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# MOTHERS' HISTORY OF CHILD MALTREATMENT AND REGULATION ABILITIES: INTERACTIONS AMONG YOUNG CHILDREN'S TEMPERAMENT, ATTACHMENT, AND MALTREATMENT POTENTIAL

by

JAYME PUFF M.S., University of Central Florida, 2014

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Psychology in the College of Sciences at the University of Central Florida Orlando, Florida

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Major Professor: Kimberly Renk

# ABSTRACT

Given the impact that parents' and young children's characteristics have on the potential for child maltreatment, the present study sought to examine how mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation abilities (i.e., emotion regulation, reflective functioning, attributions, and coping with young children's negative emotions), and their perceptions of their young children's temperament were related to their narratives of their attachment relationships with their young children and their child maltreatment potential. As part of this study, 54 mothers rated themselves and their young children on the aforementioned variables. Binary logistic hierarchical regression analysis suggested that mothers' higher levels of nonsupportive coping styles were associated significantly with an increased likelihood of an unbalanced (insecure) narrative of attachment with their young children. Hierarchical and moderation regression analyses suggested the importance of examining mothers' ratings of their own childhood maltreatment, psychological symptoms, nonsupportive coping styles, and mothers' perceptions of their young children's temperament in predicting mothers' child maltreatment potential. In addition, mediation analyses suggested that both mothers' emotion regulation and reflective functioning were important in predicting coping styles. Finally, exploratory analyses suggested that mothers' emotion regulation and psychological symptoms were important predictors of mothers' child maltreatment potential. Overall, these findings suggested that both mothers' characteristics and their ratings of their young children's temperament played a significant role in the prediction of their narratives of their attachment relationships with

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their young children and mothers' child maltreatment potential. These findings will be particularly helpful for professionals who work with high risk families, particularly those who are at risk for child maltreatment.

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# **CHAPTER ONE: INTRODUCTION**

Despite the many models that attempt to explain child abuse and neglect, child maltreatment remains a pressing issue in our society (U.S. Department of Health and Human Services, 2012, 2016). Although research identified some characteristics that are important in the prediction of child maltreatment (e.g., parents' emotion regulation, psychopathology), there are many potential predictors that remained unexplored, suggesting that more research was needed to further our understanding of child maltreatment potential. For example, given that trauma might lead to emotion regulation difficulties (Badour & Feldner, 2013), mothers who experienced trauma might be more likely to utilize poor coping skills when managing their young children's behavior (Lopez, Begle, Dumas, & Arellano, 2012), especially when their young children exhibited difficult temperament characteristics (Casanueva et al., 2010). In turn, mothers' history of their own childhood trauma was related significantly to their attachment to their own children (Pajulo et al., 2012), such that later attachment was impaired was mothers' trauma was left untreated. Given these interconnections, these variables might be related collectively to mothers' child maltreatment potential (Frodi & Lamb, 1980; Latzman, Elkovitch, & Clark, 2009).

Even with such conclusions being likely, unexplained variance remained in the prediction of child maltreatment, suggesting that the current frameworks needed to be enhanced. It was particularly important that any new frameworks considered mothers' individual and attachment characteristics so that interventions could be better informed. For example, in order to foster a secure attachment, mothers must allow children to

explore their environments with the knowledge that mothers will be there, if needed, for comfort and protection. When children seek comfort and protection from their mothers or need to have their feelings organized, they should feel assured that their mothers will be there to meet those needs (Hoffman, Marvin, Cooper, & Powell, 2006; Ramsauer et al., 2014). For this process to be successful, however, mothers must have the ability to be highly reflective of their own and their children's internal mental states and intentions (i.e., they must possess reflective functioning; Fonagy, Steele, & Steele, 1991). Consistently, research suggested that mothers with higher reflective functioning had more secure attachments with their children (Fonagy, Steele, Steele, Moran, & Higgit, 1991; Slade, 2005). Research that examined reflective functioning was still rare, however, and there remained a need to identify mothers' characteristics (e.g., emotion regulation, coping abilities) that are related to their ability to be highly reflective of their children's feelings, desires, and intentions. It also was important to consider how these characteristics are related to mothers' child maltreatment potential.

Additionally, without considering young children's characteristics, frameworks of child maltreatment would be incomplete. Thus, research was needed to examine how young children's characteristics (e.g., temperament) were associated with mothers' characteristics in the prediction of child abuse or neglect. By considering both mothers' and young children's characteristics (even if via mother's perceptions of those characteristics) collectively, health service providers might be able to better identify factors that might be related to child maltreatment potential and ultimate intervention outcomes. These discoveries might, in turn, lead to the development of preventative and therapeutic tools that could enhance the efficacy of interventions for high risk

populations. As such, this study examined the relationships among mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation characteristics (i.e., emotional and behavioral regulation, coping with young children's negative emotions, reflective functioning, and attributions), their ratings of young children's temperament, mother-young child attachment, and child maltreatment potential.

#### **Child Maltreatment Potential**

Unfortunately, child maltreatment is widespread in today's society. Specifically, the U. S. Department of Health and Human Services (2012, 2016) indicated that most states recognized four types of child maltreatment: physical abuse, emotional abuse, sexual abuse, and neglect. In particular, physical abuse was defined as physically harming or aggressing toward a child in any way (e.g., punching, beating, burning). Emotional abuse was defined less easily but consisted of miscues by caregivers that were more emotional in nature. Specifically, emotional abuse included behaviors such as verbal threats, belittling, and manipulation. In contrast, sexual abuse included intercourse with a child, fondling a child's genitals, rape, or exploitation (e.g., through pornography or prostitution). Finally, neglect included failure of caregivers to provide necessities to a child (i.e., to meet a child's physical, medical, educational, and/or emotional needs; Mash & Wolfe, 2013). Generally, it was important to note that many children experienced more than one type of maltreatment, with these children being at greater risk for repeated occurrences of abuse and/or neglect (Klein & Harden, 2011).

#### **Maltreatment Statistics**

With regard to the rate of occurrence of child maltreatment, there were approximately 3.4 million referrals for the maltreatment of approximately 6.3 million children in 2012 (U. S. Department of Health and Human Services, 2012). These numbers increased to approximately 3.6 million referrals for the maltreatment of approximately 6.6 million children in the 2014 report of child maltreatment (U. S. Department of Health and Human Services, 2016). Of the children who were identified as having experienced abuse and/or neglect, 75.0% experienced neglect, 17.0% experienced physical abuse, and 8.3% experienced sexual abuse. Further, 6.8% of children experienced "other" types of maltreatment, ranging from "threatened abuse" to "parents' drug/alcohol abuse" (U. S. Department of Health and Human Services, 2016, p. 25). With regard to demographics of the children who were identified as having been maltreated, 48.9% were boys, and 50.7% were girls. In addition, a majority of these children were Caucasian (44.0%), whereas 22.7% were Hispanic and 21.4% were African American (U. S. Department of Health and Human Services, 2016).

Given that many cases of child maltreatment were not reported formally, researchers suggested that the rate of child maltreatment was likely to be approximately five to 11 times greater than the numbers reported by government agencies (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Thus, the rates noted above likely did not capture all cases of abuse and/or neglect that occur, resulting in a gross underestimate of the true rates of child maltreatment. Further, only 63.7% of children who were identified as having been maltreated received psychological services (U. S. Department of Health and Human Services, 2016). Clearly, more work needs to be done to decrease the rates

of child maltreatment and to increase the availability and quality of intervention services offered after maltreatment has occurred. Such work should begin by identifying children and families who are at risk for child maltreatment.

#### Theories of Maltreatment

In an attempt to predict child maltreatment potential, a number of theories were discussed in the literature. Although early theories (e.g., Bronfenbrenner's, 1979a, 1979b) made attempts to incorporate ecological systems theory, Belsky's (1980, 1993) developmental-ecological perspective suggested that theories regarding child maltreatment should include a developmental context (e.g., parent and child characteristics, intergenerational transmission of maltreatment), an intermediate interactional context (i.e., parenting behaviors, the parent-child relationship), and a broader context (i.e., community, culture, and evolution). More recently, Sameroff and Fiese (2000) proposed an additional developmental-ecological model of child maltreatment. This model included a transactional component with multiple factors contributing to child maltreatment (e.g., caregiver and child characteristics, family functioning, environmental stressors; Sameroff & Fiese, 2000). Specifically, this model proposed that parent characteristics, such as education level, mental health, parenting behaviors, and stressful life events, interacted with child characteristics, such as intelligence level, social-emotional development, and biological propensities (e.g., temperament), to predict child abuse and neglect (Sameroff & Fiese, 2000).

Despite the plethora of research on predictors of child maltreatment, unexplained variance remained in these models, suggesting that existing theories should be enriched

so that there can be more accurate prediction of child maltreatment. For example, research had not taken into account regulatory characteristics that mothers exhibited and that could be related significantly to the variables discussed previously in transactional models (e.g., parenting behaviors). Specifically, these models did not incorporate variables such as mothers' emotion regulation or reflective functioning. Further, previously described models did not include the examination of potential mediators, such as parent and young child characteristics, when predicting child maltreatment. Thus, this study attempted to enhance the pre-existing literature by examining additional variables that might prove important in the prediction of child maltreatment potential as well as mediational models that included mothers' and young children's specific characteristics when predicting child maltreatment potential. These variables will be discussed below.

#### Characteristics Related to Child Maltreatment Potential

When examining child maltreatment in the context of this study, it was important to consider specific characteristics of perpetrators that might be related to a higher likelihood of child maltreatment potential. In particular, the U. S. Department of Health and Human Services (2016) identified several trends in perpetrator characteristics. With regard to reported perpetrator demographics, more than half (i.e., 54.1%) of reported perpetrators were women, whereas 44.8% were men. Further, 1.1% were of unknown sex (U. S. Department of Health and Human Services, 2016). Additionally, approximately 83.2% of reported perpetrators were between the ages of 18- and 44-years of age. With regard to race, most perpetrators were Caucasian (48.8%), African American (20.0%), or Hispanic (19.8%; U. S. Department of Health and Human Services, 2016).

Beyond these demographic characteristics, the U. S. Department of Health and Human Services (2016) suggested that children were at greater risk for being maltreated by familiar adults relative to other adults. In fact, statistics suggested that immediate family members were most likely to maltreat their children (Sullivan & Knutson, 2000). For example, in the most recent statistics provided by the U. S. Department of Health and Human Services (2016), 91.6% of perpetrators were parents, with 82.5% being biological parents. Further, mothers maltreated their children in approximately 40.7% of identified cases, fathers maltreated their children in approximately 20.5% of identified cases, and both parents maltreated their children in approximately 21.3% of identified cases. In contrast, someone other than a parent maltreated the identified children in approximately 12.6% of identified cases (e.g., relatives; U. S. Department of Health and Human Services, 2016).

Rates of maltreatment may vary with the type of maltreatment examined. For example, research examining specific types of maltreatment suggested that men might be common perpetrators of physical abuse in children, followed by women (Starling, Sirotnak, Heisler, & Barnes-Eley, 2007). Specifically, biological fathers or the boyfriends of biological mothers caused 58.2% of inflicted skeletal fractures resulting from physical abuse (Starling et al., 2007). These findings were particularly problematic in that, in addition to the noted physical harm, maltreatment by family members affected children greatly in other ways as well. Specifically, Ullman (2007) suggested that children who were perpetrated against by relatives demonstrated greater symptoms of PTSD later in life. These children also had more serious abuse experiences and more negative social reactions to disclosing their abuse to others (Ullman, 2007). Thus, research that examined

immediate family members might prove most fruitful in advancing our understanding of child maltreatment potential.

#### **Other Parent Characteristics**

A number of risk factors also were identified that could increase parents' chances of perpetrating against a child (e.g., domestic violence, substance abuse; Kelleher, Chaffin, Hollenberg, & Fischer, 1994; Straus et al., 1998). For instance, approximately 9.8% of identified children had a parent who abused alcohol, and 26% of identified children had a parent who abused other substances (U. S. Department of Health and Human Services, 2016). These statistics were consistent with findings that mothers with lower levels of education and higher levels of depression and substance abuse were at an increased risk of engaging in child maltreatment (Dubowitz et al., 2011). Further, according to a meta-analysis conducted by Stith and colleagues (2009), parent factors were the biggest predictors of child maltreatment independent of child characteristics. For example, parents' anger and perceptions that their children's behavior was a problem were risk factors for child abuse and neglect. In addition, parents' resiliency, stress, social support, and psychopathology all were significant predictors of physical abuse (Stith et al., 2009).

Given these findings, it is evident that there are likely an alarming number of children who are living with parents who had high potential for child maltreatment. By identifying those parents who might be at greatest risk, professionals can intervene to assist these parents (e.g., through a combination of individual and dyadic work) and

ultimately prevent child maltreatment. Nonetheless, more research was needed to first identify those characteristics that might be most noteworthy. Given that more than half (54.1%) of identified perpetrators were women, with biological mothers being identified as perpetrators more often than biological fathers (U. S. Department of Health and Human Services, 2016), more research was needed to understand the characteristics that placed mothers at greatest risk. Thus, this study sought to specifically examine mothers' characteristics in an effort to identify the greatest predictors of child maltreatment potential. Mothers' characteristics that were of greatest interest will be discussed next.

#### Mothers' History of Childhood Trauma and Psychological Symptoms

Mothers' experience of their own childhood trauma was particularly important to study, as symptoms related to trauma exposure might persist and continue to pose difficulties for individuals throughout adulthood (Burger & Lang, 1998). For example, Lowell, Renk, and Adgate (2014) suggested that early emotional abuse had a powerful relationship to later emotional and behavioral functioning, even when considering potential protective factors (e.g., attachment). Similarly, Wright, Crawford, and Del Castillo (2009) suggested that early emotional abuse and neglect was associated with later symptoms of anxiety and depression. Further, research suggested that individuals with untreated posttraumatic stress reported poorer health, work difficulties, and less improvement in symptoms over time relative to those in a control group (Al-Saffar, Borgå, & Hällström, 2002).

Such symptoms might be related to parenting behaviors, which might be related, in turn, to characteristics of the mother-young child relationship. Nonetheless, it was

proposed that secure attachment might be a protective factor against the development of PTSD symptoms following trauma (O'Connor & Elklit, 2008). It also was important to consider, however, that parents' symptomology might impact young children directly. For example, according to Chemtob, Griffing, Tullberg, Roberts, and Ellis (2011), parents who met criteria for both PTSD and depression had children with significantly more trauma exposure. Thus, when studying attachment behaviors and maltreatment potential, it also was essential to consider a mothers' own childhood maltreatment.

Research long suggested that mothers who experienced their own childhood trauma might experience difficulty in their parenting role, ultimately leading to the maltreatment of the next generation (Ammerman et al., 2012; Bert, Guner, & Lanzi, 2009). In particular, Briggs and colleagues (2014) suggested that children's success in social-emotional development depended on their parents' positive 'serve and return' interactions (i.e., parents responded to their children in a consistent and empathetic manner). In contrast, parents who experienced their own childhood trauma (e.g., maltreatment by family members) might experience difficulty remaining warm and consistent with their own young children when their young children were exhibiting difficult behaviors (Briggs et al., 2014; Shonkoff & Bales, 2011). This difficulty might stem from mothers' inability to interpret their young children's emotional states and might lead to higher rates of abusive and neglectful parenting behaviors as well as subsequent problems for young children's social-emotional development (Bert et al., 2009; Briggs et al., 2014; Gusella, Muir, & Tronick, 1988). In addition, Cohen, Hien, and Batchelder (2008) found that mothers who experienced their own childhood trauma

reported greater levels of punitive parenting, aggressive behaviors, physical discipline, and overall maltreatment potential.

This line of research highlighted the importance of examining how specific traumas (e.g., childhood maltreatment) might be related to mothers' parenting behaviors. In particular, mothers who had a history of childhood trauma appeared to be at greater risk for child maltreatment (Cohen et al., 2008). These findings were particularly critical to examine further because women who experienced childhood abuse or neglect might be reluctant to receive services (Muzik et al., 2013). Specifically, Muzik and colleagues (2013) indicated that these women reported a sincere desire for help but were ambivalent about seeking assistance due to a lack of available trauma-informed services. Thus, identifying variables that might be predictive of child maltreatment could inform services for women who had experienced their own childhood trauma.

Another way in which trauma symptoms might be related to parenting behaviors was through attachment relationships. Specifically, a meta-analytic review suggested that there was a positive and significant relationship between parents' history of trauma or loss and their infant's attachment disorganization (van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999). It was proposed that, for parents who had a history of trauma, interactions with their own children might bring up painful memories and reactivate attachment-related difficulties (Foroughe & Muller, 2012). These attachmentrelated difficulties, in turn, might be related to poor parenting behaviors (e.g., insensitivity, aggression) and might have a disorganizing effect on the parent-child relationship (Bernier & Meins, 2008). As such, traumatic experiences and attachment difficulties were often intergenerational.

Landy and Menna (2006) also suggested that young children's quality of attachment was affected by a number of factors, including parents' psychopathology (e.g., due to traumatic experiences), attachment classification, parents' perceptions of their children, and children's characteristics. For example, there was evidence to support that parents' cognitive representations of their attachment relationships with their children were transferred from generation to generation (Foroughe & Muller, 2012). Recently, researchers focused on parents' reflective capacities towards themselves and their children and found that parents who were more aware of their own internal states and those of their children could circumvent the transmission of their cognitive representations and their own attachment difficulties. For parents who experienced trauma, gaining awareness of their cognitive and emotional experiences might be difficult, and their attachment difficulties might become intergenerational (Fonagy, Steele, Steele, Moran, et al., 1991; Foroughe & Muller, 2012).

This intergenerational transmission of maltreatment might be understood within the context of social learning theory, which suggested that children modeled and imitated behaviors that their parents exhibited (Oliver, Guerin, & Coffman, 2009). Specifically, research suggested that parents who were maltreated in childhood were significantly more likely to maltreat their own children, supporting the 'cycle of maltreatment hypothesis' (Thornberry & Henry, 2013). This pattern did not appear for all parents who were maltreated in childhood, however, and these findings relied, in part, on the severity and duration of the maltreatment (Thornberry & Henry, 2013). Instead, it might be that the pathway of attachment was an important variable to consider in the cycle of maltreatment hypothesis. Specifically, research suggested that attachment mediated the

relationship between child maltreatment and later symptomology (Muller, Thornback, & Bedi, 2012), suggesting that individuals' attachment was related to their psychological functioning following child maltreatment. Accordingly, Brothers (2014) introduced the concept of 'traumatic attachments,' suggesting that problematic attachments formed in families touched by trauma. Particularly, these families' demonstrated patterns of inflexibility and resistance to change that affected parent-child interactions across generations. Thus, attachment appeared to be an important predictor for later outcomes following maltreatment in childhood.

Despite these findings, there remained a gap in the literature regarding *how* parents' ability to cope with their own and their young children's difficulties following childhood maltreatment played a role in their attachment with their young children and their child maltreatment potential. One study conducted by Shakespeare-Finch, Smith, and Obst (2002) examined coping in a sample of men who had experienced traumatic situations. Results of this study suggested that fathers' coping abilities were related significantly to family functioning. In other words, there were a number of characteristics that might serve as protective factors for parents following traumatic experiences. For example, it might be that parents' emotional and behavioral regulation was related significantly to their coping abilities. Such regulation will be discussed next.

#### Mothers' Emotional and Behavioral Regulation.

Emotional arousal (i.e., reacting with strong emotions to environmental demands, whether negative or positive) might have the ability to enrich or destabilize individuals' functioning (Mirabile, Scaramella, Preston, & Robison, 2009; Thompson, 1994). As

such, emotion regulation appeared important to consider as individuals initiated adaptive, organized behaviors that ultimately might affect their social functioning, cognitive performance, and stress management (Thompson, 1994). In short, emotion regulation was noted to consist of intrinsic and extrinsic processes (e.g., physiological, behavioral, and cognitive processes) that enabled individuals to modulate their experience and expression of emotions (Bridges, Denham & Ganiban, 2004; Thompson, 1994). Accordingly, emotion regulation was taking place because of self-management *and* external influences in a social context (e.g., receiving sympathy from others in a difficult time; Thompson, 1994). Likewise, individual differences in emotion regulation abilities were related complexly to individuals' emotional goals as well as to difficulties present in each unique situation (Thompson, 1994).

Nonetheless, emotional and behavioral regulation lacked a clear definition in the literature, with many related operational definitions and theoretical constructs that were not well developed being discussed (Bridges et al., 2004; Thompson, 1994). For example, some research focused on the inhibition of emotional reactions versus emotional behaviors, whereas others examined emotion-regulation strategies versus strategy use. Further, there was still debate on how emotion regulation measures should be coded and whether global measures or discrete emotions should be examined. Generally, however, the literature agreed that individuals developed unique styles of emotion regulation that could be adaptive or maladaptive (Bridges et al., 2004). When maladaptive emotion regulation strategies tended to be utilized, individuals might not be sufficiently flexible to respond to changes in the environment, and dysregulation might occur (Bridges et al., 2004).

Research also suggested that emotion regulation was similar to coping, in that they both were measures of affect regulation (Gross & Thompson, 2007). Coping appeared to be a more conscious and deliberate behavior, however, and happened over a longer period of time. In contrast, emotional regulation tended to occur immediately following an emotionally arousing moment (Gross & Thompson, 2007). Thus, emotion regulation and coping appeared to be related but separate constructs that worked together to compose affect regulation (Gross & Thompson, 2007). Nonetheless, no research examined collectively mothers' emotion regulation and their ability to cope specifically with their young children's negative emotions.

Previous research suggested that there was a significant relationship between traumatic experiences (e.g., childhood physical, emotional, and sexual abuse) and emotion regulation difficulties (Badour & Feldner, 2013; Burns, Jackson, & Harding, 2010). In particular, Ehring and Quack (2010) suggested that severity of trauma symptoms was related to a number of factors, such as higher levels of avoidance, reduced clarity and awareness of emotions, impaired use of adaptive emotion regulation strategies, impulse control difficulties, and difficulties engaging in goal-directed behaviors when distressed. Accordingly, problems with emotion regulation appeared to be a risk factor for the development and maintenance of PTSD symptoms as well as substance use (Oshri, Sutton, Clay-Warner, & Miller, 2015). For example, a separate study suggested that individuals with early-onset interpersonal traumas experienced higher levels of emotion regulation difficulties relative to non-traumatized controls (Ehring & Quack, 2010).

Emotion regulation also demonstrated a complex relationship with coping following traumatic experiences. In particular, Ullman, Peter-Hagene, and Relyea (2014) suggested that childhood sexual abuse led individuals to experience greater emotional dysregulation and maladaptive coping skills. Interestingly, if individuals were able to successfully cope with trauma, they perceived themselves as more capable and better able to handle future traumatic experiences (i.e., posttraumatic growth; Wild & Paivio, 2003). Wild and Paivio (2003) did not find a significant relationship between trauma, coping, and emotion regulation, however. Instead, it was suggested that the emotion regulation measure used in their study only assessed one aspect of emotion regulation (i.e., emotional expression), resulting in a less than comprehensive evaluation of emotion regulation. Overall, more research was needed to identify how mothers' own child maltreatment was related to emotion regulation and coping.

Further, it might be that some difficulties with emotion regulation stemmed from attachment relationships (Waters et al., 2010). In fact, the 'emotion regulation model of attachment' postulated that, if individuals were unable to handle their own emotions, they might turn to others to resolve their stress; however, if others were not available, individuals might develop insecure attachment (Brenning & Braet, 2013). This theory was confirmed in a longitudinal study conducted by Pascuzzo, Cyr, and Moss (2013), who suggested that insecure attachment in adolescence was related significantly to the use of emotion-oriented regulation strategies in adulthood. Interestingly, emotion regulation strategies also partially mediated the relationship between adolescent attachment to caregivers and adult attachment to romantic partners (Pascuzzo et al.,

2013). This relationship suggested that emotion regulation abilities were predictive of attachment behaviors in adulthood.

It also was suggested that trauma-related symptoms were associated with attachment behaviors and emotion regulation (Lilly & Lim, 2013). Specifically, Benoit, Bouthillier, Moss, Rousseau, and Brunet (2010) found that emotion regulation strategies mediated the relationship between attachment and PTSD symptoms following a traumatic experience. Further, in a sample of parents with a history of childhood sexual abuse, a path analysis confirmed that both emotion regulation and social support mediated the relationship between attachment and functional impairment (Cloitre, Stovall-McClough, Zorbas, & Charuvastra, 2008). In other words, insecure attachment following childhood maltreatment and poor emotion regulation abilities were related to higher levels of functional impairment.

In addition to the relationships noted above, research suggested that parents who maltreated their children exhibited greater difficulties with emotion regulation. In particular, parents who maltreated their children displayed more emotional and physiological arousal and reacted more negatively to their children's behaviors relative to parents who did not maltreat their children (Ammerman, 1990; Frodi, 1981). Further, Spinetta (1978) reported that mothers who maltreated their children were more likely to become upset, angry, and emotionally reactive and to feel isolated and lonely. In turn, these responses might be related to mothers' inability to utilize effective coping strategies (Cantos, Neale, O'Leary, & Gaines, 1997).

Given that young children look to their caregivers for assistance with emotion regulation (Bariola, Gullone, & Hughs, 2011), a multigenerational examination might be

important. Specifically, when parents offered extrinsic support through emotional or material coping resources (e.g., providing emotional support or distracting a child with environmental stimuli), young children internalized appropriate emotion regulation strategies (Saarni, 2006; Thompson, 1994). Emotion regulation also might be imitated through modeling and social referencing (Bariola et al., 2011; Bridges et al., 2004). In contrast, if parents modeled emotion dysregulation or were abusive, children appeared to learn poor emotion regulation strategies (Gross & Thompson, 2007; Saarni, 2006).

Interestingly, Brenning and Braet (2013) suggested that the parent-child dyad developed their own emotion regulation strategies, with children internalizing and applying these strategies to future interpersonal interactions. If parents misconstrued their young children's emotions, young children also might mislabel their emotions (Waters et al., 2010). Thus, the 'interactive dance' between children and their caregivers was particularly important for the learning of emotion regulation (Robinson et al., 2009). Thus, overall, mothers' emotion regulation was important for their children as well as for the parent-child relationship. As such, Bridges and colleagues (2004) suggested that there was a greater need for research that examined emotion regulation with other socioemotional variables (e.g., attachment relationships, coping, reflective functioning) in the context of parenting.

### Reflective Functioning.

Reflective functioning was described as individuals' ability to recognize their own and others' behavior in an effort to anticipate future behaviors and actions (Fonagy, Steele, Steele, Moran, et al., 1991; Slade, 2005). Specifically, reflective functioning

appeared central to affective regulation and appropriate social relationships (Fonagy, Steele, Steele, Moran, et al., 1991; Fonagy et al., 1995). Individuals' understanding of their own and others' mental states (e.g., feelings, thoughts, desires) was noted to be natural and critical to human functioning (Fonagy & Target, 1998; Slade, 2005). Reflective functioning also was noted to be important for lasting relationships, as it encompassed feeling connected to others as well as feeling autonomous (Fonagy et al., 2002; Slade, 2005). Although reflective functioning was compared to empathy, it was noted to include the capacity to hold and experience emotions as well as the ability to regulate these emotions (Slade, 2005).

Research suggested that many concepts overlapped with the construct of reflective functioning. Specifically, the psychoanalytic term 'mentalization' referred to individuals' capacity to understand human behavior and underlying mental states (Falkenström et al., 2014; Fonagy, Target, Steele, & Steele, 1998). Mentalization was thought to arise from early developmental states of mind and measured how well individual's perceived internal experiences as both attached to and separate from the external world (Falkenström et al., 2014). Similarly, the term 'affect consciousness' was introduced as the process that underlie individuals' basic affective experiences and the ability to consciously recognize, tolerate, and reflect upon these experiences (Falkenström et al., 2014; Solbakken, Hansen, & Monsen, 2011). As such, "affects [were] seen as primary motivating forces, along with drives, homeostatic life support processes, and pain" (Falkenström et al., 2014, p. 28).

Further, the concept of 'insight' referred to individuals' developing of new connections about themselves, cognitions, difficulties, emotions, and others (McAleavey

& Castonguay, 2014). Insight was examined as playing a central role in the outcomes of therapy and was seen in many theoretical orientations (McAleavey & Castonguay, 2014; Slade, 2005). Finally, the concept of 'mindfulness' was introduced recently as the purposeful direction of attention on the present moment in an effort to eliminate cognitive elaborations and see things as they are (Falkenström et al., 2014; Kabat-Zinn, 1996). It might be that mindfulness to mental states was the basis for individuals to be reflective (Allen, 2013).

According to Falkenström and colleagues (2014), reflective functioning was related significantly to the aforementioned constructs but was separate from them. Nonetheless, research suggested that reflective functioning was a better measure of adults' representation of others' internal states when compared to mentalization and other constructs (Bouchard et al., 2008). It also was more sensitive to mothers' quality of descriptions and was a better predictor of attachment styles (Bouchard et al., 2008). Further, reflective functioning was related specifically to traumatic experiences, emotion regulation, and poor outcomes in previous research (Falkenström et al., 2014). Given that these variables were of interest in this study and that reflective functioning was more specific to parents and children, the concept of reflective functioning was examined here.

In particular, parents' reflective functioning represented their ability to reflect upon their own and their children's internal mental experience (i.e., mental states and intentions; Fonagy, Steele, Steele, Moran, et al., 1991; Slade, 2005). Mothers' own reflective capacity and ability to understand that their children had their own feelings, desires, and intentions allowed children to learn about their own internal experience via the manner in which mothers parented (Slade, 2005). According to Slade (2005), "[i]t

[was] the mother's observations of the moment to moment changes in the child's mental state, and her representation of these first in gesture and action, and later in words and play, that [was] at the heart of sensitive caregiving, and [was] crucial to the child's ultimately developing mentalizing capacities of his own" (p. 271). In other words, young children rely on their parents to teach them how to organize their feelings and experiences.

According to Borelli, St. John, Cho, and Suchman (2016), there were two types of parental reflective functioning: 'self-focused reflective functioning' was parents' ability to understand their own mental states and parenting behavior as well as how these things affect their children, and 'child-focused reflective functioning' was parents' ability to understand their child's underlying mental states and how these mental states affect the child's behavior and the parent.

Research further suggested that parents' reflective capacity could affect their children's attachment to them. Specifically, the London Parent-Child Study was completed in an effort to examine whether parents' attachment styles would predict their children's attachment to them at 12- to 18-months of age (Fonagy, Steele, Steele, Moran, et al., 1991). The results of this study suggested that there was a strong association between mothers' mental representations of relationships and the parent-infant relationship. Moreover, Fonagy, Steele, and Steele (1991) used the Adult Attachment Interview (AAI) and reported that they were able to predict infants' attachment styles to their mothers in 75% of cases based on mothers' mental states. By reviewing transcripts, Fonagy, Steele, Steele, Moran, and colleague (1991) identified 'the reflective self.' In other words, parents who were highly reflective were able to understand the

psychological states that underlie their own reactions as well as those of others. In contrast, parents who exhibited lower levels of reflective functioning demonstrated generalizations or ordinary statements that lacked specific examples, demonstrating that they were unable to reflect on their own or others' intentions (Fonagy, Steele, Steele, Moran, et al., 1991).

Slade, Grienenberger, Bernbach, Levy, and Locker (2005) found that mothers who were classified as secure on the Adult Attachment Interview had higher levels of parental reflective functioning, whereas mothers who were classified as insecure exhibited low levels of reflective functioning. In other words, mothers who were able to make sense of their own childhood attachment experiences were better able to understand their own children's behavior. Further, higher levels of mothers' reflective functioning were related significantly to secure attachment in their children, whereas lower levels of mothers' reflective functioning were related to insecure attachment styles in their children. In follow up analyses, Slade and colleagues (2005) proposed that mothers' reflective functioning mediated the relationship between adult and infant attachment. Given this study's small sample size, however, Slade and colleagues (2005) suggested that these findings be replicated.

Nonetheless, attachment was noted to rely on parents' sensitivity to and understanding of their infants' mental world (i.e., their infants' feelings and behavior), with an intergenerational component being recognized (Fonagy, Steele, Steele, Moran, et al., 1991; Slade et al., 2005). Specifically, when children's mental states were reflected upon and responded to appropriately, children felt more assured about the safety of the world and more secure in exploring (Fonagy, Steele, & Steele, 1991). This relationship

was confirmed in another study that described an association between child-focused reflective functioning and child attachment security. In this study, however, child-focused reflective functioning was not associated with parents' attachment security to the child (Borelli, St. John, Cho, & Suchman, 2016). Nonetheless, parents' early emotions and memories that were related to their own attachment experiences affected their reflective functioning capacities as well as their own children's attachment to them (Slade et al., 2005). It should be noted, however, that, even the most reflective parents could become dysregulated and might find it difficult to be reflective all of the time (Slade et al., 2005).

Mothers' capacity for reflective functioning also was particularly important to consider as it was related to various forms of psychopathology (Slade, 2005). In particular, research suggested that Posttraumatic Stress Disorder (Schechter et al., 2005), substance abuse disorders (Pajulo et al., 2012; Suchman, DeCoste, Leigh, & Borelli, 2010), and Borderline Personality Disorder (Fischer-Kern et al., 2010) all were related to parents' reflective functioning capacities. For example, Fonagy and colleagues (1995) suggested that reflective functioning mediated the relationship between early trauma and the development of psychopathology. Nonetheless, adults who experienced early trauma but were able to process this information in a reflective manner were less likely to develop Borderline Personality Disorder when compared to those with low reflective functioning abilities (Stern, 1985). Fonagy and colleagues (2002) also suggested that poor reflective functioning was at the heart of many disorders, such as those that were formerly on Axis I (e.g., depression, anxiety) and Axis II (e.g., personality disorders;

Suchman et al., 2010). Thus, there might be a bidirectional relationship between reflective functioning and psychopathology.

Similarly, research suggested that mothers who were substance involved exhibited difficulty adjusting their own needs and rhythms and were often unpredictable (Pajulo et al., 2012). Their inability to stay connected to their infants and their misunderstanding of the mother-infant relationship could lead to increased risk of child abuse and neglect (Kalland, 2001, as cited in Pajulo et al., 2012). In a study conducted by Pajulo and colleagues (2012), a majority of mothers who were substance involved experienced early childhood and lifetime traumas. These mothers demonstrated weak reflective functioning abilities, on average, and showed smaller increases in their reflective functioning capacities following intervention relative to mothers who did not experience trauma (Pajulo et al., 2012).

Although research has not yet identified a link between mothers' reflective functioning and emotion regulation, some research suggested that there was a link between mindfulness and emotion regulation. Specifically, Pepping, Davis, and O'Donovan (2013) reported that emotion regulation abilities fully mediated the relationship between attachment and mindfulness. Frewen, Dozois, Neufeld, and Lanius (2012) also found an association between PTSD, emotion regulation, and mindfulness. Finally, research suggested that emotion regulation played a significant role in the development of mindfulness (Goodall, Trejnowska, & Darling, 2012). Although these were similar constructs, research had not yet examined the relationship between emotion regulation and reflective functioning in mothers who experienced their own childhood maltreatment.

Slade and colleagues (2005) suggested that interventions should not only focus on parenting skills but also should help mothers to think about their own and their children's behavior (rather than just attempt to change it). This suggestion might take advantage of the fact that reflective functioning bridged the gap between cognitions and behaviors (Slade et al., 2005). Nonetheless, research had not yet established a relationship between reflective functioning abilities and other parent characteristics (e.g., emotion regulation, coping). There also was a gap in the literature regarding how reflective functioning was related to mothers' child maltreatment potential. These findings could be particularly important for clinical interventions, especially when working with mothers who were substance involved, as these mothers were more likely to experience difficulty with reflective functioning (Pajulo et al., 2012) and be at risk for child maltreatment (U. S. Department of Health and Human Services, 2016). Thus, this study examined the complex relationships between mothers' regulatory characteristics (i.e., emotion regulation, reflective functioning, attributions, and coping) and mothers' child maltreatment potential.

#### Attributions.

In general, attributions referred to individuals' beliefs about what causes certain events and behaviors (Fiske & Taylor, 1984). In the context of parenting, attributions referred to the perceived causes of caregiving successes and failures (Bugental, 1998) and, in many cases, the beliefs about why children behave in certain ways (Bugental & Happaney, 2002). Research suggested that parents' attributions played an important role in how parents react toward their children and in the parent-child relationship (Bugental,

1992; Bugental et al., 1989). For example, research suggested that children demonstrated more positive development when parents made positive attributions about the children's behavior (Gretarsson & Gelfand, 1988) and that parents who made negative attributions about their children's behavior were more likely to demonstrate harsh parenting behaviors (Bradley & Peters, 1991; Bugental et al., 1989).

In line with the aforementioned findings, research also suggested that there is a relationship between negative parent attributions about children's behavior and child physical abuse (Bugental & Happaney, 2002; Bugental & Schwartz, 2009). Interestingly, mothers' negative attributions in infancy were related to later childhood maltreatment (Bugental & Happaney, 2004). This finding suggests that parent attributions might be useful in the early detection of child maltreatment. Nonetheless, research suggested that attachment might be a protective factor for the development of more perceived control in relationships. Specifically, research suggested that attachment played an important role in the development of positive attributions, adaptive coping styles, and healthy working models of the self and others in adolescence (Greenberger & McLaughlin, 1993). Given these relationships, it was important to consider mothers' attributions about their children's behavior in the prediction of child maltreatment potential. As such, the current study examined the predictive value of mothers' attributions on child maltreatment, while also considering mothers' trauma history and psychological symptoms, their regulation abilities, and their attachment to their young children.

#### Coping.

When examining parents' history of their own childhood maltreatment and their subsequent child maltreatment potential, it also was imperative to study coping as part of this study. Research suggested that coping was a transactional process between stress and emotion (Folkman & Lazarus, 1985). Further, when parents did not cope effectively with stress, they were at risk for higher levels of child maltreatment potential (Rodriguez, 2009). According to Folkman and Lazarus (1985), the term coping signified cognitive and behavioral efforts to manage the self and the environment. As such, research proposed that there were two major types of coping, emotion-focused coping and problem-focused coping (Folkman & Lazarus, 1985; Lazarus & Folkman, 1984). Specifically, emotion-focused coping was the regulation of distressing emotions and often was utilized in situations that were appraised as unchangeable or out of individuals' control. In contrast, problem-focused coping signified the employment of behavioral change to attempt to solve problems that were distressing and commonly was utilized when individuals evaluate circumstances as changeable (Folkman & Lazarus, 1985; Lazarus & Folkman, 1984).

According to Lazarus and Folkman (1984), the process of coping began with cognitive appraisal. Primary appraisal occurred when individuals judged whether a situation was irrelevant, nonthreatening, or stressful. After primary appraisal occurred, secondary appraisal took place, with individuals evaluating coping options and resources that they could utilize to alleviate stress. Further, personal and environmental resources influenced coping. Personal resources were traits (e.g., personality, cognitive characteristics, optimism) that were relatively stable and that affected the coping process.

Environmental resources, on the other hand, were various features of the environment, such as physical characteristics and social support (Alexander, Feeny, Hohaus, & Noller, 2001; Terry, 1991).

In addition to Lazarus and Folkman's (1984) theory, Roth and Cohen (1986) proposed an additional theory that coping was based on two other central concepts, approach and avoidance. The approach-avoidance model referred to individuals' cognitions and emotions that either moved toward or away from threat. As such, approach strategies allowed individuals to notice and take advantage of changes in a circumstance in an attempt to make it more manageable. In contrast, avoidance strategies proved helpful to individuals as they reduced stress and assisted individuals in being more functional (Roth & Cohen, 1986). Although some individuals tended to use either approach or avoidant coping, others alternated between the two orientations or used different types of coping for different aspects of the situation (Roth & Cohen, 1986). This work was particularly useful with individuals who experienced trauma, in that approach coping might be better when there was prospective control and avoidant coping might be better when situations were uncontrollable (Roth & Cohen, 1986).

Nonetheless, many individuals who experienced trauma exhibited difficulties with coping abilities and subsequent poor psychological functioning. For example, in a sample of incarcerated women, Asberg and Renk (2012) found that trauma symptoms were related significantly to the use of avoidant coping and more negative consequences from substance use. Results of this study also suggested that avoidant coping mediated the relationship between trauma symptoms and more substance-use related consequences. Further, in a separate study of men who were abused sexually in childhood, O'Leary

(2009) found that men who were abused were more likely to use substances as a means of coping and to exhibit higher levels of psychopathology. This study also suggested that the coping styles of positive reinterpretation and growth and the use of instrumental social support significantly reduced the odds that an individual would have clinical levels of psychopathology, whereas behavioral disengagement, acceptance, and suppression of competing activities were related to higher levels of Posttraumatic Stress Disorder symptoms (O'Leary, 2009).

With regard to those who experienced childhood sexual abuse, Asberg and Renk (2013) indicated that incarcerated women who experienced childhood sexual abuse reported more coping difficulties (i.e., use of avoidant coping), more psychological symptoms, and greater levels of involvement with childhood protective services (e.g., foster care) when compared to female undergraduates who had experienced childhood sexual abuse. In addition, Cantón-Cortés and Cantón (2010) found that undergraduates who experienced childhood sexual abuse were more likely to experience symptoms of PTSD years later when compared to participants who had not experienced abuse. These findings might be due, in part, to the use of avoidance and evasion coping strategies, thus highlighting the importance of examining coping abilities in individuals who experienced childhood maltreatment.

These findings were particularly important, as parents who experienced childhood maltreatment themselves might have a difficult time in parenting (e.g., due to attachment, the intergenerational cycle of abuse; Thornberry & Henry, 2013). Nonetheless, parents who could employ effective coping strategies might be helpful to their children in times of need. For example, Salloum and Lewis (2010) examined coping strategies in African

American families following Hurricane Katrina. Results suggested that avoidant coping was utilized least, with many families turning to religious assistance (e.g., praying, reading scripture). Further, children in this sample reported that their parents helped them to cope emotionally by processing the trauma and sharing thoughts and reactions. In a separate study, Lopez and colleagues (2012) found that young children utilized coping strategies that were modeled by their parents. These findings emphasized the importance of parents' role following traumatic events and the fact that coping strategies could be modeled and utilized. More research was needed, however, to examine how coping strategies were related to parents' relationships with their children (Salloum & Lewis, 2010).

In contrast, mothers who utilized poor coping strategies might be at risk for greater child maltreatment potential. Particularly, Cantos and colleagues (1997) suggested that mothers who were abusive reacted with more emotional responses when faced with stressful situations. These responses, in turn, impeded their ability to use problem-focused coping strategies, resulting in them subsequently turning to emotion-focused coping strategies. The emotional responses exhibited by mothers who were abusive might be the result of cognitive or physiological characteristics or might be related to mothers' faulty attributions when interpreting their children's behavior (Cantos et al., 1997; Larrance & Twentyman, 1983). Further, Rodriguez (2009) examined child maltreatment potential in women with unwanted pregnancies. Results of this study suggested that avoidant and emotion coping strategies mediated the relationship between pregnancy desire and child maltreatment potential.

For this study, it also was important to consider the role of attachment when examining coping strategies. For example, individuals' early experiences with an attachment figure might affect their internal working models and subsequently influence their expectations about future interpersonal interactions (Crittenden, 1992; Shapiro & Levendosky, 1999). If individuals experienced an adverse environment (e.g., a neglectful or abusive attachment figure), it might be adaptive to utilize maladaptive coping strategies in the short-term (e.g., avoidant coping). If individuals' internal working models do not become more adaptive over time, however, individuals might carry detached or avoidant coping strategies into later interpersonal relationships (Shapiro & Levendosky, 1999). As such, Shapiro and Levendosky (1999) found that a secure attachment style was related negatively and significantly to avoidant coping strategies. In contrast, fearful attachment was related to emotional and avoidant coping strategies (O'Connor & Elklit, 2008). Notably, attachment also mediated the relationship between child abuse and/or neglect and avoidant coping strategies (Shapiro & Levendosky, 1999).

It was important to note, however, that, despite the many theories of coping, individuals cope in complex ways (Folkman & Lazarus, 1985). It might be that internal and external coping resources and appraisal of strain (e.g., how manageable individuals viewed stressful situations to be) played a significant role in coping strategies and abilities (Alexander et al., 2001). It also might be that individuals responded to different aspects of a situation and/or tried a variety of strategies to deal with stressful instances (Folkman & Lazarus, 1985). As such, Eisenberg, Fabes, and Murphy (1996) suggested that parents' unique perceptions of their children's negative emotionality was important in predicting children's outcomes (e.g., emotionality, social functioning).

Accordingly, many parents could react to children's expression of negative emotions by using negative control strategies (e.g., punishment; Fabes, Leonard, Kupanhoff, & Martin, 2001). This reaction might result from parents perceiving their children's negative emotions as manipulative, a reflection of poor character, or harmful to children. Parents might be particularly prone to viewing their children's expression of emotions negatively when they were distressed emotionally themselves (Fabes et al., 2001). When parents perceived their children's emotions and behaviors negatively, it had a great impact on children's outcomes. For example, Eisenberg and colleagues (1996) indicated that parents' negative coping strategies in response to their children's negative emotions were related to teachers' reports of poor social skills and unpopularity. It was postulated that parents' negative expressed emotions likely reduced children's feelings of security. These feelings of insecurity could affect their ability to regulate their emotions and cope with stress (Fabes et al., 2001).

Moreover, parents' emotional reactions and coping strategies played a significant role in children's social and emotional functioning (Fabes et al., 2001). Specifically, Fabes and colleagues (2001) suggested that parents' distress moderated the relationship between parents' harsh coping and children's negative emotions. Further, mothers who were high on disengaged coping were less sensitive to their young children's negative emotions, suggesting that how mothers' coped with their own emotions generalized to how they responded to their children's emotions. This relationship was especially evident for children with difficult temperaments, as mothers' positive coping served as a buffer against the negative effects related to children's temperament style (Gudmundson & Leerkes, 2012).

The aforementioned research highlighted the importance of parents' ability to cope with their young children's negative emotions. Much of the research available on mothers, however, focused on their broad ability to apply general coping strategies in the context of parenting (Cantos et al., 1997; Rodriguez, 2009). In contrast, few studies examined mothers' ability to cope with their young children's negative emotions, which was critical given that mothers' ability to cope was related to children's coping abilities and subsequent emotional functioning (Fabes et al., 2001). Further, research had not described the complex relationships among parents' emotion regulation, their ability to cope with their reflective functioning abilities in conjunction with child maltreatment potential (Gudmundson & Leerkes, 2012). Thus, these pathways were explored in this study.

## Young Children's Characteristics

Although young children never should be blamed for their experiences of maltreatment, it was documented that certain characteristics appeared to put young children at greater risk for maltreatment. For example, it was proposed that younger children were more likely to be abused and/or neglected (Belsky, 1993; Starling et al., 2007) and to experience recurrences of abuse and/or neglect relative to older children (Klein & Harden, 2011). In particular, the U. S. Department of Health and Human Services (2016) indicated that the highest rate of child maltreatment occurred in young children who ranged in age from birth to 12-months. Palusci (2011) also suggested that infants and young children were most likely to be referred for physical and medical

neglect. Accordingly, statistics suggested that young children were overrepresented in the foster care system (Klein & Harden, 2011).

Unfortunately, young children also tended to be at greater risk for being seriously harmed and killed by child maltreatment. Sadly, of the 1,546 deaths resulting from child maltreatment in 2014, approximately 70.7% of the children affected were 3-years of age or younger (U. S. Department of Health and Human Services, 2016). According to previous research, young children were at greater risk for being perpetrated against because their emotional upsets triggered frustration in new caregivers (Starling et al., 2007). Toddlerhood also was noted to be a time when children began to gain more independence and mobility and to exhibit toddler negativism (i.e., negative or difficult behaviors, such as emotional outbursts), which placed them at greater risk for child maltreatment (Starling et al., 2007). Other research suggested that younger children were at greater risk for child maltreatment because they experience more difficulty with regulating their emotions and because they spend more time with and depended more on their caregivers psychologically and physically (Belsky, 1990). As such, these findings highlighted the importance of early identification and intervention services for young children and their families.

Based on the U. S. Department of Health and Human Services' (2016) most recent report, there was an overall alarming rate of child fatalities due to child maltreatment. The national rates of death resulting from child maltreatment were 2.13 deaths per 100,000 children. In particular, approximately 72.3% of the children who died were subject to neglect, and 41.3% of children experienced physical abuse. Further, boys had a higher fatality rate than girls, and four-fifths of the fatalities involved one or both

parents. The leading risk factors for child fatality were substance abuse (17.9%) and alcohol abuse (6.9%; U. S. Department of Health and Human Services, 2016).

In the context of these findings, there appeared to be a number of child risk factors that could increase the likelihood of child maltreatment. For instance, children with disabilities (e.g., intellectual disability, physical disability, medical problems, learning disability) experienced a greater likelihood of experiencing child maltreatment (Sullivan & Knutson, 2000). Specifically, according to the U. S. Department of Health and Human Services (2012), 14% of children who were maltreated had a disability. Further, children's social competence and internalizing and externalizing behavior problems also placed children at a heightened risk of abuse and neglect (Belsky, 1993; Mash, Johnston, & Kovitz, 1983; Stith et al., 2009; Sullivan & Knutson, 2000; Turner, Vanderminden, Finkelhor, Hamby, & Shattuck, 2011).

According to Turner and colleagues (2011), however, "not all forms of disability [were] associated with equivalent levels of risk" (p. 281). In particular, children with internalizing problems were more likely to experience child maltreatment than children with externalizing problems. It was proposed that the irritability, temper tantrums, school refusal, and difficulty in communicating with caregivers seen with internalizing problems increased these children's risk for maltreatment (Turner et al., 2011). Although there was a plethora of research suggesting that children with emotional and behavioral problems were at greater risk for child maltreatment, it might be that abusive parents just perceived their children as experiencing more problems. For example, Mash and colleagues (1983) found that mothers who engaged in abusive parenting behaviors rated their children as having significantly more behavior problems relative to mothers who were not abusive.

Other child characteristics also should be considered. These characteristics were discussed next.

#### Young Children's Temperament

Young children with difficult temperaments also were noted to be at risk for maltreatment (Engfer, 1992; Vietze, Falsey, Sandler, O'Connor, & Altemier, 1980). Temperament was a term used to describe individuals' unique characteristics, such as adaptability, mood, focus of attention, and rhythmicity (Thomas, Chess, & Birch, 1968). It reflected individuals' excitability of physiological systems as well as their emotional regulation of reactivity (Komsi et al., 2008; Rothbart & Bates, 2006). Temperament was said to be established by 2- to 3-months of age (Thomas & Chess, 1977) and was considered to be stable over time (Goldsmith, Buss, Plomin, & Rothbart, 1987; Zetner & Bates, 2008). All individuals had their own unique temperament that affected their behaviors and the way in which they function in their social world (Lerner, 1993; Thomas et al., 1963). In young children, temperament might affect social, motor, and cognitive functioning as well as those around them (Kristal, 2005). It also might affect how individuals perceived young children, with these perceptions subsequently affecting children's self-perceptions (Thompson, Winer, & Goodvin, 2011). Thus, understanding the characteristics of young children's temperament was essential when examining the parent-child relationship.

In 1956, the New York Longitudinal Study attempted to describe temperament further by examining parent interviews about their children (Rothbart, 2007; Thomas et al., 1968). Nine dimensions of temperament were described and included the following

characteristics. Activity level referred to the motor activity, mobility in daily activities, and the sleep-wake cycle that individuals display. Rhythmicity (regularity) was categorized as the predictability and/or unpredictability of bodily functions, such as hunger, feeding pattern, elimination, and sleep-wake cycle over time. Quality of mood denoted the amount of enjoyable and pleasant behavior compared to the amount of crying and unpleasant behavior. Approach or withdrawal referred to responses to new stimuli (whether positive or negative) as measured by mood expression and motor activity. Threshold of responsiveness indicated the intensity level of stimulation needed to produce a marked response. Adaptability was the reaction to new or changed situations, and intensity of reaction represented the amount of energy in responses. Distractibility referred to the success that an individual had when extraneous stimuli attempted to interfere with ongoing behavior. Finally, attention span and persistence referred to the length of time an individual engaged in an activity and the persistence that the individual withstood when presented with obstacles (Thomas et al., 1968).

Thomas and Chess (1977) used the aforementioned dimensions to identify three main constellations of temperament. Individuals characterized by an easy temperament had high adaptability to change, a positive approach to new stimuli, and a mild or moderately intense mood, which was generally positive (Thomas & Chess, 1977). On the contrary, a difficult temperament was characterized by an intense, predominantly negative mood, negative withdrawal responses to new stimuli, limited flexibility with regard to change, and irregularity in biological functions. The last temperament constellation was the slow-to-warm-up temperament, which was characterized by mild

intensity of reactions (positive or negative), slow adaptability to change, and fewer tendencies to show irregularities in biological functions (Thomas & Chess, 1977).

Research suggested that early temperament was associated with later outcomes. In particular, early characteristics of negative emotionality, irritability, inhibition, and fearfulness all were associated with internalizing problems (e.g., anxiety, depressogenic cognitive approach; Achenbach, 1978; Zentner & Bates, 2008). In contrast, early tendencies that were predominantly difficult were associated with externalizing problems (e.g., aggression and rule-breaking problems; Achenbach, 1978; Patterson & Sanson, 1999), especially when mothers lacked sensitivity or exerted too much control (van Aken et al., 2007a). These findings were especially important, as children with difficult temperaments also were more sensitive to the parenting behaviors that were utilized (Bradley & Corwyn, 2008; van Zeijl et al., 2007). These patterns suggested that children's temperament and parents' characteristics were bidirectional in nature and affect each other during interactions. Thus, young children's temperament was important to consider when examining mothers' characteristics in the context of child maltreatment potential.

For this study, it was important to note that children's temperament also could affect the functioning of their family (e.g., via parenting behaviors; Schoppe-Sullivan, Mangelsdorf, Brown, & Sokolowski, 2007; Webster-Stratton & Eyberg, 1982) and the parent-child relationship (Kristal, 2005). In particular, children's temperament might influence parents' judgments and feeling towards the children (Thomas & Chess, 1977). For example, for children who exhibited an easy temperament, their smiling and laughter might be perceived as more enjoyable and rewarding by parents (Lengua & Kovacs,

2005). When children demonstrated positive emotionality, mothers also were more likely to be accepting toward their children's behavior (Lengua & Kovacs, 2005). In contrast, children with difficult temperament styles were likely to experience poor parenting behaviors, such as negative discipline (van den boom & Hoeksma, 1994; van Zeijl et al., 2007). As such, mothers of children with difficult temperaments were less likely to engage in effective stimulation and physical contact with their children.

In line with this research, evidence suggested that young children's temperament might put them at risk for child maltreatment (Vietze et al., 1980). Specifically, Vietze and colleagues (1980) proposed a transaction-developmental approach to predicting child maltreatment and found that infant's temperament interacted with mothers' background and mother-infant interactions to predict child maltreatment. Engfer (1992) suggested, however, that infants' temperament only became a risk factor for child maltreatment if the parent lacked the social and personal resources to cope with difficulties. For example, parents' discipline and children's difficult temperament interacted to predict internalizing and externalizing problems. In turn, these difficulties placed children at greater risk for being maltreated (Blackson, Tarter, & Mezzich, 1996).

It also might be that mothers' unique perception of their young children's temperament was a more important predictor of child maltreatment potential (Vietze et al., 1980). Specifically, Harrington, Black, Starr, and Dubowitz (1998) suggested that children with easy temperaments were less likely to experience emotional neglect, whereas children with difficult temperaments were more likely to experience maltreatment through indirect effects (e.g., mothers' perceptions). Additionally, Casanueva and colleagues (2010) examined mothers' perceptions of their infant's

temperaments in a sample of mothers identified for child maltreatment investigations. Based on results from this study, 13.6% of mothers reported that their young children (who ranged in age from birth to 23-months) had consistently negative temperament styles. It also was suggested that mother's experience of physical abuse by a romantic partner and mother's own history of childhood abuse and neglect were related significantly to young children's temperament.

Nonetheless, little research examined the relationship between children's temperament and mothers' regulatory characteristics (e.g., emotion regulation, reflective functioning, coping) when predicting child maltreatment. One research study examined the relationship between parents' coping abilities and young children's temperament and found that parents who perceived their infants' temperament to be easy (as exemplified by smiling, laughing, and crying little) utilized more effective coping skills (Ventura, 1982). Further, Yap, Allen, and Sheeber (2007) suggested that the relationship between parents' emotion regulation and adolescents' temperament characteristics was bidirectional, in that parents and adolescents affected each other. These findings suggested that future research should incorporate both young children's temperament and mothers' characteristics in new models.

Although some research focused on how children's temperament affected their attachment to their caregivers, little research investigated how young children's temperament was related to mothers' attachment to these children. For example, research suggested that children with difficult temperaments were more likely to exhibit insecure attachments with their caregivers; however, caregivers' sensitivity played a role in this relationship (Planalp & Braungart-Rieker, 2013). Thus, it could be that mothers'

attachment insecurity to their children might predict children's attachment to their mothers. Further, Troy and Sroufe (1987) suggested that classifications during the Strange Situation procedure depended on children's temperament styles. Given these findings, more research needed to examine the complex relationship between young children's temperament and mothers' attachment. These variables also deserved to be examined as collective predictors of maltreatment, as temperament (Engfer, 1992; Vietze et al., 1980) and attachment (Baer & Martinez, 2006; Stronach et al., 2011) each individually predicted child maltreatment. As such, this study examined these variables collectively.

#### Attachment

Although scarce, research suggested that the aforementioned parents' characteristics (e.g., coping, reflective functioning) were related to parents' attachment relationships with their children (Alexander et al., 2001; Slade, 2005). As such, attachment relationships were noted to be just as important to consider when examining child maltreatment potential (Stronach et al., 2011). The attachment behavior system was described as an emotional connection (e.g., between infants and their caregivers) that helped individuals cope with the world (Bowlby, 1969; Zeanah & Boris, 2000). According to Bowlby (1969), infants maintained proximity to their caregivers as a means of survival. Attachment was noted to be essential for protection against potential threats and was important for the development of emotion regulation across the lifespan (Bowlby, 1973). As such, attachment was noted to develop by approximately 9-months of age and usually occurred with a small number of individuals (Bowlby, 1978). For most

young children, attachment behaviors were noted to be strong until they were approximately 3-years of age (Bowlby, 1978), with many children experiencing anxiety when separated from attachment figures during that time (Bowlby, 1970). Much later, individuals' attachments with their caregivers were replaced by romantic relationships (Bowlby, 1988). Thus, infants who encounter difficulty with attachment in childhood likely experience difficulty as they age (e.g., experiencing psychiatric disorders).

Seminal works in attachment theory were based in psychoanalysis and focused on primary and secondary drives. Specifically, infants' attachment to caregivers was viewed as an attempt to fulfill basic needs that were necessary for survival (e.g., food, water; Bowlby, 1988). Secondary drives resulted from primary drives and consisted of developing an emotional relationship with caregivers for providing nourishment (Bowlby, 1988). This research failed to take into account, however, that infants did not form meaningful attachment connections with every individual who provided basic nourishment for them (Renk et al., 2011).

This notion further was supported by the work of Harlow (1962), who examined contact comfort and fear responses in infant rhesus monkeys. Specifically, Harlow (1962) exposed rhesus monkeys to surrogate mothers made out of wire mesh or terry cloth that provided basic needs (i.e., food). The results of this study suggested that rhesus monkeys spent most of their time clinging to the cloth 'mothers' and only visited the wire 'mothers' for feeding. Thus, attachment relationships were based on much more than feeding and basic needs; contact comfort also was important for caregiver-infant interactions and healthy development (Harlow, 1962).

In an effort to further this work, John Bowlby observed directly the behaviors that occurred between infants and their caregivers. In particular, Bowlby noticed that infants reacted differently when separated from their caregivers. These differences were attributed to the unique attachment that each infant had with his or her major attachment figures (Ainsworth & Bowlby, 1991). Specifically, Bowlby's (1988) Attachment Theory suggested that individuals develop attachments with caregivers to form meaningful relationships as they learn to cope with the world. As infants develop, they were noted to see their caregivers as a secure base from which they could explore their environment safely (Bowlby, 1978). In other words, caregivers were a safe haven (e.g., a foundation of support and comfort) from which infants could explore their environments and return to get their needs met.

Through this exploration, infants tended to gather information about their world (e.g., themselves, their caregivers), which led to the development of their internal working models. These internal working models were present for infants as they develop and form relationships with significant others in the future (Stern, 1985). For infants who experienced problematic interactions with their caregivers, such interactions carried over into their own parenting behaviors when they became parents themselves. This tendency was represented in Fraiberg, Adelson, and Shapiro's (1980) concept of 'Ghosts in the Nursery.' Such tendencies also might be thought of in terms of cognitive schemas (Renk, Roddenberry, & Oliveros, 2004) and were noted to have long-term implications for the intergenerational transmission of attachment behaviors.

According to Bowlby (1982), mothers who experienced disruptions in their attachments with their own caregivers were more likely to experience difficulties in

parenting their own children. These disruptions in attachment stemmed from specific behaviors that were passed down across the generations. For example, parents who were not responsive to their children or neglected the needs of their children were likely to disrupt their infants' attachments with them. This disruption, in turn, increased anxiety regarding the loss of a caregiver, which was carried with them into adulthood (Bowlby, 1978). When new attachments were formed, these disruptions extended into new relationships (Bowlby, 1978), and the cycle of dysfunctional attachments continued.

In an effort to observe attachment behaviors and categorize them, Ainsworth (1967) observed infants' separations from their caregivers in their natural environments. These observations led to the finding that early parenting behaviors affected infants' attachment to their caregivers. Through coding the specific behaviors that were exhibited (i.e., crying, smiling, reaching for mothers, clinging to mothers, mothers' response to their infant), three distinct groups of infants were identified: those who were attached securely and did not cry often, those who were attached insecurely and cried frequently, and those who did not have an organized pattern of behaviors (Ainsworth, Blehar, Waters, & Wall, 1978).

Although studying attachment through naturalistic observation could be rather time-consuming, Ainsworth and colleagues (1978) developed the Strange Situation to examine further caregiver-infant attachment in infants who ranged in age from 11- to 18months (Colin, 1996). The Strange Situation was designed to take place in an unfamiliar setting (e.g., a research laboratory) and consisted of eight stress inducing activities for infants and their caregivers. Each of these activities was intended to elicit the attachment behaviors that the infant and caregiver exhibited with each other (Crowell & Fleishmann,

1993). By using the Strange Situation procedure, Ainsworth and colleagues (1978) identified three major categories of attachment behavior: secure attachment, anxious avoidant attachment, and ambivalent or resistant attachment. Each of these categories were described below.

Infants with a secure attachment used their mothers as a secure base for exploring their environment. In particular, these infants freely explored their environment when their caregiver was present, explored little when their caregiver was absent, and occasionally checked in on their caregiver (Ainsworth et al., 1978). Additionally, when separated from their caregiver, these infants became distressed to varying degrees of intensity (e.g., discontinuing play, being in extreme distress). During the reunion portion of the Strange Situation paradigm, infants with a secure attachment greeted their caregiver, were comforted by their presence, and then continued to engage in play (Ainsworth et al., 1978; Goldberg, Muir, & Kerr, 1995). Secure attachments were considered the most optimal style of attachment.

In contrast, infants with an anxious avoidant attachment style explored their environment without interest in their caregiver's whereabouts. These infants became distressed minimally when separated from their caregiver and disregarded the presence of their caregiver upon their caregiver's return (Ainsworth et al., 1978). Finally, infants with an ambivalent or resistant attachment did not explore their environments readily and attempted to not separate from their caregivers. These infants exhibited poor play and became extremely distressed when separated from their caregiver. During the reunion portion of the paradigm, these infants returned to their caregiver for comfort but were not soothed easily and did not readily return to exploration or play (Ainsworth et al., 1978).

Main and Soloman (1986, 1990) extended the work of Ainsworth and her colleagues (1978) and indicated that many children did not fit cleanly into one of these three attachment categories that were identified previously. In fact, Main and Soloman (1986, 1990) identified an additional category for classifying attachment behavior, which was labeled disorganized/disoriented attachment. Infants with a disorganized/disoriented attachment did not exhibit an organized strategy for handling separations from or reunions with their caregiver. Instead, many of these infants exhibited unusual behaviors, such as apprehension toward their caregiver, stereotypies, freezing, and dazed or affectless facial expressions (Colin, 1996; Main & Solomon, 1986, 1990). Collectively, these four attachment classifications continued to be part of the systematic evaluation of infant-caregiver attachment currently.

Overall, research suggested that infants with a secure attachment to their caregiver exhibited better outcomes relative to infants with other attachment styles. In particular, infants with a secure attachment developed effective strategies for coping with stress and learned to effectively regulate their emotions (Schore, 2001). Once these infants reached childhood, they were more likely to have lasting peer relationships and to exhibit more prosocial behaviors (Bureau & Moss, 2010; Marcus & Kramer, 2001; Renk et al., 2011). Research suggested that these effects were seen throughout adolescence and likely encouraged a positive relationship between adolescents and their caregivers (Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993; Renk et al., 2011). As these infants developed into adulthood, they continued to develop warm and responsive relationships with others (Renk et al., 2011).

In contrast, infants who had an anxious avoidant attachment did not seek close contact with their caregivers because of their repeated rejection from that caregiver (Renk et al., 2011). During childhood, these children exhibited poor coping strategies and were less successful with peer relationships (Sroufe, 2005). For example, Troy and Sroufe (1987) suggested that children with an anxious avoidant attachment were more likely to be hostile and to victimize their peers. These difficulties continued to be present in adolescence. Specifically, Cooper, Shavers, and Collins (1998) examined adolescents in a large community sample and suggested that adolescents with an anxious avoidant attachment style were adjusted poorly relative to those with other attachment styles. For example, these adolescents reported the lowest self-concept and the highest level of risky behaviors and psychopathology.

With regard to ambivalent or resistant attachment, many infants developed this attachment style because their mothers interacted with them based on their own mood. Because of this basis for interactions, infants were uncertain as to whether their caregivers would be there in times of need, resulting in angry, ambivalent, and helpless behaviors in the infants (Isabella, 1993; Renk et al., 2011). Research suggested that these difficult behaviors continued as infants developed. In particular, infants with ambivalent or resistant attachment had higher levels of internalizing and externalizing problems in childhood (Moss et al., 2006). During childhood, Troy and Sroufe (1987) suggested that these children were most likely to be stressed by social situations and victimized by their peers.

Nonetheless, infants who had a disorganized/disoriented attachment were likely to have the poorest psychological outcomes overall (Bakermans-Kranenburg, van

Ijzendoorn, & Juffer, 2005; Renk et al., 2011; van Ijzendoorn et al., 1999) relative to children with other attachment styles. Because of their lack of organized coping strategies when faced with stress, these infants had less adaptive outcomes and higher levels of psychological difficulties (Bakermans-Kranenburg et al., 2005; Renk et al., 2011). For example, a longitudinal study suggested that children with disorganized/disoriented attachment styles demonstrated high levels of internalizing and externalizing problems at intake and at follow up 18 months later (O'Conner, Bureau, McCartney, & Lyons-Ruth, 2011). These children also exhibited less cooperative behaviors and lower quality peer interactions relative to children with secure and insecure-organized attachment (O'Conner et al., 2011).

Thus, in general, children with secure attachments exhibited better outcomes relative to children with insecure attachments. These findings were particularly important, as research identified a significant relationship between mothers' attachment to their children and their children's attachment to their own children (Besser & Priel, 2005; Brothers, 2014). In other words, attachment was noted to be intergenerational in nature and to have the potential to affect future generations. Research suggested that the mechanisms of this intergenerational transmission might be related to mothers' trauma symptoms (Enlow, Egeland, Carlson, Blood, & Wright, 2014). Specifically, Enlow and colleagues (2014) reported that infants of mothers with PTSD symptoms were 4.77 and 13.17 times at greater risk of developing avoidant or resistant attachments and disorganized attachments, respectively, at follow up seven months later. As such, it was important to consider mothers' trauma symptoms (e.g., their ratings of their own childhood maltreatment) when examining attachment behaviors.

Further, it should be noted that, when children experienced maltreatment early in life, they also experienced a disruption in their attachment system and their ability to form trusting relationships in which they could feel secure. Early maltreatment also created a power imbalance, which could leave children feeling ashamed and powerless (Sloman & Taylor, 2015). As such, what was supposed to be an adaptive system turned into a maladaptive system, which could lead to the development of psychopathology (Sloman & Taylor, 2015). As such, it was important to consider mothers' trauma symptoms (e.g., their ratings of their own childhood maltreatment) and their potential for maltreatment when examining attachment behaviors.

Given this research, a number of interventions were developed to assist parents with developing a secure attachment with their young children. For example, the Circle of Security intervention (Hoffman et al., 2006) was developed from theories proposed by Bowlby and Ainsworth. In this intervention, parents learned that it was healthy to support their young children's exploration of their environment. During this exploration, young children had the knowledge that the attachment figure would be watching over, helping, and enjoying with them (Hoffman et al., 2006). When young children came to their caregiver for protection and comfort or to have their feelings organized, young children were assured that their caregiver was there to have their needs met (Hoffman et al., 2006). Through these interactions, healthy attachment between caregivers and young children were formed. Additionally, given that attachment-based interventions were designed to promote young children's attachment security, increase maternal sensitivity, and change maternal mental representations (Ramsauer et al., 2014), it was likely that parents also would have lower child maltreatment potential following treatment. For

example, if parents learned to identify and respond to their young children's cues, to repair relationships when ruptures occur, and to learn about their triggers in parenting (Hoffman et al., 2006; Marvin, Cooper, Hoffman, & Powell, 2002), it was possible that they could see their young children's behaviors as inherently good, thereby decreasing the risk for abuse or neglect.

Accordingly, research mainly focused on the relationship between child maltreatment and child attachment. For example, Stronach and colleagues (2011) suggested that preschoolers who experienced maltreatment had lower rates of secure attachment and higher rates of disorganized and avoidant attachment styles relative to preschoolers who had not experienced maltreatment. These results were confirmed by a meta-analysis conducted by Baer and Martinez (2006), who suggested that infants who were maltreated were more likely to be rated as insecure or disorganized. Further research suggested that 81.8% of children who experienced child maltreatment in their sample exhibited disorganized/disoriented attachment styles.

Although these findings were significant, it also was important to consider the relationship between mothers' narrative descriptions of their attachment to their young children and how these narratives were related to mothers' child maltreatment potential. Although Bowlby (1988) utilized observational research to examine infants' attachment to their caregivers (Bowlby, 1988), his research also furthered the field by examining parents' internal working models of their relationships and how such models were related to the caregiver-infant connection. Specifically, these internal working models included mental representations, such as parents' experiences and perceptions of their children. Such mental representations affected caregiver-infant relationships (Zeanah & Benoit,

1995). Bowlby (1980) suggested that these internal working models had a tendency to demonstrate stability over time and across relationships and that they affected how caregivers parent their children.

Research suggested that parents formed perceptions of their infant prior to their birth and that these perceptions might be related to their interpretations of their infant's behavior following birth (Fava-Vizziello et al., 1993). These pre-birth narrative descriptions of their attachment to their infants also were related significantly to the infants' attachment security to caregivers (Zeanah, Benoit, Hirshberg, Barton, & Regan, 1994) as well as to the risk of developing a variety of clinical disorders (Benoit, Zeanah, Parker, Nicholson, & Coolbear, 1997). These findings highlighted the importance of examining parents' narratives of their attachment relationships with their young children. Although some powerful relationships were identified already, more research was needed to investigate how mothers' specific characteristics and their perceptions of their attachment to their young children and their own maltreatment potential. Thus, this study examined these relationships.

## The Present Study

Given the impact that parents' and young children's characteristics had on the potential for child maltreatment, the present study sought to examine how mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation abilities (i.e., emotion regulation, reflective functioning, attributions, coping with young children's negative emotions), and their perceptions of their young children's

temperament were related to their narratives of their attachment relationships with their young children and their child maltreatment potential. Prior research examined these variables independently (Cohen et al., 2008; Fabes et al., 2001; Lilly & Lim, 2013; O'Conner et al., 2011; Slade, 2005); however, no one study examined these variables collectively. Additionally, although related constructs, research had yet to identify a relationship between mothers' emotion regulation, reflective functioning, and coping abilities. Further, research on mothers' coping abilities generally focused on the broad construct of coping rather than focusing specifically on mothers' ability to cope with their young children's negative emotions. As such, the purpose of this study was to examine further these variables and their collective relationships.

In addition, given that mothers were identified as having maltreated their children in more cases overall than fathers (U. S. Department of Health and Human Services, 2016), there was a need for research that particularly examined the characteristics that placed mothers at greater risk for maltreating their young children. Accordingly, this study sought to add to the literature and provide a further understanding of how mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulatory characteristics (i.e., emotion regulation, reflective functioning, attributions, coping with toddlers' negative emotions), their narratives of their attachment relationships, their perception of their young children's temperament, and their child maltreatment potential were related. By identifying the potential links among these variables, this study attempted to understand the most important predictors of mothers' narratives of their attachment relationships with their young children and their child

maltreatment potential so that these predictors could be incorporated into interventions for high risk mothers and their young children.

The first purpose of this study was to investigate the relationships among mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulatory characteristics (i.e., emotion regulation, reflective functioning, attributions, and coping with toddlers' negative emotions), their perception of their young children's temperament, their narratives of their attachment relationships with their young children, and their child maltreatment potential. For the purposes of this study, mothers' perceptions of temperament traits (e.g., activity level, flexibility/rigidity, mood quality) were examined on a continuum, with scores ranging from difficult to easy. Based on the aforementioned findings, it was hypothesized that mothers who endorsed higher levels of their own childhood maltreatment would endorse higher levels of psychological symptoms, lower levels of emotion regulation and reflective functioning abilities, lower perceived balance of control (i.e., attributions), nonsupportive coping styles, perceptions of more difficult temperament in their young children (e.g., high activity level, low flexibility, negative mood), more unbalanced (insecure) narratives of attachment (i.e., via the Working Model of the Child Interview, to be described below), and higher child maltreatment potential. Further, it was hypothesized that mothers who endorsed lower levels of their own childhood maltreatment would endorse lower levels of psychological symptoms, higher levels of emotion regulation and reflective functioning abilities, higher perceived balance of control (i.e., attributions), supportive coping styles, perceptions of easier temperament in their young children (e.g., low activity level, high flexibility,

positive mood), more balanced (secure) narratives of attachment, and lower child maltreatment potential.

Further, to examine the second purpose of this study, a binary logistic hierarchical regression analysis was used to determine the relative contributions of mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation characteristics (i.e., emotion regulation, reflective functioning, attributions, coping with toddlers' negative emotions), and their perceptions of their young children's temperament in predicting mothers' narratives of their attachment relationships with their young children. This procedure was chosen to account for a dichotomous dependent variable (Field, 2009). Accordingly, mothers' ratings of their own childhood maltreatment was entered in Block 1, their psychological symptoms were entered in Block 2, their regulation characteristics (i.e., emotion regulation, reflective functioning, attributions, and coping) were entered in Block 3, and their ratings of their young children's temperament characteristics were entered in Block 4 to predict mothers' narratives of their attachment relationships with their children (i.e., Balanced and Unbalanced). A separate hierarchical linear regression was conducted to examine the extent to which mothers' child maltreatment potential would be predicted by the aforementioned variables. Thus, mothers' ratings of their own childhood maltreatment was entered in Block 1, their psychological symptoms were entered in Block 2, their regulation characteristics (i.e., emotion regulation, reflective functioning, and coping) were entered in Block 3, their ratings of their young children's temperament were entered in Block 4, and their narratives of their attachment relationships with their young children was entered in Block 5 to predict mothers' child maltreatment potential. These analyses shed

light on the relative contributions of each of these variables in predicting mothers' attachment and child maltreatment potential, respectively.

In addition, this study examined the role of specific mediators in predicting mothers' characteristics. Specifically, it was postulated that the relationship between mothers' emotion regulation and their ability to cope with their young children's negative emotions would be mediated by mothers' reflective functioning abilities. In other words, it was expected that mothers' emotion regulation would predict their reflective functioning abilities. In turn, mothers' reflective functioning would predict their coping with their young children's negative emotions (i.e., supportive and nonsupportive). For this mediation model, the Baron and Kenny (1986) regression method for determining mediation was utilized. Mediation was confirmed using a Sobel test (to be described below).

Finally, this study sought to examine whether mothers' narratives of their attachment relationships with their young children (i.e., balanced and unbalanced) would moderate the relationship between mothers' perceptions of their young children's temperament (i.e., activity level, flexibility/rigidity, mood quality) and mothers' child maltreatment potential. Specifically, it was hypothesized that mothers' perceptions of their young children's temperament would predict independently mothers' child maltreatment potential; however, mothers' narratives of their attachment relationships with their young children was hypothesized to interact with their perceptions of young children's temperament in their prediction of child maltreatment potential. Accordingly, mothers' ratings of their young children's temperament (i.e., activity level, flexibility/rigidity, and mood quality) was entered into Block 1 to investigate their unique

prediction of mothers' child maltreatment potential. Next, mothers' narratives of their attachment relationships with their young children (i.e., balanced versus unbalanced) was entered in Block 2. Finally, the interaction terms were entered into Block 3 to predict mothers' child maltreatment potential.

# **CHAPTER TWO: METHODOLOGY**

#### Participants

As part of this study, 54 mothers rated themselves and their young children on the variables of interest for this study. Attempts were made to recruit mothers who were accessing services meant to address socioeconomic and other challenges. Mothers were recruited from various agencies in the greater Orlando area, with 37.2% being recruited from Head Start programs (i.e., an agency that promotes the school readiness of young children from low-income families), 11.6% being from the Paramore Kidz Zone Baby Institute (i.e., PKZ; a program to help parents of young children build knowledge and skills that result in better parenting and school readiness), 9.3% from the Anthony House for Women (i.e., a residential and transitional housing facility for chronic homeless women and pregnant/postpartum women who misuse substances), and 4.7% being from the Early Learning Coalition (i.e., an agency that helps parents with young children locate high quality early education and care providers). The suggested sample size for a regression analysis (p < .05) examining moderation and statistical power of .80 is 104 participants in order to detect a medium effect size and 54 participants in order to detect a large effect size (Cohen, 1992). Given the challenging nature of recruiting these mothers, the sample size noted here was used for this study, even though it is possibly underpowered for the analyses conducted (if effect sizes were not large).

For the 54 mothers included in this study, their mean age was 29.59-years (SD = 6.40-years). A large number of these mothers were African American (50.0%), whereas the remainder of these mothers varied in their ethnic backgrounds (i.e., 30.8% were

Hispanic, 17.3% were Caucasian, and 1.9% were from some other ethnicity). With regard to education, the majority of these mothers had attained a high school diploma (22.2%) or college degree (22.2%), whereas the remainder of mothers endorsed having some high school (16.7%), some college (16.7%), vocational training (13.0%), graduate professional training (7.3%), or post doctoral training (1.9%). With regard to yearly household income, 34.0% of mothers reported earning less than \$10,000, whereas the remainder endorsed earning \$10,000-\$20,000 annually (27.7%), \$20,000-\$30,000 annually (14.9%), \$30,000-\$40,000 annually (6.4%), \$40,000-\$50,000 annually (12.8%), \$50,000-\$60,000 annually (2.1%), and \$60,000-\$70,000 annually (2.1%).

Pertaining to the young children rated in this study, 27 were males (50.0%), and 27 were females (50.0%). These young children ranged in age from 3- to 64-months and had a mean age of 30.83-months (SD = 34.03-months). In addition, the majority of these young children had parents who were never married (68.5%), whereas the remainder of these young children lived in families with a different parent relationship status (i.e., 22.2% of the young children had parents who were married, 5.6% of the young children had parents who were separated, and 3.7% of young children had parents who were divorced).

## Procedure

Following IRB approval from the University of Central Florida, the Directors of Head Start programs, the PKZ Baby Institute, the Anthony House for Women, and the Early Learning Coalition were contacted to explain the study and request permission to recruit mothers from their facilities for this study. Once consent was obtained from the

Directors and the appropriate review boards from these facilities, mothers receiving services from these facilities were provided information about the study by staff. For those mothers who provided permission to be contacted about this study by researchers, individual meeting times were arranged so that these mothers could participate.

Research packets were completed by mothers on site at their respective community venues. First, mothers were provided with a consent form to indicate their agreement to participate. Mothers were assured anonymity, and all consent questions were answered prior to beginning the study. Next, mothers were interviewed using the Working Model of the Child Interview by the graduate student investigator or another graduate student in clinical psychology who had been trained to complete this interview and who had been approved as an investigator for this study. These interviews were recorded on a locked iPad, uploaded to a secure dropbox, downloaded to a password protected computer in the faculty mentor's research laboratory, and deleted from the iPad and dropbox. These interviews then were transcribed and coded. In addition, mothers were asked to complete a packet of questionnaires (to be discussed below). It should be noted that all mothers received an identification number for the linking of interviews and research packets, and no names were included in the research process. Mothers completed the questionnaires in the presence of their respective graduate student investigator. Following completion of mothers' participation, mothers were provided a debriefing form that explained the purpose of the study and provided references to the relevant research literature about the topic area covered by this study. Mothers also were provided with a \$10.00 gift card to Walmart for their participation.

Each interview and packet of questionnaires required approximately one and a half hours for mothers to complete. Once questionnaire packets were completed, this information was transported and stored securely in a locked cabinet inside the faculty supervisor's laboratory at the University of Central Florida. To ensure anonymity, no personally identifying information was required as part of the interview or questionnaire packet, and all consent forms and contact sheets were separated immediately from the packets. Finally, all data were analyzed in group format, and no individual packet was singled out for examination. See *Appendix A* for tables, *Appendix B* for the IRB approval letter, *Appendix C* for the Consent Form, *Appendices D* through *M* for measures, and *Appendix N* for the Post Participation Information.

#### <u>Measures</u>

First, mothers completed a brief questionnaire regarding demographic information. The demographics questionnaire asked mothers to provide information regarding themselves and their children on various variables, such as age, ethnicity, occupation, sex, and other related characteristics. See *Appendix D* for a sample of the demographics questionnaire.

The *Childhood Trauma Questionnaire* (*CTQ*; Bernstein & Fink, 1998) was used to assess mothers' ratings of their own childhood maltreatment. The CTQ was a 28-item self-report instrument that was rated on a five-point Likert scale ranging from *Never True* (1) to *Very Often True* (5). The CTQ assessed for five forms of childhood maltreatment (Cronbach alphas noted were from Bernstein & Fink, 1998): emotional abuse ( $\alpha = .84$  to .89), physical abuse ( $\alpha = .81$  to .86), sexual abuse ( $\alpha = .92$  to .95), emotional neglect ( $\alpha =$ 

.85 to .91), and physical neglect ( $\alpha$  = .61 to .78). The CTQ also provided a Total CTQ score ( $\alpha$  = .91). The total CTQ score was used in the current study. The Cronbach alpha for this study was good ( $\alpha$  = .76). See *Appendix E* for a sample of the Childhood Trauma Questionnaire.

The *Brief Symptoms Inventory* (BSI; Derogatis & Melisaratos, 1983) was utilized to assess mothers' ratings of their psychological symptoms. The BSI was a 53-item selfreport inventory in which individuals rated on a 4-point Likert scale whether they were *Not At All (0)* to *Extremely (4)* bothered by their psychological symptoms in the past week. This measure provided nine subscales (Cronbach alphas noted were from Derogatis & Melisaratos, 1983): Somatization ( $\alpha = .81$ ), Obsessive-Compulsive ( $\alpha = .80$ ), Interpersonal Sensitivity ( $\alpha = .66$ ), Depression ( $\alpha = .81$ ), Anxiety ( $\alpha = .78$ ), Hostility ( $\alpha =$ .75), Phobia ( $\alpha = .69$ ), Paranoia ( $\alpha = .69$ ), and Psychoticism ( $\alpha = .64$ ). The BSI also provided a Total score, the Global Severity Index (i.e., the GSI; an overall score of psychological symptoms;  $\alpha = .96$ ; Gratz & Roemer, 2004). Higher scores on the GSI indicated that the individual was more bothered by their psychological symptoms. The Total GSI score, which had an excellent Cronbach alpha ( $\alpha = .98$ ), was utilized in this study. See *Appendix F* for a sample of the Brief Symptoms Inventory.

In an effort to measure mothers' self-reported emotion regulation during times of distress, the *Difficulties in Emotion Regulation Scale (DERS*; Gratz & Roemer, 2004) was used. The DERS contained 36 items and measured six subscales (Cronbach alphas noted were from Gratz & Roemer, 2004): Nonacceptance of Emotional Responses ( $\alpha = .85$ ), Difficulties Engaging in Goal-Directed Behavior ( $\alpha = .89$ ), Impulse Control Difficulties ( $\alpha = .86$ ), Lack of Emotional Awareness ( $\alpha = .80$ ), Limited Access to Emotion

Regulation Strategies ( $\alpha = .88$ ), and Lack of Emotional Clarity ( $\alpha = .84$ ). The DERS also provided a Total score (i.e., an overall score of emotion regulation;  $\alpha = .93$ ; Gratz & Roemer, 2004). The DERS utilized a five-point Likert scale that ranged from *Almost Never or 0-10% of the Time (1)* to *Almost Always or 91-100% of the Time (5)*. Higher scores on the DERS indicated that the individual experienced more difficulty with emotion regulation in the face of distress. The Total DERS score, which had an excellent Cronbach alpha ( $\alpha = .96$ ), was used in this study. See *Appendix G* for a sample of the DERS.

The Parental Reflective Functioning Questionnaire (PRFQ; Luyten et al., submitted for publication) was used in the current study to examine mothers' reflective functioning abilities and efforts to understand mental states and behaviors. The PRFQ consisted of 18 items that mothers rated on a seven-point Likert scale that ranged from Strongly Disagree (1) to Strongly Agree (7). The PRFQ had three subscales (Cronbach alphas provided by Rutherford et al., 2013): Certainty in Mental States ( $\alpha = .82$ ), Pre-Mentalizing ( $\alpha = .70$ ), and Interest and Curiosity in Mental States ( $\alpha = .74$ ). The Certainty in Mental States subscale measured parents' ability to measure mental states that were not clear; the Pre-Mentalizing subscale was designed to measure non-mentalizing in parents (e.g., "When my child is fussy, he or she does that just to annoy me"); and the Interest and Curiosity in Mental States subscale measured the interest a parent had in their child's mental states. In the current study, a Total Reflective Functioning score was used to obtain an overall measure of mothers' ability to be reflective of their young child's needs. The Cronbach alpha for the Total score in this study was good ( $\alpha = .70$ ). See Appendix H for a sample of the Parental Reflective Functioning Questionnaire.

To measure mothers' ability to cope with their young children's negative emotions, the Coping with Toddler's Negative Emotions Scale (CTNES; Spinrad et al., 2007) was used. The CTNES was adapted from the Coping with Children's Negative Emotions Scale (Eisenberg & Fabes, 1994; Eisenberg et al., 1996). This instrument contained 12 hypothetical situations in which a toddler was upset, angry, or distressed. Mothers rated the likelihood of responding to each scenario on a scale from Very Unlikely (1) to Very Likely (7). The CTNES scale consisted of seven subscales (Cronbach alphas noted were from Spinrad et al., 2007): Distress Reactions ( $\alpha = .81$ ), Punitive ( $\alpha = .81$ ), Minimizing Reactions ( $\alpha = .85$ ), Expressive Encouragement ( $\alpha = .93$ ), Emotion-Focused  $(\alpha = .76)$ , Problem-Focused ( $\alpha = .82$ ), and Granting the Child's Wish ( $\alpha = .68$ ). On the CTNES, two larger composites were identified: the Supportive Scale ( $\alpha = .90$ ), which consisted of the Problem-Focused, Emotion-Focused, and Expressive Encouragement subscales, and the Nonsupportive Scale ( $\alpha = .84$ ), which consisted of the Distress Reactions, Minimizing Reactions, and Punitive Reactions subscales (Gudmundson & Leerkes, 2012; Spinrad et al., 2007). In the current study, the Supportive ( $\alpha = .90$ ) and Nonsupportive ( $\alpha = .93$ ) Scales were used, with both demonstrating excellent Cronbach alphas. See Appendix I for a sample of the Coping with Toddler's Negative Emotions scale.

The *Parental Attributions Test* (PAT; Bugental, 1998) was used to assess mothers' attributions of controllability over parent-child interactions. The PAT provided measures for parents' perceived control over caregiving success (ACS) and failure (ACF) and parents' attributions to children for caregiving success (CCS) and failure (CCF). The composite of the ACF and the CCF scores comprised a total measure of perceived control

over failure (PCF), whereas the composite of the ACS and the CCS scores comprised a measure of perceived control over success (PCS). The PCF score was calculated by subtracting the CCF from the ACF, thereby creating a continuous score. This score was used in this study. The test-retest stability coefficient (r) for the PCF scale was .63 in a previous study (Bugental, 1998). The Cronbach alpha for the PCF in current study was excellent ( $\alpha = .90$ ). See *Appendix J* for a sample of the Parental Attributions Test.

The Dimensions of Temperament Scale-Revised for Children (DOTS-R Child; Windle & Lerner, 1986) was used to assess mothers' reports of their young children's temperament. The DOTS-R Child was a 54-item questionnaire that was rated using a four-point Likert scale that ranged from Usually False (1) to Usually True (5). This questionnaire measured the nine main attributes of temperament (the Cronbach alphas noted were reported in Windle & Lerner, 1986): Activity Level-General ( $\alpha = .84$ ), Activity Level-Sleep ( $\alpha = .87$ ), Approach-Withdrawal ( $\alpha = .84$ ), Flexibility-Rigidity ( $\alpha =$ .79), Mood Quality ( $\alpha = .91$ ), Rhythmicity-Sleep ( $\alpha = .80$ ), Rhythmicity-Eating ( $\alpha = .80$ ), Rhythmicity-Daily Habits ( $\alpha = .70$ ), and Task Orientation ( $\alpha = .79$ ). Higher scores on these subscales signified higher activity level, more adaptability or greater tendency to approach new situations, greater flexibility to the environment, greater level of positive quality of mood, highly regular sleep patterns, highly regular eating habits, highly regular daily activities and habits, lower distractibility, and a higher persistence in activities, respectively. According to Billman and McDevitt, (1980), Activity Level-General, Flexibility/Rigidity, and Mood Quality were the child temperament characteristics that were the most likely to distinguish between difficult and easy temperament. Therefore, these three dimensions were used in this study. For this study, the Cronbach alphas for

Activity Level-General ( $\alpha$  = .80) and Mood Quality ( $\alpha$  = .83) scales were good, whereas the Cronbach alpha for the Flexibility ( $\alpha$  = .66) scale was lower. It is possible that this lower alpha was a result of items not being as cohesive as those on other scales, the low number of items that load onto this scale, or a lower sample size in this study. See *Appendix K* for a sample of the DOTS-R Child.

The Working Model of the Child Interview (WMCI; Zeanah, Benoit, Barton, & Hirshberg, 1996) was utilized to measure each mother's narrative of their attachment relationships with their young children. The WMCI was a semi-structured interview that took approximately one hour and has been used primarily with individuals who have young children who range in age from birth to 5-years. The WMCI assessed caregivers' mental representations of their young children as well as their relationship with their young children. The WMCI was audio recorded, transcribed, and then coded. When coding the WMCI, three categories were derived: Balanced and two Unbalanced categories (i.e., Disengaged and Distorted). Balanced narratives included both positive and negative statements about the young child and suggested that the caregiver was involved in the parent-young child relationship but also saw the young child as an individual. These parents' narratives conveyed coherence, rich details about the relationship, and a sense of the caregiver's engrossment in their relationship with their young child. Unbalanced narratives consisted of emotional distance from the young child or internal inconsistencies within the representations. These narratives may be suggestive of incoherence in the relationship, lack of involvement with the young child, preoccupation with other concerns, or self-involvement that affects the caregiver-young child relationship. A total of 47 Working Model of the Child Interviews were coded and

included in this study. Of those missing, three of the interviews were conducted in Spanish and were unable to be transcribed, and four mothers did not complete the interview due to time constraints. Completed Working Model of the Child Interviews were coded by trained individuals and inter-rater agreement was established. Of the 15% of interviews that were selected randomly for coding by more than one investigator, there was 100% agreement across investigators. *Appendix L* for a sample of the Working Model of the Child Interview.

The *Child Abuse Potential Inventory* (*CAP*; Milner, 1986, 1994) was used as a screener to detect the potential for child physical abuse. The CAP consisted of 160 self-report items that participants were asked to rate in a forced-choice *Agree* or *Disagree* format. The CAP contained a Physical Child Abuse scale ( $\alpha = .92 - .96$ ; Milner, 1986) comprised of 77-items as well as six descriptive factor scales: Distress, Unhappiness, Rigidity, Problems with Child and Self, Problems with Family, and Problems with Others. Additionally, the CAP included three validity scales (i.e., a Lie scale, a Random Response scale, and an Inconsistency scale) that can be used to obtain three response distortion indexes (i.e., the Faking Good Index, the Faking Bad Index, and the Random Response Index). Finally, the CAP contained two special scales: the Ego Strength scale and the Loneliness scale (Milner, 1986, 1994). Higher scores on the Physical Child Abuse Scale suggested a higher potential for child maltreatment. For the current study, the Physical Child Abuse Scale had an excellent Cronbach alpha ( $\alpha = .94$ ). See *Appendix M* for a sample of the CAP.

## **CHAPTER THREE: RESULTS**

## **Descriptive Statistics**

The results of this study were put into context by calculating and examining descriptive statistics (i.e., means and standard deviations) for the variables of interest. With regard to mothers' ratings of their own childhood maltreatment (as measured by the CTQ Total Score), it was suggested in previous research that scores that ranged from 25 to 31 reflected no trauma, scores that ranged from 41 to 51 reflected low to moderate trauma, scores that ranged from 56 to 68 reflected moderate to severe trauma, and scores that ranged from 73 to 125 reflected severe trauma (Bernstein et al., 2003; Spies & Seedat, 2014). As such, mothers in this sample reported moderate to severe levels with regard to their own maltreatment experiences on average (M=56.78, SD=16.57; scores were able to range from 25 to 125), although it should be noted that this mean score fell on the lower cusp of this designated range.

In addition, mothers reported relatively high levels of overall psychological symptoms (as measured by the GSI subscale of the BSI; M=0.88, SD=0.98; scores were able to range from 0 to 4). It should be noted that this mean GSI score corresponded with a T score of 63, which is considered the cutoff for clinical symptomatology on the BSI (Derogatis & Melisaratos, 1983). With regard to regulation characteristics (as measured by the DERS Total Score), mothers reported moderate levels of emotion regulation (M=71.83, SD=30.21; as scores were able to range from 36 to 180). This level of emotion regulation was consistent with levels identified in a previous study (Fowler et al., 2014). Further, with regard to reflective functioning (as measured by the PRFQ Total Score),

mothers reported moderate levels of reflective functioning (M=4.66, SD=0.48; as scores were able to range from 1 to 7). This mean score is similar to those presented in a study conducted by Pajulo and colleagues (2015).

In terms of attributions (as measured by the PAT), mothers rated themselves as having levels of total perceived control (i.e., PCF; M=0.39, SD=0.84) that reflected higher ACF (controllable and uncontrollable factors by the adult) scores when compared to CCF (controllable and uncontrollable factors by the child) scores. According to Bugental (1998), parents who had low ACF scores and high CCF scores were found to be at risk for the use of harsh parenting, suggesting that this sample might not have been as 'high risk' as was anticipated given the referral sources from which they came. With regard to coping abilities (as measured by the CTNES), mothers reported moderate to high levels of supportive coping (M=5.54, SD=0.82; as scores were able to range from 1 to 7) and relatively low levels of nonsupportive coping (M=3.10, SD=1.00; as scores were able to range from 1 to 7). These means were similar to those identified in previous research using a community sample (Spinrad et al., 2007).

Mothers also provided ratings of their perceptions of their young children's temperament (as measured by the DOTS-R-Child). Scores in this study were compared to ratings of children in a large community sample (Windle et al., 2015), whose parents rated them as having relatively moderate levels of flexibility/rigidity (M=12.25), activity level-general (M=12.30), and mood quality (M=14.52). Mothers in the current sample reported relatively moderate levels of flexibility/rigidity (M=13.70, SD=3.77; as scores were able to range from 5 to 20) and relatively high levels of activity level-general

(M=21.26, SD=5.29; as scores were able to range from 7 to 28) and mood quality (M=25.43, SD=4.46; as scores were able to range from 7 to 28).

With regard to mothers' narratives of their attachment relationships with their young children, 64.8% (N=35) of mothers were classified as balanced, 22.2% (N=12) of mothers were classified as unbalanced, 7.4% (N=4) of mothers did not complete the interview, and 5.6% (N=3) of mothers' interviews were unable to be coded. Further, mothers reported a moderate level of overall child maltreatment potential on average (M=128.74, SD=105.23). In previous research, mothers who scored at or above the critical cut-off score of 166 were classified as "High Maltreatment Potential," whereas those who score below 166 were classified as "Low Maltreatment Potential" (Milner, 1986). Specifically, in this sample, 72.2% of mothers were classified as "High Maltreatment Potential" (Milner, 1986). Interestingly, this distribution mirrored that found with the mothers' narratives of their attachment relationships with their young children.

## Preliminary Analyses

## Analysis of Variance (ANOVA)

Given the different venues for recruiting mothers for this study (i.e., Head Starts, the Anthony House, PKZ Baby Institute, Early Learning Coalition), analyses were conducted in order to determine if there were meaningful differences between these venue groups on the variables of interest. More specifically, given that each of these community venues provided various services to these mothers, it was important to consider if any groups demonstrated significantly higher or lower scores on the variables

of interest. The results of the Analysis of Variance (ANOVA) indicated that there were no overall differences between groups. Specifically, results suggested that there were no overall significant differences between groups for mothers' ratings of their own childhood maltreatment, F(3, 53) = 1.74, p < .18, their psychological symptoms, F(3, 53)= .98, p < .41, their emotion regulation, F(3, 53) = .15, p < .92, their reflective functioning, F(3, 53) = .78, p < .52, their attributions, F(3, 53) = .56, p < .65, their supportive coping styles, F(3, 53) = .54, p < .66, their nonsupportive coping styles, F(3, 53) = 1.04, p < .39, their perceptions of their young children's activity level, F(3, 53) = 2.10, p < .12, their perceptions of their young children's flexibility/rigidity, F(3, 53) = .54, p < .66, their maltreatment potential, F(3, 53) = 1.15, p < .34. Given that there were no identified significant differences overall across the venues used for recruitment, separate groups to account for recruitment venue were not used in the overall analyses.

## Chi Square Analyses

Given the dichotomous nature of the attachment variable, chi square analyses were conducted to determine if there were meaningful differences across the different recruitment venues in this study (i.e., Head Starts, the Anthony House, PKZ Baby Institute, Early Learning Coalition). As stated above, given that each of these community venues provided various services to these mothers, it was important to consider if there were significant categorical differences in the distribution of the codes for mothers' narratives of their attachment relationships with their young children based on community venue. Results of the chi square analysis suggested that there were no overall

differences across venues for the distribution of codes for mothers' narratives of their attachment relationships with their young children,  $\chi^2$  (3, N = 47) = 3.19, p < .37. Given that there were no differences found, we did not account for recruitment venues in the overall analyses.

## Correlational Analyses

To examine the first hypothesis for this study and test the relationships among mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation abilities (i.e., emotion regulation, reflective functioning, attributions, and coping with young children's negative emotions), their ratings of their young children's temperament, and their child maltreatment potential, correlations among these variables were calculated. It should be noted that mothers' narratives of their attachment relationships with their young children were not included in these analyses given the dichotomous nature of this variable. Additionally, given the number of variables included in this study, Bonferroni corrections also were considered and are noted in the correlation table provided. Refer to Table 1 for these correlations, with notations for Bonferroni corrections.

Overall, mothers' ratings of their own childhood maltreatment demonstrated some significant relationships with the variables of interest. Specifically, mothers' ratings of their own childhood maltreatment (CTQ Total Score) was related positively and significantly to their psychological symptoms (GSI subscale of the BSI), emotion regulation (DERS Total Score), and child maltreatment potential (CAPI Total Score), such that higher levels of mothers' ratings of their own childhood maltreatment were

related to higher levels of psychological symptoms, greater difficulties with emotion regulation, and higher levels of maltreatment potential. In addition, mothers' psychological symptoms (GSI subscale of the BSI) were related positively and significantly to their emotion regulation (DERS Total Score), nonsupportive coping styles (CTNES Nonsupport), and child maltreatment potential (CAPI Total Score). In other words, mothers' higher levels of psychological symptoms were related to greater difficulty with emotion regulation, higher levels of nonsupportive coping styles, and higher levels of child maltreatment potential. Mothers' psychological symptoms (GSI subscale of the BSI) also were related negatively and significantly with mothers' perceptions of their young children's flexibility (DOTS-R-Child), such that mothers' higher levels of psychological symptoms were related to less flexibility in their young children.

In terms of regulation abilities, mothers' emotion regulation (DERS Total Score) was related positively and significantly with nonsupportive coping styles (CTNES Nonsupport) and child maltreatment potential (CAPI Total Score), which suggested that mothers' greater difficulty with emotion regulation was related to higher levels of nonsupportive coping styles and higher levels of child maltreatment potential. Further, mothers' emotion regulation (DERS Total Score) was related negatively and significantly with mothers' ratings of their young children's flexibility (DOTS-R-Child), such that greater difficulty with emotion regulation was related to less flexibility in their young children. In addition, mothers' reflective functioning (PRFQ Total Score) was related positively and significantly with supportive coping styles (CTNES Support) and mothers' ratings of their young children's mood quality (DOTS-R-Child), such that higher levels

of reflective functioning were associated with more supportive coping styles and a more positive mood quality in their young children. Mothers' reflective functioning (PRFQ Total Score) also was related negatively and significantly to nonsupportive coping styles (CTNES Nonsupport), such that higher levels of reflective functioning were related to lower levels of nonsupportive coping styles.

With regard to coping with young children's negative emotions, mothers' supportive coping style (CTNES Support) was related positively and significantly to mothers' ratings of their young children's mood quality (DOTS-R-Child), such that higher levels of mothers' supportive coping styles were related to a more positive mood quality for young children. Further, mothers' nonsupportive coping style (CTNES Nonsupport) was related positively and significantly to their child maltreatment potential (CAPI Total Score) and negatively and significantly to mothers' ratings of their young children's mood quality (DOTS-R-Child). In other words, higher levels of mothers' nonsupportive coping styles were related to higher levels of child maltreatment potential and a less positive mood quality for their young children.

In general, these results supported partially the hypotheses for this study. Specifically, consistent with the hypotheses, mothers who rated higher levels of their own childhood maltreatment also reported higher levels of psychological symptoms, greater difficulty with emotion regulation, and higher levels of child maltreatment potential. Inconsistent with the hypotheses, mothers' ratings of their own childhood maltreatment was not related significantly to their reflective functioning, attributions, coping styles, and perceptions of their young children's temperament.

#### Multicollinearity

Given that some of the variables in this study exhibited relatively high correlations, multicollinearity between variables was assessed. The results of these analyses revealed that the variables in this study did not exhibit multicollinearity. In particular, the Variance Inflation Factor (VIF) for each predictor variable was less than 3 (i.e., as scores ranged from 1.09 to 2.30) and relatively low variance proportions (i.e., less than .70) were revealed (Field, 2009; Myers, 1990).

### Mean Comparisons

To continue to examine the first hypothesis for this study and further examine the relationships among the variables in this study, a series of independent samples *t*-tests were conducted to examine mean comparisons between mothers' narratives of their attachment relationships with their young children (i.e., balanced and unbalanced) across each of the variables in this study (i.e., mothers' ratings of their own childhood maltreatment, their psychological symptoms, their emotion regulation, their reflective functioning, their attributions, their coping, their ratings of their young children's temperament, and their child maltreatment potential). These analyses were conducted to account for the dichotomous nature of the coding scheme used for mothers' narratives of their attachment relationships (i.e., balanced and unbalanced). Refer to Table 2 for these mean comparisons.

Results suggested that there was not a significant difference in mothers' ratings of their own childhood maltreatment between mothers who were classified as balanced (M = 58.56, SD = 17.00) versus unbalanced (M = 57.58, SD = 17.70), t(44) = 0.17, p<.87,

suggesting that ratings of mothers' own childhood maltreatment were similar regardless of their narrative codes for their attachment with their young children. With regard to psychological symptoms, there was not a significant difference between mothers who were classified as balanced (M = 0.84, SD = 0.81) versus unbalanced (M = 1.17, SD =1.33), t(44) = -1.04, p < .31, suggesting that levels of psychological symptoms were similar for mothers with balanced and unbalanced narrative codes for their attachment with their young children. Further, there was not a significant difference in mothers' emotion regulation between mothers who were classified as balanced (M = 71.00, SD =29.46) versus unbalanced (M = 74.00, SD = 34.31), t(44) = -0.29, p < .77, suggesting that levels of emotion regulation did not differ significantly for balanced and unbalanced narrative codes for their attachment with their young children.

Additionally, there was not a significant difference in mothers' reflective functioning between mothers who were classified as balanced (M = 4.69, SD = 0.49) versus unbalanced (M = 4.49, SD = 0.48), t(44) = 1.23, p<.23, such that ratings of mothers' reflective functioning were similar regardless of their narrative codes for their attachment with their young children. With regard to attributions, there was not a significant difference between mothers who were classified as balanced (M = 0.42, SD =0.88) versus unbalanced (M = 0.22, SD = 0.69), t(44) = 0.80, p<.49, suggesting that ratings of attributions were similar for mothers with balanced and unbalanced narrative codes for their attachment with their young children. Additionally, there was not a significant difference in mothers' supportive coping between mothers who were classified as balanced (M = 5.74, SD = 0.72) versus unbalanced (M = 5.51, SD = 0.94), t(44) = 0.88, p<.39, such that ratings of mothers' supportive coping were similar

regardless of their narrative codes for their attachment with their young children. In contrast, there was a significant difference in mothers' nonsupportive coping between mothers who were classified as balanced (M = 2.93, SD = 1.03) versus unbalanced (M = 3.67, SD = 0.94), t(44) = -2.30, p < .04, such that mothers' classified as having unbalanced narrative codes for their attachment with their young children had higher levels of nonsupportive coping when compared to mothers' classified as having balanced narrative codes for their attachment with their young children. It is important to note, however, that with a Bonferroni correction, this relationship was no longer significant.

With regard to mothers' perceptions of young children's temperament, there was not a significant difference in mothers' ratings of their young children's activity levelgeneral between mothers who were classified as balanced (M = 21.06, SD = 4.85) versus unbalanced (M = 22.83, SD = 2.95), t(44) = -1.19, p < .25, suggesting that mothers' ratings of their young children's activity level were similar regardless of their narrative codes for their attachment with their young children. There also was not a significant difference in mothers' ratings of their young children's flexibility/rigidity between mothers who were classified as balanced (M = 13.74, SD = 3.78) versus unbalanced (M = 14.08, SD = 4.01), t(44) = -0.27, p<.79, or for their ratings of their young children's mood between mothers who were classified as balanced (M = 25.94, SD = 2.49) versus unbalanced (M = 25.17, SD = 5.64, t(44) = 0.52, p < .52, which suggested that mothers' ratings of young children's flexibility/rigidity and mood were similar regardless of their narrative codes for their attachment with their young children. Finally, there was not a significant difference in mothers' maltreatment potential between mothers who were classified as balanced (M = 122.65, SD = 104.83) versus unbalanced (M = 156.58, SD = 111.66), t(44)

= -0.95, p<.35, which suggested that levels of maltreatment potential were similar for mothers with balanced and unbalanced narrative codes for their attachment with their young children.

#### Binary Logistic Hierarchical Regression Analyses Predicting Attachment

To test the hypothesis regarding which variables would predict mothers' narrative codes for their attachment with their young children and further examine the relationship between mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation abilities (i.e., emotion regulation, reflective functioning, and coping with young children's negative emotions), their ratings of their young children's temperament, and their narratives of their attachment relationships with their young children, a binary logistic hierarchical regression analysis was performed. Specifically, mothers' ratings of their own childhood maltreatment was entered in Block 1, psychological symptoms were entered in Block 2, regulation characteristics (i.e., emotion regulation, reflective functioning, and coping) were entered in Block 3, and perceptions of their young children's temperament characteristics were entered in Block 4. Mothers' narrative codes for their attachment with their young children (i.e., Balanced or Unbalanced) served as the criterion variable. Given that mothers' attributions were not related significantly to the other variables in this study, they were not included in these analyses in an effort to preserve power. These results are presented in Table 3.

In Block 1, the overall comprehensive logistic regression model was not significant,  $\chi^2(1) = .03$ , p < .87. The model explained 0% of the variance in mothers' narrative codes for their attachment with their young children and correctly classified

73.9% of cases. Specifically, mothers' ratings of their own childhood maltreatment was not associated significantly with mothers' narrative codes for their attachment with their young children ( $\beta$ =-.00, Wald=.03, p<.87, 95% CI [.96, 1.04]). In Block 2, the overall comprehensive logistic regression model was not significant,  $\chi^2(2) = 1.39$ , p < .51. The model explained 4.3% of the variance in mothers' narrative codes for their attachment with their young children and correctly classified 73.9% of cases. Specifically, mothers' ratings of their own childhood maltreatment ( $\beta$ =-.01, Wald=.32, p<.58, 95% CI [.94, 1.03]) and their psychological symptoms ( $\beta$ =.43, Wald=1.35, p<.25, 95% CI [.75, 3.14]) were not associated significantly with mothers' narrative codes for their attachment with their young children. In Block 3, the overall comprehensive logistic regression model was not significant,  $\chi^2(6) = 8.03$ , p < .24. The model explained 23.5% of the variance in mothers' narrative codes for their attachment with their young children and correctly classified 73.9% of cases. Specifically, mothers' ratings of their own childhood maltreatment ( $\beta$ =-.01, Wald=.04, p<.84, 95% CI [.94, 1.05]), psychological symptoms  $(\beta = 1.20, \text{Wald} = 2.56, p < .12, 95\% \text{ CI} [.76, 14.52])$ , emotion regulation ( $\beta = .04$ , Wald=2.18, p < .15, 95% CI [.92, 1.01]), reflective functioning ( $\beta$ =-.81, Wald=.54, p < .47, 95% CI [.05, 3.85]), supportive coping styles ( $\beta$ =-.22, Wald=.14, p<.71, 95% CI [.25, 2.54]), and nonsupportive coping styles (β=.68, Wald=2.22, p<.14, 95% CI [.81, 4.81]) were not associated significantly with mothers' narrative codes for their attachment with their young children. In Block 4, the overall comprehensive logistic regression model was not significant,  $\chi^2(9) = 14.34$ , p < .12. The model explained 39.2% of the variance in mothers' narratives of their attachment relationships and correctly classified 73.9% of

cases. Although the model itself was not significant, mothers' nonsupportive coping was a significant individual predictor variable ( $\beta$ =1.36, Wald=4.35, p < .04, 95% CI [1.09, 13.91]), such that higher levels of nonsupportive coping was associated significantly with an increased likelihood of unbalanced narratives of their attachment relationships. In addition, it is notable that mothers' psychological symptoms ( $\beta$ =1.56, Wald=3.04, p<.09, 95% CI [.82, 27.54]) and perceptions of young children's flexibility/rigidity ( $\beta$ =.26, Wald=2.75, p<.10, 95% CI [.95, 1.76]) approached significance. The remaining variables, mothers' ratings of their own childhood maltreatment ( $\beta$ =-.00, Wald=.00, p < .97, 95% CI [.94, 1.06]), emotion regulation ( $\beta = .04$ , Wald=2.37, p < .13, 95% CI [.91, 1.01]), reflective functioning ( $\beta$ =-1.11, Wald=.75, p<.39, 95% CI [.03, 4.04]), supportive coping styles ( $\beta$ =-1.06, Wald=1.72, p<.20, 95% CI [.07, 1.69]), and perceptions of young children's activity level-general ( $\beta$ =.16, Wald=1.40, p<.24, 95% CI [.90, 1.52]) and mood ( $\beta$ =.23, Wald=1.35, p<.25, 95% CI [.85, 1.86]), were not associated significantly with mothers' narrative codes for their attachment relationships with their young children.

### **Hierarchical Regression Analyses**

Analyses also were conducted to test the hypothesis regarding which variables would predict mothers' child maltreatment potential. More specifically, to examine the predictive relationships among mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation abilities (i.e., emotion regulation, reflective functioning, coping with young children's negative emotions), their ratings of

their young children's temperament, and their narratives of their attachment relationships with their young children on mothers' child maltreatment potential, a hierarchical linear regression analysis was performed. Specifically, mothers' report of their own childhood maltreatment was entered in Block 1, psychological symptoms were entered in Block 2, regulation characteristics (i.e., emotion regulation, reflective functioning, and coping) were entered in Block 3, mothers' perceptions of their young children's temperament was entered in Block 4, and mothers' narratives of their attachment relationships with their young children was entered in Block 5 so that incremental variance could be examined. Mothers' child maltreatment potential served as the criterion variable. Again, mothers' attributions were not included in these analyses, as they did not demonstrate significant relationships with the other variables in this study. These results are presented in Table 4.

In Block 1, mothers' ratings of their own childhood maltreatment predicted significantly their child maltreatment potential, F(1, 45) = 12.23, p < .002,  $R^2 = .22$ . In particular, mothers' endorsements of their own childhood maltreatment (p < .002) served as a significant individual predictor. When mothers' psychological symptoms were entered into Block 2, the regression equation remained significant, F(2, 45) = 39.66, p < .001,  $R^2 = .65$ . Specifically, mothers' endorsements of their own childhood maltreatment (p < .02) and psychological symptoms (p < .001) served as significant individual predictors. When mothers' psychological symptoms are entered in Block 3, the regression equation characteristics were entered in Block 3, the regression equation remained significant F(6, 45) = 17.87, p < .001,  $R^2 = .73$ . Specifically, mothers' endorsements of their own childhood maltreatment (p < .01), psychological symptoms (p < .001), and nonsupportive coping (p < .008) served as significant individual predictors. When mothers' perceptions of their own childhood maltreatment (p < .01),

temperament were entered in Block 4, the regression equation remained significant, F(9, 45) = 11.87, p < .001,  $R^2 = .75$ . In this case, mothers' endorsements of their own childhood maltreatment (p < .02), psychological symptoms (p < .002), and nonsupportive coping (p < .04) served as significant individual predictors. When mothers' narratives of their attachment relationships with their young children were entered in Block 5, the regression equation remained significant, F(10, 45) = 10.44, p < .001,  $R^2 = .75$ . Specifically, mothers' endorsements of their own childhood maltreatment (p < .02), and nonsupportive coping (p < .04) served as significant. Thus, mothers' ratings of their own childhood maltreatment, psychological symptoms, and nonsupportive coping styles provided unique incremental variance in predicting mothers' child maltreatment potential.

## Mediation Analyses Predicting Coping

To examine the next hypothesis of this study regarding the potential mediation role of reflective functioning and attributions (i.e., hypothesis 4), mediation analyses were conducted to assess further the relationships among mothers' emotion regulation, reflective functioning, attributions, and ability to cope with their young children's negative emotions. In these analyses, the independent variable was mothers' emotion regulation, the mediators were mothers' reflective functioning and attributions, and the dependent variables were supportive and nonsupportive coping styles. Results are presented in Tables 5 and 6.

According to Baron and Kenny (1986), establishing a mediation model requires several findings. In a series of regression equations, mothers' emotion regulation had to

predict their reflective functioning or attributions (path a) as well as their coping styles (path b). In an additional regression equation, mothers' reflective functioning or attributions had to predict their coping styles (path c). With the inclusion of mothers' reflective functioning or attributions in a final regression equation, the relationship between mothers' emotion regulation and coping styles should decrease to non-significance, indicating the mediational role of mothers' reflective functioning or attributions.

Mothers' Emotion Regulation, Reflective Functioning, and Supportive Coping Styles

When examining the mediational role that mothers' reflective functioning played in the relationship between mothers' emotion regulation and supportive coping styles, the first regression equation revealed that mothers' emotion regulation did not predict significantly their ratings of reflective functioning, F(1, 53) = .00, p < .98. Further, mothers' emotion regulation did not predict significantly their supportive coping styles, F(1, 53) = .65, p < .43. As these regression equations were not significant, mediation was not possible. Nonetheless, mothers' reflective functioning abilities significantly predicted mothers' supportive coping styles, F(1, 53) = 4.25, p < .05. These findings suggested that mothers' reflective functioning directly predicted their ability to utilize supportive coping.

Mothers' Emotion Regulation, Reflective Functioning, and Nonsupportive Coping

When examining the mediational role that mothers' reflective functioning played in the relationship between mothers' emotion regulation and nonsupportive coping styles, the first regression equation revealed that mothers' emotion regulation did not predict

significantly their ratings of reflective functioning, F(1, 53) = .00, p < .98. As this regression equation was not significant, mediation was not possible. Nonetheless, mothers' emotion regulation predicted significantly their nonsupportive coping styles, F(1, 53) = 9.31, p < .01. In addition, mothers' reflective functioning abilities significantly predicted mothers' nonsupportive coping styles, F(1, 53) = 5.88, p < .02. These findings suggested that both mothers' emotion regulation and reflective functioning directly predicted their nonsupportive coping styles and highlighted the importance of examining these variables collectively.

Mothers' Emotion Regulation, Attributions, and Supportive Coping Styles

When examining the mediational role that mothers' attributions played in the relationship between mothers' emotion regulation and supportive coping styles, the first regression equation revealed that mothers' emotion regulation marginally predicted their ratings of attributions, F(1, 53) = 3.47, p < .07. In contrast, mothers' emotion regulation did not predict significantly their supportive coping styles, F(1, 53) = .65, p < .43. Finally, mothers' attributions did not predict significantly their supportive coping styles, F(1, 53) = .39, p < .54. As these regression equations were not significant, mediation was not possible. Nonetheless, these findings suggested that mothers' emotion regulation regulation was important to consider in the prediction of mothers' attributions.

Mothers' Emotion Regulation, Attributions, and Nonsupportive Coping Styles

When examining the mediational role that mothers' attributions played in the relationship between mothers' emotion regulation and nonsupportive coping styles, the first regression equation revealed that mothers' ratings of their emotion regulation

marginally predicted their ratings of attributions, F(1, 53) = 3.47, p < .07. Further, mothers' emotion regulation predicted significantly their nonsupportive coping styles, F(1, 53) = 9.31, p < .005. Finally, mothers' attributions did not predict significantly their nonsupportive coping styles, F(1, 53) = 1.50, p < .23. As this regression equation was not significant, mediation was not possible. Nonetheless, these findings suggested that mothers' emotion regulation was important to consider in the prediction of mothers' attributions and nonsupportive coping styles.

## Moderation Analyses

To test the next hypothesis for this study and examine whether mothers' narratives of their attachment relationships with their young children (i.e., balanced and unbalanced) would moderate the relationship between mothers' perceptions of their young children's temperament (i.e., activity level, flexibility/rigidity, mood quality) and mothers' child maltreatment potential, moderation analyses were performed (Baron & Kenny, 1986). Specifically, young children's temperament variables (i.e., activity levelgeneral, flexibility, mood) were first centered using their respective overall means and then multiplicative interaction terms were created using the mean-centered scores for mothers' perceptions of their young children's temperament and mothers' narratives of their attachment relationships with their young children (Cohen, Cohen, West, & Aiken, 2003). Accordingly, mothers' perceptions of their young children into Block 1 to investigate their unique prediction of mothers' child maltreatment potential, mothers' narratives of their attachment relationships with their young children (i.e., balanced

versus unbalanced) was entered in Block 2, and the interaction terms (i.e., activity level\*narratives, flexibility/rigidity\*narratives, mood quality\*narratives) were entered into Block 3 to predict mothers' child maltreatment potential. These results are presented in Tables 7, 8, and 9.

Young Children's Activity Level, Attachment, and Child Maltreatment Potential

To examine whether mothers' narratives of their attachment relationships with their young children would moderate the relationship between mothers' perceptions of their young children's activity level and mothers' child maltreatment potential, the first regression equation revealed that mothers' perceptions of their young children's activity level did not predict significantly mothers' child maltreatment potential, F(1, 45) = 1.50, p < .23, in Block 1. When mothers' narratives of their attachment relationships with their young children was entered in Block 2, the regression equation did not predict significantly mothers' child maltreatment potential, F(2, 45) = 1.02, p < .37. Finally, when the interaction between mothers' perceptions of their young children's activity level and their narratives of their attachment relationships with their young children was entered into Block 3, the regression equation was not significant, F(3, 45) = .68, p < .57. These findings suggested that mothers' perceptions of their young children's activity level, narratives of their attachment relationships with their young children, and the interaction of mothers' perceptions of their young children's temperament and narratives of their attachment relationships with their young children did not predict significantly mothers' child maltreatment potential.

Young Children's Flexibility/Rigidity, Attachment, and Child Maltreatment Potential

To examine whether mothers' narratives of their attachment relationships with their young children would moderate the relationship between their perceptions of their young children's flexibility/rigidity and mothers' child maltreatment potential, the first regression equation revealed that mothers' perceptions of their young children's flexibility/rigidity predicted significantly mothers' child maltreatment potential, F(1, 45)= 12.33, p < .002, in Block 1. Specifically, mothers' perceptions of their young children's flexibility/rigidity (p < .002) served as a significant individual predictor of lower child maltreatment potential. When mothers' narratives of their attachment relationships with their young children was entered in Block 2, the regression equation predicted significantly mothers' maltreatment potential, F(2, 45) = 6.97, p < .003. Specifically, mothers' perceptions of their young children's flexibility/rigidity (p < .002) served as a significant individual predictor of lower child maltreatment potential. Finally, when the interaction between mothers' perceptions of their young children's flexibility/rigidity and their narratives of their attachment relationships with their young children was entered into Block 3, the regression equation remained significant, F(3, 45) = 5.26, p < .005. Specifically, mothers' perceptions of their young children's flexibility/rigidity (p < .03) served as a significant individual predictor of lower child maltreatment potential. This pattern suggested that mothers' perceptions of their young children's flexibility/rigidity had a significant main effect on mothers' child maltreatment potential. Nonetheless, narratives of mothers' attachment relationships with their young children nor the interaction terms significantly predicted child maltreatment potential.

Young Children's Mood Quality, Attachment, and Child Maltreatment Potential

To examine whether mothers' narratives of their attachment relationships with their young children would moderate the relationship between mothers' perceptions of their young children's mood and mothers' child maltreatment potential, the first regression equation revealed that mothers' perceptions of their young children's mood predicted significantly mothers' child maltreatment potential, F(1, 45) = 5.57, p < .03, in Block 1. Specifically, mothers' perceptions of their young children's mood (p < .03) served as a significant individual predictor of lower child maltreatment potential. When mothers' narratives of their attachment relationships with their young children was entered in Block 2, the regression equation predicted marginally mothers' child maltreatment potential, F(2, 45) = 3.05, p < .06. Mothers' perceptions of their young children's mood (p < .03) served as a significant individual predictor of lower child maltreatment potential. Finally, when the interaction between mothers' perceptions of their young children's mood and their narratives of their attachment relationships with their young children was entered into Block 3, the regression equation was not significant, F(3, 45) = 1.99, p < .13. This pattern suggested that mothers' perceptions of their young children's mood had a significant main effect on mothers' maltreatment potential. Nonetheless, narratives of their attachment relationships with their young children nor the interaction terms significantly predicted child maltreatment potential.

## **Exploratory Mediation Analyses**

Given the trends in the analyses above, exploratory mediation analyses were conducted to assess further the relationships among mothers' ratings of their own

childhood maltreatment, emotion regulation, psychological symptoms, coping, and child maltreatment potential. In these analyses, the independent variable was mothers' ratings of their own childhood maltreatment, the mediators were mothers' emotion regulation, psychological symptoms, and coping, and the dependent variable was mothers' child maltreatment potential. Results are presented in Table 10.

According to Baron and Kenny (1986), establishing a mediation model requires several findings. In a series of regression equations, mothers' ratings of their own childhood maltreatment had to predict their regulation abilities (i.e., emotion regulation, psychological symptoms, or coping; path a) as well as their child maltreatment potential (path b). In an additional regression equation, mothers' regulation abilities (i.e., emotion regulation, psychological symptoms, or coping) had to predict their child maltreatment potential (path c). With the inclusion of mothers' regulation abilities (i.e., emotion regulation, psychological symptoms, or coping) in a final regression equation, the relationship between mothers' ratings of their own childhood maltreatment and child maltreatment potential should decrease to non-significance, indicating the mediational role of mothers' regulation abilities.

Mothers' Own Childhood Maltreatment, Emotion Regulation, and Maltreatment Potential

When examining the mediational role that mothers' emotion regulation played in the relationship between mothers' ratings of their own childhood maltreatment and child maltreatment potential, the first regression equation revealed that mothers' ratings of their own childhood maltreatment predicted significantly their ratings of emotion regulation, F(1, 53) = 11.71, p < .002. Further, mothers' ratings of their own childhood maltreatment

predicted significantly their child maltreatment potential, F(1, 53) = 16.99, p < .001. Then, collectively, mothers' ratings of their own childhood maltreatment and emotion regulation predicted significantly their child maltreatment potential, F(2, 53) = 32.33, p< .001. In particular, when entered first, mothers' ratings of their own childhood maltreatment predicted significantly their maltreatment potential (p < .001). When mothers' emotion regulation was added to this equation, however, mothers' ratings of their own childhood maltreatment decreased in significance (p < .04). Thus, mothers' emotion regulation partially mediated the relationship between mothers' ratings of their own childhood maltreatment and their maltreatment potential. The mediational value of emotion regulation was confirmed with a significant Sobel Test (z = 3.08, p < .003).

# Mothers' Own Childhood Maltreatment, Psychological Symptoms, and Maltreatment Potential

When examining the mediational role that mothers' psychological symptoms played in the relationship between mothers' ratings of their own childhood maltreatment and maltreatment potential, the first regression equation revealed that mothers' ratings of their own childhood maltreatment predicted significantly their ratings of psychological symptoms, F(1, 53) = 9.44, p < .004. Further, mothers' ratings of their own childhood maltreatment predicted significantly their child maltreatment potential, F(1, 53) = 16.99, p < .001. Then, collectively, mothers' ratings of their own childhood maltreatment and psychological symptoms predicted significantly their child maltreatment potential, F(2, 53) = 45.68, p < .001. In particular, when entered first, mothers' ratings of their own childhood maltreatment predicted significantly their child maltreatment potential (p < .001). When mothers' psychological symptoms was added to this equation, however, mothers' ratings of their own childhood maltreatment decreased in significance (p < .02). Thus, mothers' psychological symptoms partially mediated the relationship between mothers' ratings of their own childhood maltreatment and their child maltreatment potential. The mediational value of mothers' psychological symptoms was confirmed with a significant Sobel Test (z = 1.96, p < .05).

Mothers' Own Childhood Maltreatment, Supportive Coping, and Maltreatment Potential

When examining the mediational role that mothers' supportive coping played in the relationship between mothers' ratings of their own childhood maltreatment and child maltreatment potential, the first regression equation revealed that mothers' ratings of their own childhood maltreatment did not predict significantly their supportive coping, F(1,53) = 1.41, p < .25. Further, mothers' supportive coping did not predict significantly their child maltreatment potential, F(1, 53) = .82, p < .38. As these regression equations were not significant, mediation was not possible. Nonetheless, mothers' ratings of their own childhood maltreatment predicted significantly their child maltreatment potential, F(1,53) = 16.99, p < .001. These findings suggested that mothers' ratings of their own childhood maltreatment directly predicted their child maltreatment potential.

# Mothers' Own Childhood Maltreatment, Nonsupportive Coping, and Maltreatment Potential

When examining the mediational role that mothers' nonsupportive coping played in the relationship between mothers' ratings of their own childhood maltreatment and child maltreatment potential, the first regression equation revealed that mothers' ratings of their own childhood maltreatment did not predict significantly their nonsupportive coping, F(1, 53) = .47, p < .50. As this regression equation was not significant, mediation was not possible. Nonetheless, mothers' ratings of their own childhood maltreatment predicted significantly their child maltreatment potential, F(1, 53) = 16.99, p < .001. Additionally, mothers' nonsupportive coping predicted significantly their child maltreatment potential, F(1, 53) = 14.91, p < .001. Thus, these findings suggested that both mothers' ratings of their own childhood maltreatment and nonsupportive coping were important individual predictors of their maltreatment potential.

## **CHAPTER FOUR: DISCUSSION**

The primary objective of this study involved examining the relationships among mothers' ratings of their own childhood maltreatment, their psychological symptoms, their regulation abilities (i.e., emotion regulation, reflective functioning, attributions, coping with young children's negative emotions), their perceptions of their young children's temperament, their narratives of their attachment relationships with their young children, and their child maltreatment potential. Given previous findings that mothers' ratings of their own childhood maltreatment may lead to an increase in psychological symptoms (Wright, Crawford, & Del Castillo, 2009), poor regulation abilities, (Badour & Feldner, 2013), and poor attachment to their own children (Pajulo et al., 2012), this study sought to address the need for research investigating the collective connections among these variables. Overall, the results of this study suggested that there were important relationships among these variables.

Preliminary analyses for this study suggested that there were no overall differences across the different recruitment venues for any of the variables of interest. Although it was likely that these findings were true, it also was important to consider other explanations for this trend, particularly given the diversity of the services that each community venue likely offered to the mothers in this study (e.g., educational services versus parenting interventions). Given the relatively small sample size in this study, it was possible that meaningful differences were unable to be detected. It also might be likely, however, that the mothers who participated in this study did not demonstrate overall high levels of maltreatment potential or other 'high risk' characteristics even

though such characteristics were sought after in the mothers sampled for this study. Nonetheless, this lack of differences across community venues and the lack of high risk characteristics in the mothers who actually were sampled for this study might be a proxy for resilience in this particular group of mothers. In other words, although these mothers were not characterized by extreme socioeconomic risk (given their level of education and income), these mothers had the wherewithal to seek out services from appropriate community venues as they sought to better their own lives and those of their young children.

With regard to mothers' characteristics, mothers' ratings of their own childhood maltreatment were related significantly to their psychological symptoms, emotion regulation, and child maltreatment potential. Additionally, mothers' psychological symptoms were related significantly to their emotion regulation, nonsupportive coping, perceptions of their young children's temperament, and child maltreatment potential. These findings were consistent with the hypotheses from this study as well as with previous research. This previous research suggested that early emotional abuse and neglect were associated with later emotional and behavioral functioning (Lowell, Renk, &Adgate, 2014) and difficulties with emotion regulation when parenting (Badour & Feldner, 2013; Burns, Jackson, & Harding, 2010). This distress led to difficulties in coping and was related to less sensitive parenting behaviors (Fabes et al., 2001) and higher child maltreatment potential (Cantos et al., 1997; Rodriguez, 2009). Unfortunately, when parents lacked the social and personal resources to cope with their difficult early experiences, children's difficult temperament became a significant risk factor for child maltreatment (Blackson, Tarter, & Mezzich, 1996; Engfer, 1992).

Inconsistent with the hypotheses from this study, mothers' ratings of their own childhood maltreatment were not related significantly to mothers' reflective functioning abilities or attributions. Previous research suggested that there was a significant relationship between early trauma and reflective functioning (Fonagy et al., 1995) as well as between childhood abuse and later negative perceptions and attributions (Dixon, Hamilton-Giachritsis, & Browne, 2005). It might be that the experience of childhood maltreatment for the mothers in this sample did not affect their ability to be reflective about their own mental states and those of their children, particularly given their lack of other socioeconomic risk factors and their engagement in community services. In other words, it also was important to consider that the mothers in this sample were receiving services through various agencies (some of which targeted parenting specifically), possibly helping them to better manage their recollections of their early experiences and their parenting of their young children. Although some of the findings in this study also might be the result of a low sample size, it was noteworthy that meaningful and significant relationships still were found in this study, again suggesting the resilience of this particular group of mothers.

For example, in line with previous research, findings from this study suggested a significant relationship between mothers' emotion regulation and coping, perceptions of their young children's temperament, and child maltreatment potential. Specifically, mothers who displayed more emotional and physiological arousal were less able to utilize effective coping strategies (Cantos, Neale, O'Leary, & Gaines, 1997) and, in conjunction with children's difficult temperaments (Vietze et al., 1980), were at higher risk for maltreating their children (Ammerman, 1990; Frodi, 1981). Thus, both mothers'

characteristics and mothers' perceptions of their young children's characteristics were important to consider when predicting child maltreatment potential. It also might be the case that what mothers are thinking about their young children may have a lesser impact on their child maltreatment potential relative to what mothers are doing in response to difficult situations involving their young children, particularly when mothers are engaged in community services.

In addition, this study identified significant relationships among mothers' reflective functioning, coping, and their perceptions of their young children's temperament. These findings were consistent with previous research, which suggested that mothers' reflective functioning was related to their perceptions of their young children's temperament, such that self-focused reflective functioning was related to negative emotionality in their children (Smaling, Huijbregts, Van der Heijden, Van Goozen, & Swaab, 2016). Additionally, although previous research suggested a relationship between reflective capacities and psychopathology, this study identified a link between reflective functioning and the ability to cope with young children's negative emotions. These findings highlighted the need for more research on how reflective functioning was related to both mothers' characteristics and their ratings of their young children's characteristics.

Finally, with regard to coping with young children's negative emotions, these results suggested that there was a significant relationship between mothers' coping styles, their ratings of their young children's temperament (i.e., mood), and their child maltreatment potential. This pattern was consistent with previous research, which suggested that mothers who used more negative coping styles were less sensitive to their

young children's emotions (Gudmundson & Leerkes, 2012). Accordingly, some parents reacted to children's expression of negative emotions by using negative control strategies (e.g., punishment; Fabes, Leonard, Kupanhoff, & Martin, 2001), which then put them at risk for child maltreatment (Cantos et al., 1997). Nonetheless, this study was unique, as it examined mothers' ability to cope specifically with their young children's negative emotions. The findings of this study suggested that mothers' coping abilities were important in the prediction of their ratings of their young children's mood quality and child maltreatment potential.

Although much research focused on the attachment classification of young children with their caregivers, this study furthered the literature by examining mothers' narratives of their attachment relationships with their young children from the mothers' own perspective. To further investigate the differences between mothers who were classified as balanced versus unbalanced, analyses were conducted to examine the differences between these groups on the variables of interest in this study. These results suggested that mothers in the balanced and unbalanced groups did not differ significantly in their ratings of their own childhood maltreatment, their psychological symptoms, their emotion regulation, their reflective functioning, their attributions, their supportive coping, their ratings of their young children's temperament, and their child maltreatment potential. In contrast, mothers' ratings of unsupportive coping were significantly higher for mothers in the unbalanced group when compared to the balanced group. This finding was consistent with the literature, which suggested that there was a relationship between insecure attachment styles and utilizing maladaptive coping strategies (O'Connor & Elklit, 2008; Shapiro & Levendosky, 1999).

In examining why there were not significant differences between balanced and unbalanced groups on the variables in this study, some potential hypotheses were identified for further study. One possibility was that mothers were not completely honest when providing narratives of their attachment relationships with their young children, especially since mothers did not have a long-standing rapport with the investigators assisting with this study. Nonetheless, many mothers appeared to share information about their young children openly. It also was possible that some of the subtleties of the narratives (e.g., affect) were lost when audio recordings were transcribed, leading to difficulties with the coding scheme (particularly given that many researchers who use this narrative approach will videorecord interviews for later review). Additionally, it was important to note that most investigators involved in coding these narratives only had done readings and practice codings prior to submitting codings for analyses. Nonetheless, it also was essential to consider that mothers in this sample were receiving services, with some having had parenting services in the past. As such, it was possible that these mothers were becoming more reflective, learning more about how to connect with their young children, and developing new ways of narrating their relationships with their young children. This hypothesis also might account for why more mothers in this study were classified as having balanced narratives of attachment and low rates of child maltreatment potential. Thus, it would be important to continue to examine the relationships between the aforementioned variables further, especially in a larger and more high risk sample.

Further, this study examined a model in which mothers' own childhood maltreatment, their psychological symptoms, their regulation abilities, and their

perceptions of their young children's temperament were thought to predict mothers' narratives of their attachment relationships with their young children. Inconsistent with these hypotheses and previous research (Alexander et al., 2001; Slade, 2005), the results from this logistic regression suggested that mothers' ratings of their own childhood maltreatment, emotion regulation, and reflective functioning did not predict significantly mothers' narratives of their attachment relationships with their young children. Nonetheless, these findings added to the literature and found that mothers' higher levels of nonsupportive coping styles were significantly associated with an increased likelihood of mothers' unbalanced narratives of attachment. Results also suggested that mothers' psychological symptoms and perceptions of young children's flexibility/rigidity were important variables to consider, as these were marginal predictors of mothers' narratives of their attachment relationships with their young children. These findings highlighted the importance of examining mothers' coping abilities, their psychological symptoms, and their perceptions of their young children's temperament in an effort to foster more secure narratives of their attachment relationships with their young children.

In considering these findings further, some postulations were formed. It might be that, because mothers' overall ratings of their own childhood maltreatment were lower, these ratings were not associated significantly with their narratives of their attachment relationships with their young children. Specifically, with relatively low levels of childhood trauma, mothers might have been potentially less affected by their own childhood experience. Nonetheless, it also was important to consider that mothers' scores were elevated for social desirability on the measure that examined mothers' child maltreatment potential and that non-significant relationships among some of mothers'

characteristics may be a result of these types of responses. Further, it might be possible that some of the challenges with coding of the narratives used in this study (e.g., not capturing the full impact narrative of mothers with audio recording) were related to these findings. Finally, given the services that these mothers were receiving/had received already, it might be possible that these mothers were learning to perceive their young children's more difficult temperament traits as normative (or, at least, manageable) and thus were less likely to be affected by them.

Nonetheless, in considering treatment implications of these findings, it would be important for providers to assist mothers with managing personal characteristics (e.g., psychological symptoms, coping abilities) as well as help mothers form more positive perceptions of their young children's temperament traits and their relationship with their young children. Specifically, it would be helpful for providers to utilize dyadic sessions to help caregivers interpret the moment-to-moment behaviors and interactions with their young children to support mothers' reflective capacities about their relationship. Meeting with mothers for additional individual sessions would allow them the time and space to process and reflect on their experiences with their child. Individual work also would allow parents to learn strategies for handling their own psychological symptoms (such as cognitive behavioral therapy techniques) as well as help parents learn coping skills to manage their young children's negative emotions (e.g., breathing techniques, taking personal time away to calm down before reacting).

Further, this study examined the predictability of mothers' characteristics and their perceptions of their young children's characteristics on mothers' child maltreatment potential, mothers' endorsements of their own childhood maltreatment, psychological

symptoms, and nonsupportive coping served as significant predictors. Thus, mothers' ratings of their own childhood maltreatment, psychological symptoms, and nonsupportive coping provided unique incremental variance in predicting mothers' child maltreatment potential. These findings were consistent with previous research, which suggested an intergenerational transmission of child maltreatment (Ammerman et al., 2012; Bert, Guner, & Lanzi, 2009), where mothers who experienced their own childhood trauma were at greater risk for maltreatment potential (Cohen, Hien, & Batchelder, 2008). These mothers were at particular risk if they also were experiencing higher levels of psychological symptoms (e.g., depression) and poor coping abilities (McCullough, & Shaffer, 2014). Overall, these results highlighted the importance of supporting healthy psychological functioning and positive coping in mothers to decrease their possibility of maltreating their children.

In examining the non-significant predictors of child maltreatment potential in these analyses, it was important to first consider the significant correlations between these variables. Specifically, given that mothers' emotion regulation was correlated highly with their psychological symptoms, it might be the case that emotion regulation did not add any unique incremental variance in the prediction of child maltreatment potential. If predictors were entered in a different order, however, it might have been likely that emotion regulation would have been a more important individual predictor of child maltreatment potential. In addition, it might be possible that these mothers had become more reflective about their own and their children's mental states, which may account for the non-significant relationship between mothers' narratives of their

attachment relationships with their young children, their reflective functioning, and their child maltreatment potential.

Nonetheless, in an effort to target healthy functioning, individual work with mothers should allow for processing of early childhood experiences as well as working on individual skills deficits that may be present. Discussion around current psychological symptoms that may stem from adverse early childhood experiences may help mothers gain awareness into how these experiences might relate to their risk of harsh or neglectful parenting behaviors. Providers could assist mothers with managing their psychological symptoms and difficulties in coping by helping mothers identify their unique difficulties and spending time identifying ways to help parents manage these symptoms when interacting with their young children (e.g., identifying first signs that there are experiencing difficulties with managing their symptoms in the moment, apply coping skills such as taking time away to calm down).

Additionally, the current study examined further the relationship between mothers' emotion regulation, reflective functioning, and ability to cope with their young children's negative emotions. The results of these analyses suggested that mothers' reflective functioning did not mediate the relationship between mothers' emotion regulation and coping abilities. Nonetheless, emotion regulation was found to predict independently nonsupportive coping, and reflective functioning predicted significantly both supportive and nonsupportive coping. These findings suggested that, although reflective functioning was not a mediator in the relationship between mothers' emotion regulation and their ability to cope with their young children's negative behavior, both emotion regulation and reflective functioning were important variables to consider. These

findings were consistent with previous research, which suggested that mothers' characteristics were related to their ability to utilize positive coping skills (Cantos et al., 1997; Rodriguez, 2009). Nonetheless, this study examined the complex relationships among mothers' emotion regulation, their ability to cope *specifically* with their children's negative emotions (rather than general coping), and their reflective functioning abilities.

These findings suggested that, when working with families, it would be important to consider both their emotion regulation abilities and reflective capacities in the work and development of positive coping strategies. This target would be particularly important, as the findings stated above suggested that coping was a significant predictor in mothers' narratives of their attachment relationships with their young children and their child maltreatment potential. Individual work with mothers could target the use of specific skills in the moment (e.g., distress tolerance) and later reflection of their abilities to successfully or unsuccessfully use these skills. These reflections might lead to points of discussion about what tools were effective in helping the mother cope with their young children's negative emotions, thereby furthering their ability to tolerate and address difficult parent-young child interactions.

Additionally, the current study examined further the relationship between mothers' emotion regulation, attributions, and ability to cope with their young children's negative emotions. The results of these analyses suggested that mothers' attributions did not mediate the relationship between mothers' emotion regulation and coping abilities. Nonetheless, emotion regulation was found to predict marginally attributions and to predict significantly nonsupportive coping. These findings suggested that mothers' emotion regulation was important to consider in the prediction of mothers' attributions

and nonsupportive coping styles. This finding was consistent with previous research, which suggested that maternal affective and self-regulatory processes were associated with how parents understand and interpret their children's behavior (i.e., attributions), especially in stressful environments (Wang, Deater-Deckard, & Bell, 2016).

Moderation regression analyses were also conducted to determine whether mothers' narratives of their attachment relationships with their young children (i.e., balanced and unbalanced) would moderate the relationship between mothers' perceptions of their young children's temperament (i.e., activity level, flexibility/rigidity, mood quality) and mothers' child maltreatment potential. Results from these analyses suggested that young children's activity level and the interaction terms (i.e., young children's activity level \* narratives, young children's flexibility/rigidity \* narratives, and young children's mood \* narratives) did not predict significantly mothers' child maltreatment potential. Nonetheless, mothers' perceptions of their young children's flexibility/rigidity and mood both had significant independent main effects in the prediction of mothers' child maltreatment potential. This finding was consistent with previous research, which suggested that young children's difficult temperaments might put them at risk for child maltreatment (Vietze et al., 1980). It was important to note, however, that, in this study, mothers rated their young children's temperament. As a result, mothers' perceptions of their young children's characteristics (rather than objective ratings) were given importance. This finding had important implications, as previous research found that mothers' unique perceptions of their young children's temperament were more important predictors of child maltreatment potential than young children's objective temperament traits (Vietze et al., 1980). Such explanations regarding perceptions also may be active in

the context of mothers' narratives of their attachment relationships with their young children as well. Specific interventions might target mothers' perceptions of their young children's temperament by educating them about normal child behaviors and assisting them with understanding how to help their young child when they themselves and their young child are struggling. If mothers are able to feel successful in helping themselves and their young children, these feelings might lead to a stronger relationship.

Finally, given the trends in the analyses, exploratory mediation analyses were conducted to assess further the relationships among mothers' ratings of their own childhood maltreatment, emotion regulation, psychological symptoms, coping, and maltreatment potential. The results of these analyses suggested that mothers' emotion regulation and psychological symptoms partially mediated the relationship between their ratings of their own childhood maltreatment and child maltreatment potential. In contrast, mothers' coping abilities were not found to mediate the relationship between their ratings of their own childhood maltreatment and child maltreatment potential. Rather, mothers' nonsupportive coping directly predicted their child maltreatment potential. Thus, mothers' ratings of their own childhood maltreatment, emotion regulation, psychological symptoms, and nonsupportive coping styles were significant predictors of their child maltreatment potential. These findings were consistent with previous research, which suggested that parents with psychological symptoms (Ammerman et al., 2012; Bert, Guner, & Lanzi, 2009), greater difficulties with emotional and physiological arousal (Ammerman, 1990; Frodi, 1981), and poor coping strategies (Cantos et al., 1997; Larrance & Twentyman, 1983) were more likely to experience difficulties in their parenting role and were at greater risk for the use of harsh parenting practices. These

results suggested the importance of using a multi-targeted intervention approach (e.g., the inclusive of both individual components for mothers as well as dyadic components for mothers and their young children) when attempting to decrease mothers' child maltreatment potential.

The findings of this study should be interpreted within the context of its limitations. First, mothers provided self-report ratings, which cannot be assumed to be completely accurate, given that socially desirable responses may have been provided. Similarly, given the sensitive nature of the content in the measures and Working Model of the Child interview, it was possible that mothers' underreported/under-shared information regarding their functioning. When examining this further, the averages on the Lie Scale (M=8.52, SD=2.21) and the Random Response Scale (M=8.72, SD=1.62) on the CAPI were slightly elevated above the cutoff of 8 (Milner, 1986). This pattern of scores suggested that it was likely that mothers in this sample provided socially desirable responses on certain items. Finally, the sample size for this study was lower than desired, which likely impacted the power of the statistical analyses. Accordingly, observational research (e.g., for young children's temperament) and multi-informant ratings (e.g., other family members) on larger samples may provide more accurate evaluations of functioning, especially when examining emotion regulation, young children's temperament, and attachment. These limitations may decrease external validity, decreasing the generalizability of this study's results to the population of interest.

Despite these limitations, the results of this study added to the literature concerning the relationships among mothers' ratings of their own childhood maltreatment, psychological symptoms, regulation abilities (i.e., emotion regulation,

reflective functioning, attributions, coping with young children's negative emotions), perceptions of their young children's temperament, narratives of their attachment relationships with their young children, and child maltreatment potential. The results garnered thus far highlighted the importance of examining these variables collectively. Although previous research found significant relationships among the variables in this study (Badour & Feldner, 2013; Pajulo et al., 2012; Wright, Crawford, & Del Castillo, 2009), this study offered the uniqueness of examining reflective functioning with other maternal characteristics (e.g., emotion regulation, coping abilities) as well as investigating mothers' ability to cope specifically with their young children's negative emotions as predictors of mothers' narratives of their attachment relationships with their young children and their child maltreatment potential.

Future research should continue describing the relationships among these variables further, especially in high risk populations and mothers who already had been identified as perpetrating against their children. Additionally, this study aimed to investigate these variables in a sample of women because mothers generally were identified as having maltreated their children more frequently than fathers in national statistics (U. S. Department of Health and Human Services, 2016); however, research also should aim to examine these variables in fathers to determine if these findings generalize beyond mothers. Research should examine the role of specific types of mothers' childhood maltreatment (e.g., physical abuse versus neglect) in the prediction of their narratives of their attachment relationships with their young children and various types of child maltreatment potential (e.g., high risk of physical abuse versus emotional abuse or neglect) to better inform specific intervention.

Nonetheless, the results of this study were useful in informing interventions with a specific focus on lowering mothers' risk of child maltreatment and developing strong relationships with their young children. Specifically, this study emphasized the importance of assisting mothers with regulating their emotions and better managing their psychological symptoms. Interventions also should focus on helping mothers cope with their young children's negative emotions, especially when they perceive their children as having difficult temperaments. Overall, these findings supported interventions that utilize both individual parent sessions and parent-child dyadic work to encourage the development of strong relationships and lower mothers' risk of child maltreatment.

Taken together, a number of specific interventions might be useful in assisting mothers with forming stronger relationships with their young children and decreasing their child maltreatment potential. By integrating dyadic work alongside individual interventions for mothers, health service providers might be able to assist mothers with their ability to reflect on specific interactions with their young children and better make sense of their young children's emotional experiences. Such interventions could aim to help mothers become more tolerant of their young children's difficult behaviors while strengthening the caregiver-young child relationship. In an effort to help mothers regulate their emotions and better manage their psychological symptoms, providers could help mothers process their own early childhood experiences and teach cognitive-behavioral techniques (such as identifying cognitive distortions) that could help reframe and cognitively restructure these experience. It also would be useful for health service providers to think about how to help mothers regulate their emotions in the moment when interacting with their young children, such as through the use of distress tolerance skills.

These skills might, in turn, assist mothers with coping with their young children's difficult emotions and behaviors, thereby decreasing mothers' potential for child maltreatment. As such, the use of this multi-targeted intervention approach might prove most beneficial when working with mothers to form more positive connections with their young children and decrease their likelihood of engaging in harsh or neglectful parenting behaviors.

#### **APPENDIX A: TABLES**

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Mothers' Own Maltreatment	-										
<ol> <li>Mothers' Psychological Symptoms</li> </ol>	.39***	-									
3. Mothers' Emotion Regulation	.43**	.82***	-								
4. Mothers' Reflective Functioning	12	.18	.01	-							
5. Supportive Coping	.16	06	11	.28*	-						
6. Nonsupportive Coping	.14	.34**	.43**	33*	08	-					
7. Mothers' Attributions	06	08	25	.18	.09	20	-				
<ol> <li>Young Child Activity Level- General</li> </ol>	.00	.11	.03	.07	.05	10	.09	-			
9. Young Child Flexibility	13	32**	28*	.17	.26	20	.08	05	-		
10. Young Child Mood	01	04	04	.40**	.38**	36**	02	.35**	.48***	-	
11. Child Maltreatment Potential	.50***	.77***	.72***	08	12	.47***	17	.03	36**	17	-

 Table 1. Correlations Among Mothers' Own Childhood Maltreatment, Psychological Symptoms, Regulation Abilities,

 Ratings of Their Young Children's Temperament, and Child Maltreatment Potential

**Note.** \* *p* < .05 \*\* *p* < .01 \*\*\* *p* < .001

\*Numbers bolded represent significant correlations with Bonferroni correction

Variable	Bala	anced	Unba	<i>t</i> -value	р	
Mothers' Own	<i>M</i> = 58.56	<i>SD</i> = 17.00	<i>M</i> =57.58	<i>SD</i> = 17.00	.17	.87
Maltreatment						
Mothers'	<i>M</i> = .84	<i>SD</i> = .81	<i>M</i> = 1.17	<i>SD</i> = 1.33	-1.04	.30
Psychological						
Symptoms						
Mothers' Emotion	<i>M</i> = 71.00	<i>SD</i> = 29.46	<i>M</i> = 74.00	<i>SD</i> = 34.31	29	.77
Regulation						
Mothers'	<i>M</i> = 4.69	<i>SD</i> = .49	<i>M</i> = 4.49	<i>SD</i> = .48	1.23	.22
Reflective						
Functioning						
Supportive	<i>M</i> = 5.74	<i>SD</i> = .72	<i>M</i> = 5.51	<i>SD</i> = .94	.88	.38
Coping						
Nonsupportive	<i>M</i> = 2.93	<i>SD</i> = 1.03	<i>M</i> = 3.67	<i>SD</i> = .94	-2.02	.03
Coping						
Mothers'	<i>M</i> = .42	<i>SD</i> = .88	<i>M</i> = .22	<i>SD</i> = .69	.71	.48
Attributions						
Young Child	<i>M</i> = 21.06	<i>SD</i> = 4.85	<i>M</i> = 22.83	<i>SD</i> = 2.95	-1.19	.24
Activity Level-						
General						
Young Child	<i>M</i> = 13.74	<i>SD</i> = 3.78	<i>M</i> = 14.08	<i>SD</i> = 4.01	27	.79
Flexibility						
Young Child	<i>M</i> = 25.94	<i>SD</i> = 2.49	<i>M</i> = 25.17	<i>SD</i> = 5.64	.65	.52
Mood						
Child	<i>M</i> = 122.65	<i>SD</i> = 104.83	<i>M</i> =156.58	<i>SD</i> =111.66	95	.35
Maltreatment						
Potential						
<b>Note.</b> * <i>p</i> <	< .05					

 Table 2. Mean Comparisons for Attachment

Variables	B	SE	Wal d	Lower	Exp(B)	Upper	p
Block 1. $R^2 = .00$ (Nagelkerke),	Model	$\gamma^{2}(1)$ -	•••	$< 86 f^2 - 100$	00		
Mothers' Own	00	.02	0 <i>3</i> , <i>p</i> 03	.96	1.00	1.04	.86
Block 2. $R^2 = .04$ (Nagelkerke),							
Mothers' Own	01	.02	- 1.39, p .32	.94	.99	1.03	.57
Psychological Symptoms	.43	.02	1.35	.75	1.53	3.14	.25
Block 3. $R^2 = .24$ (Nagelkerke),						5.14	.20
Mothers' Own	01	.03	- 0.03, p .04	.94	.99	1.05	.83
Psychological Symptoms	1.20	.05	2.56	.76	3.33	14.52	.11
Reflective Functioning	81	1.10	.54	.05	.44	3.85	.46
Emotion Regulation	04	.03	2.18	.03	.96	1.01	.14
Supportive Coping	22	.59	.14	.25	.90	2.54	.71
Nonsupportive Coping	.68	.46	2.22	.81	1.97	4.81	.14
Block 4. $R^2 = .39$ (Nagelkerke),							
Mothers' Own Maltreatment	00	.30	.00	.94	.99	1.06	.97
Psychological Symptoms	1.56	.90	3.04	.82	4.77	27.54	.08
Reflective Functioning	_	1.28	.75	.03	.33	4.04	.39
Emotion Regulation	04	.03	2.37	.91	.96	1.01	.12
Supportive Coping	-	.81	1.72	.07	.35	1.69	.19
Nonsupportive Coping	1.36	.65	4.35	1.09	3.88	13.91	.04
Young Children's Activity	.16	.13	1.40	.90	1.17	1.52	.24
Young Children's	.26	.16	2.75	.95	1.30	1.76	.10
Young Children's Mood	.23	.20	1.35	.85	1.26	1.86	.25

 Table 3. Binary Logistic Hierarchical Regression Analyses Predicting Attachment

*Note.* \* *p* < .05

Variables	В	SE B	β
Block 1. $F(1, 45) = 12.23, p < .002, R^2 = .22, f^2$	<sup>2</sup> =0.28		
Mothers' Own Maltreatment	2.92	.84	.47**
Block 2. $F(2, 45) = 39.66, p < .001, R^2 = .65, f^2$	<sup>2</sup> =1.86		
Mothers' Own Maltreatment	1.49	.60	.24*
Psychological Symptoms	76.57	10.55	.70***
Block 3. $F(6, 45) = 17.87, p < .001, R^2 = .73, f$	$^{2}=2.70$		
Mothers' Own Maltreatment	1.66	.60	.27**
Psychological Symptoms	70.41	16.73	.64***
Reflective Functioning	-4.14	23.70	02
Emotion Regulation	14	.53	04
Supportive Coping	-7.07	12.85	05
Nonsupportive Coping	29.32	10.29	.29**
Block 4. $F(9, 45) = 11.87, p < .001, R^2 = .75, f$		10.29	>
Mothers' Own Maltreatment	1.59	.61	.25*
Psychological Symptoms	62.52	18.16	.57**
Reflective Functioning	1.87	24.99	.01
Emotion Regulation	06	.55	02
Supportive Coping	.07	14.54	.00
Nonsupportive Coping	26.38	11.85	.26*
Young Children's Activity Level	.82	2.31	.03
Young Children's Flexibility/Rigidity	-3.10	2.84	11
Young Children's Mood	-2.08	3.68	07
Block 5. $F(10, 45) = 10.44, p < .001, R^2 = .75,$	$f^2 = 3.00$		
Mothers' Own Maltreatment	1.59	.62	.25*
Psychological Symptoms	64.46	19.07	.59**
Reflective Functioning	.89	25.42	.00
Emotion Regulation	12	.58	03
Supportive Coping	66	14.84	01
Nonsupportive Coping	27.90	12.63	.28*
Young Children's Activity Level	.95	2.36	.04
Young Children's Flexibility/Rigidity	-2.87	2.93	10
Young Children's Mood	-1.94	3.74	06
Attachment	-8.90	23.37	04
Note * $n < 05$ ** $n < 01$ *** $n < 001$			

Table 4. Hierarchical Regression Analyses Predicting Child Maltreatment Potential

**Note.** \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Table 5. Mediational	Regression	Analyses f	for Sup	portive Copir	ıg

<b>Regression/Variables</b>	Beta	t	р
Mediators: Reflective Functioning	and Attributions		
Emotion Regulation and Reflective $f^2=0.00$	Functioning: <i>F</i> (	(1, 53) = .00, <i>p</i> <	.98, $r^2 = .00$
<b>Emotion Regulation</b>	.01	.04	.97
Reflective Functioning and Support $f^2=0.09$	ive Coping: F (1,	, 53) = 4.25, <i>p</i> < .	$.05, r^2 = .08$
<b>Reflective Function</b>	.28	2.06	.04*
Emotion Regulation and Supportive	Coping: <i>F</i> (1, 53	(3) = .65, p < .43,	$r^2 = .01, f^2 =$
<b>Emotion Regulation</b>	11	81	.42
Emotion Regulation, Reflective Fur 2.47, $p < .10$ , $r^2 = .09$ , $f^2 = 0.10$	actioning, and Sug	pportive Coping:	<i>F</i> (2, 53)
Emotion Regulation	11	84	.40
<b>Reflective Functioning</b>	.28	2.06	.04*
Emotion Regulation and Attribution	s: $F(1, 53) = 3.4$	48, $p < .07$ , $r^2 = .$	$06, f^2 = 0.06$
Emotion Regulation	25	-1.87	.07
Attributions and Supportive Coping	: F(1, 53) = .39,	$p < .60, r^2 = .01,$	$f^2 = 0.01$
Attributions	.09	.63	52
Autoutous	.07		.53
Emotion Regulation and Supportive		(3) = .65, p < .43,	
		3) = .65, <i>p</i> < .43, 81	
Emotion Regulation and Supportive	Coping: F (1, 53 11	81	$r^2 = .01, f^2 = .42$
Emotion Regulation and Supportive Emotion Regulation Emotion Regulation, Attributions, a	Coping: F (1, 53 11	81	$r^2 = .01, f^2 = .42$

**Note.** \* *p* < .05

Regression/Variables	Beta	t	р
Mediators: Reflective Functioning d	and Attributions		
Emotion Regulation and Reflective $f^2=0.00$	Functioning: F (	(1, 53) = .00, <i>p</i> <	$< .98, r^2 = .00,$
<b>Emotion Regulation</b>	.01	.04	.97
Reflective Functioning and Nonsupp $f^2=0.11$	portive Coping: I	F(1, 53) = 5.88,	$p < .02, r^2 = .10$
<b>Reflective Function</b>	32	-2.42	.02*
Emotion Regulation and Nonsuppor $f^2=0.18$	tive Coping: F (2	(1, 53) = 9.31, p	$< .01, r^2 = .15,$
Emotion Regulation	.39	3.05	.004**
Emotion Regulation, Reflective Fun 8.72, $p < .001$ , $r^2 = .26$ , $f^2 = 0.35$	ctioning, and No	onsupportive Co	ping: $F(2, 53) =$
<b>Emotion Regulation</b>	.39	3.24	.002**
<b>Reflective Functioning</b>	32	-2.65	.01**
Emotion Regulation and Attribution	s $F(1, 53) = 3.43$	$8, p < .07, r^2 = .07$	$06, f^2 = 0.06$
Emotion Regulation	25	-1.87	.07
Attributions and Nonsupportive Cop	bing: $F(1, 53) =$	$1.50, p < .23, r^2$	$= .03, f^2 = 0.03$
Attributions	17	-1.23	.23
Emotion Regulation and Nonsuppor $f^2=0.18$	tive Coping: F (2	(1, 53) = 9.31, p	$< .005, r^2 = .15,$
Emotion Regulation	.39	3.05	.004**
Emotion Regulation, Attributions, an .02, $r^2 = .16$ , $f^2 = 0.19$	nd Nonsupportiv	e Coping: F (2,	, 53) = 4.75, <i>p</i> <
Emotion Regulation	.37	2.79	.007**
Attributions	08	56	

Table 6. Mediational Regression Analyses for Nonsupportive Coping

**Note.** \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Variables	В	SE B	β
Block 1. $F(1, 45) = 1.50$ , $p < .23$ , $R^2 = .03$ , $f^2 = 0.9$	03		
Young Children's Activity Level	4.33	3.53	.18
Block 2. $F(2, 45) = 1.02, p < .37, R^2 = .05, f^2 = 0.05$	03		
Young Children's Activity Level	3.85	3.60	.16
Attachment	27.10	36.30	.11
Block 3. $F(3, 45) = .68, p < .57, R^2 = .05, f^2 = 0.02$	5		
Young Children's Activity Level	3.59	3.86	.15
Attachment	23.84	40.07	.10
Young Children's Activity * Attachment	2.37	11.66	.04

Table 7. Moderation Analyses for Young Children's Activity Level, Attachment, and Child Maltreatment Potential

Variables	В	SE <i>B</i>	β
Block 1. $F(1, 45) = 12.33$ , p < .002, $R^2 = .22$ , $f^2 = 0$	).28		
Young Children's Flexibility/Rigidity	-13.12	3.74	47**
Block 2. $F(2, 45) = 6.97, p < .003, R^2 = .25, f^2 = 0.1$	33		
Young Children's Flexibility/Rigidity	-13.30	3.72	47**
Attachment	38.57	31.81	.16
Block 3. $F(3, 45) = 5.26, p < .005, R^2 = .27, f^2 = 0.1$	37		
Young Children's Flexibility/Rigidity	-10.40	4.33	37*
Attachment	41.63	31.66	.17
Young Children's Flexibility * Attachment	-10.64	8.29	20

Table 8. Moderation Analyses for Young Children's Flexibility/Rigidity, Attachment, and Child Maltreatment Potential

Variables	B	SE B	β
Block 1. $F(1, 45) = 5.57, p < .03, R^2 = .11, f^2 = 0$	).12		
Young Children's Mood	-10.12	4.29	34*
Block 2. $F(2, 45) = 3.05, p < .06, R^2 = .12, f^2 = 0$	).14		
Young Children's Mood	-9.80	4.33	32*
Attachment	26.35	34.39	.11
Block 3. $F(3, 45) = 1.99, p < .14, R^2 = .12, f^2 = 0$	).14		
Young Children's Mood	-9.57	7.22	32
Attachment	26.43	34.85	.76
Young Children's Mood * Attachment	37	9.09	10

Table 9. Moderation Analyses for Young Children's Mood, Attachment, and Child Maltreatment Potential

Table 10. Mediational Regression Analyses for Child Maltreatment Potential

Regression/Variables	Beta	t	р
Mediators: Emotion Regulation, Psychol	ological Sym	ptoms, Coping	
Mothers' Own Maltreatment and Emotion $.18, f^2=0.22$	on Regulatio	n: $F(1, 53) = 11$ .	71, $p < .002$ , $r^2 =$
Mothers' Own Maltreatment	.43	3.42	.001**
Emotion Regulation and Maltreatment F $f^2=1.08$	Potential: F (	(1, 53) = 55.34, p	$< .001, r^2 = .52,$
Emotion Regulation	.72	7.44	.000*
Mothers' Own Maltreatment and Maltre $r^2 = .25, f^2 = 0.33$	atment Poter	ntial: $F(1, 53) =$	16.99, <i>p</i> < .001,
Mothers' Own Maltreatment	.50	4.12	.000***
Mothers' Own Maltreatment, Emotion F 53) = 32.33, $p < .001$ , $r^2 = .56$ , $f^2 = 1.27$	Regulation, a	nd Maltreatment	Potential: F (2,
Mothers' Own Maltreatment	.23	2.24	.03*
Emotion Regulation		6.02	.000***
Mothers' Own Maltreatment and Psycho $r^2 = .15, f^2 = .18$		-	-
Mothers' Own Maltreatment	.39	3.07	.003**
Psychological Symptoms and Maltreatm	ient Potentia	l: $F(1, 53) = 77.2$	24, $p < .001, r^2 =$
.60, <i>f</i> <sup>2</sup> =1.50 Psychological Symptoms	.77	8.79	.000***
Mothers' Own Maltreatment and Maltre $r^2 = .25, f^2 = 0.33$	atment Poter	ntial: $F(1, 53) =$	16.99, <i>p</i> < .001,
Mothers' Own Maltreatment	.50	4.12	.000***
Mothers' Own Maltreatment, Psycholog $F(2, 53) = 45.68, p < .001, r^2 = .64, f^2 = 100$		ms, and Maltreat	ment Potential:
Mothers' Own Maltreatment	.23	2.51	.02*
Psychological Symptoms	.68	7.50	.000***
Mothers' Own Maltreatment and Suppo $.03, f^2=0.03$	rtive Coping	F(1, 53) = 1.41	, $p < .25$ , $r^2 =$
Mothers' Own Maltreatment	.16	1.19	.24
Supportive Coping and Maltreatment Po $f^2=0.02$	otential: F (1	, 53) = .82, <i>p</i> < .3	8, $r^2 = .02$ ,
Supportive Coping	12	90	.37
Mothers' Own Maltreatment and Maltre $r^2 = .25$ , $f^2 = 0.33$	atment Poter	ntial: $F(1, 53) =$	16.99, <i>p</i> < .001,
Mothers' Own Maltreatment	.50	4.12	.000***

<b>Regression/Variables</b>	Beta	t	р
Mediators: Emotion Regulation, Psych	nological Sym	ptoms, Coping	
Mothers' Own Maltreatment, Supportiv 53) = 10.39, $p < .001$ , $r^2 = .29$ , $f^2 = 0.41$	ve Coping, an	d Maltreatment P	otential: $F(2,$
Mothers' Own Maltreatment	.53	4.44	.001**
Supportive Coping	21	-1.76	.08
Mothers' Own Maltreatment and Nonst. .01, $f^2=0.01$	upportive Cop	ping: $F(1, 53) = .$	47, $p < .50, r^2 =$
Mothers' Own Maltreatment	.10	.69	.50
Nonsupportive Coping and Maltreatme .22, $f^2=0.28$	nt Potential: I	F(1, 53) = 14.91,	$p < .001, r^2 =$
Nonsupportive Coping	.47	3.86	.000***
Mothers' Own Maltreatment and Maltr $r^2 = .25, f^2 = 0.33$	eatment Poter	ntial: $F(1, 53) = 1$	16.99, <i>p</i> < .001,
Mothers' Own Maltreatment	.50	4.12	.000***
Mothers' Own Maltreatment, Nonsupp (2, 53) = 19.11, $p < .001$ , $r^2 = .43$ , $f^2 = 0$ .		, and Maltreatme	nt Potential: F
		4.28	.000***
Mothers' Own Maltreatment	.46	4.20	.000

Table 10 continued. Mediational Regression Analyses for Child Maltreatment Potential

Note. p < .05, \*\* p < .01, \*\*\* p < .001

#### **APPENDIX B: IRB APPROVAL LETTER**

	ntral lorida	University of Central Florida Institutional Review Board Office of Research & Commercialization 12201 Research Parkway, Suite 501 Orlando, Florida 32826-3246 Telephone: 407-823-2901 or 407-882-2276 www.research.ucf.edu/compliance/irb.html
	Appr	oval of Exempt Human Research
From:	UCF Institutional FWA00000351, IB	
To:	Kimberly D. Renk	and Co-PI: Jayme L. Puff
Date:	May 15, 2015	
Dear Res	surcher:	
	2015, the IRB approves om regulation: Type of Review: Modification Type:	
	Project Title: Investigator: IRB Number: Funding Agency: Grant Title:	Understanding the Relationships Among Mother's Characteristica, Young Children's Temperament, Attachment, and Difficulties in Parenting Kimberly D Renk SBE-15-10998
	Research ID:	N/A
any chang exempt st	es be made. If changes atus of the human resea	a the activities described in the IRB submission and does not apply should are made and there are questions about whether these changes affect the reh, please contact the IRB. When you have completed your research, part in IRIS so that IRB records will be accurate.
In the con	duct of this research, yo	s are responsible to follow the requirements of the Investigator Manual.
ga.	me printori	ki, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by: stori on 05/15/2015 09:28:44 AM EDT
IRB man	iger	

#### **APPENDIX C: CONSENT FORM**



# Understanding the Relationships Among Mother's Characteristics, Young Children's Temperament, Attachment, and Difficulties in Parenting

Principal Investigator: Kimberly Renk, Ph.D.

Co-Investigator: Jayme Puff, M.S.

Investigational Site: University of Central Florida Department of Psychology

**Introduction:** Researchers at the University of Central Florida study many topics to assist parents in their parenting role. To do this, we need the help of people who agree to take part in a research study. You are being invited to take part in a research study that will include about 104 parenting mothers from agencies in the Orlando area. You have been asked to take part in this research study because you are parenting a child between the ages of 3- and 48-months. You, as the parent, must be 18-years or older to participate in this research study.

The person doing this research is Kimberly Renk, Ph.D., who is an Associate Professor in the Clinical Psychology Ph.D. Program at the University of Central Florida, and Jayme Puff, M.S., a Doctoral Student at the University of Central Florida. Some of Dr. Renk's graduate students are also assisting with this research study; they are Amanda Lowell, Annelise Cunningham, Ellen Kolomeyer, Maria Kahn, and Meagan McSwiggan. Three undergraduate students who are currently serving as research assistants under Dr. Renk's supervision also will be providing support for this study but will not be interacting with you in any way.

#### What you should know about this research study:

- Someone will explain this research study to you.
- A research study is something you volunteer for.
- Whether or not you take part is up to you.
- You should take part in this study only because you want to.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you.
- Feel free to ask all the questions you want before you decide.

**Purpose of the research study:** The infant and preschool years are particularly important for the development of later behaviors that young children exhibit (Li et al.,

2013). There are many characteristics of both parents and young children that are related to young children's development and to the parent-child relationship. Given these findings, more work is needed to identify specific traits (e.g., emotional and behavioral regulation) that will help parents be successful in their parenting roles and subsequently lead young children to better outcomes over time. To help identify these traits, this study seeks to examine the relationships among mothers' childhood experiences, mothers' self-regulation, children's characteristics (e.g., temperament), and mother-child attachment, with particular emphasis on understanding which of these characteristics predict the ways in which mothers' parent their children.

What you will be asked to do in this study: If you elect to participate in this research study, you will be asked to complete an interview as well as a packet of questionnaires. This will take approximately 1.5 hours to complete. Specifically, for the interview, we will be asking you about your thoughts and ideas about your child and your parenting. This interview will be audio taped so that your responses to questions can be transcribed and coded into scores about children and parenting. Once your interview has been transcribed and coded, its recording will be deleted. For the packet of questionnaires, we will be asking you to rate your own characteristics, your ideas about parenting, and your child's characteristics. At no time on these questionnaires will we ask you to write your name or any other identifying information.

**Time required:** We expect that you will be in this research study for approximately 1.5 hours. In particular, approximately 30 minutes will be spent completing the interview, and about one hour will be spent completing the packet of questionnaires. Throughout the completion of the research study, you will have someone to help you with these tasks and answer any questions that may arise.

**Risks:** Although there are no known risks from participating in this research study, some individuals may be sensitive to the information presented in the questionnaires given to you. Should you have such a reaction, please notify the investigator(s) working with you so that any concerns that you have can be addressed. Should you feel that you need more time to talk about the issues that may come to mind with our packet of questionnaires, we can help you alert the Director of your facility and make arrangements for further services there. If you feel that you would benefit from talking with a counselor about your own childhood experiences or about your child's behavior, please contact the Young Child and Family Research Clinic Service in the UCF Psychology Clinic at (407) 257-2978, Nemours Children's Hospital at (407) 650-7715, or The Happy Mind Company at (407) 704-1461.

**Benefits:** We cannot promise any benefits to you or others from your taking part in this research. However, by participating in the research study described here, possible benefits include increasing your awareness of your role as a mother and your perceptions of your own characteristics and those of your child. In addition, by participating in this research, you will be adding to the information available to help families who are experiencing a variety of difficulties, such as struggles related to their parenting role. It is hoped that the information collected as part of this project will identify ways in which families can be helped during difficult times.

**Compensation or payment:** Participants will not receive any compensation as part of this study.

**Confidentiality:** Given the sensitive nature of some of the material that will be collected as part of this research study, we will not be asking for you to include your name or other identifiers in your interview or on your questionnaires. Please note that you will be assigned a family number which will be the only thing linking all your information once you have participated in this research study. You can be assured that your completed measures will be stored in a locked file cabinet in a secure laboratory in the Psychology Building at the University of Central Florida and will be used for research purposes only after your participation is completed. Please note that it is the responsibility of the investigators to disclose to the proper authority any information or behaviors we become aware of concerning your child that may endanger your child or constitute abuse. All other study related information will be kept confidential as stated earlier.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints, or think the research has hurt you, talk to Kimberly Renk, Ph.D., by phone at (407) 823-2218 or by email at Kimberly.Renk@ucf.edu.

**IRB contact about your rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901. You may also talk to them for any of the following: Your questions, concerns, or complaints are not being answered by the research team. You cannot reach the research team. You want to talk to someone besides the research team. You want to get information or provide input about this research.

Withdrawing from the study: There are no adverse consequences for choosing to withdraw from your participation in this study. The person in charge of the research study or the sponsor can remove you from the research study without your approval if you are not 18-years of age (allowing you to consent for yourself), if you are not a mother of a child between the ages of 3- and 48-months, or if your information is not complete.

## **APPENDIX D: DEMOGRAPHICS QUESTIONNAIRE**

### **DEMOGRAPHICS QUESTIONNAIRE**

1. Your	Gender: M F				
2. Your	· Age:				
3. Your	Ethnicity: Caucasian	Hispanic A	frican-America	in	
	Asian-American	Native-Americar	n Other		
4. What	, if any, is your religiou	s affiliation?			
religious affi	On a scale of 1-10 (1 iliation would you say y	_	-	-	-
5. Your	Marital Status: Married Remarried (If so, how		Separated V arriages)	Vidowed	Single
6. Does	your child's other parer	nt live with you?	Yes N	0	
7. Pleas you.	e list the age and gende	r of your child(ren	and whether (	or not they	live with
	Age	Gender	Live with	ı you?	
		M F	Y N		
		M F	Y N		
		M F	Y N		
		M F	Y N		
8. Do	you live with any exten	ded family membe	ers or friends?	Y	Ν
9. If y	es, who?				
10. You	r level of education:				
	Post Doctorate		Vocation	al Training	<b>r</b>
	Graduate Professiona	al Training	High Sch	ool Diplor	na

College Degree (bachelors)	Some High School				
Some College	Less than High School				
11. Your occupation:					
12. Child's other parent's level of education:					
Post Doctorate	Vocational Training				
Graduate Professional Training	High School Diploma				
College Degree (bachelors)	Some High School				
Some College	Less than High School				

13. Your child's other parent's occupation:

14. Estimated Yearly household income (please circle one):

Less than \$10,000	\$40,000 - \$50,000
\$10,000 - \$20,000	\$50,000 - \$60,000
\$20,000 - \$30,000	\$60,000 - \$70,000
\$30,000 - \$40,000	More than \$70,000

## APPENDIX E: CHILDHOOD TRAUMA QUESTIONNAIRE

#### **Childhood Trauma Questionnaire**

(Bernstein and Fink, 1998)

Please rate the frequency of each item during your childhood on a scale of 1 (Never) to 5 (Very Often) by completing the following sentence:

#### When I grew up...

Item No.	Items	Never	F	requency		Very Often
1.	I didn't have enough to eat.	1	2	3	4	5
2.	I knew that there was someone to take	1	2	3	4	5
	care of me and protect me.					
3.	People in your family called me things like "stupid," "lazy," or "ugly."	1	2	3	4	5
4.	My parents were too drunk or high to take care of the family.	1	2	3	4	5
5.	There was someone in my family who helped me feel that I was important or special.	1	2	3	4	5
6.	I had to wear dirty clothes.	1	2	3	4	5
7.	I felt loved.	1	2	3	4	5
8.	I thought that my parents wished I had never been born.	1	2	3	4	5
9.	I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	1	2	3	4	5
10.	There was nothing I wanted to change about my family.	1	2	3	4	5
11.	People in my family hit me so hard that it left me with bruises or marks.	1	2	3	4	5
12.	I was punished with a belt, a board, a cord, or some other hard object.	1	2	3	4	5
13.	People in my family looked out for each other.	1	2	3	4	5
14.	People in my family said hurtful or insulting things to me.	1	2	3	4	5
15.	I believe that I was physically abused.	1	2	3	4	5
16.	I had the perfect childhood.	1	2	3	4	5
17.	I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.	1	2	3	4	5
18.	I felt that someone in my family hated me.	1	2	3	4	5
19.	People in my family felt close to each other.	1	2	3	4	5
20.	Someone tried to touch me in a sexual way, or tried to make me touch them.	1	2	3	4	5

21.	Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22.	I had the best family in the world.	1	2	3	4	5
23.	Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24.	Someone molested me.	1	2	3	4	5
25.	I believe that I was emotionally abused.	1	2	3	4	5
26.	There was someone to take me to the doctor if I needed it.	1	2	3	4	5
27.	I believe that I was sexually abused.	1	2	3	4	5
28.	My family was a source of strength and support.	1	2	3	4	5

Secondary sources:

Gerdner, A., & Allgulander, C. (2009). Psychometric properties of the Swedish version of the Childhood Trauma Questionnaire—Short Form (CTQ-SF). Nordic Journal of Psychiatry, 63(2), 160-170.

Wright, K., Asmundson, G., McCreary, D., Scher, C., Hami, S., & Stein, M. (2001). Factorial validity of the Childhood Trauma Questionnaire in men and women. Depression and Anxiety, 13(4), 179-183.

Primary source/ Original reference:

Bernstein, D. P., Fink, L., Handelsman, L., & Foote, J. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. American Journal of Psychiatry, 151 (8), 1132-1136.

#### **APPENDIX F: BRIEF SYPMTOMS INVENTORY**

INSTRUCTIONS: On the next page is a list of problems people sometimes have. Please read each one carefully, and blacken the circle that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY, Blacken the circle for only one number for each problem and do not skip any items. If you change your mind, erase your first mark carefully. Read the example before beginning, and if you have any questions please ask them now. and a state EXAMPLE HOW MUCH WERE YOU DISTRESSED BY:

1	4	000 an 100	and all		HOW MUCH WERE YOU DISTRESSED BY:
6	0	(B)	0		Nervousness or shakiness inside
0000	0	0000	00	٢	Faintness or dizziness
10	00	٢	3	۲	The idea that someone else can control your thoughts
4 0	0	۲	0	1	Faeling others are to blame for most of your troubles
5 0	9	9	9	0	Trouble remembering things
5 0	000	00	8	0	Feeling easily annoyed or irritated Pains in heart or chest
0	00	i i i	Se .	00	Feeling afraid in open spaces or on the streets
9 6	õ	0	ŏ	õ	Thoughts of ending your life
00	0	0	000000000000000000000000000000000000000	00000	Feeling that most people cannot be trusted
10	0	۲	Ð.	0	Poor appetite
2 ③	0	1	0	0	Suddenly scared for no reason
3 @	0		Q	9	Temper outbursts that you could not control
4 0	00	8	B	3	Feeling lonely even when you are with people Feeling blocked in getting things done
5 0	S.	000000	ñ	00000	Feeling longly
7 0	ă	ě	á	ă	Feeling blue
5 0	000000000000000000000000000000000000000	000000	0000000000	60	Feeling no interest in things
9 0	3	0	0		Feeling teartul
0 0	0	0	0	0	Your feelings being easily hurt
1 💿	O	2	8	E	Feeling that people are unfriendly or distike you
2 0	E	8	8	0	Feeling interior to others Nausea or upset stomach
4 0	000	000	lä.	000	Feeling that you are watched or talked about by others
5 0	õ	õ	õ	0	Trouble falling asleep
6 0	000	000	000000000000000000000000000000000000000	0	Having to check and double-check what you do
7 💿	0	0	0	1	Difficulty making decisions
8 💿	•	0	0	0	Feeling alraid to travel on buses, aubways, or trains
9 0	0	000	00	000	Trouble getting your breath
0 0	Sec.	80	8	18	Hot or cold spells Having to avoid certain things, places, or activities because they frighten you
2 0	000000	a	ă	00000	Your mind going blank
3 0	õ	000	a	õ	Numbness or tingling in parts of your body
4 @	0	0	0	0	The idea that you should be punished for your sins
5 0	000	000	000	1 (4)	Feeling hopeless about the future
6 0	0	9	(Q)	00	Trouble concentrating
7 0	00	C	0	0	Feeiing weak in parts of your body Feeiing tense of keyed up
8 0	S	0	G	8	Thoughts of death or dying
0 0	ě	õ	00	00	Having urges to beat, injure, or harm someone
1 0	õ	10	0	0	Having urges to break or smash things
2 0	0	0	0	0	Feeling very self-conscious with others
3 💿	$\odot$	1	0	٢	Feeling uneasy in crowds, such as shopping or at a movie
4 @	0	0	0	0	Never feeling close to another person
5 0	N.	00	00	00	Spells of terror or partic Getting into frequent arguments
7 0	×	80	ö	ŏ	Feeling nervous when you are left alone
8 0	000000000000000	ě	õ	ĕ	Others not giving you proper credit for your achievements
9 @	O.	0	0	0	Feeling so restless you couldn't sit still
0 0	0	0	00	00	Feelings of worthlesanass
1 💿	0	(2)	0	0	Feeling that people will take advantage of you if you let them
2 @	00	0	0	0	Feelings of guilt
3 @	0	0	0	13	The idea that something is wrong with your mind

### APPENDIX G: DIFFICULTIES IN EMOTION REGULATION SCALE



### Difficulties in Emotion Regulation Scale (DERS)

de	ntifier Date	
	ase indicate how often the following 36 statements apply to you by writing ober from the scale above $(1-5)$ in the box alongside each item.	the appropriate
1	I am clear about my feelings (R)	
2	I pay attention to how I feel (R)	
3	l experience my emotions as overwhelming and out of control	
4	I have no idea how I am feeling	
5	I have difficulty making sense out of my feelings	
6	I am attentive to my feelings (R)	
7	I know exactly how I am feeling (R)	
8	I care about what I am feeling (R)	
9	I am confused about how I feel	
10	When I'm upset, I acknowledge my emotions (R)	
11	When I'm upset, I become angry with myself for feeling that way	
12	When I'm upset, I become embarrassed for feeling that way	

٨	1 Imost 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%)
3 1	When I'm upse	et, I have difficul	ty getting work done		
4 1	When I'm upse	et, i become out	of control		
15 1	When I'm upse	et, I believe that	l will remain that way	for a long time	
6 1	When I'm upse	et, I believe that	I'll end up feeling ver	y depressed	
7 1	When I'm upse	et, I believe that	my feelings are valid	and important (R)	
8 1	When I'm upse	et, I have difficul	ty focusing on other t	hings	
9 I	When I'm upse	rt, I feel out of c	ontrol		
0 1	When I'm upse	et, I can still get :	things done (R)		
1 1	When I'm upse	et, i feel ashame	d with myself for feel	ing that way	
2 1	When I'm upse	et, I know that I o	can find a way to ever	ntually feel better (	R)
3 1	When I'm upse	et, I feel like I an	weak		
4	When I'm upse	et, I feel like I car	n remain in control of	my behaviours (R)	
15 1	When I'm upse	rt, I feel guilty fo	r feeling that way		
6	When I'm upse	et, I have difficul	ty concentrating		
7 1	When I'm upse	et, I have difficul	ty controlling my beh	aviours	

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	1 Almost never (0-10%)	2 Sometimes (11-35%)	3 About half the time (36-85%)	4 Most of the time (66-90%)	<b>S</b> Almost always (91-100%)
28	When I'm upse	et, I believe that t	there is nothing I can	do to make myself	feel better
29	When I'm upse	et, I become irrita	ited with myself for f	eeling that way	
30	When I'm upse	et, I start to feel v	very bad about mysel	r.	
31	When I'm upse	rt, i believe that v	wallowing in it is all I	can do	
32	When I'm upse	et, I lose control o	over my behaviours		
33	When I'm upse	rt, I have difficult	y thinking about any	thing else	
34	When I'm upse	et, I take time to	figure out what I'm ri	eally feeling (R)	
35	When I'm upse	et, it takes me a l	ang time to feel bette	er	
36	When I'm upse	et, my emotions i	feel overwhelming		

Serenity Programme<sup>TM</sup> - serene.me.uk - Difficulties in Emotion Regulation Scale (DERS)

Document Version: 1.1 Last Updated: 05 June 2013 Planned Review: 30 June 2018

Privacy - please note - this form does not transmit any information about you or your assessment scores if you wish to keep your results, you must print this document These results are intended as a guide to your health and are presented for educational purposes only They are not intended to be a clinical diagnosis if you are concerned in any way about your health, please consult with a qualified health professional.

Gratz, K.L. & Roemer, E. 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, pp. 41-54.

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### APPENDIX H: PARENTAL REFLECTIVE FUNCTIONING QUESTIONNAIRE

#### PRFQ-1

Listed below are a number of statements concerning you and your child. Read each item and decide whether you agree or disagree and to what extent.

Use the following rating scale, with 7 if you strongly agree; and 1 if you strongly disagree; The midpoint, if you are neutral or undecided, is 4.

Strongly	1	2	3	4	5	6	7
Strongly Disagree							Agree

- 1. My child and I can feel differently about the same thing.
- 2. When I get angry with my child, I always know the reason why.
- 3. I am often curious to find out how my child feels.
- 4. How I am feeling can affect how I understand my child's behaviour.
- 5. My child knows when I am having a bad day and does things to make it worse.
- 6. I like to think about the reasons behind the way my child behaves and feels.
- 7. I try to see situations through the eyes of my child.
- 8. I always know why my child acts the way he or she does.
- 9. My child sometimes gets sick to keep me from doing what I want to do.

10. I believe that how I think about my child will change over time.

- 11. My child can react to a situation very differently than I think he or she will.
- 12. I find it hard to actively participate in make believe play with my child.
- 13. At times, it takes several tries before I understand what my child needs or wants.
- 14. When my child is fussy he or she does that just to annoy me.
- 15. Now that I am a parent, I realize how my parents could have misunderstood my reactions when I was a child. \_\_\_\_\_
- 16. No matter how sick my child is, I can always tolerate him or her.

- 17. How I see my child changes as I change.
- 18. My behavior towards my child cannot be explained by how I was raised.
- 19. I can always predict what my child will do.
- 20. I wonder a lot about what my child is thinking and feeling.
- 21. Often, my child's behavior is too confusing to bother figuring out.
- 22. I can sometimes misunderstand the reactions of my child.
- 23. When my child is misbehaving it's a sign that he or she does not love me.
- 24. I believe that how my parents raised me affects how I raise my child.
- 25. My child cries around strangers to embarrass me.
- 26. I pay attention to what my child is feeling.
- 27. I can completely read my child's mind.
- Understanding why my child behaves in a certain way helps me not to be upset with him or her.
- 29. I believe there is no point in trying to guess what my child feels.
- 30. I often think about how I felt when I was a child.
- 31. I try to understand the reasons why my child misbehaves.
- 32. I always know what my child wants.
- 33. I hate it when my child cries and/or talks to me when I am on the phone with someone.
- 34. The only time I'm certain my child loves me is when he or she is smiling at me.
- 35. I'm certain that my child knows that I love him or her.
- 36. The best way to know your child loves you is when he or she is well-behaved.
- 37. My child's temperament is what it is, and there is little that I can do about that.
- 38. I always know why I do what I do to my child.
- At times I get confused about what my child is feeling.

### APPENDIX I: THE COPING WITH TODDLERS' NEGATIVE EMOTIONS SCALE

#### Coping With Toddlers' Negative Emotion Scale (CTNES)

<u>Instructions</u>: In the following items, please indicate on a scale from 1 (very unlikely) to 7 (very likely) the likelihood that that you respond to your child 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.

Response Scale: 1 2 3 4 5 6 7 Very Unlikely Medium Very Likely

- 1. If my child becomes angry because he wants to play outside and cannot do so because he is sick, I would:
  - a. Feel upset myself 1 2 3 4 5 6 7
  - b. Tell my child we will not get to do something else fun (i.e., watch t.v., play games) unless he stops behaving like that 1 2 3 4 5 6 7
  - c. Tell my child it's ok to be angry 1 2 3 4 5 6 7
  - d. Soothe my child and/or do something with him to make him feel better 1 2 3 4 5 6 7
  - e. Help my child find something he wants to do inside 1 2 3 4 5 6 7
  - f. Tell my child that he is making a big deal out of nothing 1 2 3 4 5 6 7
  - g. Let my child play outside 1 2 3 4 5 6 7
- 2. If my toddler spilled something and made a big mess on the carpet, and then gets upset and cries, I would:
  - a. Comfort my child by picking him up and/or trying to get him to forget about the accident 1 2 3 4 5 6 7
  - b. Tell my child that he is overreacting or making a big deal out of nothing
  - $1\ 2\ 3\ 4\ 5\ 6\ 7$
  - c. Remain calm and not let myself get upset 1 2 3 4 5 6 7
  - d. Send my child to his room for making a mess 1 2 3 4 5 6 7
  - e. Help my child find a way to clean up the mess 1 2 3 4 5 6 7
  - f. Tell my child that it is ok to be upset 1 2 3 4 5 6 7
- 3. If my child loses some prized possession (for example, favorite blanket or stuffed animal) and reacts with tears, I would:
  - a. Go and buy my child a new item 1 2 3 4 5 6 7
  - b. Help my child think of other places to look for the toy 1 2 3 4 5 6 7
  - c. Distract my child with another toy to make him feel better 1 2 3 4 5 6 7
  - d. Tell my child that it is not that important 1 2 3 4 5 6 7
  - e. Tell my child it is his fault for not being careful with the toy 1 2 3 4 5 6 7
  - f. Feel upset myself 1 2 3 4 5 6 7
  - g. Tell my child it is okay to feel sad about the loss 1 2 3 4 5 6 7
- 4. If my child is afraid of going to the doctor or of getting shots and becomes quite shaky and teary, I would:
  - a. Tell him to shape up or he won't be allowed to do something 1 2 3 4 5 6 7

he likes to do (i.e., go to playground)

- b. Tell my child that it is ok to be nervous or afraid 1 2 3 4 5 6 7
- c. Tell my child that it's really no big deal 1 2 3 4 5 6 7
- d. Comfort my child before and/or after the shot 1 2 3 4 5 6 7
- e. Leave the doctor's office and reschedule for another time 1 2 3 4 5 6 7
- f. Help him think of ways to make it less scary, like squeezing my
- hand when he gets a shot 1 2 3 4 5 6 7
- g. Get nervous myself 1 2 3 4 5 6 7

## 5. If my child is going to spend the afternoon with a new babysitter and becomes nervous and upset because I am leaving him, I would:

- a. Distract my child by playing and talking about all of the fun he will have with the sitter 1 2 3 4 5 6 7
- b. Feel upset or uncomfortable because of my child's reactions 1 2 3 4 5 6 7
- c. Tell my child that he won't get to do something else enjoyable (i.e., go to playground, get a special snack) if he doesn't stop behaving like that
  1 2 3 4 5 6 7
- d. Tell him that it's nothing to get upset about 1 2 3 4 5 6 7
- e. Change my plans and decide not to leave my child with the sitter 1 2 3 4 5 6 7
- f. Help my child think of things to do that will make it less stressful, 1 2 3 4 5 6 7 like me calling him once during the evening
- g. Tell my child that it's ok to be upset 1 2 3 4 5 6 7

## 6. If my child becomes upset and cries because he is left alone in his bedroom to go to sleep, I would:

- a. Become upset myself 1 2 3 4 5 6 7
- b. Tell my child that if he doesn't stop crying, we won't do something fun when he wakes up 1 2 3 4 5 6 7
- c. Tell my child it's okay to cry when he is sad 1 2 3 4 5 6 7
- d. Soothe my child with a hug or kiss 1 2 3 4 5 6 7
- e. Help my child find ways to deal with my absence (hold a favorite stuffed animal, turn on a nightlight, etc) 1 2 3 4 5 6 7
- f. Stay with my child or take him out of the bedroom to be with me until he falls asleep 1 2 3 4 5 6 7
- g. Tell him that there is nothing to be afraid of 1 2 3 4 5 6 7

# 7. If my child becomes angry because he is not allowed to have a snack (i.e., candy, ice cream) when he wants it, I would:

- a. Send my child to his room 1 2 3 4 5 6 7
- b. Give my child the snack that he wanted 1 2 3 4 5 6 7
- c. Distract child by playing with other toys or games 1 2 3 4 5 6 7
- d. Tell him that there is no reason to be upset 1 2 3 4 5 6 7
- e. Tell my child it's okay to feel angry 1 2 3 4 5 6 7

f. Help my child think of something to eat that he is allowed to 1 2 3 4 5 6 7 have between meals

g. Feel angry at my child's behavior 1 2 3 4 5 6 7

- 8. If my child becomes upset because I removed something that my child should have not been playing with, I would:
- a. Tell my child that if he touches it again he will not be allowed to 1 2 3 4 5 6 7 do something enjoyable
- b. Help my child think of something else to do that is fun 1 2 3 4 5 6 7
- c. Become upset myself 1 2 3 4 5 6 7
- d. Tell my child it's okay to feel angry 1 2 3 4 5 6 7
- e. Distract my child with something else interesting 1 2 3 4 5 6 7
- f. Give my child what he wants 1 2 3 4 5 6 7
- g. Ignore my child's upset reactions and take the object away 1 2 3 4 5 6 7
  - 9. If my child wants me to play with him and I cannot do so right then (i.e., I am on the phone, in the middle of a conversation with someone), and my child becomes upset, I would:
- a. Feel upset myself 1 2 3 4 5 6 7
- b. Tell my child that there is nothing to be upset about 1 2 3 4 5 6 7
- c. Help my child find something to do while he waits for me to play 1 2 3 4 5 6 7 with him.
- d. Tell my child I won't play with him later if he doesn't stop behaving 1 2 3 4 5 6 7 like that
- e. Tell my child it's okay to be upset 1 2 3 4 5 6 7
- f. Stop what I'm doing so I can play with my child 1 2 3 4 5 6 7
- g. Soothe my child and talk to him to make him feel better 1 2 3 4 5 6 7

## 10. If my child is playing with a puzzle or shape sorter toy and cannot fit a piece correctly, and gets upset and cries, I would:

- a. Remain calm and not let myself get anxious 1 2 3 4 5 6 7
- b. Take the toy away from my child 1 2 3 4 5 6 7
- c. Comfort my child with a pat or a kiss 1 2 3 4 5 6 7
- d. Put the piece in for my child1 2 3 4 5 6 7
- e. Tell my child it's okay to get frustrated and upset 1 2 3 4 5 6 7
- f. Help my child figure out how to put the piece in correctly 1 2 3 4 5 6 7
- g. Tell my child it's nothing to cry about 1 2 3 4 5 6 7

## 11. If my child has climbed onto a piece of playground equipment and gets stuck, and becomes nervous and begins to cry, I would:

- a. Become anxious myself 1 2 3 4 5 6 7
- b. Help my child figure out how to get down from the climber 1 2 3 4 5 6 7
- c. Take my child down from the climber 1 2 3 4 5 6 7
- d. Tell my child he shouldn't have gone up by himself. 1 2 3 4 5 6 7
- e. Tell my child its nothing to get upset about 1 2 3 4 5 6 7
- f. Comfort my child with words or a pat 1 2 3 4 5 6 7
- g. Tell my child it's okay to be afraid 1 2 3 4 5 6 7

## 12. If my child fell down and scraped himself while trying to get a favorite toy, I would:

- a. Become upset myself 1 2 3 4 5 6 7
- b. Help my child figure out how to feel better (getting a band-aid) 1 2 3 4 5 6 7
- c. Distract my child with something else 1 2 3 4 5 6 7

d.	Tell my child that he should be more careful	1 2 3 4 5 6 7
e.	Tell my child its nothing to get upset about	1 2 3 4 5 6 7
f.	Tell my child it's okay to cry	1 2 3 4 5 6 7

## APPENDIX J: THE PARENTAL ATTRIBUTIONS SCALE

#### Child Interaction Survey

In this questionnaire, we want to know how important you believe different factors might be as potential causes of successful and unsuccessful interaction with children. We are interested in discovering the way people think about children--there are no right or wrong answers.

Example: If you were teaching a child an outdoor game and he or she caught on very quickly, how important do you believe these possible causes would be?

	important important
a. how good he or she is in sports in general.	1 2 3 4 5 6 7 (Place a circle around a number. Pick one of the bigger numbers if you think this factor is important, and a smaller number if you think it is not important).
b. how good a teacher you are.	1 2 3 4 5 6 7
c. how easy the game is.	1 2 3 4 5 6 7

Not at all

Very

Answer the following questions by making ratings in the same way as shown above.

1.	SUPPOSE	YOU	TOOK	CARE	OF A	NEIGH	BOR'	5 03	HILD	ONE	AF	TER	ROON,	AND	THE	TWO	0₽	YOU
	HAD A R	EALLY	GOOD	) TIME	TOG	ETHER.	HOW	IM	PORTA	ANT I	DO	YOU	BELI	EVE	THE	FOLLO	0013	0G
	FACTORS	WOUL	D BE	AS RE	ASON	S FOR	SUCH	AN	EXPI	ERIE	NCE	2						

a. whether or not this was a "good day" for the child, e.g., whether there was a TV show s/he particularly wanted to see (or some other special thing to do).	1	2	3	4	5	6	7
d. how lucky you were in just having everything work out well.	1	2	3	4	5	6	7
e. how much the child enjoys being with adults.	1	2	3	4	5	6	7
f. how pleasant a disposition the child had.	1	z	3	4	5	6	7
g. how well the neighbor had set things up for you in advance.	1	2	3	4	5	6	7
h. whether the child was rested.	1	2	3	4	5	6	7

The next question asks about BAD experiences with children. Reasons for good interactions are not necessarily the same as those for unsuccessful ones. So please think about this situation without regard for the way you answered the first question.

2. SUPPOSE YOU TOOK CARE OF A NEIGHBOR'S CHILD ONE AFTERNOON, AND THE TWO OF YOU DID NOT GET ALONG WELL. HOW IMPORTANT DO YOU BELIEVE THE FOLLOWING FACTORS WOULD BE AS POSSIBLE REASONS FOR SUCH AN EXPERIENCE?

.

		Not at import						'ery ortant
b.	how unpleasant a disposition a disposition the child had.	1	2	3	4	5	6	7
c,	whether the child was tired or not feeling well.	1	2	3	4	5	6	7
d.	whether or not you really enjoy children that much.	1	2	3	4	5	6	7
£.	whether or not this was a bad day for the child, e.g., whether there was nothing good on TV, whether it was raining and he or she couldn't go outside.	d	2	3	4	5	6	7
i.	whether you used the wrong approach for this child.	1	2	3	4	5	6	7
j.	the extent to which the child was stubborn and resisted your efforts.	1	2	3	4	5	6	7
k.	how you get along with children in general	. 1	2	3	4	5	6	7
m.,	what kind of mood you were in that day.	1	2	3	4	5	6	7
q.	how hungry the child was.	ı	2	3	4	5	6	7
ŧ.	how little effort the child made to take as interest in what you said or did.	n 1	2	3	4	5	6	7
υ.	the extent to which you were not feeling well that day.	1	2	3	4	5	6	7
z.	whether or not this was a bad day for you in general.	1	2	3	4	5	6	7

## APPENDIX K: THE DIMENSIONS OF TEMPERAMENT SCALE-REVISED FOR CHILDREN

#### The Dimensions of Temperament Scale- Revised for Children

HOW TO ANSWER: On the following pages are some statements about how children like your own may behave. Some of the statements may be true of your child's behavior, and others may not apply to him or her. For each statement, we would like you to indicate if the statement is usually true of your child, is more true than false of your child, is more false than true of your child, or is usually false of your child. There are no "right" or "wrong" answers because all children behave in different ways. All you have to do is answer what is true or false for your child as well as how important this behavior is to you.

On the first line to the left of each statement write an <u>A</u> if the statement is <u>usually</u> <u>false</u> of your child, write a <u>B</u> if the statement is <u>more false than true</u> of your child, write a <u>C</u> if the statement is <u>more true than false</u> of your child, or write a <u>D</u> if the statement is <u>usually true</u> of your child.

On the second line to the right of each statement write a 0, 1, or 2. Write a  $\underline{0}$  if it is a behavior that it <u>not important to you at all</u>, write a  $\underline{1}$  if it is a behavior that is <u>somewhat important to you</u>, and write a  $\underline{2}$  if it is a behavior that is <u>very important to you</u>.

А	=	usually FALSE	0	=	NOT important
В	=	more FALSE than true	1	=	SOMETIMES important
С	=	more TRUE than false	2	=	VERY important
D	=	usually TRUE			

1. \_\_\_\_\_ It takes my child a long time to get used to a new thing in the home.

2. My child can't stay still for long.

3. My child laughs and smiles at a lot of things.

4. My child wakes up at different times.

5. \_\_\_\_\_ Once my child is involved in a task, nothing can distract him or her from it.

6. My child persists at a task until it's finished.

7. My child moves around a lot.

8. \_\_\_\_ My child can make him/herself at home anywhere.

9. \_\_\_\_ My child can always be distracted by something else, no matter what he or she may be doing.

10. My child stays with an activity for a long time.

11. \_\_\_\_\_ If my child has to stay in one place for a long time, he/she gets very restless.
A = usually FALSE 0 = NOT important
B = more FALSE than true 1 = SOMETIMES important
C = more TRUE than false 2 = VERY important
D = usually TRUE

12. My child usually moves toward new objects shown to him/her. 13. It takes my child a long time to adjust to new schedules. 14. My child does not laugh or smile at many things. 15. If my child is doing one thing, something else occurring won't get him/her to stop. 16. \_\_\_\_ My child eats about the same amount for dinner whether he/she is home, visiting someone, or traveling. 17. My child's first reaction is to reject something new or unfamiliar to him/her. 18. Changes in plans make my child restless. 19. My child often stays still for long periods of time. Things going on around my child can not take him/her away 20. from what he/she is doing. 21. \_\_\_\_ My child takes a nap, rest, or break at the same time every day. 22. Once my child takes something up, he/she stays with it. 23. Even when my child is supposed to be still, he/she gets very fidgety after a few minutes. 24. My child is hard to distract. 25. My child usually gets the same amount of sleep each night. 26. \_\_\_\_ On meeting a new person my child tends to move toward him or her. 27. \_\_\_\_ My child gets hungry about the same time each day. 28. \_\_\_\_ My child smiles often. 29. \_\_\_\_ My child never seems to stop moving. 30. It takes my child no time at all to get used to new people.

31. My child usually eats the same amount each day.

32. \_\_\_\_ My child moves a great deal in his/her sleep.

```
A = usually FALSE0 = NOT importantB = more FALSE than true1 = SOMETIMES importantC = more TRUE than false2 = VERY importantD = usually TRUE1
```

33. \_\_\_\_ My child seems to get sleepy just about the same time every night.

34. I do not find my child laughing often.

35. My child moves toward new situations.

36. \_\_\_\_ When My child is away from home he/she still wakes up at the same time each morning.

37. \_\_\_\_ My child eats about the same amount at breakfast from day to day. \_\_\_\_

38. My child moves a lot in bed.

39. \_\_\_\_ My child feels full of pep and energy at the same time each day.

40. \_\_\_\_ My child has bowel movements at about the same time each day.

41. \_\_\_\_\_ No matter when my child goes to sleep, he/she wakes up at the same time the next morning.

42. \_\_\_\_ In the morning, my child is still in the same place as he/she was when he/she fell asleep.

43. \_\_\_\_ My child eats about the same amount at supper from day to day.

44. \_\_\_\_ When things are out of place, it takes my child a long time to get used to it.

45. \_\_\_\_ My child wakes up at the same time on weekends and holidays as on other days of the week.

46. My child doesn't move around much at all in his/her sleep.

47. \_\_\_\_ My child's appetite seems to stay the same day after day.

48. \_\_\_\_ My child's mood is generally cheerful.

49. \_\_\_\_ My child resists changes in routine.

50. \_\_\_\_ My child laughs several times a day.

51. \_\_\_\_ My child's first response to anything new is to move his or her head toward it.

52. \_\_\_\_ Generally, my child is happy.

53. \_\_\_\_ The number of times my child has a bowel movement on any day varies from day to day.

54. \_\_\_\_ My child never seems to be in the same place for long

## APPENDIX L: WORKING MODEL OF THE CHILD INTERVIEW

#### WORKING MODEL OF THE CHILD INTERVIEW (PARENTING)

We are interested in how parents think and feel about their young children. This interview is a way for us to ask you about child's name and your relationship to him/her. The interview will take us about an hour to complete.

- 1. I'd like you to begin by telling me about your child's development.
- a) Let's start with your pregnancy. I'm interested in things like whether it was planned or unplanned, how you felt physically and emotionally, and what you were doing during the pregnancy (working, etc.).

In a follow-up probe, find out how much the baby was wanted or not wanted. Had you ever been pregnant before? When did the pregnancy seem real to you? What were your impressions about the baby during pregnancy? What did you sense the baby might be like? The idea is to put the subject at ease and to begin to obtain a *chronological history* of the pregnancy. Additional probes may be necessary to make sure that the individual is given a reasonable opportunity to convey the history of their reactions to and feelings about the pregnancy and the baby (which may or may not be the same).

b) Tell me about labor and delivery. Give some time to respond before proceeding. How did you feel and react at that time? What was your first reaction when you saw the baby? What was the reaction to having a boy/girl? How did your family react? Be sure to include husband/partner, other siblings. c) Did the baby have any problems in the first few days after birth? How soon was the baby discharged from the hospital? Did you decide to breast feed or bottle feed? Why?

- d) How would you describe the first few weeks at home: feeding, sleeping, crying, etc. This is often a very important time because it may set the "emotional tone" of the baby's entrance into the family, particularly if the delivery and perinatal period were routine.
- e) Tell me about your baby's developmental milestones such as sitting up, crawling, walking, smiling, and talking. Be sure to get a sense of the ways in which the baby was thought to be different, *ahead*, *or behind in motor*, *social and language* development. Did you have any sense of the baby's intelligence early on? What did you think?
- f) Did your baby seem to have a regular routine? What happened if you didn't stay in the routine?
- g) How has the baby reacted to separations from you? Try to get a sense of the baby's reactions at *various ages*. Were there any separations of more than a day in the first or second year? How did the baby react? How was it for you? How did you feel? What did you do?

2a) Describe your impression of your child's personality now. Give the

subject enough time to respond to this before proceeding to specific descriptors

below.

2b) Pick five words (adjectives) to describe your child's personality. After

you have told me what they are I will ask you about each one. For each one, what is

it about him/her that makes you say that? Then, tell at least one specific incident

which illustrates what you mean by each word that you chose. You may tell the subject that it is fine to use any of the descriptors they used in response to the general probe above, but do not remind them what they said before you have given them time to recall themselves. Some subjects will have a hard time coming up with five descriptors. If you *feel that they cannot come up with five, then move on*. The numbers are less important than the descriptions.

3a) At this point, whom does your child remind you of? In what ways? When did you first notice similarity? *If only one parent is mentioned, ask in what ways does the child remind you of (the other parent)?* The following questions should be asked whether or not the parents have been mentioned. Which of his/her parents is your child most like now? In what ways is your child's personality like or unlike each of his/her parents?

**3b)** Are there any family characteristics on your side you see in your child's personality? What about (other parent's) side?

**3c)** How did you decide on your child's name? *Find out about family names etc.* How well does the name seem to fit?

4) What do you feel is unique or different about your child compared to what you know of other children?

5) What about your child's behavior now is the most difficult for you to handle? Give a typical example.

a) How often does this occur? What do you feel like doing when your child reacts this way? How do you feel when your child reacts this way? What do you actually do?

b) Does he/she know you don't like it? Why do you think he/she does it?

c) What do you imagine will happen to this behavior as your child grows older? Why do you think so?

6a) How would you describe your relationship to your child now? Give time to respond.

**6b)** Pick five words (adjectives) to describe your relationship. For each word, describe an incident or memory that illustrates what you mean.

7a) What pleases you most about your relationship with your baby? What do you wish you could change about it?

7b) How do you feel your relationship with your child has affected your child's personality? Give ample time to respond to this.

7c) Has your relationship to your child changed at all over time? In what ways? What's your own feeling about the change?

8) Which parent is your child closest to now? How can you tell? Has it always been that way? Do you expect that to change (as the child gets older, for instance)? How do you expect it to change?

9) Does your baby get upset often? Give some time to respond before proceeding to specific queries. What do you do at these times? What do you feel like doing when this happens? What do you feel like at these times?

- a) What about when he/she has become emotionally upset? Can you recall a specific example? Indicate that you want an example by providing a reasonably long time to think of one. What did you do when that happened? What did you feel like doing? What did you feel like? *If the subject becomes extremely anxious and cannot recall an example, then proceed to part (b).*
- b) What about when he/she has been physically hurt a little bit? Can you give an example and describe what happened? *Be sure to find out what the subject felt like and did.*

c) Has your child been sick at all? Tell an example. *Again, include what this experience was like for the parent and how they responded to the child affectively and behaviorally.* 

10) Tell a favorite story about your child, perhaps one you've told to family or friends. I'll give you a minute to think about this one. *If the subject is struggling*, *you may tell them that this doesn't have to be the favorite story, only a favorite*. What do you like about this story?

11) Are there any experiences that your child has had which you feel may have been a setback for them? Why do you think so? Indirectly, we're trying to determine whether the parent feels responsible in any way for the setbacks. *Therefore, be sure to give time to respond before moving on to the more direct questions that follow.* Knowing what you know now, if you started all over again with your child, what would you do differently? Give some time to respond. Knowing what you know now, is there anything that you will do differently with this child (if they have another child)? Give some time to respond.

12) Do you ever worry about your child? What do you worry about?

13) If your child were to be one particular age, what would you choose? Why? 14) As you look ahead, what will be the most difficult time in your child's development? What do you think so?

15) What do you expect your child to be like as an adolescent? What makes you feel this way? What do you expect to be good and not so good about this period in your child's life?

16) Think for a moment of your child as an adult. What hopes and fears do you have about that time?

## APPENDIX M: CHILD ABUSE POTENTIAL INVENTORY

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## **CAP INVENTORY FORM VI**

Joan S. Milmar, Ph.D. Copyright, 1977, 1983, 1984: Revised Edmon 1998 Printed in the United States of America

Name:	Date: ID#:
Age: Gender: Male Female	Marital Status: Sin Mar Sep Div Wid
Race: Black White Hispanic Am. Indian	Number of children in home
Other (specify)	Highest grade completed

INSTRUCTIONS: The following questionnaire includes a series of statements which may be applied to yourself. Read each of the statements and determine if you AGREE or DISAGREE with the statement. If you agree with a statement, circle A for agree. If you disagree with a statement, circle DA for disagree. Be honest when giving your answers. Remember to read each statement; it is important not to skip any statement.

#### 0000

1.	I never feel sorry for others	A	D
2	I enjoy having pets	A	D/
3.	I have always been strong and healthy	A	D/
4.	I like most people	A	D
5.	I am a confused person	A	D
6.	I do not trust most people	A	D
7.	People expect too much from me	A	D
8.	Children should never be bad	A	D
9.	I am often mixed up	A	D
0.	Spanking that only bruises a child is okay	A	D
1.	I always try to check on my child when it's crying	A	D
2.	I sometimes act without thinking	A	D
3.	You cannot depend on others	A	D
4.	I am a happy person	A	D
5.	I like to do things with my family	A	D
6.	Teenage girls need to be protected	A	D
17.	I am often angry inside	A	D
8.	Sometimes I feel all alone in the world	A	D
9.	Everything in a home should always be in its place	A	D
0.	I sometimes worry that I cannot meet the needs of a child	A	D.
٩.	Knives are dangerous for children	A	D
2	I often feel rejected	A	D
3.	I am often Ionely inside	A	D
4.	Little boys should never learn sissy games	A	D
	I often feel very frustrated	A	D

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			21.91.024
TV.	i Hever get mas at others	2	DA
69. 70.	I have a child who gets into trouble a lot	A	DA
68.	Children should stay clean	A	DA
67.	People have caused me a lot of pain	A	DA
66.	I sometimes fail to keep all of my promises	A	DA
		210	
65.	Sometimes I do not like the way I act	Ä	DA
64.	I have a child who is sick a lot	Â	DA
63.	I amoten worried inside	Â	DA
61.	I always do what is right	A	DA
	Children should not learn how to swim	23. •	
60.	I have never hated another person	A	DA
59.	A crying child will never be happy	A	DA
58.	Everyone must think of himself first	A	DA
57.	Sometimes I have bad thoughts	Â	DA
56.	I am often easily upset	A	DA
55.	Sometimes my behavior is childish	A	DA
54	A child should never talk back	Â	DA
53.	It is okay to let a child stay in dirty diapers for a while	Â	DA
51.	I have a child who breaks things	Â	DA
51.	I have a child who breaks things	A	DA
50.	Children are really little adults	A	DA
49.	I am sometimes very sad	A	DA
48.	My parents did not really care about me	A	DA
40, 47,	I sometimes feel worthless	â	DA
46.	I sometimes think of myself first	A	DA
45.	I have a child who is bad	Â	DA
44.	I sometimes lose my temper	Â	DA
43.	I sometimes am very quiet	Â	DA
41.	Picking up a baby whenever he cries spoils him	÷	DA
41.	Things have usually gone against me in life	A	DA
40.	Children are pests	А	DA
39.	I am usually a quiet person	A	DA
38.	I am an unlucky person	A	DA
37.	I have never wanted to hurt someone else	Â	DA
36.	I sometimes worry that I will not have enough to eat	A	DA
35.	I never worry about my health	A	DA
34.	I am always a good person	A	DA
33.	The birth of a child will usually cause problems in a marriage	Α	DA
32.	My telephone number is unlisted	A	DA
31.	I know what is the right and wrong way to act	A	DA
30,	I have a child who is clumsy	A	DA
29,	I sometimes wish that my father would have loved me more	A	DA
28.	Sometimes I fear that I will lose control of myself	A	DA
27.	I love all children	A	DA
26	Children should never disobey	A	DA

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71.		A	DA
72.	I often think about what I have to do	A	DA
73.	I find it hard to relax	A	DA
74,	These days a person doesn't really know on whom one can count	A	DA
75.	My life is happy	A	DA
76.	I have a physical handicap	A	DA
77.	Children should have play clothes and good clothes	A	DA
78.	Other people do not understand how I feel	A	DA
79.	A five year old who wets his bed is bad	A	DA
80.	Children should be quiet and listen	A	DA
81.	I have several close friends in my neighborhood	A	DA
82.	The school is primarily responsible for educating the child	A	DA
83.	My family fights a lot	A	DA
84.	I have headaches	A	DA
85.	As a child I was abused	A	DA
86.	Spanking is the best punishment	A	DA
87.	I do not like to be touched by others	A	DA
88.	People who ask for help are weak	A	DA
89.	Chlidren should be washed before bed	A	DA
90.	I do not laugh very much	A	DA
91	I have several close friends	A	DA
92.	People should take care of their own needs	A	DA
93.	I have fears no one knows about	A	DA
94.	My family has problems getting along	A	DA
95.	Life often seems useless to me	A	DA
96.	A child should be potty trained by the time he's one year old	A	DA
97.	A child in a mud puddle is a happy sight	A	DA
98.	People do not understand me	A	DA
99.	I often feel worthless	A	DA
100.	Other people have made my life unhappy	A	DA
101.	I am always a kind person	A	DA
102.	Sometimes I do not know why I act as I do	A	DA
103.	I have many personal problems	A	DA
104.	I have a child who often hurts himself	A	DA
105.	I often feel very upset	A	DA
106.	People sometimes take advantage of me	A	DA
107.	My life is good	A	DA
108.	A home should be spotless	A	DA
109.	I am easily upset by my problems	A	DA
110.	I never listen to gossip	Α	DA
111.	My parents did not understand me	A	DA
112.	Many things in life make me angry	A	DA
113.	My child has special problems	Α	DA
114.	I do not like most children	A	DA
115.	Children should be seen and not heard	Α	DA

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123. 124. 125. 126. 127. 128. 129. 130.	A child needs very strict rules	â	DA
123. 124. 125. 126. 127. 128. 129.	I usually punish my child when it is crying	Α.	DA
123. 124. 125. 126. 127. 128.	Children should never cause trouble	A	DA
123. 124. 125. 126. 127.	A parent must use punishment if he wants to control a child's behavior	A	DA
123. 124. 125. 126.	I have a child who is slow	A	DA
123. 124. 125.	Children should always be neat	â	DA
123. 124.	Occasionally, I enjoy not having to take care of my child	A	DA
123.	I am never unfair to others	A	DA
	It is natural for a child to sometimes talk back	A	DA
1.6.6.	Children should always make their parents happy	A	DA
122.	A good child keeps his toys and clothes neat and orderly	A	DA
121.	People don't get along with me	A	DA
120.	I am often upset	A	DA
	Children should occasionally be thoughtful of their parents	A	DA
	I am often depressed	A	DA
	It is important for children to read	A	DA
116.		A	DA

## **APPENDIX N: POST PARTICIPATION INFORMATION**

#### POST PARTICIPATION INFORMATION

PROJECT: Understanding the Relationships Among Mother's Characteristics, Young Children's Temperament, Attachment, and Difficulties in Parenting INVESTIGATORS: Kimberly Renk, Ph.D., and Jayme Puff, M.S.

Thank you for participating in this research project. This project is being conducted so that we may find out more about the relationships among mothers' history of difficult childhood experiences, mothers' self-regulation, mothers' ratings of young children's temperament, attachment, and potential difficulties in parenting. In your packet, you completed several questionnaires inquiring about your own characteristics and your parenting as well as about your young child's characteristics. The responses to these questionnaires will be used to explore the relationships among difficult experiences that you may have had in childhood, your self-regulation and parenting behaviors, and the ratings that you provided about your young child. We have a particular interest in which of these characteristics will predict the ways in which mothers' parent their young children. It may be that mothers' characteristics and their ratings of their young children play a role in mother-young child attachment and will serve as a point of intervention for those families who are experiencing difficulties.

This research may be helpful in increasing your awareness of your own childhood experiences, your own self-regulation, your parenting behaviors, your young child's characteristics, and your relationship with your young child. We also hope that the information collected as part of this study may be used to help other families who may be in need when they seek psychological services for their young children and/or information regarding their parenting. If you would like more information about mothers' childhood experiences, self-regulation characteristics, young child characteristics, and attachment, please refer to the following sources:

- Barkley, R. A., & Benton, C. M. (2013). Your defiant child: Eight steps to better behavior (2nd ed.). New York, NY, US: Guilford Press.
- Brazelton, T. B., & Sparrow, J. D. (2006). *Touchpoints Birth to 3: Your child's emotional* and behavioral development (2nd ed.). Cambridge, MA, US: Da Capo Press.
- Greene, R. W. (1998). *The explosive child: A new approach for understanding and parenting easily frustrated, 'chronically inflexible' children*. New York, NY, US: HarperCollins Publishers.

Lieberman, A. F. (1993). *The emotional life of the toddler*. New York, NY, US: Free Press.

If you have any further questions about this research study, please contact Kimberly Renk, Ph.D., by phone (407-823-2218) or e-mail (Kimberly.Renk@ucf.edu). If you feel that you would benefit from talking with a counselor about your own childhood experiences or your child's behavior, please contact the Young Child and Family Research Clinic Service in the UCF Psychology Clinic at (407) 257-2978, Nemours Children's Hospital at (407) 650-7715, or The Happy Mind Company at (407) 704-1461.

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