4   5   6

4. I encourage my child always to do his/her best.   1   2   3   4   5   6

5. I feel a child should be given comfort and understanding   1   2   3   4   5   6
   when he/she is scared or upset.

6. I think it is good practice for a child to perform in front   1   2   3   4   5   6

   of others.

7. I feel my child is a bit of a disappointment to me.   1   2   3   4   5   6

8. I expect a great deal of my child.   1   2   3   4   5   6

9. I am easygoing and relaxed with my child.   1   2   3   4   5   6

10. I think a child should be encouraged to do better than   1   2   3   4   5   6

    others.

11. I trust my child to behave as she/he should, even when   1   2   3   4   5   6
    I am not with him/her.

12. I feel that it's good for a child to play competitive games.   1   2   3   4   5   6

13. I make sure my child knows that I appreciate what he/she   1   2   3   4   5   6
      tries to accomplish.

14. I give up some of my own interests because of my child.   1   2   3   4   5   6

15. I encourage my child to talk about his/her troubles.   1   2   3   4   5   6

16. I don't blame my child for whatever happens if others   1   2   3   4   5   6

     ask for trouble.

17. I sometimes tease and make fun of my child.   1   2   3   4   5   6

18. I don't want my child to be looked upon as different from   1   2   3   4   5   6

     others.

19. There is a good deal of conflict between my child and me.   1   2   3   4   5   6

20. I think it is best if the mother, rather than the father, is the
     one with the most authority over the child.   1   2   3   4   5   6

APPENDIX I

INSTRUCTIONS TO CHILD

APPENDIX I

INSTRUCTIONS TO CHILD

This questionnaire asks about what you are like with your mother – like how you act and feel around her. Before we get to those questions, let's try a practice question. Each question talks about two kinds of kids, and we want to know which kids are most like <u>you</u>. Decide first whether you are more like the kids on the left side or more like the kids on the right side, then decide whether that is sort of true for you, or really true for you, and circle that phrase. For each question you will only circle <u>one</u> answer.

Practice Question:

Some kids would rather play sports in their spare time.   **BUT**   Other kids would rather watch T.V.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

Now we are going to ask you question about you and your mom, or whoever you think of as your "mom."

I am filling this out about my (circle one): mother step-mother grandmother other:_____

1.   Some kids find it easy to trust their mom   **BUT**   Other kids are not sure if they can trust their mom.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

2.   Some kids feel like their mom butts in a lot when they are trying to do things   **BUT**   Other kids feel like their mom lets them do things on their own.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

3.   Some kids find it easy to count on their mom for help   **BUT**   Other kids think it's hard to count on their mom.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

4. Some kids think their mom spends enough time with them **BUT** Other kids think their mom does not spend enough time with them.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

5. Some kids feel more confident trying new things after talking to their mom about it **BUT** Other kids do not feel more confident trying new things after talking to their mom about it.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

6. Some kids do not really like telling their mom what they are thinking or feeling **BUT** Other kids do like telling their mom what they are thinking or feeling.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

7. Some kids do not really need their mom for much **BUT** Other kids need their mom for a lot of things.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

8. Some kids are sure their mom wants to hear what they think, even when they disagree with their mom. **BUT** Other kids are not sure if their mom wants to hear what they think.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

9. Some kids wish they were closer to their mom **BUT** Other kids are happy with how close they are to their mom.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

10. Some kids worry that their mom does not really love them **BUT** Other kids are really sure that their mom loves them.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

11. Some kids do not feel like their mom encourages them when they try new things **BUT** Other kids do feel like their mom encourages them when they try new things.

Really true for me	Sort of true for me	Sort of true for me	Really true for me

12. Some kids feel like their mom really understands them   **BUT**   Other kids feel like their mom does not really understand them.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

13. Some kids are really sure their mom would not leave them   **BUT**   Other kids sometimes wonder if their mom might leave them.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

14. Some kids feel like their mom lets them decide enough things by themselves   **BUT**   Other kids feel like their mom does not let them make enough decisions by themselves.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

15. Some kids worry that their mom might not be there when they need her   **BUT**   Other kids are sure their mom will be there when they need her.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

16. Some kids think their mom does not listen to them   **BUT**   Other kids do think their mom listens to them.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

17. Some kids think their mom encourages them to be themselves   **BUT**   Other kids do not think their mom encourages them to be themselves.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

18. Some kids go to their mom when they are upset   **BUT**   Other kids do not go to their mom when they are upset.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

19. Some kids wish their mom would help them more with their problems   **BUT**   Other kids think their mom helps them enough.

Really true for me	Sort of true for me		Sort of true for me	Really true for me

20. Some kids are really sure their mom is proud of them **BUT** Other kids are not sure if their mom is proud of them.

| Really true for me | Sort of true for me | | Sort of true for me | Really true for me |

21. Some kids feel better when their mom is around **BUT** Other kids do not feel better when their mom is around.

| Really true for me | Sort of true for me | | Sort of true for me | Really true for me |

REFERENCES

REFERENCES

Abaied, J. L., & Rudolph, K. D. (2010). Mothers as a resource in times of stress: Interactive contributions of socialization of coping and stress to youth psychopathology. *Journal of Abnormal Child Psychology: An official publication of the International Society for Research in Child and Adolescent Psychopathology*, *38*(2), 273-289.

Abela, J. R. Z., & Hankin, B. L. (2009). In S. Nolen-Hoeksema & L. M. Hilt (Eds.), *Handbook of depression in adolescents*. (pp. 335-376). New York, NY: Routledge/Taylor & Francis Group.

Allen, J. P., Hauser, S. T., Eickholt, C., Bell, K. L., & et al. (1994). Autonomy and relatedness in family interactions as predictors of expressions of negative adolescent affect. *Journal of Research on Adolescence*, *4*(4), 535-552.

Allen, N. B., & Sheeber, L.B. (2009). The importance of affective development for the emergence of depressive disorders during adolescence. In N. B. Allen & L.B. Sheeber (Eds.), *Adolescent Emotional Development and the emergence of depressive disorders*. (pp. 1-10). New York, NY: Cambridge University Press.

Beardslee, W. R., Bemporad, J., Keller, M. B., & Klerman, G. L. (1983). Children of parents with major affective disorder: A review. *The American Journal of Psychiatry*, *140*(7), 825-832.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality And Social Psychology*, *51*(6), 1173-1182.

Barrera, M., & Garrison-Jones, C. (1992). Family and peer social support as specific correlates of adolescent depressive symptoms. *Journal of Abnormal Child Psychology: An official publication of the International Society for Research in Child and Adolescent Psychopathology*, *20*(1), 1-16.

Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). *Cognitive therapy of depression.* New York: Guilford.

Beck, T. A. (1976). *Cognitive therapy and the emotional disorders*. NewYork: International University Press.

Brooks, S. J., & Kutcher, S. (2001). Diagnosis and measurement of adolescent depression: A review of commonly utilized instruments. *Journal of Child and Adolescent Psychopharmacology*, *11*(4), 341-376.

Campbell-Sills, L., & Barlow, D. H. (2007). Incorporating Emotion Regulation into Conceptualizations and Treatments of Anxiety and Mood Disorders. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 542-559). New York, NY US: Guilford Press.

Catanzaro, S. J., & Mearns, J. (1990). Measuring generalized expectancies for negative mood regulation: Initial scale development and implications. *Journal Of Personality Assessment*, *54*(3-4), 546-563.

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92-100.

Ciarrochi, J., Heaven, P. L., & Supavadeeprasit, S. (2008). The link between emotion identification skills and socio-emotional functioning in early adolescence: A 1-year longitudinal study. Journal Of Adolescence, 31(5), 565-582.

Ciesla, J., Reilly, L., Dickson, K., Emanuel, A., & Updegraff, J. (2012). Dispositional mindfulness moderates the effects of stress among adolescents: Rumination as a mediator. Journal Of Clinical Child And Adolescent Psychology, 41(6), 760-770.

Cohen, J. S. (1989). *Maternal involvement in children's peer relationships during middle childhood.* Unpublished doctoral dissertation, University of Waterloo, Waterloo, Ontario, Canada.

Cohen, J., Cohen, C., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Cole, D. A., & Rehm, P. (1986). Family interaction patterns and childhood depression. *Journal of Abnormal Child Psychology: An official publication of the International Society for Research in Child and Adolescent Psychopathology*, *14*(2), 297-314.

Costello, E. J., Erkanli, A., & Angold, A. (2006). Is there an epidemic of child or adolescent depression? *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *47* (12), 1263-1271.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, *127*(1), 87-127.

Compas, B. E., Jaser, S. S., & Benson, M. A. (2009). Coping and Emotion Regulation: Implications for understanding depression during adolescence. In S. Nolen-Hoeksema & L. M. Hilt (Eds.), *Handbook of Depression in Adolescents*. (pp. 419-439). New York, NY: Routledge.

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, *113*(3), 487-496.

Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental contributions to preschoolers' emotional competence: Direct and indirect effects. *Motivation and Emotion*, *21*(1), 65-86.

Doerfler, L. A., Felner, R. D., Rowlison, R. T., Raley, P. A., , & Evans, E. (1988). Depression in children and adolescents: A comparative analysis of the utility and construct validity of two assessment measures. *Journal of Consulting and Clinical Psychology*, *56*(5), 769-772.

Durbin, E. C. & Shafir, D. M. (2008). Emotion regulation and risk for depression. In Abela, J. R. Z. & Hankin, B. L. (Eds.), *Handbook of depression in children and adolescents* (149-176). New York: Guildford Press.

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, *9*(4), 241-273.

Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1996). Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. *Child Development*, *67*(5), 2227-2247.

Fabes, R.A., Eisenberg, N., & Bernzweig, J. (1990). The Coping with Children's Negative Emotions Scale: Procedure and scoring. Available from authors. Arizona State University.

Fabes, R. A., Poulin, R. E., Eisenberg, N., & Madden-Derdich, D. A. (2002). The Coping with Children's Negative Emotions Scale (CCNES): Psychometric properties and relations with children's emotional competence. *Marriage & Family Review*, *34*(3-4), 285-310.

Fergusson, D. M., & Woodward, J. (2002). Mental health, educational, and social role outcomes of adolescents with depression. *Archives of General Psychiatry*, *59*(3), 225-231.

Folkman, S., & Moskowitz, T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, *55*, 745-774.

Gallimore, M., , & Kurdek, L. A. (1992). Parent depression and parent authoritative discipline as correlates of young adolescents' depression. *The Journal of Early Adolescence*, *12*(2), 187-196.

Garber, J. (2006). Depression in Children and Adolescents: Linking Risk Research and Prevention. American Journal Of Preventive Medicine, 31(6, Suppl 1), S104-S125.

Garber, J. Braafladt, N., & Zeman, J. (1991).   The regulation of sad affect: An

information processing perspective. In J. Garber & K. A. Dodge (Eds.), *The development

of emotion regulation and dysregulation* (208-240). New York, NY: Cambridge

University Press.

Garber, J., Robinson, N. S., , & Valentiner, D. (1997). The relation between

parenting and adolescent depression: Self-worth as a mediator. *Journal of Adolescent

Research*, *12*(1), 12-33.

Garrison, C. Z., Addy, C. L., Jackson, K. L., McKeown, R. E., , & et al. (1991).

The CES-D as a screen for depression and other psychiatric disorders in adolescents.

Journal of the American Academy of Child & Adolescent Psychiatry, *30*(4), 636-641.

Gottman, J. M., Fainsilber Katz, L. F., & Hooven, C. (1996). Parental meta-

emotion philosophy and the emotional life of families: Theoretical models and

preliminary data. *Journal of Family Psychology*, *10*(3), 243-268.

Graber, J. A., & Brooks-Gunn, J. (1996). Transitions and turning points;

navigating the passage from childhood through adolescence. *Developmental Psychology*,

32, 768-776.

Granot, D., & Mayseless, O. (2001). Attachment security and adjustment to

school in middle childhood. *International Journal of Behavioral Development*, *25*(6),

530-541.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion

regulation and dysregulation: Development, factor structure, and initial validation of the

difficulties in emotion regulation scale. *Journal of Psychopathology And Behavioral*

   Assessment, *26*(1), 41-54.

   Gross, J. J., & Muñoz, F. (1995). Emotion regulation and mental health. *Clinical*

Psychology: Science and Practice, *2*(2), 151-164.

   Gross, J.J., & Thompson, R.A. (2007). Emotion regulation: Conceptual

foundations. In J.J. Gross (Ed.), Handbook of emotion regulation (pp. 3-24). New York,

NY: Guilford Press.

   Hardy, D. F., Power, T. G., & Jaedicke, S. (1993). Examining the relation of

parenting to children's coping with everyday stress. Child Development, 64(6), 1829-

1841.

   Harter, S. (1982). The Perceived Competence Scale for Children. *Child*

Development, *53*(1), 87-97.

   Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life

course. *Psychological Bulletin*, *121*, (3), 355-370.

   Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in

the new millennium. Communication Monographs, 76, 408-420.

   Helsen, M., Vollebergh, W., & Meeus, W. (2000). Social support from parents

and friends and emotional problems in adolescence. *Journal of Youth and Adolescence*,

29(3), 319-335.

   Hilt, L. M. & Nolen-Hoeksema, S. (2009). The emergence of gender differences

in adolescent depression. In S. Nolen-Hoeksema & L. M. Hilt (Eds.), *Handbook of*

Depression in Adolescents. (pp. 111-135). New York, NY: Routledge.

Horowitz, J.L., & Garber, J. (2006). The prevention of depressive symptoms in children and adolescents: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, *74*, 401-415.

Hunter, E. C., Hessler, D. M, & Fainsilber Katz, L. (2009). Familial processes related to affective development. In N. B. Allen & L.B. Sheeber (Eds.), *Adolescent Emotional Development and the emergence of depressive disorders*. (pp. 262-279). New York, NY: Cambridge University Press.

James, A. C., Winmill, L., Anderson, C., & Alfoadari, K. (2011). A preliminary study of an extension of a community dialectic behaviour therapy (DBT) programme to adolescents in the Looked After Care system. *Child And Adolescent Mental Health*, 16(1), 9-13.

Julian T., McKenry P., McKelvey M. (1994). Cultural variations in parenting: Perceptions of Caucasian, African-American, Hispanic, and Asian-American parents. *Family Relations*. 43, 30–37.

Kashani, J. H., Burbach, D. J., & Rosenberg, T. K. (1988). Perception of family conflict resolution and depressive symptomatology in adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, *27*(1), 42-48.

Katz, L. F., & Hunter, C. (2007). Maternal meta-emotion philosophy and adolescent depressive symptomatology. *Social Development*, *16*(2), 343-360.

Kerns, K. A., Aspelmeier, J. E., Gentzler, A. L., & Grabill, C. M. (2001). Parent–child attachment and monitoring in middle childhood. *Journal Of Family Psychology*, *15*(1), 69-81.

Kerns, K.A., Klepac, L., & Cole, A.K. (1996). Peer relationships and preadolescence' perceptions of security in the child-mother relationship. Developmental Psychology, 32(3), 457-466.

Kerns, K. A., Tomich, P. L., Aspelmeier, J. E., & Contreras, J. M. (2000). Attachment-based assessments of parent–child relationships in middle childhood. *Developmental Psychology*, *36*(5), 614-626.

Kessler, R. C., Avenevoli, S., and Ries Merikangas, K., (2001). Mood disorders in children and adolescents: An epidemiologic perspective. *Biological Psychiatry*, *49*, 1002-1014

Kochanska, G., & Aksan, N. (2006). Children's Conscience and Self-Regulation. *Journal of Personality*, *74*(6), 1587-1617.

Kochanska, G., Aksan, N., Knaack, A., & Rhines, H. M. (2004). Maternal Parenting and Children's Conscience: Early Security as Moderator.*Child Development*, *75*(4), 1229 1242.

Kochanska, G., Forman, D. R., Aksan, N., , & Dunbar, S. B. (2005). Pathways to conscience: Early mother-child mutually responsive orientation and children's moral emotion, conduct, and cognition. *Journal of Child Psychology and Psychiatry*, *46*(1), 19-34.

Kovacs, M. (1996). The course of childhood-onset depressive disorders. *Psychiatric Annals, 26,* 326–330.

Kovacs, M. (1992). *Children Depression Inventory (CDI) manual*. Toronto, Canada: Multi-Health Systems.

Ladd, G. (1992). Themes and theories: Perspectives on processes in family-peer relationships. In Parke, R., & Ladd, G. (Eds.), *Family-peer relationships: Modes of linkage.* (pp. 3-34). Hillsdale, NY: Erlbaum.

Ladouceur, C. D., Dahl, R. E., Williamson, D. E., Birmaher, B., Ryan, N. D., & Casey, B. J. (2005). Altered Emotional Processing in Pediatric Anxiety, Depression, and Comorbid Anxiety-Depression. *Journal of Abnormal Child Psychology*, *33*(2), 165-177.

Larson, R. W., Csikszentmihalyi, M., & Graef, R. (1980). Mood variability and the psychosocial adjustment of adolescents. *Journal of Youth and Adolescence, 9*, 469-490.

Larson, R. W., & Lampman-Petraitis, C. (1989). Daily emotional states as reported by children and adolescents. *Child Development*, *60*, 1250-1260.

Larson, R. W., & Richards, M. H. (1994). Family emotions: do young adolescents and their parents experience the same states? *Journal of Research on Adolescence*, *4*, 567-583.

Larson, R. W., & Sheeber, L. B. (2009). The daily emotional experience of adolescents: Are adolescents more emotional, why, and how is that related to depression? In N. B. Allen & L. B. Sheeber (Eds.), *Adolescent emotional development and the emergence of depressive disorders* (pp.11-32). Cambridge, UK: Cambridge University Press.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder.* New York, NY US: Guilford Press.

Lynch T., Morse J., Mendelson T., & Robins C. (2003). Dialectical behavior therapy for depressed older adults: a randomized pilot study. *American Journal of Geriatric Psychiatry, 11*, 33–45.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. Psychological Methods, 7(1), 83-104.

Mayes, T. L., Bernstein, I. H., Haley, C. L., Kennard, B. D., , & Emslie, G. J. (2010). Psychometric properties of the Children's Depression Rating Scale–Revised in adolescents. *Journal of Child and Adolescent Psychopharmacology*, *20*(6), 513-516.

Mounts, N. S. (2000). In Parental management of adolescent peer relationships: What are its effects on friend selection? In Kerns, K. A., Contreras, J. M., & Neal-Barnett, A. M. (Eds.), *Family and peers: Linking two social words*. (pp. 169-193). Westport, CT: Praeger.

Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social Development*, *16*(2), 361-388.

Neumann, A., van Lier, P. A. C., Gratz, K. L., , & Koot, H. M. (2010). Multidimensional assessment of emotion regulation difficulties in adolescents using the Difficulties in Emotion Regulation Scale. *Assessment*, *17*(1), 138-149.

Nolen-Hoeksema, S. (2000). The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. *Journal of Abnormal Psychology*, *109*(3), 504-511.

Nolen-Hoeksema, S., Larson, J., & Grayson, C. (1999). Explaining the gender difference in sdepressive symptoms. *Journal of Personality and Social Psychology*, *77*, 1061-1072.

Nolen-Hoeksema, S., & Morrow, J. (1991). A prospective study of depression and posttraumatic stress symptoms after a natural disaster: The 1989 Loma Prieta earthquake. *Journal of Personality and Social Psychology*, *61*(1), 115-121.

Nolen-Hoeksema, S., Morrow, J., & Fredrickson, B. U. (1990). The effects of response styles on the duration of depressed mood: A field study. Unpublished manuscript, Stanford University, Stanford, CA.

Nolen-Hoeksema, S., Stice, E., Wade, E., & Bohon, C. (2007). Reciprocal relations between rumination and bulimic, substance abuse, and depressive symptoms in female adolescents. *Journal of Abnormal Psychology*, *116*(1), 198-207.

Penza-Clyve, S., & Zeman, J. (2002). Initial validation of the Emotion Expression Scale for Children (EESC). *Journal of Clinical Child and Adolescent Psychology*, *31*(4), 540-547.

Phelps, S. B., & Jarvis, P. A. (1994). Coping in adolescence: Empirical evidence for a theoretically based approach to assessing coping. *Journal of Youth and Adolescence*, *23*(3), 359-371.

Poznanski, E., O, & et al. (1984). Preliminary studies of the reliability and validity of the Children's Depression Rating Scale. *Journal of the American Academy of Child Psychiatry*, *23*(2), 191-197.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879-891.

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, *1*(3), 385-401.

Radziszewska, B., Richardson, J. L., Dent, C. W., , & Flay, B. R. (1996). Parenting style and adolescent depressive symptoms, smoking, and academic achievement: Ethnic, gender, and SES differences. *Journal of Behavioral Medicine*, *19*(3), 289-305.

Rathus, J. H., & Miller, A. L. (2002). Dialectical Behavior Therapy adapted for suicidal adolescents. Suicide And Life-Threatening Behavior, 32(2), 146-157.

Richters, J. E., & Waters, E. (1991). Attachment and socialization: The positive side of social influence. In M. Lewis & S. Feinman (Eds.) *Social Influences and Behavior*. New York, NY: Plenum.

Sander, J. B., & McCarty, C. A. (2005). Youth Depression in the Family Context: Familial Risk Factors and Models of Treatment. *Clinical Child and Family Psychology Review*, *8*(3), 203-219.

Saarni, C. (1985). Indirect processes in affect socialization. In M. Lewis & C. Saarni (Eds.),The socialization of emotion (pp. 187-209). New York: Plenum.

Saarni, C. (1984). An observational study of children's attempts to monitor their expressive behavior. Child Development, 55(4), 1504-1513.

Scheier, M. E. & Carver, C. S. (1987). Dispositional optimism and physical well being: The influence of generalized outcome expectancies on health. *Journal of Personality*, *55*, 169-210.

Scheier, M. E., Weintraub, J. K., & Carver, C. S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology*, *51*, 1257-1264.

Seeley, J. R., & Lewinsohn, P. M. (2009). Epidemiology of mood disorders during adolescence: Implications for lifetime risk. In N. B. Allen & L.B. Sheeber (Eds.), *Adolescent Emotional Development and the emergence of depressive disorders*. (pp. 33-55). New York, NY: Cambridge University Press.

Segal, Z. V., Williams, J. G., & Teasdale, J. D. (2013). Mindfulness-based cognitive therapy for depression (2nd ed.). New York, NY US: Guilford Press.

Sheeber, L., Hops, H., & Davis, B. (2001). Family processes in adolescent depression. *Clinical Child And Family Psychology Review*, 4(1), 19-35.

Sheeber, L., Allen, N., Davis, B., & Sorensen, E. (2000). Regulation of negative affect during mother–child problem-solving interactions: Adolescent depressive status and family processes. *Journal of Abnormal Child Psychology: An official publication of the International Society for Research in Child and Adolescent Psychopathology*, *28*(5), 467-479.

Sheeber, L., Hops, H., Alpert, A., Davis, B., & Andrews, J. (1997). Family support and conflict: Prospective relations to adolescent depression. *Journal of Abnormal*

Child Psychology: An official publication of the International Society for Research in Child and Adolescent Psychopathology, *25*(4), 333- 344.

Sheeber, L., Hops, H., Andrews, J., Alpert, T., & Davis, B. (1998). Interactional processes in families with depressed and non-depressed adolescents: Reinforcement of depressive behavior. *Behaviour Research and Therapy*, *36*(4), 417-427.

Siener, S., & Kerns, K. A. (2012). Emotion regulation and depressive symptoms in preadolescence. Child Psychiatry And Human Development, 43(3), 414-430.

Silk, J. S., Shaw, D. S., Skuban, E. M., Oland, A. A., & Kovacs, M. (2006). Emotion regulation strategies in offspring of childhood-onset depressed mothers. *Journal of Child Psychology and Psychiatry*, *47*(1), 69-78.

Silk, J. S., Steinberg, L., & Morris, A. S. (2003). Adolescents' emotion regulation in daily fife: Links to depressive symptoms and problem behavior. *Child Development*, *74*(6), 1869-1880.

Stice, E., Ragan, J., & Randall, P. (2004). Prospective Relations Between Social Support and Depression: Differential Direction of Effects for Parent and Peer Support? *Journal of Abnormal Psychology*, *113*(1), 155-159.

Steinberg, L. (2001). We know some things: parent-adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence*, *11* (1), 1-19.

Steinberg, L. & Silk (2002). Parenting adolescents. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 1: Children and parenting* (pp. 103-133). Mahwah, NJ: Lawrence Erlbaum Associates.

Supplee, L. H., Skuban, E., Shaw, D. S., & Prout, J. (2009). Emotion regulation strategies and later externalizing behavior among European American and African American children. *Development And Psychopathology, 21*(2), 393-415.

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. In N. A. Fox (Ed.), The development of emotion regulation. *Monographs of the Society for Research in Child Development, 59, 25–52.*

Thompson, R. A. & Goodman, M. (2010). Development of emotion regulation: More than meets the eye. In A. M. Kring & D. M. Sloan (Eds.), *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment*. New York, NY US: Guilford Press.

Thompson, R. A. & Meyer, S. (2007). Socialization of emotion regulation in the family. In J.J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3-24). New York, NY: Guilford Press.

Tompson, M. C., Pierre, C. B., Haber, F. M., Fogler, J. M., Groff, A. R., & Asarnow, J. R. (2007). Family-focused treatment for childhood-onset depressive disorders: Results of an open trial. *Clinical Child Psychology and Psychiatry*, *12*(3), 403-420.

Waters, E., Hay, D., & Richters, J. (1985). Infant-parent attachment and the origins of prosocial and antisocial behavior. In D. Olweus, J. Block, & M. Radke-Yarrow (Eds.), *The origins of prosocial and antisocial behavior*. (pp. 97-125). California: Academic Press. Weinberg, A., & Klonsky, E. (2009). Measurement of emotion dysregulation in adolescents. Psychological Assessment, 21(4), 616-621

Yap, M. B. H., Allen, N. B., & Ladouceur, C. D. (2008). Maternal socialization of positive affect: The impact of invalidation on adolescent emotion regulation and depressive symptomatology. *Child Development*, *79*(5), 1415-1431.

Yap, M. H., Allen, N. B., & Sheeber, L. (2007). Using an emotion regulation framework to understand the role of temperament and family processes in risk for adolescent depressive disorders. *Clinical Child And Family Psychology Review*, *10* (2), 180-196.