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# PARENTAL EMOTION INVALIDATION, EMOTION INHIBITION, AND RUMINATION, IN RELATION TO ADOLESCENT DEPRESSION

by

Janelle Victoria Williams

# A Thesis

Submitted in Partial Fulfillment of the

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#### Abstract

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This study tested a conceptual model which incorporated parental emotion invalidation of sadness, emotion inhibition, and rumination as contributing factors to depressive symptoms in adolescence. Adolescents completed questionnaires measuring their own emotion inhibition, rumination, and depression as well as their perceptions of their parents' invalidating responses towards their sadness. Parents completed questionnaires measuring their perceptions of their invalidating responses towards their adolescents' sadness, their perception of their adolescents' sadness inhibition, and their perception of their adolescents' depressive symptoms. Path analyses were conducted to examine the direct and indirect relations among the four variables. Results showed that emotion inhibition and rumination were associated with depression, but not each other. Parental emotion invalidation predicted emotion inhibition and depression, but not rumination. Findings suggest that parental emotion invalidation may be differentially related to different components of emotion regulation and that multiple components of emotion regulation should be considered in relation to adolescent depression.

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Parental Emotion Invalidation, Emotion Inhibition, and Rumination in Relation to

Adolescent Depression

Research on child and adolescent depression indicates that (a) approximately 3% of children and 14% of adolescents meet diagnostic criteria for a depressive disorder, (b) between 10% and 30 % of youth endorse subclinical yet significant symptoms of depression prior to the age of 18, and (c) individuals who experience problems with depression during childhood and adolescence are at high risk of suffering from depressive symptoms in adulthood (for discussion, see Hammen & Rudolph, 2003). Adolescent depression is associated with a wide range of social and academic difficulties such as poor peer and parental support and low grades (Jaycox et al., 2009). The high prevalence of depression during adolescence and its associated psychosocial problems has stimulated research designed to identify risk factors for this debilitating and often reoccurring problem.

A growing body of research has shown that a difficulty in regulating emotions effectively is a risk factor for adolescent depression (i.e., Silk, Steinberg, & Morris, 2003). Depression can be specifically characterized by difficulties in effectively down-regulating negative emotions or up-regulating and maintaining positive emotions (Cole, Michel, & Teti, 1994). According to Gratz and Roemer (2004), emotion regulation competency involves being able to use appropriate regulation strategies flexibly to modulate emotional arousal. Two emotion regulation strategies that have shown to be ineffective in modulating negative emotional arousal, as well as linked to depressive symptoms, are emotion inhibition (Gross & John, 2003) and rumination (Silk et al., 2003). Research also shows that these emotion regulation strategies are often positively

correlated with each other (e.g., Gross & John, 2003). Findings also suggest that an individual's ability to regulate emotions is partly influenced by parents' reactions to children's negative emotions (Eisenberg, Cumberland, & Spinrad, 1998). Specifically, research shows that parents' supportive (e.g., rewarding) responses to children's negative emotions (e.g., sadness and anger) are linked to children's emotion competency (Eisenberg et al., 1998), while parents' negative responses (i.e., rejecting and neglectful) are associated with internalizing disorders such as depression (O'Neal & Magai, 2005). Linehan (1993) refers to unsupportive responses as being "emotionally invalidating," in that these responses discourage the experience and expression of emotion.

Even though previous research has indicated that emotion inhibition, rumination, and parental emotion invalidation are all related to adolescent depression, there has not been any research on how all three factors are associated with depression in conjunction with each other. The purpose of the study was to investigate a conceptual model that incorporated parental emotion invalidation, emotion inhibition, and rumination in relation to adolescent depression.

# Conceptual Model

As shown in Figure 1 in Appendix C, the conceptual model guiding the present study posits specific relations among several factors believed to influence the development of adolescent depression. The model was predominately influenced by Eisenberg and her colleagues' (1998) heuristic model which proposed that emotion related parenting practices (e.g., parents' reactions to children's emotion) has important relations to children's ability to regulate their emotions as well as child outcomes such as internalizing and externalizing disorders (Eisenberg et al., 1998). The model was also

heavily influenced by Gross's (2001) process model of emotion regulation, which examines the inhibition of expressed emotion, and Nolen-Hoeksema (1991)'s Response Style Theory, which is a theory pertaining to rumination and its relation to depression. First, it was expected that parental emotion invalidation would have a direct effect on emotion inhibition and rumination (paths a and d, respectively). Second, it was hypothesized that emotion inhibition would influence rumination and depression (paths b and e, respectively). Third, rumination should be directly related to depression (path c). *Parents' Responses to Children's Emotions* 

Research on emotion socialization offers a valuable perspective on the development of children's emotional and social competencies (e.g., Eisenberg, Fabes, & Murphy, 1996) as well as possible origins of psychopathology (O'Neal & Magai, 2005). Emotion socialization involves the processes by which parents or other caregivers socialize children's understanding, experience, expression, and regulation of emotion (Eisenberg et al., 1998). There are both direct and indirect methods of emotion socialization. Methods include didactic instruction, modeling (e.g., Parke, 1994), and discussion of emotions (e.g., Gottman, Katz, & Hooven, 1996).

One emotion socialization parenting practice that has been heavily researched is parents' responses to children's emotional displays. Research has consistently shown that parents' responses to children's positive and negative emotions have a large effect on children's ability to express and regulate their emotions (e.g., Eisenberg et al., 1998; Eisenberg et al., 2001). Supportive and problem-focused behavior in response to children's displays of negative emotion have been linked to children's competency in emotional and social functioning, whereas unsupportive reactions has been linked to

emotional over-arousal, dysregulated behavior, and avoidant coping responses (Eisenberg et al., 1998; Eisenberg et al., 1996). Although parental reactions to emotions might vary, Hunziker (1995) has identified five primary parental reactions to emotions that act as emotion socialization strategies for children, and are linked to either healthy emotional development or psychopathology (O'Neal & Magai, 2005). These include (a) reward (e.g., comforting, empathizing, and validating the child's feelings), (b) punishment (e.g., discouraging and punishing child for expressions of emotion), (c) neglect (e.g., ignoring the child's emotions or not being available to be aware of them), (d) overriding (e.g., dismissing the child's emotions or distracting the child from them), and (e) magnification (e.g., responding to the child's emotions by expressing the same emotion with equal or possibly stronger intensity). For the purposes of this study, the strategies of punishment and neglect were examined because these are the strategies most similar to emotional invalidation (see Krause, Mendelson, & Lynch, 2003).

When examining emotion socialization strategies, it is important to clarify which emotion is actually being socialized. According to functionalist theory (see Magai & McFadden, 1995) and discrete emotions theory (see Izard & Malatesta, 1987), specific emotions have specific interpersonal functions, and parents often use different strategies in response to children's different emotions (Garside & Klimes-Dougan, 2002; Magai & O'Neal, 2005). For example, the expression of sadness often serves to elicit comfort, therefore, parents are more likely to reward sadness rather than punish it (Garside & Klimes-Dougan, 2002). However, when sadness is punished, children are more likely to exhibit internalizing behaviors (Magai & O'Neal, 2005). On the other hand, parents are more likely to punish anger rather than reward it (Garside & Klimes-Dougan, 2002).

According to Malatesta and Wilson (1988)'s theory, this differential reinforcement causes children to develop "surfeit biases" or "deficiency biases" which means children are more likely to overuse or underuse certain emotions such as sadness, which could then develop into depression.

## Parental Emotion Invalidation and Depression

Even though there are some empirical findings that suggest different socialization strategies are differentially related to specific forms of psychopathology (e.g., O'Neal & Magai, 2005), there is a lack of empirical findings on the relationship between the socialization of sadness and depression. Krause and colleagues (2003) found that parental distress to negative emotion is linked to depression, however, the interpretation of these findings is hindered by their using negative emotions as global construct rather than specifying the negative emotion being socialized. The study (O'Neal & Magai, 2005) that has come the closest to examining the relation between the socialization of sadness and depression found a relation between the socialization of sadness and internalizing behaviors. They found that the neglect and punishment of sadness was associated with higher levels of internalizing behaviors. However, internalizing behaviors could refer to either depressive or anxious behaviors. Future empirical research needs to be done on how the socialization of sadness is specifically related to depressive symptoms.

#### **Emotion Inhibition**

Emotion inhibition can be conceptualized as encompassing both the inhibition of emotional expression as well as the suppression of emotional thoughts. However, in the study's model, the construct of emotion inhibition will only refer to the inhibition of emotionally expressive behavior. Gross's (2001) process model of emotion regulation

refers to this behavior as "expressive suppression." In his model, Gross differentiates emotion regulation strategies according to the timeline of an unfolding emotional response (2001). The main two strategies he discusses are antecedent-focused and response-focused emotion strategies. Antecedent-focused strategies are those that attempt to modulate emotion before the emotional response has been activated, whereas responsefocused emotion regulation strategies are those that attempt to influence one' behavioral tendencies after the emotion has already been activated. The inhibition of emotionally expressive behavior can be conceptualized as a type of response-focused emotion regulation strategy in that it attempts to inhibit emotionally expressive behavior after the emotion has already been generated. Gross argues that inhibiting one's expression of emotion is ineffective as an emotion regulation strategy because even though it is effective in decreasing the behavioral expression of negative emotion, it is not effective in the reducing the actual experience of negative emotion. In support of Gross' (2001) process model, Gross and John (2003) have found that when individuals inhibit their expression of negative emotions, they often do not experience a decrease in these emotions. Instead, they often experience increased arousal (Gross & Levenson, 1997).

The inhibition of emotion as an emotion regulation strategy is associated with impairment in emotional and social competence (e.g., Gross & John, 2003). Studies have shown that the inhibition of emotionally expressive behavior is associated with less emotion awareness (Gross & John, 2003; Zeman et al., 2003) and impoverished emotional experience (Gross & Levenson, 1997; King, Emmons, & Woodley, 1992). Individuals who chronically use emotion inhibition also tend to ruminate more and feel unsuccessful in regards to controlling and altering their negative emotions (Gross & John,

2003). Research shows that those who specifically inhibit their emotions of sadness also experience increased negativity as well as mood lability (Zeman et al., 2001). A person's lack of expressivity has also been found to result in reduced social competence and functioning in terms of closeness to others and decreased social support (Gross & John, 2003; Srivastava, Tamir, McGonigal, John, & Gross, 2009). Srivastava and her colleagues (2009) gave three reasons as to why the habitual emotion inhibition leads to negative social consequences. First, it doesn't allow the social partner of the inhibitor to know what he or she is feeling, and a number of important social processes rely on others knowing what the other person is feeling in order to facilitate social bonding. Second, because those who try to inhibit their emotional behavior are only partially successful in hiding their true emotions, people may view such people as being inauthentic and not interested in true intimacy (Srivastava et al., 2009). Third, inhibiting one's emotional expressions appears to impose a cognitive load on its users (Gross & John, 2003; Richards & Gross, 2000), and perhaps this makes it difficult for the inhibitor to absorb information gathered in a social interaction, and thus respond appropriately to others (Srivastava et al., 2009). The majority of research done on emotion inhibition appears to be done with young adults (e.g., Gross & John, 2003) outside of the work done by Zeman and her colleagues (2001). There is a need to better understand the use of emotion inhibition in the adolescent population.

#### Parental Emotion Invalidation and Emotion Inhibition

The idea that parental unsupportive reactions to children's negative emotions are linked with children's inhibition of emotions is not new. Buck (1984), Linehan (1993), and John and Gross (2004) hypothesized that negative responses to emotional displays

results in children's tendency to hide their expressions of emotion from others. However, there have been few empirical studies that have examined the relation between parental responses to emotion and emotion inhibition. A notable exception in this regard is a study done by Krause and colleagues (2003). Specifically, they examined whether childhood emotional invalidation (e.g., parental punishment, minimization, and distress/magnification) was associated with emotion inhibition in adulthood, and whether emotion inhibition mediated the relationship between childhood emotional invalidation and depression. They found that minimization of emotions and punishment of emotions were associated with emotion inhibition and that the relationship between the unsupportive reactions and depression was mediated by emotion inhibition.

# Emotion Inhibition and Depression

One form of psychopathology that has been linked with the inhibited expression of emotion is depression (Gross & John, 2003; Zeman et al., 2001). Gross & John (2003) found that the inhibiting of one's emotional expression was linked with higher scores of depression on three different measures. When specifically examining the relation between the inhibition of sadness and depression, Zeman and her colleagues (2001) found that children's inhibition of sadness was associated with higher scores on the Child Depression Inventory. Another study (Keenan, Hipwell, & Babinski, 2009) found that among adolescent girls, the inhibited expression of sadness was more highly associated with depression than even the disinhibited expression of sadness. Disinhibited expressions are expressions that are intense and/or long-lasting, and are thought to reflect a core deficit in the modulation of emotion in response to environmental stimuli (Keenan et al., 2009).

There are several possible mechanisms by which emotion inhibition may be linked with the development of depression. Research (e.g., Gross & John, 2003) has shown that emotion inhibition is associated with decreased emotional and social competence. Being able to express one's emotion in a culturally appropriate way is healthy to one's social and emotional functioning (Cole et al., 1994). Those who inhibit their negative emotions appear to have a decreased ability in coping effectively with their negative emotions (Zeman et al., 2001). Emotion inhibition is associated with mood lability, and increased emotional arousal (Gross & Levenson, 1997; Zeman et al., 2001), which increases one's chance of suffering from depression (Silk et al., 2003). According to Gross and John (2003), emotion inhibition is positively correlated with depression because those who inhibit their expression also tend to experience more dysphoria, receive less social support, and cope less effectively. All these factors increase one's risk for depression (Nolen-Hoeksema & Morrow, 1991). Inhibiting one's emotions also seems to reflect one's sense of well-being on many different levels (Gross & John, 2003). Gross and John (2003) found that those who inhibit their emotions tended to feel less optimistic about their future, had lower self-esteem, felt less satisfaction with their life, felt less environmental mastery, less autonomy, less personal growth, less purpose in life, and less self-acceptance. Perhaps, when one does not hold oneself in high regard and feels pessimistic about their future, he or she will probably start to have feelings of hopeless and helplessness.

#### Rumination

Rumination can be defined as a mode of thinking that involves repetitively focusing on one's depressed mood and its meanings, causes and consequences (Nolen-Hoeksema,

1991). According to Nolen-Hoeksema's (1991) Response Style Theory, there are individual differences in people's propensity to engage in rumination in response to a depressed mood, and this propensity is relatively stable. In support of her theory, rumination's stability has demonstrated significant retest reliability on the Response Styles Questionnaire (Just & Alloy, 1997; Nolen-Hoeksema, 2000). The construct of rumination can also be placed in the broader context of emotion regulation (Smith & Alloy, 2009). In Gross's (2001) process model which categorizes each emotion regulation strategy according to which point it occurs in the emotion-generative process, rumination is conceptualized as an attentional deployment strategy. An attentional deployment strategy is an emotion regulation strategy used to direct one's attention in a certain way in order to influence one's emotions. Some examples are concentration and distraction. Rumination can be classified as an attentional deployment strategy in that it involves the repetitive direction of attention to one's feelings of sadness and their consequences, and people claim to use it to cope and manage their depressed mood (Spasojevic & Alloy, 2001).

A growing body of research has indicated there are two subtypes of rumination: brooding and reflection (e.g., Treynor, Gonzalez, & Nolen-Hoeksema, 2003). The latter subtype of rumination is considered to be adaptive; whereas the former is regarded as maladaptive (Treynor et al., 2003). According to Treynor and her colleagues (2003), they defined brooding as passively focusing on the discrepancies between one's current situation and one's desired state. The second form of rumination, reflective pondering, involves reflectively and purposely "turning inward to engage in cognitive problem solving to alleviate one's depressive symptoms" (Treynor et al., 2003, p. 256). According

to Nolen-Hoeksema and her colleagues (2008), when a ruminator passively focusing on one's mood without taking any action, one may think one is gaining insight into his or her problems. However, the person is in actuality unconsciously avoiding the aversive situation, and is shirking his or her responsibility to take active steps to resolving the problem (Nolen-Hoeksema et al., 2008). Because of this, some researchers conceptualize rumination as being a form of avoidance coping (Smith & Alloy, 2009).

Age appears to play an important role in the usage of rumination as an emotion regulation strategy. In the multi-analytic analysis done by Rood and her colleagues (2009) the effect sizes for rumination were larger in adolescents in comparison to children. Research (e.g., Abela, Brozina, & Haigh, 2002) has shown that the use of rumination as a regulation strategy seems to increase from late childhood through adolescence. One suggestion is that children have yet to develop a coping style that is stable in nature (Abela et al., 2002).

Rumination as an emotion regulation strategy is associated with impairment in emotional and social competence. Rumination is associated with difficulties in expressing and identifying feelings, ineffective problem orientation, low inhibition of hostility, and high impulsivity (Ciarrochi et al., 2003). People who ruminate also tend to take a sense of helplessness over one's circumstances, feel an undue responsibility for others' emotional needs in close relationships and engage in more avoidance/escapist behavior (Nolen-Hoeksema et al., 2008).

#### Parental Emotion Invalidation and Rumination

Even though unsupportive parental responses to children's negative emotions has been linked with avoidant coping strategies (Eisenberg et al., 1996), there have not been

many empirical studies that have specifically looked at parental responses in relation to the strategy of rumination. One study (Goldman, 2005) that did examine rumination in relation to parent responses found that maternal unsupportive reactions (punitive/neglectful) towards adolescents' displays of sadness predicted higher adolescent rumination. Fathers' unsupportive reactions in addition to magnifying/distress reactions also predicted higher adolescent rumination. Goldman (2005) suggested that one explanation for why parental socialization of emotion is linked to rumination is that parents' unsupportive reactions result in children's decreased sadness expression accompanied by increased negative arousal about which one might ruminate.

#### *Emotion Inhibition and Rumination*

Even though research has consistently linked both emotion inhibition and rumination to depression, not many empirical studies have looked at emotion inhibition and rumination in relation to each other. According to most of the research that has been done (Gross & John, 2003; King et al., 1992) emotional inhibition has been found to be positively correlated with rumination. Gross and John (2003) hypothesized that individuals who chronically inhibit their emotional expressions ruminate more when in a depressed mood because expressing emotions has the potential to change the environment and allow for social support. Thus if one suppresses his or her emotions, it becomes less likely that the situations that upset the individual will change for the better. *Rumination and Adolescent Depression* 

In the developmental research, both cross-sectional and longitudinal studies have been conducted in order to examine the relationship between rumination and adolescent depression. Conducting both types of studies is important, because according to theories such as the Response Style Theory (Nolen-Hoeksema, 1991), rumination is associated with the maintenance as well as the exacerbation of depressive symptoms over time. In one meta-analytic study (Rood et al., 2009) that looked at both cross-sectional and longitudinal studies, a significant association was found between rumination and depression concurrently as well as longitudinally. The results from the meta-analytic review (Rood et al., 2009) also indicated that when the baseline levels of depressive symptoms were controlled for, there was still a strong association between rumination and depression, which is in agreement with Nolen-Hoeksema's (1991) argument that rumination is a stable response style. In those studies (i.e., Burwell & Shirk, 2007) in which both subtypes of rumination were examined in association with depression, reflection was found to be positively associated with depressive symptoms concurrently, but not longitudinally. On the other hand, brooding was found to be positively correlated to depression concurrently as well as over time in adolescent samples (Burwell & Shirk, 2007).

In the literature, several models have been introduced to explain the mechanisms by which rumination leads to depression. The most cited one is by Nolen-Hoeksema (1991). According to Nolen-Hoeksema (1991)'s Response Style Theory, rumination can lead to the exacerbation and the prolonging of depressive symptoms through heightening the effect of a depressed mood by the way of triggering negative thoughts and memories, interfering with problem solving (due to pessimistic or fatalistic thinking), and interfering with daily instrumental behavior, which then leads to increasing conditions of stress. Also chronic rumination is associated with the loss of social support, which will also increase one's vulnerability to depression (Nolen-Hoeksema & Davis, 1999). All these factors

make it more likely that any initial feelings of a depressed mood will develop into a depressive episode (Nolen-Hoeksema et al., 2008).

### Present Study

There is a need to increase the understanding of interrelated factors linked to the development of adolescent depression. The purpose of the study was to test a conceptual model for understanding depression, via path analysis, that incorporated parental emotion invalidation, emotion inhibition, and rumination. Separate path models for adolescent and parent- reports were conducted. A "combined" path model which averaged the scores from both the parent and adolescent reports was also examined.

It was hypothesized that parental emotion invalidation would have an indirect impact on depression by influencing emotion inhibition, which in turn influences rumination, which is most proximately related to adolescent depression. It was also hypothesized that emotion inhibition would directly and indirectly (via rumination) affect the level of depression experienced. Finally, it was hypothesized that rumination would influence the severity of depressive symptoms experienced directly.

### Methodology

#### Participants and Procedures

Data for the present study were taken from a larger study that investigated emotion-related family processes. The study was approved by the Institutional Review Board at the University of Memphis. Participants were 77 adolescents and one of their parents/caregivers. Approximately 32% of the adolescent participants were boys and 79% of adolescent participants self-identified as African American. 91% of the parental participants were female caregivers to the adolescent, while the other 9% were male

caregivers. The mean age of the adolescent participants was 13.8 years, and the mean age of the parental participants was 39.9 years. In terms of family structure, 29 % of the adolescent participants lived with both biological parents, 30% lived with a single biological parent, 20% lived with their biological mother and stepfather, 4% lived with their biological father and stepmother, 2% lived with their adoptive mother or adoptive mother and father, and 4% lived with their grandparents or grandparent. In terms of the maternal caregiver's education, 8% did not graduate from high school, 17% received a high school diploma or GED, 15% attended some college or received some vocational training, 12% obtained a degree or certificate from an apprenticeship or vocational school, 14% obtained a two year college degree, 17% received a four year college degree, and 16% obtained a masters or doctorate degree. In regards to the paternal caregiver's education, 15% did not graduate from high school, 24% received a high school diploma or GED, 21% attended some college or received some vocational training, 5% obtained a degree or certificate from an apprenticeship or vocational school, 5% obtained a two year college degree, 19% received a four year college degree, and 9% obtained a masters degree or doctorate.

Participants were recruited through flyers at middle schools and community centers in Shelby County. The flyers requested that interested students should have their parents contact the research group for more information and schedule an appointment for the assessment. During the assessment session, adolescents completed a questionnaire battery administered by trained psychology graduate students in the University of Memphis Child and Family Lab or at the community center either individually or in a group setting. Parents completed a questionnaire battery administered by trained graduate students in

the lab or at home individually. Before completing the assessment batteries, the adolescents and the parents read and signed a consent form indicating their consent.

Measures

*Demographics*. Participants provided general demographic (e.g., biological sex, age, and race/ethnicity) and family background (e.g., maternal and paternal education level) information. (see Appendixes G and H).

Parental emotion invalidation. Parental emotional invalidation was assessed via adolescent (see Appendix I) and parental report (see Appendix J) using the Emotion Socialization Scale of the Emotions as a Child Scales (EAC; O'Neal & Magai, 2005) which measures five domains of socialization (punish, reward, neglect, override, and magnify) in relation to four different emotions (sadness, anger, fear, shame). For the purpose of the proposed study, only the punishment and neglect subscales were used, and these subscales were combined to make up the "parental emotion invalidation" scale. Also, only the 16 items related to sadness were used. For each item, adolescents were asked to rate on a 5-point Likert scale (Never to Very Often) how often a parent responds in a particular way to their emotions of sadness (e.g., When I'm sad, my parent comforts me). Parents were also asked to rate on a 5-point Likert scale on how they respond to their children's displays of sadness (When my teen is sad, I get all upset).

The "parental emotion invalidation" scale was adequate in terms of internal consistency for the adolescent ( $\alpha = .61$ ) and parent ( $\alpha = .77$ ) self-report.

Emotion inhibition of sadness. Adolescent sadness inhibition was assessed via parental report using the 8-item sadness inhibition subscale of *The Children's Sadness Scale* (Zeman et al., 2001; see Appendix K). The parents were asked to indicate how

frequently their children hid or held in their feelings of sadness. The parents responded on a 4-point Likert scale (1 = almost never; 4 = almost always). The internal consistency for the sadness inhibition subscale was high ( $\alpha$  = .89).

Emotion inhibition. Adolescent emotion inhibition was measured using *The Emotional Expressivity Scale* (EES; Kring, Smith, & Neale, 1994; see Appendix L), a 17-item self-report measure of individual differences in the tendency to freely express emotions rather than mask them (Gross & John, 1998). The EES has been found to be highly reliable and internally consistent (Kring et al., 1994). The internal consistency for the EES was high ( $\alpha = .83$ ).

Rumination. Five items from the self-report 10-item version (Treynor et al., 2003; see Appendix M) of the Ruminative Responses Scale (Nolen-Hoeksema & Morrow, 1991) was used to assess the adolescents' tendency to ruminate in response to feelings of dysphoria. Even though the ten item measure consists of two subscales: reflective pondering and brooding, only the brooding subscale was used because brooding rather than reflective pondering is associated with depression longitudinally (Treynor et al., 2003). The brooding subscale consists of five questions that assess the degree to which individuals passively focus on their negative emotions and the causes of their negative mood. Adolescents rated on a 4-point Likert scale (0 = never; 4 = always) to what extent each statement reflected their own thinking patterns. The internal consistency for the subscale of brooding was .63.

Adolescent Depression. Adolescents completed the widely used, well-established 110-item *Youth Self Report* (YSR; Achenbach, 1991) to assess internalizing (e.g., anxiety, somatic complaints) and externalizing (e.g., aggressive) symptoms (See

Appendix N). Parents completed the 110-item *Child Behavior Checklist* (CBCL; Achenbach, 1991; see Appendix O) which is the parent equivalent of the YSR. Participants rated behaviors that occurred over the last 6 months on a 3 point scale (0 = not true; 2 = very true/often true; e.g., "I disobey at school," "I am too fearful or anxious," "I feel worthless or inferior"). For the purpose of this study, only questions that assessed anxious depression were used.

#### Results

### Descriptive and Correlation Analyses

Descriptive statistics (means, standard deviations, ranges, skew, and kurtoses) and zero-order correlations among the study variables are shown in Table 1 in Appendix A. As shown, for the adolescent report measures, findings indicated significant associations between emotion invalidation and emotion inhibition, emotion inhibition and depression, emotion invalidation and depression, and rumination and depression. For the parent report measures, the only association that matched the hypothesized model was the significant association found between emotion inhibition and adolescent depression.

Also, as shown in Table 1 in Appendix A, there were no significant associations between adolescent report measures and parent report measures outside of the two measures assessing the construct of adolescent inhibition of emotions.

To determine if sex was related to any of the study's variables, point-biserial correlations were conducted. Findings indicated that emotion inhibition was the only variable for which the scores for boys and girls significantly differed. Boys reported significantly more emotion inhibition than girls in the sample, which is consistent with previous research (e.g., Gross & John, 2003).

#### Path Analyses

In order to test the indirect and direct relations between the variables of parental emotion invalidation, emotion inhibition, rumination, and adolescent depression, path analyses were conducted using M*Plus* Version 3.13 (Muthen & Muthen, 1998-2004). Maximum likelihood (ML) estimation was used. Separate path analyses were conducted for the adolescent-report, parent-report, and combined models. The adolescent-report model consisted of four variables: parental emotion invalidation as reported by the adolescent, general emotion inhibition as measured by *The Emotional Expressivity Scale*, which is adolescent self-report, rumination as reported by the adolescent, and adolescent depression as reported by the adolescent. For the parent-report model, the four variables included were parental emotion invalidation as reported by the parent, the inhibition of sadness as reported by the parent, rumination as reported by the adolescent, and adolescent depression as reported by the parent. Finally, for the combined model, the variables included were parental emotion invalidation, which was the average of the scores from both the adolescent-report and parent-report models, emotion inhibition, which was the average of the general emotion inhibition score and sadness inhibition score, rumination as reported by the adolescent, and adolescent depression, which was the average of the depression scores from the adolescent-report and parent-report models.

When testing a hypothesized model according to structural equation modeling, fit indices are used to evaluate whether a model is considered an acceptable fit. A model is considered an acceptable fit if the chi-square test is not significant (Schumacker & Lomax, 2004), the Root Mean Square Error of Approximation (RMSEA) is less than 0.05 (Schumacker & Lomax, 2004) the Standardized Root Mean Square Residual (SRMR) is

less than 0.08 (Browne & Cudeck, 1993), and the Comparative Fit Index (CFI) exceeds .93 (Byrne, 1994).

For the adolescent-report model (see Figure 2 in Appendix D), findings indicated that the model provided an excellent fit to the data  $(\chi 2 [1], N = 77) = 0.001, p = .97$ ; RMSEA = .00; SRMR = .00; CFI = 1.0. This model explained 6% of the variance in emotion inhibition, 25% of the variance in depression, and 0% of the variance in rumination. With regard to specific parameters (see Figure 2), emotion invalidation of sadness was associated with emotion inhibition ( $\beta = .25, p < .05$ ). More specifically, parents who neglected or punished their adolescents' expressions of sadness were more likely to have adolescents who inhibited their expressions of emotion. Adolescents' inhibition of emotion was associated with symptoms of depression ( $\beta = .22, p < .05$ ). In other words, adolescents who inhibited their emotional expressions were more likely to have symptoms of depression. Adolescents' rumination was also associated with symptoms of depression ( $\beta = .31, p < .01$ ). In other words, adolescents who used rumination as an emotion regulation strategy were more likely to experience depressive symptoms. Parents' emotional invalidation of adolescents' sadness also was associated with symptoms of adolescent depression ( $\beta = .29$ , p < .05). In other words, when parents neglected or punished their adolescents' expression of sadness, the adolescents were more likely to have symptoms of depression. No statistically significant relationship was found between emotion invalidation and rumination ( $\beta = -.04$ , n. s.).

Indirect effects were examined to test whether emotion inhibition mediated the relation between emotion invalidation and symptoms of depression. Findings indicated that there was no statistically significant indirect effect between parental invalidation of

sadness and depression via emotion inhibition ( $\beta$  = .06, n. s.). There was also no statistically significant indirect effect between parental invalidation of sadness and depression via rumination ( $\beta$  = -01, n. s.).

For the parent-report model (see Figure 3 in Appendix E), findings indicated that the model provided a relatively good fit to the data ( $\chi 2$  [1], N = 77) = 1.587, p = .21; RMSEA = .00; SRMR = .05; CFI = 1.0. This model explained 3% of the variance in emotion inhibition, 11% of the variance in depressive symptoms and 1% of the variance in rumination. With regard to specific parameters, emotion invalidation of sadness was not associated with emotion inhibition ( $\beta = -.16$ , n. s.). There was no statistically significant relation found between emotion invalidation and rumination ( $\beta = -.10$ , n. s.). However, significant relations were found between emotion inhibition and depression ( $\beta = .22$ , p < .05) and emotion invalidation and depression ( $\beta = .22$ , p < .05). Contrary to predictions, rumination was not associated with depression ( $\beta = .05$ , n. s.). When indirect effects were examined, there were no significant effects found from parental invalidation of sadness to depression through emotion inhibition ( $\beta = -.05$ , n. s.) nor through rumination ( $\beta = -.01$ , n. s.) as contrary to expectations.

For the mixed adolescent and parent-report model (see Figure 4 in Appendix F), findings indicated that the model provided a good fit to the data (x2 [1], N = 77) = 0.022, p = .88; RMSEA = .00; SRMR = .06; CFI = 1.0. This model explained 2% of the variance in emotion inhibition, 24% of the variance in anxious depression, and 0% of the variance in rumination. With regard to specific parameters (see Figure 2), emotion invalidation of sadness was not related to emotion inhibition ( $\beta = .15$ , n. s.). No statistically significant relation was found between emotion invalidation and rumination

 $(\beta = -.09, \text{ n. s.})$  or emotion inhibition and rumination  $(\beta = .02, \text{ n. s.})$ . However, adolescent emotion inhibition was related to depression  $(\beta = .20, p < .05)$  in accordance with the hypothesized model. Adolescents' rumination was also associated with symptoms of depression  $(\beta = .34, p < .01)$ . Parents' emotional invalidation of adolescents' sadness also was related to symptoms of adolescent depression  $(\beta = .30, p < .05)$ .

When indirect effects were examined, findings indicated that there was no statistically significant indirect effect between parental invalidation of sadness and depression via emotion inhibition ( $\beta$  = .03, n. s.). There was also no statistically significant indirect effect between parental invalidation of sadness and depression via rumination ( $\beta$  = -0.3, n. s.).

# Post-Hoc Analyses

Follow-up analyses which results are shown in Table 2 in Appendix B, were also conducted to see if there were any gender differences in correlations between some of the study variables. For the adolescent-report measures, emotion invalidation was linked with emotion inhibition for adolescent girls (r = .30, p < .05), but not their male counterparts (r = .15, n. s.). However, in regards to the relation between emotion inhibition and rumination, the relationship was more significant for the boys (r = .36, p < .10) than for the girls (r = -.18, n. s.). Finally, there was a significant association between rumination and depressive symptoms for boys (r = .43, p < .05), but not for girls (r = .24, n. s.) according to the adolescent-report measures.

#### Discussion

# Major Findings and Implications

The present study tested a conceptual model that incorporated parental emotion invalidation, emotion inhibition, and rumination as risk factors for adolescent depression. This study adds to the current literature by examining two aspects of emotion regulation simultaneously in relation to adolescent depression. The study also investigated predictors of emotion regulation, which has recently become a topic of interest in the literature. It is also one of few studies that focuses on emotion socialization during the period of adolescence.

There were several important findings in the present study. One important finding was that parental emotion invalidation, emotion inhibition, and rumination all made unique contributions to the prediction of adolescent depression. In other words, each one of these variables was significantly associated with adolescent depression. This discovery signifies that parental emotion invalidation, emotion inhibition, and rumination should all be considered relevant when investigating a potential model of adolescent depression that involves these three constructs. The discovered association between parental emotion invalidation and adolescent depression is consistent with the existing literature that has found that the parental invalidation of sadness is strongly related to internalizing symptoms in adolescents (Magai & O'Neal, 2005). This finding also builds upon that literature by linking the invalidation of sadness specifically with the symptoms of adolescent depression.

In the current study, the inhibited expression of sadness was associated with depressive symptoms. This finding is important because the majority of research

conducted on the relation between the inhibition of sadness and depression has been done on children rather than adolescents (Zeman et al; 2001). The inhibition of general emotion was also linked to depressive symptoms. This finding contributes to the growing literature showing the association of emotion inhibition and depression in adolescents (e.g., Gross & John, 2003).

The brooding subtype of rumination was also found to be significantly associated with depressive symptoms. This finding adds to the current knowledge by linking the brooding subtype of rumination specifically to adolescent depression (e.g., Burwell & Shirk, 2007). This study's finding also extends the existing literature by linking brooding with depression in a predominately African American adolescent sample. Expanding the literature by using a predominately African American sample is important in that most studies have looked at predominately Caucasian American samples, and it is important to examine these constructs across diverse ethnic groups. These results suggest that rumination as an emotion regulation strategy is one possible risk factor of depression among adolescents.

Another important finding was that parental emotion invalidation and emotion inhibition were strongly related. This finding is consistent with previous literature that delineates this association between parental emotion invalidation and emotion inhibition (Krause et al., 2003). The finding also adds to the literature by linking emotion invalidation with emotion inhibition in an adolescent as well as predominately African-American sample. Perhaps this relation occurs because children might begin inhibiting their emotions as a way to protect themselves from future negative reactions of their parents if they have received unsupportive reactions in the past (Krause et al., 2003). For

example, a child might suppress his or her feelings of sadness if his or her parents have reacted to displays of sadness with mocking in the past, and the child does not want it experience this mocking in the future. Children might also suppress their emotions because they accept their parents unsupportive responses to their emotions as valid, and therefore their emotions as wrong and not worthy of expression (Gottman, 1997).

In contrast to Goldman's (2005) finding, no significant relation was found between emotion invalidation and rumination. One interpretation of why no significant relationship was found could be due to the heterogeneous nature of our sample in terms of family structure. In Goldman's study, the large majority of the adolescents currently lived with their biological parents, whereas in our study, only a quarter of our sample did, with the majority of children living with their biological mothers. When just analyzing the data of the adolescents who lived with their biological parents, a significant relationship was found between emotion invalidation and rumination (r = .43, p < .05). This finding is consistent with that of Goldman's study. Perhaps a significant relation was not found between emotion invalidation and rumination for those adolescents who lived with just their biological mothers because mothers who are single are more likely to encourage more active ways of coping than the passive style of rumination because of the many demands they have to face in being single parents.

Even though both emotion inhibition and rumination were found to be related to depression in adolescents, they were not correlated with each other. Perhaps the relationship between emotion inhibition and rumination was not as strong as originally hypothesized because each may involve different emotional competencies. Emotion inhibition involves the ability to actively modulate one's behavioral reactions to one's

emotions in the presence of others while rumination involves a passive self-focusing on one's symptoms, causes, and consequences of one's depressed mood. Thus, one could argue that emotion inhibition as a regulation strategy requires much more active cognitive control than does the strategy of rumination even though research shows that both strategies deplete mental resources and negatively affect one's memory.

Another reason why no relation was found could be due to limitations in methodology in regards to the measures used to measure the construct of emotion inhibition. The limitation of the *Emotion Expressivity Scale* was that it did not specify strongly with rumination, which also involves sadness. As for the CSAMS, which did specifically measure the inhibition of sadness, the measure was parent-report rather than child report, which is a problem in that the literature shows that children are the best at identifying their own emotions.

One final possibility is that current measures of emotion inhibition do not tease out the component of emotion inhibition that is the most strongly related to rumination (e.g., problems with resource allocation). As mentioned earlier, emotion inhibition requires a lot of effort on the part of the inhibitor by imposing a cognitive load on its users. The development of new measures may be needed to test whether the resource allocation piece of emotion inhibition will cause effortful emotion inhibition and rumination to become more correlated rather than less so.

Surprisingly, findings suggested that there was not a significant indirect pathway from emotion invalidation to depression via emotion inhibition. In other words, emotion inhibition did not mediate the relation between emotion invalidation and depression. This finding is inconsistent with previous literature that links emotion inhibition as mediating

the relationship between negative parental socialization of emotion and internalizing disorders such as depression, anxiety, and eating disorders (Krause et al., 2003). One explanation for why this happened could be due to the *Emotional Expressivity Scale* not being emotion-specific. If this emotion inhibition scale was specific to sadness, perhaps its association with emotion invalidation of sadness would have been stronger; thus making it more likely that a significant indirect relationship existed.

The aforementioned findings were based mainly via adolescent report model. The parent report findings were similar in some ways in comparison to the adolescent findings, but different in others. The two aspects that were consistent with each report were that emotion inhibition was associated with depression, and that emotion invalidation was linked to depression. However, emotion invalidation was not linked with emotion inhibition nor was rumination linked with depression according to the parent report findings. Parental report emotion invalidation was also not associated with adolescent report emotion invalidation. Perhaps this finding was also somewhat due to parents' reports of their responses to their children's expressions often being influenced by what they think they should do rather than what they actually do (Klimes-Dougan & Zeman, 2007).

#### Limitations and Recommendations for Future Research

The present study had a couple other limitations that have not been mentioned previously. One limitation was that the sample was heterogeneous in terms of family composition. In other words, most families did not consist of biological parents being married to each other, but instead consisted of many single mothers, one parent and a step-parent, and one or both grandparents. Another limitation was that the design of the

study was cross-sectional rather than longitudinal. If the design was longitudinal, it would be possible to test whether the different constructs examined were actual predictors of one another. Future research should thus incorporate this type of experimental design. Thirdly, even though it was strength of study to have such a large African-American sample, it would have been better to have a notable representation from other ethnic groups as well in order to compare the results with those results from previous studies, as well as compare the results among the study's ethnic groups. Future research should thus have a notable representation from several different ethnic groups in order to achieve this goal.

Finally, if there had been a larger sample of boys, then it would have been possible to test for gender as a moderator between variables in the study. Gender differences were apparent when examining the relationship between parental emotion invalidation and emotion inhibition, the relationship between rumination and depression, and the relationship between emotion inhibition and rumination according to sex.

However, because the study's sample was not large enough, it's hard to draw any firm conclusions from these results. Future research should incorporate using larger sample sizes for this purpose. Interestingly, though, there was an almost significant relationship between emotion inhibition and depression for the boys, but not the girls. Even though these results are in contradiction with Gross and John (2003)'s study which found that there is a significant relationship between the two constructs among a sample of both men and women, they are not in contradiction with one study that found no significant relationship among a sample of all women (Moore et al., 2008). Perhaps, emotion inhibition has a stronger relationship with rumination among boys than girls because

emotion expression is less likely to lead to social support among boys due to gender role expectations, whereas people's reactions to girls' displays of sadness may be more variable.

#### Conclusion

The present study's primary aim was to test a conceptual model that examined the complex relations among emotion socialization, emotion regulation, and adolescent depression. The current study aimed to examine multiple components of emotion regulation in relation to adolescent depression as well as each other. The study also incorporated emotion socialization as an important contributor to emotion regulation as well as depressive outcomes. The study suggests that even though rumination and emotion inhibition are both related to depression, they are not related to each other, and that emotional invalidation is differentially related to emotion inhibition in comparison to rumination. The reasons for these results are not readily apparent, however, the next step would be to tease out the factors that make up emotion inhibition and rumination. Although more research is needed to examine all the relations between all the constructs of interest, the study provides a useful framework for studying multiple components of emotion regulation, emotion socialization and adolescent depression. The contribution of this study is significant in that it supports existing research as well as provides initial empirical support for the relationship between specific forms of emotion socialization and adolescent depression.

#### References

- Abela, J., Brozina, K., & Haigh, E. (2002). An examination of the Response Styles

  Theory of depression in third and seventh grade children: A short term

  longitudinal study. *Journal of Abnormal Child Psychology*, 30, 515-527.
- Achenbach, T. M. (1991). *Integrative guide for the 1991 CBCL/4–18, YSR, and TRF profiles*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Buck, R. (1984). The communication of emotion. New York: Guilford.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newsbury Park, CA: Sage.
- Byrne, B. M. (1994). Structural equation modeling with EQS and EQS/Windows.

  Thousand Oaks, CA: Sage Publications.
- Burwell, R. A., & Shirk, S. R. (2007). Subtypes of rumination in adolescence:

  Association between brooding, reflection, depressive symptoms, and coping. *Journal of Clinical Child and Adolescent Psychology*, *36*, 56-65.
- Ciarrochi, J., Scott, G., Deane, F. P., & Heaven, P. C. L. (2003). Relations between social and emotional competence and mental health: A construct validation study.

  \*Personality and Individual Differences, 35, 1947-1963.
- Cole, P., Michel, M., & Teti, L. (1994). The development of emotion regulation and

- dysregulation: A clinical perspective. *Monographs of the Society for Research in Child Development*, *59*, 73–100.
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, *9*, 241-273.
- Eisenberg, N., Cumberland, A., Spinrad, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., Murphy, B. C., Losoya, S. H., & Guthrie, I. K. (2001). The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. *Child Development*, 72, 1112-1134.
- Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1996). Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behaviors. *Child Development*, 67, 2227-2247.
- Garside, R. B., & Klimes-Dougan, B. (2002). Socialization of discrete negative emotions: Gender differences and links with psychological distress. *Sex Roles*, *47*, 115-128.
- Goldman, J. L. (2005). *Parent socialization of adolescent rumination*. Unpublished doctoral dissertation, American University, Washington, D.C.
- Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion structure and the emotional life of families: Theoretical models and preliminary analyses. *Journal of Family Psychology*, 10, 243-268.
- Gottman, J. M., Katz, L. F., & Hooven, C. (1997). *Meta-emotion: How families* communicate emotionally. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Gratz, K., & Roemer, L. (2004). Multidimensional Assessment of Emotions Regulation and Dysregulation: Development, Factor Structure, and Initial Validation of the

- Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, 26, 41-54.
- Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science*, 10, 214-219.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.
- Gross, J.J., & Levenson, R.W. (1997). Hiding feelings: The acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology*, *106*, 95-103.
- Hammen, C., & Rudolph, K. D. (2003). Childhood mood disorders. In E.J. Mash & R.A. Barkley (Eds.), *Child psychopathology* (pp. 233-278). New York: The Guilford Press.
- Hampel, P., & Petermann, F. (2005). Age and gender effects on coping in children and adolescents. *Journal of Youth and Adolescence*, *34*, 73–83.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Hunziker, J. (1995). Attachment, emotion socialization, and social competence.Unpublished doctoral dissertation, Long Island University, Brooklyn, N.Y.
- Izard, C. E., & Malatesta, C. Z. (1987). Perspectives on emotional development
  : I. Differential emotions theory of early emotional development. In J. D. Osofsky
  (Ed.), Handbook of infant development (2nd ed., pp. 494–554). New York: Wiley.

- Jaycox, L. H., Stein, B. D., Paddock, S., Miles, J. N., Chandra, A., Meredith, L. S., ... Burnam, M. A. (2009). Impact of teen depression on academic, social, and physical functioning. *Pediatrics*, *124*, 596-605.
- John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and lifespan development. *Journal of Personality*, 72, 1301-1334.
- Just, N., & Alloy, L. B. (1997). The response styles theory of depression: Tests and an extension of the theory. *Journal of Abnormal Psychology*, *106*, 221-229.
- Keenan, K., Hipwell, A., Hinze, A., & Babinski, D. (2009). Equanimity to excess: Inhibiting the expression of negative emotion is associated with depression symptoms in girls. *Journal of Abnormal Child Psychology*, *37*, 739-747.
- King, L. A., & Emmons, R. A. (1990). Conflict over emotional expression: Psychological and physical correlates. *Journal of Personality and Social Psychology*, 58, 864-877.
- King, L. A., Emmons, R. A., & Woodley, S. (1992). The structure of inhibition. *Journal of Research in Personality*, 26, 85-102.
- Klimes-Dougan, B., & Zeman, J. (2007). Introduction to the special issue of Social Development: Emotion socialization in childhood and adolescence. *Social Development*, 16, 203-209.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford.

- Krause, E. D., Mendelson, T., & Lynch, T. R. (2003). Childhood emotional invalidation and adult psychological distress: The mediating role of emotional inhibition. *Child Abuse and Neglect*, 27, 199-213.
- Kring, A. M., Smith, D. A., & Neale, J. M. (1994). Individual differences in dispositional expressiveness: Development and validation of the emotional expressivity scale. *Journal of Personality and Social Psychology*, 66, 934-949
- Lei, P., & Wu, Q. (2007). Introduction to structural equation modeling: Issues and practical considerations. *Educational Measurement: Issues and Practice*, 26 (3), 33-43.
- Linehan, M. M. (1993). *Cognitive-behavioral treatmen t of borderline personality disorder*. New York: The Guilford Press.
- Malatesta, C. Z., & Wilson, A. (1988). Emotion /cognition interaction in personality development: A discrete emotions, functionalist analysis. *British Journal of Social Psychology*, 27, 91–112.
- Moore, S. A., Zoellner, L. A., & Mollenholt, N. (2008). Are Expressive suppression and cognitive reappraisal associated with stress-related symptoms? *Behaviour, Research, and Therapy*, 46, 993-1000.
- Nolen-Hoeksema, S. (2000). The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. *Journal of Abnormal Psychology*, 109, 504–511.
- Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology*, *100*, 569-582.
- Nolen-Hoeksema, S., & Davis, C. G. (1999). "Thanks for sharing that": Ruminators and their social support networks. *Journal of Personality and Social Psychology*, 77, 801-814.

- 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,* 115-121.
- O'Neal, C.R., & Magai, C. (2005). Do parents respond in different ways when children feel different emotions? The emotional context of parenting. *Development and Psychopathology*, 17, 467-487.
- Parke, R. D. (1994). Progress, paradigms, and unresolved problems: Recent advances in our understanding of children's emotions. *Merrill-Palmer Quarterly*, 40, 157-169.
- Richards, J. M., & Gross, J. J. (2000). Emotion regulation and memory: The cognitive costs of keeping one's cool. *Journal of Personality and Social Psychology*, 79, 410–424.
- Rood, L., Roelofs, J., Bögels, S. M., Nolen-Hoeksema, S., & Schouten, E. (2009). The influence of emotion-focused rumination and distraction on depressive symptoms in non-clinical youth: A meta-analytic review. *Clinical Psychology Review*, 29, 607-616.
- Schumaker, R.E., & Lomax, R. G. (2004). *A Beginner's Guide to Structural Equation Modeling*. 2<sup>nd</sup> edition. Mahwah, NJ: Lawrence Erlbaum Associates.
- Silk, J. S., Steinberg, L., & Morris, A. S. (2003). Adolescents' emotion regulation in daily life: Links to depressive symptoms and problem behavior. *Child Development*, 74, 1869-1880.
- Smith, J.M., & Alloy, L. B. (2009) A roadmap to rumination: A review of the definition, assessment and conceptualization of this multifaceted construct. *Clinical Psychology Review*, 29, 116-128.

- Spasojevic, J., & Alloy, L. B. (2001). Rumination as a common mechanism relating depressive risk factors to depression. *Emotion*, *1*, 25–37.
- Srivastava, S., Tamir, M., McGonigal, K. M., & John, O. P. (2009). The social costs of emotional suppression: A prospective study of the transition to college. *Journal of Personality and Social Psychology*, *96*, 883-897.
- Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics*, 4<sup>th</sup> edition. New York: Harper Collins College Publishers.
- Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S. (2003). Rumination Reconsidered: A Psychometric Analysis. *Cognitive Therapy and Research*, 27, 247–259.
- Zeman, J., Shipman, K., & Penza-Clyve, S. (2001). Development and initial validation of the children's sadness management scale. *Journal of Nonverbal Behavior*, 25, 187-205.

Appendix A

Table 1

Descriptive Statistics and Zero-Order Correlations among Measures

Measure	1	2	3	4	5	6	7
Adolescent Report							
1. Emotion							
Invalidation							
2. Emotion Inhibition	.25*						
3. Brooding	03	01					
Rumination							
4. Adolescent	.33**	.29*	.30**				
Depression							
Parent Report							
5. Emotion	.04	01	10	.10			
Invalidation							
6. Sadness Inhibition	.12	.31**	.16	.11	16		
7. Adolescent	.09	.05	.07	.08	.17	.26*	
Depression							
Mean	00	00	00	00	.00	00	00
SD	.99	.99	.99	.99	.99	.99	.99
Range (Min)	-1.24	-1.95	-2.11	-1.44	-1.32	-1.55	-1.02
Range (Max)	3.70	3.33	2.40	3.01	4.41	3.23	3.85
Skew	1.01	.51	.24	.85	1.64	.82	1.80
Kurtosis	1.09	.73	49	.41	4.18	1.56	4.18

Note. N = 77. \*p < .05. \*\*p < .01. +p < .10.

Table 2

Zero-Order Correlations among Measures Computed Separately for Boys and Girls

Appendix B

Measure	1	2	3	4	5	6	7
Adolescent Report							
1. Emotion Invalidation		.30*	04	.31*	.02	.11	.10
2. Emotion Inhibition	.14		18	.30*	.06	.19	.10
3. Brooding Rumination	02	.35+		.24	20	.14	.07
4. Adolescent Depression	.37+	.26	.42*		.24	.06	.17
Parent Report							
5. Emotion Invalidation	.08	16	.12	19		22	02
6. Sadness Inhibition	.17	.57*	.19	.23	04		.24
7. Adolescent Depression	.08	05	.08	11	.57*	.29	

*Note.* N=77. \*p < .05. \*\*p < .01. +p < .10. Values above diagonal represent zero-order correlations for girls. Values below diagonal represent zero-order correlations for boys.

## Appendix C

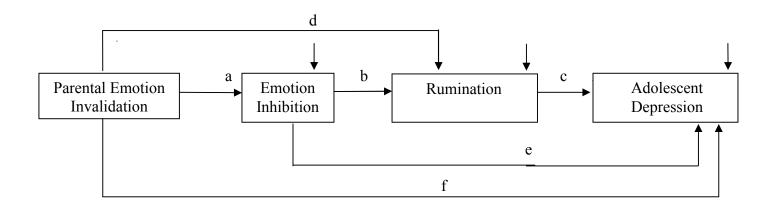
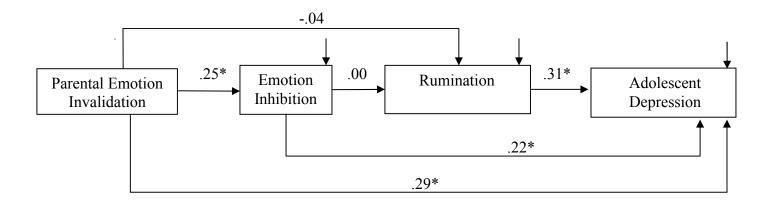


Figure 1. Conceptual model: Influence of parental emotion invalidation, emotion inhibition, and rumination on adolescent depression.

## Appendix D



*Figure 2.* Adolescent-report model: Influence of parental emotion invalidation, emotion inhibition, and rumination on adolescent depression.

*Note.* \*
$$p < .05$$
.  $\chi 2$  [1,  $n = 77$ ] = 0.001,  $p = .98$ ; CFI = 1.0; RMSEA Est. = .00; SRMR = .00.

## Appendix E

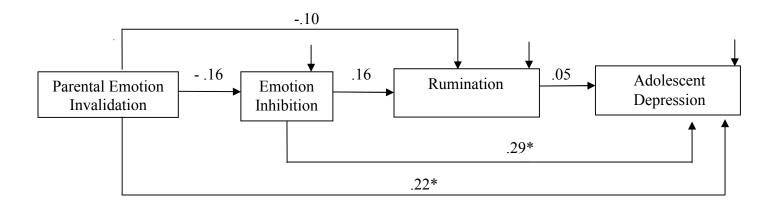


Figure 3. Parent-report model: Influence of parental emotion invalidation, emotion inhibition, and rumination on adolescent depression.

Note. Rumination variable was adolescent-report.

\*
$$p < .05$$
.  $\chi 2 [1, n = 77] = 1.587$ ,  $p = .21$ ; CFI = 1.0; RMSEA Est. = .00; SRMR = .05.

## Appendix F

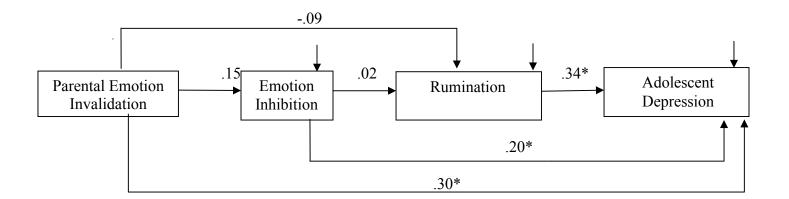


Figure 4. Mixed adolescent and parent-report model: Influence of parental emotion invalidation, emotion inhibition, and rumination on adolescent depression.

Note. Rumination variable was adolescent-report.

\*
$$p < .05$$
.  $\chi 2 [1, n = 77] = 0.022, p = .88$ ; CFI = 1.0; RMSEA Est. = .00; SRMR = .06.

## Appendix G

## **Adolescent Demographic Information**

Plea	se answe	er the questions below.
1.	Biolog	ical Sex 2. Current Age
		Male
	B.	Female
3.	Race/E	thnicity (mark only one)
		Asian or Pacific Islander
	B.	Black/African American
		Caucasian
	D.	Hispanic
		Native American
	F.	Biracial or Multiracial - Please specify:
		Other - Please specify:
4.		ng up, who was your primary <b>FEMALE</b> caregiver (mark only one)?
		Biological mother
		Stepmother
	C.	1
		Grandmother
		I didn't have a female caregiver
	F.	Other:
5.	Growin	ng up, who was your primary <b>MALE</b> caregiver (mark only one)?
	A.	Biological father
	B.	Stepfather
	C.	Adopted father
	D.	Grandfather
	E.	I didn't have a male caregiver
	F.	Other:
6.	Mother	(maternal caregiver) education level
	A.	Did not graduate high school
	B.	Received high school diploma/GED
	C.	Attended some college or vocational training (did not complete)
	D.	Obtained degree or certificate from apprenticeship or vocational school
	E.	Obtained two year college degree
	F.	Obtained four year college degree
	G.	Obtained masters or doctorate degree
	H.	Don't know

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7.	Father	r (paternal caregiver) education level
	A.	Did not graduate high school
	B.	Received high school diploma/GED
	C.	Attended some college or vocational training (did not complete)
	D.	Obtained degree or certificate from apprenticeship or vocational school
	E.	Completed two year college
	F.	Completed four year college
	G.	
	Н.	Don't know
8.	Which parent	n of the following best describes the relationship between your biological
	A.	
	В.	
	C.	· · · · · · · · · · · · · · · · · · ·
	D.	, .
	Б. Е.	
	F.	
	G.	Never married, not still together
	Н.	Other:
9.	Growi	ing up, I lived with my for most of my life.
		Biological parents
		Biological mother
	C.	=
	D.	
	E.	
	F.	Adoptive mother and father
	G.	
	H.	Adoptive father
	I.	
	J.	Other:
If yo	our par	ents are divorced or separated, please answer the following question (If
you	r paren	ts are still together, you may skip this question).
10.	How o	often did you see the parent you did not live with?
	A.	Once a week or more
	B.	A few times a month
	C.	A few times a year
	D.	Less than once a year
	E.	Never

## Appendix H

## **Parent Demographic Information**

Please answer the questions below.

1.	What	is your relationship to the teenager?	
	A.	Biological mother	
	B.	Biological father	
	C.	_	
	D.	Adoptive father	
	E.		
	F.	Stepfather	
	G.	Grandmother	
	H.	Grandfather	
	I.	Other:	
2.	Your	Biological Sex	3. Your Age
	A.	Male	
	B.	Female	
4.	Who i	s the primary <b>FEMALE</b> caregiver of	f your teenager (mark one)?
	A.	Biological mother	
	B.	Stepmother	
	C.		
	D.	Grandmother	
	E.	My teenager doesn't have a female	caregiver
	F.	Other:	-
5.	Who i	s the primary <b>MALE</b> caregiver of yo	our teenager (mark one)?
	A.	Biological father	
	B.	Stepfather	
	C.	Adopted father	
	D.	Grandfather	
	E.	My teenager doesn't have a male ca	aregiver
	F.	Other:	
6.	Your	Race/Ethnicity (mark only one)	
	A.	Asian or Pacific Islander	
	B.	Black/African American	
	C.	Caucasian	
	D.	Hispanic	
	E.	Native American	
	F.	Middle Eastern	
	G.	Biracial or Multiracial - Please spe	cify:

## Appendix H

	H.	Other - Please specify:
7.	Your	TEENAGER'S Race/Ethnicity (mark only one)
	A.	Asian or Pacific Islander
	B.	Black/African American
		Caucasian
	D.	Hispanic
		Native American
		Middle Eastern
		Biracial or Multiracial - Please specify:
	Н.	
8.	Rela	ationship status between you and your teenager's other biological parent?
	A.	Married
	B.	Divorced (year divorced )
	C.	Divorced (year divorced) Separated (year separated)
	D.	Never married, but still together
	E.	Never married, not still together (year split up)
	F.	Widowed
	G.	Other:
9.	You	er current romantic relationship status.
	A.	
	В.	Remarried (year remarried)
	C.	Single, but in a romantic relationship (length of current relationship)
	D.	Single
	E.	Other:
10.		r education level:
		Did not graduate high school
		Received high school diploma/GED
	C.	Attended some college or vocational training (did not complete)
	D.	Obtained degree or certificate from apprenticeship or vocational school
	E.	Obtained two year college degree
	F.	Obtained four year college degree
	G.	Obtained masters or doctorate degree
11.		r teenager's <b>other parent's</b> education level:
	A.	Did not graduate high school
	B.	Received high school diploma/GED
	C.	Attended some college or vocational training (did not complete)
	D.	Obtained degree or certificate from apprenticeship or vocational school
	E.	Obtained two year college degree
	F.	Obtained four year college degree

#### Appendix H

- G. Obtained masters or doctorate
- H. Don't know
- 12. Who does your teenager live with currently?
  - A. Both biological parents
  - B. Biological mother
  - C. Biological father
  - D. Biological mother and stepfather
  - E. Biological father and stepmother
  - F. Adoptive mother and father
  - G. Adoptive mother
  - H. Adoptive father
  - I. Grandparents or grandparent
  - J. Other:

If you and your teenager's other parent are divorced or separated, please answer the following question (If you are still together, you may skip this question).

- 13. How often does your teenager see his/her other parent?
  - A. Once a week or more
  - B. A few times a month
  - C. A few times a year
  - D. Less than once a year
  - E. Never

## Appendix I

## **Adolescent-Report Parental Responses**

A parent can respond to a child's emotions in many different ways. For each item, please indicate how often your parent/caregiver responds to your emotions in the way described.

Answer these questions about the parent/caregiver who brought you here today.

When you feel **SAD** or **DOWN**, how often does your parent respond in these ways?

	Never	Not Very Often	Sometimes	Often	Very Often
1. When I am sad, my parent asks me about it.	1	2	3	4	5
2. When I am sad, my parent tells me not to worry.	1	2	3	4	5
3. When I am sad, my parent helps me deal with the issue that made me sad.	1	2	3	4	5
4. When I am sad, my parent gets sad, too.	1	2	3	4	5
5. When I am sad, my parent tells me that I am acting younger than my age.	1	2	3	4	5
6. When I am sad, my parent understands why I am sad.	1	2	3	4	5
7. When I am sad, my parent tells me to cheer up.	1	2	3	4	5
8. When I am sad, my parent is usually not around.	1	2	3	4	5
9. When I am sad, my parent lets me know that they do NOT like me being sad.	1	2	3	4	5

# Appendix I

	Never	Not Very Often	Sometimes	Often	Very Often
10. When I am sad, my parent buys me something I like.	1	2	3	4	5
11. When I am sad, my parent jokes with me about it.	1	2	3	4	5
12. When I am sad, my parent comforts me.	1	2	3	4	5
13. When I am sad, my parent usually doesn't notice.	1	2	3	4	5
14. When I am sad, my parent gets all upset.	1	2	3	4	5
<ul><li>15. When I am sad, my parent ignores me.</li><li>16. When I am sad, my parent gives me a disgusted look.</li></ul>	1 1	2 2	3 3	4 4	5 5

## Appendix J

## **Parent-Report Parental Responses**

A parent can respond to a child's emotions in many different ways. For each item, please indicate how often you respond to your teen's emotions in the way described.

When your teen feels **SAD** or **DOWN**, how often do you respond in these ways?

		Never	Not Very Often	Sometimes	Often	Very Often
1.	When my teen is sad, I ask him/her about it.	1	2	3	4	5
2.	When my teen is sad, I tell him/her not to worry.	1	2	3	4	5
3.	When my teen is sad, I help him/her deal with the issue that made them sad.	1	2	3	4	5
4.	When my teen is sad, I get sad, too.	1	2	3	4	5
5.	When my teen is sad, I tell him/her that they are acting younger than their age.	1	2	3	4	5
6.	When my teen is sad, I understand why they are sad.	1	2	3	4	5
7.	When my teen is sad, I tell them to cheer up.	1	2	3	4	5
8.	When my teen is sad, I am usually not around.	1	2	3	4	5
9.	When my teen is sad, I let him/her know that I do NOT like them being sad.	1	2	3	4	5

# Appendix J

	Never	Not Very Often	Sometimes	Often	Very Often
10. When my teen is sad, I buy him/her something they like.	1	2	3	4	5
11. When my teen is sad, I joke with him/her about it.	1	2	3	4	5
12. When my teen is sad, I comfort him/her.	1	2	3	4	5
13. When my teen is sad, I usually don't notice.	1	2	3	4	5
14. When my teen is sad, I get all upset.	1	2	3	4	5
15. When my teen is sad, I ignore him/her.	1	2	3	4	5
16. When my teen is sad, I give him/her a disgusted look.	1	2	3	4	5

## Appendix K

## **Emotion Expression Scale**

Directions: Please rate the sentences below for how often each was true of your child's emotional expression in the past year.

	Never	Rarely	Sometimes	Most of the time	All the time
1. My child hid his/her sadness.	1	2	3	4	5
2. My child was afraid to show his/her sadness.	1	2	3	4	5
3. My child held his/her sad feelings in.	1	2	3	4	5
4. My child would get sad inside, but didn't show it.	1	2	3	4	5
5. My child hid his/her anger	1	2	3	4	5
6. My child was afraid to show his/her anger.	1	2	3	4	5
7. My child held his/her angry feelings in.	1	2	3	4	5
8. My child would get angry inside, but didn't show it.	1	2	3	4	5

## Appendix L

## **Emotion Expressiveness Scale**

We would like to ask you some questions about your emotional life, in particular, how you express your emotions. For each item, please answer using the following scale:

1	256
Never	Always
1	I think of myself as emotionally expressive.
2	People think of me as an unemotional person.
3	I keep my feelings to myself.
4	I am often considered indifferent by others.
5	People can read my emotions.
6	I display my emotions to other people.
7	I don't like to let other people see how I'm feeling.
8	I am able to cry in front of other people.
9	Even if I am feeling very emotional, I don't let others see my feelings.
10	Other people aren't easily able to observe what I'm feeling.
11	I am not very emotionally expressive.
12	Even when I'm experiencing strong feelings, I don't express them outwardly.
13	I can't hide the way I'm feeling.
14	Other people believe me to be very emotional.
15	I don't express my emotions to other people.
16	The way I feel is different from how others think I feel.
17	I hold my feelings in.

## Appendix M

#### Thinking Scale

People think and do many different things when they feel sad, blue, or depressed. Please indicate a number for if you ever, 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.

	1	<u> </u>	3	4				
	Never	Sometimes	Often	Always				
1	_ Think "Wh	at am I doing to d	leserve this?	,				
2	_ Analyze re	cent events to try	to understan	d why you are depres	ssed			
3	_ Think "Wh	y do I always rea	ct this way?"					
4	Go away by yourself and think about why you feel this way							
5	Write down what you are thinking and analyze it							
6	_ Think abou	it a recent situatio	n, wishing it	had gone better				
7	_ Think "Wh	y do I have probl	ems other pe	ople don't have?"				
8	_ Think "Wh	y can't I handle tl	hings better?	,,				
9	_ Analyze yo	our personality to	try to unders	tand why you are dep	pressed			
10.	Go somep	lace alone to think	about your	feelings				

## Appendix N

#### YSR

Below is a list of items that describe kids and teenagers. For each item that describes you **now or within the past 6 months**, please circle the **2** if the item is **very true or often true** of you. Circle the **1** if the item is **somewhat or sometimes true** of you. If the item is **not true** of you, circle the **0**.

			0=Not True (as far as you know) 1= Somewhat or	Some	tin	nes	True 2=Very True or Often True .
0	1	2	1. I act too young for my age	0	1	2	29. I am afraid of going to school
0	1	2	2. I drink alcohol without my parents' approval	0	1	2	30. I am afraid I might think or do something bad
			(describe):	0	1	2	31. I feel that I have to be perfect
0	1	2	3. I argue a lot	0	1	2	32. I feel that no one loves me
0	1	2	4. I fail to finish things I start	0	1	2	33. I feel that others are out to get me
0	1	2	5. There is very little that I enjoy	0	1	2	34. I feel worthless or inferior
0	1	2	6. I like animals	0	1	2	35. I accidentally get hurt a lot
0	1	2	7. I brag	0	1	2	36. I get in many fights
0	1	2	8. I have trouble concentrating or paying attention	0	1	2	37. I get teased a lot
0	1	2	9. I can't get my mind off certain thoughts; obsessions	0	1	2	38. I hang around with kids who get in trouble
			(describe):	0	1	2	39. I hear sounds or voices that other people think aren't
							there (describe):
0	1	2	10. I have trouble sitting still	0	1	2	40. I act without stopping to think
0	1	2	11. I'm too dependent on adults	0	1	2	41. I would rather be alone than with others
0	1	2	12. I feel lonely	0	1	2	42. I lie or cheat
0	1	2	13. I feel confused or in a fog	0	1	2	43. I bite my fingernails
0	1	2	14. I cry a lot	0	1	2	44. I am nervous or tense
0	1	2	15. I am pretty honest	0	1	2	45. Parts of my body twitch or make nervous
0	1	2	16. I am mean to others				movements (describe):
0	1	2	17. I daydream a lot	0	1	2	46. I have nightmares
0	1	2	18. I try to get a lot of attention	0	1	2	47. I am not liked by other kids
0	1	2	19. I destroy my own things	0	1	2	48. I can do certain things better than most kids
0	1	2	20. I destroy things belonging to others	0	1	2	49. I am too fearful or anxious
0	1	2	21. I disobey my parents	0	1	2	50. I feel dizzy or lightheaded
0	1	2	22. I disobey at school	0	1	2	51. I feel too guilty
0	1	2	23. I don't eat as well as I should	0	1	2	52. I eat too much
0	1	2	24. I don't get along with other kids	0	1	2	53. I feel overtired without good reason
0	1	2	25. I don't feel guilty after doing something I shouldn't	0	1	2	54. I am overweight
0	1	2	26. I am jealous of others	0	1	2	55. I physically attack people
0	1	2	27. I break rules at home, school, or elsewhere	0	1	2	56. I pick my skin or other parts of my body (describe):
0	1	2	28. I am afraid of certain animals, situations, or				
			places, other than school (describe):	0	1	2	57. I can be pretty friendly
				0	1	2	58. I like to try new things
				0	1	2	59. My school work is poor
				0	1	2	60. I am poorly coordinated or clumsy

## Appendix N

			0=Not True (as far as you know) 1= Somewha	t or Some	tin	nes	True 2=Very True or Often True
0	1	2	61. Physical problems without known medical	0	1	2	82. I store up too many things I don't need
			cause:				(describe):
0	1	2	a. Aches or pains (not stomach or	0	1	2	83. I do things other people think are strange
			headaches)				(describe):
0	1	2	b. Headaches	_			
0	1	2	c. Nausea, feels sick	0	1	2	84. I have thoughts that other people would think are
0	1	2	d. Problems with eyes (not if corrected by				strange (describe):
			glasses) (describe):				
0	1	2	e. Rashes or other skin problems	0	1	2	85. I am stubborn
0	1	2	f. Stomachaches	0	1	2	86. My mood or feelings change suddenly
0	1	2	g. Vomiting, throwing up	0	1	2	87. I enjoy being with people
0	1	2	h. Other (describe):	0	1	2	88. I am suspicious
0	1	2	62. I would rather be with older kids than kids my	0	1	2	89. I swear or use dirty language
			own age	0	1	2	90. I like to make others laugh
0	1	2	63. I would rather be with younger kids than kids	0	1	2	91. I talk too much
			my own age	0	1	2	92. I tease others a lot
0	1	2	64. I refuse to talk	0	1	2	93. I have a hot temper
0	1	2	65. I repeat certain acts over and over;	0	1	2	94. I think about sex too much
			compulsions (describe):	0	1	2	95. I threaten to hurt people
0	1	2	66. I run away from home	0	1	2	96. I like to help others
0	1	2	67. I scream a lot	0	1	2	97. I smoke, chew, or sniff tobacco
0	1	2	68. I am secretive or keep things to myself	0	1	2	98. I have trouble sleeping (describe):
0	1	2	69. I see things that other people don't think are				
			there (describe):	0	1	2	99. I cut classes or skip school
0	1	2	70. I am self-conscious or easily embarrassed	0	1	2	100. I don't have much energy
0	1	2	71. I set fires	0	1	2	101. I am unhappy, sad, or depressed
0	1	2	72. I can work well with my hands	0	1	2	102. I am louder than other kids
0	1	2	73. I show off or clown	0	1	2	103. I use drugs for nonmedical purposes (don't
0	1	2	74. I am too shy or timid				include alcohol or tobacco) (describe):
0	1	2	75. I sleep less than most kids				
0	1	2	76. I sleep more than most kids during day	0	1	2	104. I like to be fair to others
			and/or night (describe):	0	1	2	105. I enjoy a good joke
0	1	2	77. I am inattentive or easily distracted	0	1	2	106. I like to take life easy
0	1	2	78. I have a speech problem (describe):	0	1	2	107. I try to help other people when I can
0	1	2	79. I stand up for my rights	0	1	2	108. I wish I were of the opposite sex
0	1	2	80. I steal at home	0	1	2	109. I keep from getting involved with others
0	1	2	81. I steal from places other than home	0	1	2	110. I worry a lot

## Appendix O

#### **CBCL**

Below is a list of items that describe children and youths. For each item that describes your child **now or within the past 6 months**, please circle the **2** if the item is **very true or often true** of your child. Circle the **1** if the item is **somewhat or sometimes true** of your child. If the item is **not true** of your child, circle the **0**. Please answer all items as well as you can, even if some do not seem to apply to your child.

			Please answer all items as well as you can, even if some 0=Not True (as far as you know) 1= Somewhat or S	e do no	ot s	een	n to apply to your child.
0	1	2	Acts too young for his/her age				28. Fears certain animals, situations, or places, other
0	1	2	2. Drinks alcohol without parents' approval				than school (describe):
(d	(describe):			0	1	2	29. Fears going to school
0	1	2	3. Argues a lot	0	1	2	30. Fears he/she might think or do something bad
0	1	2	4. Fails to finish things he/she starts	0	1	2	31. Feels he/she has to be perfect
0	1	2	5. There is little he/she enjoys	0	1	2	32. Feels of complains that no one loves him/her
0	1	2	6. Bowel movements outside toilet	0	1	2	33. Feels others are out to get him/her
0	1	2	7. Bragging, boasting	0	1	2	34. Feels worthless or inferior
0	1	2	8. Can't concentrate, can't pay attention for long	0	1	2	35. Gets hurt a lot, accident-prone
0	1	2	9. Can't get his/her mind off certain thoughts;	0	1	2	36. Gets in many fights
			obsessions (describe):	0	1	2	37. Gets teased a lot
0	1	2	10. Can't sit still, restless, or hyperactive	0	1	2	38. Hangs around with others who get in trouble
0	1	2	11. Clings to adults or too dependent	0	1	2	39. Hears sounds or voices that aren't there (describe):
0	1	2	12. Complains of loneliness				
0	1	2	13. Confused or seems to be in a fog	0	1	2	40. Would rather be alone than with others
0	1	2	14. Cries a lot	0	1	2	41. Lying or cheating
0	1	2	15. Cruel to animals	0	1	2	42. Bites fingernails
0	1	2	16. Cruelty, bullying, or meanness to others	0	1	2	43. Nervous, highstrung, or tense
0	1	2	17. Daydreams or gets lost in his/her own thoughts	0	1	2	44. Nervous movements or twitching (describe):
0	1	2	18. Demands a lot of attention				
0	1	2	19. Destroys his/her own things	0	1	2	45. Nightmares
0	1	2	20. Destroys things belonging to his/her family or	0	1	2	46. Not liked by other kids
			others	0	1	2	47. Constipated, doesn't have bowel movements
0	1	2	21. Disobedient at home	0	1	2	48. Too fearful or anxious
0	1	2	22. Disobedient at school	0	1	2	49. Feels dizzy or lightheaded
0	1	2	23. Doesn't eat well	0	1	2	50. Feels too guilty
0	1	2	24. Doesn't get along with other kids	0	1	2	51. Overeating
0	1	2	25. Doesn't seem to feel guilty after misbehaving	0	1	2	52. Overtired without good reason
0	1	2	26. Easily jealous	0	1	2	53. Overweight
0	1	2	27. Breaks rules at home, school, or elsewhere	0	1	2	54. Physically attacks people
				0	1	2	55. Picks nose, skin, or other parts of body (describe):
				0	1	2	56. Plays with own sex parts in public
				0	1	2	57. Plays with own sex parts in private too much

## Appendix O

		(	D=Not True (as far as you know) 1= Somewhat or S	ometim	es	Tru	ıe	2=Very True or Often True .
0	1	2	58. Physical problems without known medical	0	1	2	81.	Stores up too many things he/she doesn't need
			cause:					(describe):
0	1	2	a. Aches or pains (not stomach or	0	1	2	82.	Strange behavior (describe):
			headaches)					
0	1	2	b. Headaches	0	1	2	83.	Strange ideas (describe):
0	1	2	c. Nausea, feels sick					
0	1	2	d. Problems with eyes (not if corrected by	0	1	2	84.	Stubborn, sullen, or irritable
			glasses) (describe):	0	1	2	85.	Sudden changes in mood or feelings
0	1	2	e. Rashes or other skin problems	0	1	2	86.	Sulks a lot
0	1	2	f. Stomachaches	0	1	2	87.	Suspicious
0	1	2	g. Vomiting, throwing up	0	1	2	88.	Swearing or obscene language
0	1	2	h. Other (describe):	0	1	2	89.	Talks or walks in sleep (describe):
0	1	2	59. Poor school work					
0	1	2	60. Poorly coordinated or clumsy	0	1	2	90.	Talks too much
0	1	2	61. Prefers being with older kids	0	1	2	91.	Teases a lot
0	1	2	62. Prefers being with younger kids	0	1	2	92.	Temper tantrums or hot temper
0	1	2	63. Refuses to talk	0	1	2	93.	Thinks about sex too much
0	1	2	64. Repeats certain acts over and over;	0	1	2	94.	Threatens people
			compulsions (describe):	0	1	2	95.	Thumb sucking
				0	1	2	96.	Smokes, chews, or sniffs tobacco
0	1	2	65. Runs away from home	0	1	2	97.	Trouble sleeping (describe):
0	1	2	66. Screams a lot	0	1	2	98.	Truancy, skips school
0	1	2	67. Secretive, keeps things to self	0	1	2	99.	Underactive, slow moving, or lacks energy
0	1	2	68. Sees things that aren't there (describe):	0	1	2	100	. Unhappy, sad, or depressed
				0	1	2	101	. Unusually loud
0	1	2	69. Self-conscious or easily embarrassed	0	1	2	102	. Uses drugs for nonmedical purposes (don't
0	1	2	70. Sets fires					include alcohol or tobacco) (describe):
0	1	2	71. Sexual problems (describe):					
				0	1	2	103	. Vandalism
0	1	2	72. Showing off or clowning	0	1	2	104	. Wets self during the day
0	1	2	73. Too shy or timid	0	1	2	105	. Wets the bed
0	1	2	74. Sleeps less than most kids	0	1	2	106	. Whining
0	1	2	75. Sleeps more than most kids during day	0	1	2	107	. Wishes to be of opposite sex
			and/or night (describe):	0	1	2	108	. Withdrawn, doesn't get involved with others
0	1	2	76. Inattentive or easily distracted	0	1	2	109	. Worries
0	1	2	77. Speech problem (describe):				110	. Please write in any problems your child has that
0	1	2	78. Stares blankly					were not listed above:
0	1	2	79. Steals at home	0	1	2		
				0	1	2		