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## Mothers' Temperament, Adverse Childhood Experiences, and Psychological Symptoms: How Are Enduring Maternal Characteristics Related to Mothers' Perceptions of Children's Temperament, Behavior Problems, and Adaptive Functioning?

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MOTHERS' TEMPERAMENT, ADVERSE CHILDHOOD EXPERIENCES, AND  
PSYCHOLOGICAL SYMPTOMS: HOW ARE ENDURING MATERNAL  
CHARACTERISTICS RELATED TO MOTHERS' PERCEPTIONS OF CHILDREN'S  
TEMPERAMENT, BEHAVIOR PROBLEMS, AND ADAPTIVE FUNCTIONING?

by

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A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Science  
in the Department of Psychology  
in the College of Sciences  
at the University of Central Florida  
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## **ABSTRACT**

Extant literature documented the impact of mothers' characteristics and parenting behaviors on young children's psychosocial outcomes. Additionally, previous studies demonstrated the importance of mothers' adverse childhood experiences in the relationships among some of these constructs. To expand on the existing knowledge, the present study examined the relationships among mothers' temperament, reflective functioning, attributions, and specific parenting behaviors, with reflective functioning and attributions serving as two potential mediating variables in these relationships. A community sample of 224 diverse mothers of young children who were between 2- to 5-years of age rated their own adverse childhood experiences, temperament, reflective functioning, attributions, specific parenting behaviors, satisfaction with their maternal role, and psychological symptoms. Additionally, mothers rated their children's temperament, behavior problems, and adaptive functioning. Statistical analyses were conducted on the overall sample as well as on a subsample of participants who reported a high exposure to adverse childhood experiences. Correlational analyses indicated a variety of significant relationships among the variables of interest. Next, mediational analyses indicated that mothers' attributions mediated the relationship between mothers' temperament and parenting behaviors in both the overall sample and the subsample of mothers who reported high exposure to adverse childhood experiences. Further, hierarchical regression analyses demonstrated that a number of maternal characteristics predicted young children's outcomes. Overall, this study identified unique predictors of mothers' parenting behaviors and of mothers' perceptions of the outcomes experienced by their young children. Most importantly, this study highlighted the importance of

serving families as a whole when wanting to provide lasting improvements to individual and family functioning through intervention services.

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## **CHAPTER ONE: INTRODUCTION**

Outpatient treatment settings often attract parents who believe that their children's internalizing and externalizing behavior problems have impaired their children's functioning and familial relationships significantly. Commonly, these parents are interested in interventions that will improve their children's behavior problems and the comorbid relational difficulties that have occurred in conjunction with these behavior problems. In order to provide the most effective interventions, more must be known about the predictors of mothers' perceptions of their children, particularly during children's younger years. For example, characteristics of interest may include mothers' temperament, adverse childhood experiences, and psychological symptoms. Clearly, previous research suggested that these variables were interrelated, but fewer studies have extended mothers' characteristics (particularly their adverse childhood experiences) to understanding their perceptions of their parenting and their young children's characteristics. Additional research is needed.

Consequently, the current study advanced the existing research literature by examining mothers' temperament, adverse childhood experiences, and psychological symptoms (e.g., depression, anxiety) in relation to mothers' parenting behaviors, reflective functioning, and perceived control over failure. Further, mothers' perceptions of their young children's temperament, behavior problems, and adaptive functioning were examined within the context of mothers' characteristics so that intervention approaches may be used fully to address the most appropriate targets (i.e., mothers' characteristics, parenting behaviors, or children's characteristics) when services are provided to families of young children. These constructs will be discussed here.

## Temperament

Temperament, or the stable individual differences that characterize an individual's disposition for emotional reactivity, self-regulation, and behavioral tendencies, is influenced by the interaction of inherited genetic traits and early childhood experiences (Goldsmith et al., 1987) and is moderately stable over time (Thomas, Chess, & Birch, 1968). Emotional reactivity can be described as the degree of emotional arousal with which an individual responds to unfamiliar stimuli in the environment (Kagan, 1994). Further, self-regulation refers to the processes that modulate reactivity, including effortful control or individuals' ability to regulate their own behavior and attention (Rothbart, Sheese, Rueda, & Posner, 2011). Such characteristics, along with behavioral tendencies, are important for understanding individuals' functioning.

To more succinctly describe temperament, it should be noted that Thomas, Chess, and Birch (1986; Thomas & Chess, 1977) identified three specific styles in their examination of children's behavioral tendencies. These styles were described as *easy*, *slow-to-warm-up*, and *difficult*. Children who displayed an easy temperament exhibited regular eating and sleeping schedules, a positive approach to novel situations and unfamiliar individuals, and a high frustration tolerance. Easy children adapted well to environmental alterations and changes in routine and generally displayed positive affect (Thomas & Chess, 1977). Next, slow-to-warm-up children exhibited fairly routine eating and sleeping patterns but were observed to display mildly negative affective responses in novel situations and with unfamiliar individuals. Children who were slow-to-warm-up generally accepted these situations and individuals with repeated exposure and familiarity (Thomas & Chess, 1977). Finally, Thomas and colleagues (1986)

originated the construct of difficult temperament and hypothesized that it was an especially important factor in the development of externalizing behavior problems. In particular, difficult temperament referred to an intense expression of negative affect (Bates, Freeland, & Lounsbury, 1979; Bates, Maslin, & Frankel, 1985). Children who had a difficult temperament generally exhibited irregularities in basic functions, such as eating and sleeping. Additionally, they tended to approach novel experiences with a negative affect (e.g., crying and throwing tantrums when frustrated) and adapted to changes in their environment or routine relatively slowly. These patterns of behavior could lead to oppositional and aggressive tendencies (Thomas & Chess, 1977).

There also appeared to be some related components that accompanied the behavioral tendencies described with these styles. For example, sociability, or the degree of openness or timidity in individuals' approaches to unfamiliar people and novel experiences, was one component, with low sociability reflecting internalizing difficulties (Bates et al., 1985). Further, variability in activity level in early childhood (i.e., the preschool years) also had important implications for personality development and social adjustment as children mature (Buss, Block, & Block, 1980; Campbell, Szumowski, Ewing, Gluck, & Breaux, 1982). Thus, the characteristics of temperament, sociability, and activity level were interrelated with each other and with early childhood experiences in the development of individual styles that become stable across situations and across the developmental lifespan.

As it was thought that children inherit these characteristics from their parents, parents' own temperament may impact their reactions to and perceptions of their children. Unfortunately, the effect of parent temperament has not been researched widely with regard to its direct or indirect influences on children's temperament. Despite the limited research conducted since

Thomas and Chess's (1977) initial hypotheses regarding the relationship between parents' temperament and children's functioning, it can be gathered from the previously discussed studies that mothers' temperament and their children's temperament were related. In particular, data from the New York Longitudinal Study were used to determine that the relationship between mothers' and children's temperament was bidirectional. This finding suggested that mothers who displayed more maternal-role dissatisfaction and rejection of their children had more difficult children (Lerner & Galambos, 1985). Others demonstrated that parental distress and punitive reactions towards children's negative emotionality and self-regulation were correlated with children's social functioning and behavior problems (Eisenberg et al., 1999). To summarize, the research that was conducted on the roles of parents' temperament and reactions to children's negative emotionality and behavioral difficulties determined that there was a clear bidirectional relationship between these two variables, suggesting that parents' and children's temperament had a transactional effect on each other.

Further, the relationship between mothers' and children's temperament may need to include parenting and related behaviors that are exhibited by mothers. Such connections could be important, given that parenting differences in child socialization and parents' behavior management techniques were related greatly to children's behavior as they matured. For example, children who were low in reactivity and who met challenges from consistent and effective parents in a stable home environment were likely to become well-adjusted and accomplished. In contrast, children who were low in reactivity but whose parents provided inconsistent punishment and were unable to maintain a stable environment became prone to delinquency despite similar dispositions in infancy and early childhood (Kagan, 2003). Thus, research appeared to suggest that there are important interactions among these variables.

Another contributing factor to the relationship between mothers' and children's temperament was mothers' reactions. Mothers' negative versus positive reactions toward their children was one of the strongest and most consistent predictors of children's temperament and psychosocial functioning (Chen, Deater-Deckard, & Bell, 2014). Chen and colleagues (2014) examined mothers' ratings of several aspects of their children's temperament and compared these ratings with observer ratings of maternal negativity and positivity. Findings indicated that children's temperament moderated the relationship between maternal negativity and positivity and children's psychosocial functioning, suggesting that maternal negativity and children's externalizing behavior problems were most related when children also were high in negative affectivity. This finding supported the notion that mothers' and children's temperament were interrelated highly (Chen et al., 2014).

Similarly, Atzaba-Poria, Deater-Deckard, and Bell (2014) examined maternal positivity and negativity and children's externalizing behavior problems. They found that maternal negativity was related to higher levels of children's behavior problems. Higher levels of mothers' negativity also were related to their increased negative affect (Atzaba-Poria et al., 2014). Interestingly, mothers' temperament only related to mothers' attitude toward their children when their children's behavior problems were high, suggesting that externalizing behavior problems in children may moderate the relationship between mothers' temperament and positivity or negativity (Atzaba-Poria et al., 2014). Additionally, mothers' traits, such as higher negative emotionality, were related to mothers' ratings of similar traits in their children, suggesting the bidirectional relationship of temperament on maternal-child personality and behavior patterns (Hayden, Durbin, Klein, & Olino, 2010). Collectively, these studies indicated that mothers'

perceptions of their children reflected their own temperament and were related to children's temperament as children mature.

Given the lack of research devoted to examining these specific relationships, the present study will examine mothers' temperament as it relates to young children's temperament and psychosocial functioning. This relationship was examined in the context of other noted relationships between mothers' temperament and mothers' own early adverse childhood experiences (i.e., childhood trauma), psychological symptoms, parenting behaviors, and reflective functioning. Given the noted relationship with mothers' temperament, mothers' adverse childhood experiences will be discussed next.

### Mothers' Adverse Childhood Experiences

Adverse childhood experiences may include childhood maltreatment and a variety of other difficult childhood experiences. This term may refer to abuse (e.g., physical, emotional, and/or sexual) and neglect, with such experiences known to greatly impact childhood (Clarkson Freeman, 2014), adulthood, and parenting outcomes. In particular, individuals who experienced childhood maltreatment were at heightened risk for mental health problems (e.g., depressive symptoms, post-traumatic stress symptoms) and dissatisfaction with adult relationships. Moreover, individuals who experienced other types of adverse childhood experiences in addition to or other than maltreatment (e.g., witnessing domestic violence; living with household members who were substance abusers, had a mental illness, were suicidal, or engaged in criminal behavior and were imprisoned) were at increased risk for other health disorders in adulthood (e.g., drug abuse, alcoholism, suicide attempt, obesity, sexually transmitted infections, heart disease, cancer, lung disease, liver disease; Felitti et al., 1998). Overall, Felitti and colleagues'

(1998) Adverse Childhood Experiences study (ACEs) found that childhood exposure to household dysfunction led to significantly heightened risk for several leading causes of death in adults (Felitti et al., 1998).

Additionally, these experiences from parents' childhoods can impact significantly and negatively these parents' relationship with their own children (Lang, Garstein, Rodgers, & Lebeck, 2010). For example, traumatic experiences during childhood often resulted in mothers having difficulty or an inability to provide responsive, contingent, and positive care and exhibiting withdrawn, avoidant, and hostile parenting behaviors. Such behaviors led to children's dysregulation in temperament and behavior (Enlow et al., 2011). Further, parents who were abused as children exhibited less confidence in their parenting roles, thus acting more permissively, setting fewer boundaries, and inappropriately relying on children as providers of emotional support (Banyard, 1997; DiLillo & Damashek, 2003; DiLillo, Tremblay, & Peterson, 2000).

Extant literature examining the relationship between mothers' childhood experiences and young children's outcomes showed that infants whose mothers reported post-traumatic stress symptoms experienced higher emotional reactivity and difficulty with self-regulation. In one study, mothers reported on their own trauma histories as well as their infants' emotional reactivity and emotional regulation from birth to 12-months of age. Results showed that mothers' self-reported trauma histories were associated with disrupted emotional regulation in their infants, with these emotional and behavioral irregularities emerging early. These findings suggested that mothers' trauma histories may be related highly to their infants' increased risk for emotional and behavioral problems (Enlow et al., 2011). Moreover, distress associated with mothers' childhood abuse was found to be a risk factor for mothers' perceptions of externalizing

behavior problems in their children (Min, Singer, Minnes, Kim, & Short, 2013). Further, research suggested that difficult experiences need not be outward abuse. Mothers' experiences of rejection from their own mothers was related later to rejecting their own infants (Main & Goldwyn, 1984).

The ramifications of mothers' adverse childhood experiences for children may, in fact, be related highly to mothers' attachment status with their own early attachment figures. Research in this area utilized the Adult Attachment Interview (AAI), during which parents were given the opportunity to describe and evaluate their childhood attachment relationships, loss or separation from attachment figures, and the impact of these experiences. During the completion of this interview, the extent to which parents contradict or fail to support their initial descriptions of their childhood experiences was noted. For example, parents were asked to generate five adjectives to describe their childhood relationship with each of their caregivers as well as to produce a specific memory or story supporting each adjective (Main, 1996). Based on responses, interviewees' *state of mind* was coded and classified as *secure-autonomous* when parents' responses were coherent and the parent appeared to value attachment regardless of favorable or unfavorable experiences; as *dismissing* when parents normalized their experiences and provided positive descriptions of their caregivers but produced memories that failed to support or contradicted these claims; as *preoccupied* when parents seemed angry, confused, fearful, or overwhelmed with regard to their early experiences with caregivers; and as *unresolved-disorganized* when parents discussed significant loss or abuse and exhibited a "striking lapse (or lapses) in the monitoring of reasoning or discourse" (Main, 1996, pp. 238). For example, the parent may have spoken of a dead person as if that individual was still alive (Main, 1996).

Research using the AAI suggested that mothers' state of mind was related to their infants'



response during the Strange Situation. In particular, during the Strange Situation, infants' attachment to their parents corresponded repeatedly and highly with parents' attachment status to their own caregivers. Infants tended to exhibit *secure attachment* (i.e., infants appeared to miss their parent or cry during separation, greeted their parent actively, were soothed easily, and returned to play upon their parents' return) to parents who were classified as *secure-autonomous*; *avoidant attachment* (i.e., infants did not cry and continued playing upon separation, actively avoided and ignored their parents upon reunion, and were unemotional upon their parents' return) to parents who were classified as *dismissing*; *resistant-ambivalent* (i.e., infants were preoccupied with their parents throughout session, appeared angry, alternated seeking and resisting their parents, and failed to be soothed or return to play upon their parents' return) to parents who were classified as *preoccupied*; and *disorganized-disoriented* (i.e., infants exhibited disorganized or disoriented behavior while their parents were present) to parents who were classified as *unresolved-disorganized* (Hesse & Main, 1999; Main, 1996; Main, 2000). Given these findings, it became clear that the links among these variables deserve to be examined further, particularly as a context for further understanding mothers' perceptions of their young children's functioning. Mothers' psychological symptoms will be discussed next.

### Mothers' Psychological Symptoms

In addition to identifying the importance of mothers' adverse childhood experiences for their children's outcomes, studies found that mothers' psychological symptoms also were related significantly to their children's characteristics. For example, early studies demonstrated that mothers' depression (Fergusson, Horwood, & Shannon, 1984; Richman, Stevenson, & Graham, 1982) and neuroticism (Graham & Stevenson, 1985) were associated with mothers' ratings of

their children's behaviors. In particular, mothers with depressive symptoms were noted to perceive their children as being more maladjusted (Friedlander, Weiss, & Traylor, 1986), to have more negative perceptions of their children overall, and to engage in more aversive parenting styles (Pannaccione & Wahler, 1986) than mothers who did not experience depressive symptoms. Early on, however, there were few studies examining the link between mothers' psychological symptoms and their perceptions of their children's temperament. Nonetheless, Lancaster, Prior, and Adler (1989) examined the association between mothers' characteristics and children's temperament. Consistent with the aforementioned extant literature, they found that mothers' own psychological symptoms (e.g., depression, anxiety) were related strongly to their ratings of their children's temperament.

Since this early research, numerous studies over the past decade detailed various aspects of the relationship between mothers' depressive symptoms and their children's outcomes throughout early childhood. For example, mothers' sensitivity to children was noted to vary as a function of their depressive symptoms, in that higher levels of mothers' depressive symptoms were related to their lower sensitivity and lower levels of mothers' depressive symptoms were associated with higher sensitivity (Campbell, Matestic, von Stauffenberg, Mohan, & Kirchner, 2007). Campbell and colleagues (2007) further examined longitudinal outcomes for children when they were in the First Grade and found that children's outcomes varied as a function of their mothers' depressive symptoms as well. Clearly, mothers' higher ratings of their own depressive symptoms were related to their perceptions of their children's internalizing and externalizing behavior problems (Campbell et al., 2007).

Similarly, Foster and colleagues (2008) concluded that longer and more current depressive episodes in mothers were associated with a higher risk of internalizing and

externalizing problems in school-aged children. Longitudinal studies found that children who were followed from 3- to 10-years of age demonstrated more externalizing behavior problems when they were 10-years of age if their mothers experienced higher levels of depressive symptoms when these children were 3-years of age (Choe, Olson, & Sameroff, 2014). Additionally, Choe and colleagues (2014) found that these children's externalizing behavior problems were moderated by children's effortful control in preschool and by child gender. Further, a recent study suggested that both parents' depressive symptoms were related to perceptions of more difficult temperament in children (Kerstis, Engström, Edlund, & Aarts, 2013), suggesting that parents' psychological symptoms and children's temperament likely were associated bidirectionally with significant implications for children's adjustment.

Collectively, the studies described above provided several conclusions regarding the relationship between mothers' depressive symptoms and children's functioning. First, there were distinct relationships among mothers' depressive symptoms, children's temperament, and children's psychosocial functioning. Additionally, it was apparent that the relationship between mothers' psychological symptoms and children's functioning was bidirectional. Finally, the majority of this literature was focused primarily on mothers' depressive symptoms, leaving a noticeable gap with regard to other psychological symptoms that mothers may experience and the relationship of these symptoms to children's temperament and psychosocial functioning. As a result, the present study examined other psychological symptoms that mothers may experience along with depressive symptoms and the relationship of these symptoms to their young children's outcomes. Given the relationship between mothers' psychological symptoms and parenting, parenting behaviors, reflective functioning, and attributions will be discussed next.

## Mothers' Parenting Behaviors, Reflective Functioning, and Attributions

Certainly, parenting behaviors also would be considered important predictors of children's temperament and psychosocial functioning but likely would be particularly important in the context of mothers' own temperament, adverse childhood experiences, and psychological symptoms. Certain parenting behaviors or styles can promote positive outcomes in children, whereas others can foster more negative outcomes. Baumrind (1971, 1991; Baumrind, Larzelere, & Owens, 2010) determined that parenting behaviors were based in two critical components (i.e., control and warmth) and that these behaviors could be varied to result in four unique parenting styles. Control referred to parents' management of their children's behavior and can range from extremely controlling to extremely permissive, whereas warmth referred to parents' acceptance of and responsiveness to their children's behavior. Different combinations of control and warmth resulted in one of the following four parenting styles: authoritative, authoritarian, permissive, and uninvolved or rejecting-neglecting (Baumrind, 1991).

With regard to these parenting styles, parents who practiced an authoritative style encouraged independence in their children while setting appropriate boundaries and maintaining control. Additionally, authoritative parents allowed for open discussions and valued their children's opinions. These behaviors promoted social competence, responsibility, healthy adjustment, and autonomy in children as they matured (Baumrind, 1991). On the other hand, authoritarian parents engaged in overly strict and often punitive discipline, believed that parents' rules should be accepted without question or discussion, and did not encourage independence as children matured into adolescence. Research showed that children of authoritarian parents became maladjusted and excessively dependent or completely rebellious, sometimes acting

aggressively toward their parents (Baumrind, 1991).

Next, parents who observed a permissive style displayed appropriate warmth but placed minimal demands on their children. These parents often were considered to be indulgent and passive and did not provide appropriate guidance or support. As children of permissive parents got older, they lacked responsibility and self-control, which resulted in negative social and societal consequences (Baumrind, 1991). Finally, rejecting-neglecting or uninvolved parents were not warm and did not place demands or set limits for their children. In fact, rejecting-neglecting parents tended to keep their parent-child interactions minimal and were indifferent toward their children's needs and experiences. As a result, children of uninvolved parents learned that little time should be invested in parenting and thus invested little time in their own children typically (Baumrind, 1991).

Thus, research suggested that parenting behaviors and children's behavior patterns were related bidirectionally. Specifically, children whose parents endorsed parenting behaviors such as poor monitoring/supervision, inconsistent discipline, and corporal punishment displayed significant externalizing behavior problems and met study criteria for disruptive behavior disorders (Shelton, Frick, & Wootton, 1996). Further evidencing the relationship between parenting behaviors and children's externalizing behavior problems was the finding that parents' level of involvement, corporal punishment, monitoring/supervision, and consistency were all predictive of children's conduct problems (Frick, Christian, & Wootton, 1999). Moreover, parenting styles also predicted children's internalizing behavior problems, and children's irritability predicted more inconsistent discipline (Lengua & Kovacs, 2005). Such findings suggested that children's temperament and parenting behaviors were implicated collectively in children's overall adjustment (Lengua & Kovacs, 2005). As such, research indicated that

authoritative parenting, which provided stability with regard to appropriate affection, support, and control, resulted in optimal outcomes for children and adolescents, allowing them to gain the skills necessary for becoming autonomous and responsible individuals (Steinberg, 2001).

Though the association between parenting behaviors and child outcomes was established clearly, the role of parents' reflective functioning in this relationship is less understood. Reflective functioning was a term used to describe the concept of mentalization (Esbjörn et al., 2013; Fonagy, Gergely, Jurist, & Target, 2002) and referred to individuals' understanding of themselves and others as "motivated by internal mental states such as feelings, beliefs, intentions, and desires" (Fonagy, Target, Steele, & Steele, 1998, p. 8, as cited in Esbjörn et al., 2013). Researchers often considered reflective functioning in conjunction with metacognition, or individuals' ability to monitor their own thought processes. Metacognition captured individuals' ability to think about beliefs and desires in the self and in others and considered the awareness that they possess into "the emotional and motivational processes underlying behavior in the self and others" (Steele & Steele, 2008, p. 139). At the lower end of the metacognitive range, individuals did not tend to consider others' motives or even their own actions and responses. In the moderate range, there is a general understanding of others' motives, but this understanding is rarely applied to individuals' own experiences or conclusions about others' behavior. At the higher end, individuals are organized and consistent in understanding the motivations that guide their own and others' behavior (Steele & Steele, 2008).

Research suggested that reflective functioning relied on a deeper understanding of others' internal states and that metacognition played a role in reflective functioning as a whole (Steele & Steele, 2008). Other research indicated that the terms of metacognition and reflective functioning may be used interchangeably and depicted the same concept (Ringel, 2011). Regardless of the

preferred termed that was used, those parents who had higher reflective functioning, or metacognition, could better understand their own and others' emotions and, thus, could regulate their affect and behaviors toward others (Fonagy & Bateman, 2006). Parents who were high in reflective functioning theoretically also should have the capacity to understand their own emotions, regulate those emotions, and demonstrate appropriate parenting toward their children. In fact, several researchers concluded that children of parents who had high reflective functioning were attached more securely and experienced higher self-esteem and more functional psychosocial outcomes (Fonagy, Steele, Steele, Morgan, & Higgitt, 1991; Slade, Grienenberger, Bernbach, Levy, & Locker, 2005; Steele & Steele, 2008).

Nonetheless, childhood maltreatment also was related to reflective functioning, as childhood maltreatment could hinder individuals' capacity for mentalization (Fonagy & Target, 1997). It also was demonstrated that high reflective functioning could serve as a protective factor against developing psychological symptoms after experiencing childhood maltreatment (Borelli, Compare, Snavely, & Decio, 2014), thus leading to more appropriate and functional parenting practices. Reflective functioning still is a relatively new, albeit empirically supported, concept, and research on parents' reflective functioning still is fairly limited. In particular, it is unclear how reflective functioning is related specifically to parenting behaviors; thus, the present study expanded on the literature by examining the relationship that exists between parenting behaviors and reflective functioning.

Another important concept to consider when attempting to understand others' internal states is the idea of attributions, a term that described individuals' perceived control over failure in their interactions with others (Bugental, Blue, & Cruzcosa, 1989). In particular, Bugental and colleagues (1989) examined attributions in the context of caregivers' perceptions of the

controllability of negative caregiving outcomes. More specifically, adults who had lower perceived control over negative life events responded more negatively to children with more difficult temperaments than did adults who had higher perceived control over negative life events (Bugental et al., 1989). Additionally, mothers who rated themselves as having low perceived control over failure were found to be at risk for physically abusive caregiving (Bugental et al., 1989). Further, mothers with lower perceived control believed that their children could control their own behavior problems (Bondy & Mash, 1999). Thus, the present study also contributed to the existing literature on attributions and parenting behaviors and expanded the literature specifically in the context of positive, negative/inconsistent, and punitive parenting behaviors. Mothers' satisfaction with their parenting role will be discussed in the next section.

### Mothers' Satisfaction with Their Parenting Role

Parenting behaviors cannot be considered alone without considering and understanding mothers' satisfaction or dissatisfaction in their role as a parent. Satisfaction in the context of parenting was used to describe parents' feelings of frustration, anxiety, and motivation in their parenting roles (Johnston & Mash, 1989). As mentioned previously, mothers who expressed higher dissatisfaction in their maternal role perceived their children to exhibit a more difficult temperament (Lerner & Galambos, 1985). Additionally, maternal satisfaction or dissatisfaction was an important variable that factors into mothers' perceptions of children's temperament and that also should be examined in the context of mothers' relationships with their children and their parenting behaviors (Isabella, 1994). Although studies examined mothers' role satisfaction as it related to self-esteem (Barnett, 1982), psychological symptoms (Voydanoff & Donnelly, 1989),



and other relational satisfaction (Elman & Gilbert, 1984; Hirsch & Rapkin, 1986; Majewski, 1986), few studies examined maternal role satisfaction as a determinant of parenting behaviors.

One study (Isabella, 1994) examined first time mothers' satisfaction with their parenting roles longitudinally from four months postpartum through their newborns' first year, however. In this study, mothers were asked about the time and energy that they devoted to their parenting role, the priority that they assigned to their role as a mother, their satisfaction with their maternal role, and their satisfaction with regard to the time and energy that they spent in their role. Additionally, mothers' interactions with their infants and their parenting behaviors were observed when children were 9-months of age, and infant-mother attachment was observed when babies were 12-months of age using the Strange Situation (Ainsworth & Wittig, 1969). This study demonstrated that mothers' role satisfaction was indeed an important consideration to understanding mothers' perceptions of and relationships with their young children as well as their parenting behaviors (Isabella, 1994). Specifically, mothers' role satisfaction at four months postpartum predicted their parenting behaviors at nine months postpartum. Additionally, as predicted, high levels of maternal role satisfaction when infants were 9-months of age predicted secure mother-infant attachment at 12-months of age (Isabella, 1994). It was clear from this study that mothers' satisfaction in their parenting role was a salient influence on their overt parenting behaviors.

Moreover, studies have examined mothers' role satisfaction with regard to children's emotional functioning (Katainen, Räikkönen, Keskivaara, & Keltikangas-Järvinen, 1999). Another longitudinal study followed mothers and children when children were 6- to 15-years of age. Maternal role satisfaction and children's emotional functioning, among other variables of interest, were examined using self-report measures (Katainen et al., 1999). Mothers reported on

their maternal role satisfaction in the first phase of the study, when children were 6-years of age. Additionally, children reported their own depressive tendencies when they were 15-years of age. This study demonstrated that maternal role satisfaction was, in fact, one of the variables that predicted adolescent depression, particularly in girls. Overall, low levels of mothers' satisfaction in their parenting role directly and indirectly predicted adolescent outcomes with regard to emotional functioning (Katainen et al., 1999).

Further, it was important to note the relationship between parents' perceptions of children's emotional and behavioral functioning and their own satisfaction in their parenting role (Johnston & Mash, 1989). In one study, parents of 4- to 9-year olds were asked to complete questionnaires regarding their satisfaction in their parenting roles and their perceptions of their children's emotional and behavioral functioning, among other variables of interest. It was found that parents who reported lower levels of satisfaction in their parenting role also reported more perceived behavior problems in their children (Johnston & Mash, 1989). Overall, extant literature demonstrated that there were clear connections among role satisfaction as a mother or father, parenting behaviors, and parents' perceptions of children's outcomes. More research is needed to examine the link between maternal role satisfaction and young children's outcomes as a step toward appropriately targeting intervention strategies to improve mother-child relationships as a whole and mothers' and children's individual emotional and behavioral outcomes. Mothers' perceptions of their children's psychosocial and adaptive functioning will be discussed in the next section.

## Young Children's Psychosocial and Adaptive Functioning

Mothers' perceptions of their young children's psychosocial and adaptive functioning will be addressed collectively in this section. Specifically, the majority of the research on this topic used parents' reports, thus suggesting that research often relied exclusively on parents' perceptions to describe children's functioning. Parents' perceptions of their children were related to the manner in which parents interacted with their children. For example, research examining the parent-young child temperament relationship found a relationship between parents' perceptions of children's temperament and children's adjustment (Brody, 1988). Similarly, others showed that parents of more well-adjusted preschoolers rated their young children as being high in sociability and low in emotionality and activity level when compared with young children who were less well-adjusted (Jewsuwan, Luster, & Kostelnik, 1993). Overall, these findings indicated that the bidirectional relationship between parents' and children's temperament may be related to young children's behavior problems.

Further, Aring and Renk (2010) found that young children's temperament was related significantly to the parent-young child relationship, in that parents' positive perceptions of their young children were associated with parents' involvement and effective communication with their young children. Additionally, parents' perceptions of their young children may be related to young children's views of themselves, prompting young children to exhibit certain emotional and behavioral characteristics that would be consistent with parents' perceptions and suggesting a bidirectional relationship (Aring & Renk, 2010). Parents' perceptions of their young children also may be related to parenting styles and overall family functioning. For example, additional examination of parents' perceptions and family functioning demonstrated that "child negative

affect and family functioning have a direct impact on childhood internalizing symptoms” (Crawford, Schrock, & Woodruff-Borden, 2011, p. 59). This finding indicated that parents’ characteristics played a significant role in children’s early temperament, as negative affect in early childhood was similar to high emotionality in infancy (i.e., including sad, fearful, or frustrated reactions to unfamiliar situations; Crawford et al., 2011). Others suggested that internalizing and externalizing behavior problems in children were associated with parents’ perceptions of and reactions to their children (Coplan, Reichel, & Rowan, 2009).

Mothers’ characteristics also may be related to their ratings of their family and children, as mothers with psychosocial difficulties reported poorer family functioning, more child psychosocial problems, and poorer overall child functioning (Kinsman & Wildman, 2001). In fact, mothers who were distressed over their personal psychosocial functioning may perceive their children’s temperament, behavior, and overall functioning more negatively than parents who are not experiencing similar difficulties. This notion would be consistent with past research stating that parents with psychosocial distress rated their children as experiencing more significant psychosocial difficulties than non-parent raters (Friedlander et al., 1986). More recently, Hughes, Hedtke, and Kendall (2008) concluded that parents’ reports of poorer family functioning were related to significantly worse child outcomes in children who were already experiencing internalizing behavior problems (i.e., anxiety). Additionally, consistent with previously discussed research, parents’ psychological symptoms also predicted worse child outcomes (Hughes et al., 2008). Collectively, studies consistently evidenced the bidirectional relationship between parents’ perceptions and children’s functioning. Thus, the current study worked to corroborate such results.

Additionally, it was important to consider young children's adaptive functioning as it relates to parents' own characteristics (i.e., temperament, ACEs, psychological symptoms, reflective functioning, attributions, parenting behaviors, and satisfaction). Adaptive functioning described perhaps one of the most important goals during early childhood. During early childhood, young children must develop the foundations of communication, self-care skills, pre-academic skills, appropriate social behaviors, and motor skills, amongst other skills (Oakland & Algina, 2011). These skills are the fundamental prerequisites to adequate, independent functioning in the home, school, and community (Oakland & Algina, 2011). Barring disorders that physically or mentally prevented the timely and successful acquisition of these vastly important developmental and life skills, achievement of such milestones was highly contingent on invested caregivers. Thus, the present study aimed to examine the relationship among mothers' own characteristics and their perceptions of their children's adaptive functioning skills.

### The Present Study

Given the importance of mothers' characteristics (e.g., temperament; Chen, Deater-Deckard, & Bell, 2014) and parenting behaviors (Frick, Christian, & Wootton, 1999; Lengua & Kovacs, 2005; Shelton, Frick, & Wootton, 1996) for children's psychosocial and adaptive outcomes, the present study examined a collective model of young children's psychosocial functioning and adaptive functioning using mothers' characteristics and parenting behaviors as predictors. The purpose of this study was to contribute findings to the existing literature and, thus, contribute information that could be valuable to enhancing interventions aimed at improving parenting practices, particularly for parents who have been impacted significantly by

their own temperament, psychological symptoms, and adverse childhood experiences (e.g., trauma).

The first aim of the present study was to examine the relationship between mothers' characteristics and their specific parenting behaviors. It was hypothesized that mothers' temperament and parenting behaviors would be related significantly. Specifically, it was hypothesized that mothers' easier temperament would be related positively and significantly to more positive parenting behaviors and to higher reflective functioning and perceived control. Additionally, it was hypothesized that mothers' own adverse childhood experiences would be important predictors of their parenting behaviors, reflective functioning, and perceived control, with mothers who had adverse childhood experiences showing more decrements in parenting behaviors, reflective functioning, and perceived control.

The second aim of this study was to examine the relationships among mothers' temperament, reflective functioning and perceived control, and parenting behaviors. In particular, it was anticipated that reflective functioning and perceived control would mediate the relationship between mothers' temperament and parenting behaviors (see Figure 1). Although there was no reason to believe that this mediational relationship would not hold for mothers who did or did not have a history of adverse childhood experiences, it was expected that mothers who had a history of adverse childhood experiences would demonstrate more difficult temperament, lower reflective functioning, lower perceived control, and more negative parenting behaviors. See Figure 1.

The last aim of the study was to determine the value of mothers' temperament, reflective functioning, perceived control, and parenting behaviors on young children's temperament, behavior problems, and adaptive functioning. To study these relationships, a series of

hierarchical regression analyses were conducted with mothers' characteristic variables entered into Block 1, mothers' reflective functioning and perceived control entered into Block 2, and mothers' parenting behaviors entered into Block 3 to predict young children's temperament, behavior problems, and adaptive functioning.

## CHAPTER TWO: METHODOLOGY

### Participants

Data for this study were collected from mothers who had children whose ages ranged from 2- to 5-years old. Mothers were recruited via an Internet crowdsourcing community, with 100% being recruited via Amazon Mechanical Turk. Participants were provided with monetary compensation of \$2.00 upon completion of the study. There were 2,845 individuals who initiated the online survey. Overall, 2,433 individuals were disqualified for various reasons, such as living outside of the United States, being male, not being a parent, being under the age of 18-years, and having a child outside of the range of interest. Of those individuals who qualified, 162 initiated but did not complete the survey, and an additional 250 qualified and completed the survey. Of the 250 mothers whose responses were initially examined, 26 additional participants were disqualified for incorrect responses on more than two of the randomly dispersed validity questions instructing participants to select a particular response. Thus, a sample of 224 mothers ultimately was examined in this study.

With regard to the 224 mothers whose responses were examined, their mean age was 31.82-years ( $SD=6.34$ -years). With regard to mothers' ethnicity, 78.1% reported being Caucasian, 6.7% reported being African American, 5.8% reported being Hispanic, 3.6% reported being Asian American, 3.6% reported being multiracial, 0.4% reported being Native American, and 1.8% reported being of another unlisted ethnicity. With regard to marital status, 68.3% of mothers reported being married, 18.0% were living with a partner, 6.7% were single, 3.1% were divorced, 1.8% were separated, 1.3% were remarried, 0.4% were widowed, and 0.4% declined to answer. With regard to level of education, 8.5% reported obtaining a high school diploma, 7.6%



reported having vocational training, 36.2% reported having attended some college, 35.7% reported having obtained a Bachelors Degree, 11.6% reported having graduate professional training, and 0.4% reported a Post Doctorate education. Mothers also reported on their yearly income, with 0.9% reporting less than \$10,000, 4.0% reporting \$10,000-\$20,000, 14.3% reporting \$20,000-\$30,000, 9.4% reporting \$30,000-\$40,000, 10.7% reporting \$40,000-\$50,000, 8.0% reporting \$50,000-\$60,000, 15.2% reporting \$60,000-\$70,000, 11.6% reporting \$70,000-\$80,000, 4.0% reporting \$80,000-\$90,000, 5.4% reporting \$90,000-\$100,000, 1.8% reporting \$110,000-\$120,000, 2.2% reporting \$120,000-\$130,000, 1.8% reporting \$130,000-\$140,000, 1.8% reporting \$140,000-\$150,000, and 4.0% reporting >\$150,000.

Regarding the demographics of the mothers' young children, 54.3% of these young children were female, whereas 45.7% of these young children were male. Young children's mean age was 3.40-years ( $SD=1.05$ -years). Young children's ethnicities varied, with 75.5% being Caucasian, 9.8% being multiracial, 6.7% being African American, 4.9% being Hispanic, 2.7% being Asian American, and 0.4% being Native American.

### Procedure

Following approval from the University of Central Florida IRB, a posting was created on Amazon Mechanical Turk to recruit mothers for participation. The research questionnaires were administered via an online survey that was accessed by following the provided link. Upon accessing the survey, mothers first were asked to review a consent form and to indicate their agreement to participate in the study. Mothers then were instructed to provide ratings on each of the measures described below. Finally, mothers viewed a debriefing screen following their completion of the study. The debriefing screen explained the intent of the study and provided

references to relevant literature should participants be interested. A physical version of this survey was available in the event that mothers preferred to not complete the survey online; however, none of the participants requested this version of the study questionnaires.

According to usage statistics generated by the survey host site, the entire survey took an average of 40 minutes to complete. During participation, mothers were able to contact one of the investigators via telephone or email regarding any questions or concerns. All collected information was stored online securely following completion of the survey. All electronic data were downloaded from the online data collection program and stored on a password protected computer in the faculty mentor's laboratory. No personally identifying information was required as part of the study. Finally, all data was analyzed in a group format, and no surveys were examined individually.

## Measures

### **Demographics**

To begin the survey, participants completed a brief demographic questionnaire that included questions regarding mothers' and their young children's ages, ethnicities, sex, and other relevant information regarding the household. See *Appendix A* for a sample of the demographics questionnaire.

### **Mothers' Difficult Childhood Experiences**

The *Adverse Childhood Experiences Study Questionnaire* (Felitti et al., 1998) was used to assess mothers' adverse childhood experiences. The ACEs was composed of ten questions and examined seven dimensions of childhood exposure to adverse experiences, including psychological, physical, and sexual abuse as well as exposure to substance abuse, mental illness,

domestic violence, and criminal behavior. Childhood exposure to adverse experiences was calculated by totaling the number of dimensions to which an individual experienced an exposure, with a Total Exposure score ranging from *Unexposed* (0) to *Exposed to All Categories* (7). In past studies, the ACEs Questionnaire was reported to have adequate psychometric properties ( $\alpha=.88$ ; Murphy et al., 2014). Consistently, in this study, the ACEs Questionnaire had adequate internal consistency ( $\alpha=.81$ ). For the purposes of this study, the Total Exposure score was used. See *Appendix B* for a sample of the ACEs.

The *Childhood Trauma Questionnaire* (CTQ; Bernstein et al., 1994, 1997) also was used to assess mothers' own difficult childhood experiences. The CTQ examined four dimensions of abuse and neglect, including physical and emotional abuse, emotional neglect, sexual abuse, and physical neglect. Items that reflected emotional and physical abuse loaded highly on one single factor in the four-factor solution. As a result, this four-factor solution was considered to examine psychometric properties in a previous study, resulting in intercorrelations that ranged from  $r=.34$  to  $r=.75$ . The CTQ demonstrated high internal consistency that ranged from  $\alpha=.79$  to  $\alpha=.94$  and stable test-retest reliability that ranged from  $r=.80$  to  $r=.83$ . Similarly, in the present study, the CTQ Total Scale Score also demonstrated high internal consistency ( $\alpha=.91$ ). Items on the CTQ were rated on a 5-point Likert-type scale, with responses that range from *Never True* (1) to *Very Often True* (5). For purposes of the study, the Total Scale Score will be examined. See *Appendix C* for a sample of the CTQ.

### **Mothers' Trauma Symptoms**

Whereas the CTQ and the ACEs were used to assess mothers' experiences with childhood abuse and neglect, the *Trauma Symptom Checklist* (TSC; Briere & Rutntz, 1989) provided additional information related to the impact of mothers' difficult childhood

experiences. The TSC consisted of 33 items that loaded into five subscales, including Dissociation, Anxiety, Depression, Post-Sexual Abuse Trauma-Hypothesized, and Sleep Disturbance, as well as a Total Score. Each item was rated on a four-point Likert-type scale with response options ranging from *Never* (0) to *Very Often* (3). The TSC demonstrated high internal consistency (Total Score  $\alpha=.89$ ) in a previous study (Briere & Runtz, 1989) as well as in the present study (Total Score  $\alpha=.94$ ). In past studies, the TSC discriminated well between clients who were abused and those who had not been. In particular, responders who had experienced abuse showed significantly higher Total Scores ( $M=40.0$ ) than responders who had not had that experience ( $M=27.3$ ; Briere & Runtz, 1989). For the purpose of this study, the Total Score was used. See *Appendix D* for a sample of the TSC.

### **Mothers' Temperament**

The *Dimensions of Temperament Scale – Revised for Adults (DOTS-R Adult; Windle & Lerner, 1986)* was used to assess mothers' self-report of their own temperament. This questionnaire consisted of 54 items that loaded onto the following nine attributes related to temperament: Activity Level-General ( $\alpha=.84$ ), Activity Level-Sleep ( $\alpha=.89$ ), Approach/Withdrawal ( $\alpha=.85$ ), Flexibility-Rigidity ( $\alpha=.78$ ), Mood Quality ( $\alpha=.89$ ), Rhythmicity-Sleep ( $\alpha=.78$ ), Rhythmicity-Eating ( $\alpha=.80$ ), Rhythmicity-Daily Habits ( $\alpha=.62$ ), Distractibility ( $\alpha=.81$ ), Persistence ( $\alpha=.74$ ), and Task Orientation ( $\alpha$  not reported; Windle & Lerner, 1986). The DOTS-R Adult instructed participants to rate each item using a 4-point Likert-type scale, with responses that ranged from *Usually False* (1) to *Usually True* (4). Higher scores corresponded with higher activity levels; more adaptability to novel situations, people, or events; greater flexibility within the external environment; lower distractibility; more positive mood; and more regular sleep

patterns, eating habits, and daily activities. The present study found adequate psychometric properties for the attributes of Activity Level-General ( $\alpha=.87$ ), Approach-Withdrawal ( $\alpha=.74$ ), Flexibility-Rigidity ( $\alpha=.83$ ), Mood Quality ( $\alpha=.90$ ), and Rhythmicity-Daily Habits ( $\alpha=.63$ ), the subscales of interest for this study. These estimates were highly consistent with those described originally (as noted above; from Windle & Lerner, 1986). Only the dimensions of Activity Level-General, Approach-Withdrawal, Flexibility-Rigidity, Mood Quality, and Rhythmicity-Daily Habits were examined in this study, as previous research showed that these factors distinguished successfully between difficult and easy temperament styles (Billman & McDevitt, 1980). See *Appendix E* for a sample of the DOTS-R Adult.

### **Mothers' Emotional and Behavioral Functioning**

The *Adult Self-Report* (ASR; Achenbach & Rescorla, 2003) was used to assess mothers' own emotional and behavioral problems. The ASR consisted of 126 items and instructed mothers to rate their own functioning on a 3-point Likert-type scale, with response options ranging from *Not True* (0) to *Very True or Often True* (2). The Internalizing Problems scale captured psychological symptoms related to anxiety, depression, withdrawal, somatic complaints, and thought problems, whereas the Externalizing Problems scale reflected symptoms related to attention problems, aggressive behavior, rule-breaking behavior, and avoidant and antisocial personality problems. Higher scores on the Internalizing and Externalizing Problems Scales indicated more clinically significant emotional and behavioral functioning. The ASR demonstrated very high reliability and validity (Internalizing Problems scale  $\alpha=.93$ ,  $r=.89$ ; Externalizing Problems scale  $\alpha=.89$ ;  $r=.91$ ; Achenbach & Rescorla, 2003). Consistently, the ASR demonstrated very high internal consistency in the present study as well (e.g., Total Score:

$\alpha=.97$ ). For the purposes of this study, the Internalizing and Externalizing Problems scale scores ( $T$  scores) were examined. See *Appendix F* for a sample of the Adult Self-Report.

### **Mothers' Reflective Functioning**

The *Parental Reflective Functioning Questionnaire* (PRFQ; Luyten et al., 2009) was used to assess mothers' reflective functioning. This measure consisted of 39 items and produced three subscales reflecting either high, low, or neither high nor low mentalizing. A Total Score also was calculated based on the three subscales. Higher scores that reflected higher levels of mothers' mentalization were measured on the High-Low subscale, whereas lower scores that reflected lower levels of mentalization were measured on the Low-High subscale. Additionally, mid-level scores that indicated lower scores on either of the extreme ends of the scale were reflected on the Middle subscale. Luyten and colleagues (2009) are examining the psychometric properties and clinical usefulness of the PRFQ. In this study, the Total Score of the PRFQ demonstrated adequate reliability ( $\alpha=.61$ ). For the purposes of this study, the Total Score was examined. See *Appendix G* for a sample version of the PRFQ.

### **Mothers' Perceived Control Over Failure**

The *Parent Attribution Test* (Bugental, 2011) was used to measure mothers' attributions about unsuccessful parent-child interactions due to controllable or uncontrollable variables. The PAT produces separate subscales measuring the control attributed to adults for caregiving success (ACS) and failure (ACF) and to children for caregiving success (CCS) and failure (CCF). The ACF and the CCF scores comprised a measure of perceived control over failure (PCF). The PCF was scored as a continuous variable and calculated by subtracting the CCF (child caregiving success) score from the ACF (adult caregiving failure) score. Low ACF and high CCF scores indicate higher risk for the use of abusive or harsh parenting behaviors

(Bugental, 2011). The PAT had adequate test-retest reliability ( $r=.63$ ) in a previous study (Bugental, 2011). In this study, the PAT demonstrated adequate reliability ( $\alpha=.87$ ). For the purposes of this study, the PCF scale was examined. See *Appendix H* for a sample of the PAT.

### **Mothers' Parenting Behaviors**

The *Alabama Parenting Questionnaire-Preschool Revision* (APQ-PR; Clerkin, Halperin, Marks, & Policaro, 2007) was used to assess mothers' parenting behaviors. The APQ-PR consisted of 32 items that measured parenting behaviors in parents of children younger than 6-years of age. The APQ-PR captured three groupings of parenting behaviors, including Positive Parenting, Negative/Inconsistent Parenting, and Punitive Parenting. Items on this three-factor solution were rated on a 5-point Likert-type scale with response options ranging from *never* (1) to *always* (5). Higher scores on the APQ-PR reflected higher levels of each of the factors mentioned previously. Reliability estimates for the APQ-PR in this study (Positive Parenting:  $\alpha=.85$ ; Negative/Inconsistent Parenting:  $\alpha=.83$ ; Punitive Parenting:  $\alpha=.61$ ) were consistent with those reported previously (Positive Parenting:  $\alpha=.84$ ; Negative/Inconsistent Parenting:  $\alpha=.79$ ; Punitive Parenting:  $\alpha=.63$ ; Clerkin et al., 2007). For the purposes of this study, all three subscales were examined. See *Appendix I* for sample versions of the APQ and the APQ-PR.

### **Mothers' Satisfaction with Their Parenting Role**

The *Parenting Sense of Competence Scale* (PSOC; Gibaud-Wallston & Wandersman, 1978) was used to assess mothers' satisfaction with their parenting role. The PSOC consisted of 17 items that measured mothers' Efficacy and Satisfaction. Each item was rated on 6-point Likert scale ranging from *Strongly Disagree* (1) to *Strongly Agree* (6), with higher scores reflecting higher Efficacy and Satisfaction. The Satisfaction ( $\alpha=.75$ ) and Efficacy ( $\alpha=.76$ ) scales both demonstrated high reliability in a previous study (Johnston & Mash, 1989). Similarly,

reliability estimates for the PSOC in this study for the Satisfaction ( $\alpha=.80$ ) and Efficacy ( $\alpha=.83$ ) scales were consistent with those reported previously. For the purposes of this study, only the nine items that captured the Satisfaction scale were examined (Johnston & Mash, 1989). See *Appendix J* for a sample of the Parenting Sense of Competence Scale.

### **Young Children's Temperament**

The *Dimensions of Temperament Scale-Revised for Children* (DOTS-R Child; Windle & Lerner, 1986) was used to assess mothers' perceptions of their young children's temperament. The DOTS-R Child consisted of 54 items and instructed mothers to rate attributes of their children's temperament using a 4-point Likert-type scale with responses that range from *Usually False* (1) to *Usually True* (5). Specifically, this questionnaire measured nine attributes of temperament, including 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 ( $\alpha=.79$ ; Windle & Lerner, 1986). Higher scores corresponded with higher activity levels; more adaptability to novel situations, people, or events; greater flexibility within the external environment; lower distractibility; more positive mood; and more regular sleep patterns, eating habits, and daily activities. Consistent with previous research (Windle & Lerner, 1986), the present study also showed adequate reliability in the domains of Activity Level-General ( $\alpha=.91$ ), Approach-Withdrawal ( $\alpha=.77$ ), Flexibility-Rigidity ( $\alpha=.84$ ), Mood Quality ( $\alpha=.90$ ), and Rhythmicity-Daily Habits ( $\alpha=.63$ ), the subscales examined in this study. As mentioned with regard to the DOTS-R Adult, the dimensions of Activity Level-General, Approach-Withdrawal, Flexibility-Rigidity, Mood Quality, and Rhythmicity-Daily Habits were



examined, as previous research showed that these factors distinguished successfully between difficult and easy temperament styles (Billman & McDevitt, 1980). See *Appendix K* for a sample of the DOTS-R Child.

### **Young Children's Emotional and Behavioral Functioning**

The *Child Behavior Checklist* (CBCL; Achenbach & Rescorla, 2000) was used to assess mothers' perceptions of their young children's emotional and behavioral functioning. Mothers completed the 1½- to 5-year old version of the CBCL. This measure included over 100 items and instructed mothers to rate their young children's emotional and behavioral functioning over the past two months on a three-point Likert-type scale with options ranging from *Not True* (0) to *Very True or Often True* (2). The Internalizing Problems scale captured difficulties that the child experienced with emotional reactivity, somatic complaints, anxiety, depression, and withdrawal, amongst other symptoms, whereas the Externalizing Problems scale reflected difficulties that the child experienced with attention problems and aggressive behaviors, amongst other symptoms. Higher scores on the Internalizing and Externalizing Problems Scales reflected more clinically significant emotional and behavioral functioning. The CBCL demonstrated high reliability (Internalizing Problems scale  $\alpha=.90$ ;  $r=.91$ ; Externalizing Problems scale  $\alpha=.94$ ;  $r=.92$ ) in a previous study (Achenbach & Rescorla, 2001). Consistently, the CBCL demonstrated high reliability in this study as well (e.g., Total Score:  $\alpha=.96$ ). For the purposes of this study, the Internalizing and Externalizing Problems scale scores (*T* scores) were examined. See *Appendix L* for a sample of each CBCL version.

### **Young Children's Adaptive Functioning**

The *Adaptive Behavior Assessment System-Second Edition* (ABAS-II; Harrison & Oakland, 2003) was used to assess mothers' perceptions of their young children's adaptive

functioning. Mothers completed the birth to 5-year old version of the ABAS-II. This measure included over 200 items and instructed mothers to rate their young children's ability to perform certain tasks and behaviors independently. Items were rated on a 4-point Likert scale with scores ranging from *Is Not Able* (0) to *Always or Almost Always When Needed* (3). Mothers rated their young children in the domains of Conceptual (i.e., communication, self-direction, and functional pre-academics), Social (i.e., social skills and leisure), and Practical (i.e., self-care, home living, community use, and health and safety) Skills. A Motor Skills scale also was on the measure but only was included as part of the General Adaptive Composite. The ABAS-II demonstrated high reliability in previous studies ( $\alpha=.98$  to  $.99$ ; Harrison & Oakland, 2003) as well as in the present study ( $\alpha=.99$ ). For the purposes of this study, the General Adaptive Composite score was used. See *Appendix M* for a sample of the Adaptive Behavior Assessment System-Second Edition.

### Data Analyses

Data analyses for this project were conducted using SPSS. Initially, descriptive statistics, including the mean scores and standard deviations for each variable of interest, were calculated, and participants' relative score for each variable was examined. Then, based on the presented literature, the relationships among mothers' characteristics (e.g., difficult childhood experiences, temperament), mothers' parenting (e.g., reflective functioning, attributions, specific parenting behaviors), and young children's characteristics (e.g., temperament, behavior problems, adaptive functioning) were examined using correlation analyses. These correlations were examined in the context of mothers' adverse childhood experiences, with correlations for mothers in the total sample and for those with a high number of reported adverse childhood experiences (i.e., 4 or

more categories of exposure endorsed) being considered. Overall, correlations were used to examine hypotheses regarding relationships among the variables of interest.

Next, a series of regression analyses was conducted to determine whether reflective functioning mediated the relationship between mothers' temperament and specific parenting behaviors. Additionally, a separate series of regression analysis was conducted to determine whether mothers' attributions mediated the relationship between mothers' temperament and specific parenting behaviors. Baron and Kenny (1986) provided a four-step approach that included several regression analyses. First, a simple regression analysis examined the relationship between mothers' temperament and parenting behaviors (path c). Second, a simple regression analysis examined the relationship between mothers' temperament and reflective functioning or attributions (path a). At this step, mothers' temperament must have predicted reflective functioning or attributions. Third, a simple regression analysis examined the relationship between reflective functioning or attributions and parenting behaviors (path b) to demonstrate that the mediators, reflective functioning or attributions, predicted the outcome variable, parenting behaviors. Finally, two separate multiple regression analyses examined mothers' temperament and reflective functioning or attributions as predictors of specific parenting behaviors. The relationship between temperament and parenting behaviors must have decreased to non-significance when reflective functioning or attributions were entered into the equation to demonstrate the mediational role of reflective functioning and/or attributions. If these analyses suggested a partial or full mediation, a Sobel test was conducted to provide further support. Research findings also supported new methods of conducting mediation models that were examined for the present study (MacKinnon, Cheong, & Pirlott, 2012; MacKinnon, Fairchild, & Fritz, 2007).

In addition to the proposed mediation analyses, hierarchical regression analyses examined which variables were significant predictors of children's temperament, behavior problems, and adaptive functioning. Here, mothers' characteristics (Block 1), reflective functioning and attributions (Block 2), and parenting behaviors (Block 3) served as predictor variables, and young children's temperament, behavior problems, and adaptive functioning served as criterion variables.

## CHAPTER THREE: RESULTS

### Preliminary Analyses

#### **Descriptive Statistics**

To better understand and interpret the results of this study, descriptive statistics (e.g., means and standard deviations) were examined for each variable of interest. Additionally, given that two of the aims of this study took into consideration the impact of mothers' exposure to adverse childhood experiences, descriptive statistics were examined for mothers who endorsed the highest levels of adverse childhood experiences (as measured by the ACEs questionnaire, with Felitti et al., 1998, suggesting that those individuals who endorsed four or more adverse childhood events having more risk factors for the leading causes of death in adults) as well. The ranges, means, and standard deviations of the predictor and outcome variables included in this study are reported in Table 1.

Descriptive statistics for mothers' history of adverse childhood experiences (as measured by the ACEs questionnaire) suggested that mothers in the total sample reported low levels of exposure to difficult experiences in childhood ( $M=2.34$ ,  $SD=2.49$ ), whereas mothers in the high exposure subsample reported high levels of exposure ( $M=5.59$ ,  $SD=1.73$ ). A total of 68 participants (30.4% of the overall sample) reported high levels of exposure (i.e., four or more categories of exposure). Overall scores for the ACEs questionnaire could range from 0 to 10. Additional measures also were collected with regard to mothers' history of childhood trauma and their trauma symptoms. Specifically, mothers' experiences with childhood trauma were examined by the CTQ, and descriptive statistics were calculated for mothers' Total Scale Score. Mothers in the total sample of the present study reported moderate overall levels of childhood

trauma experiences ( $M=44.96$ ,  $SD=20.97$ ). Mothers in the subsample with high ACEs reported higher levels of childhood trauma experiences in the present study ( $M=69.02$ ,  $SD=19.57$ ). Additionally, the TSC Total Score measured mothers' trauma symptoms. Mothers in the total sample reported moderate levels of trauma symptoms ( $M=15.86$ ,  $SD=14.28$ ), whereas mothers in the subsample with high ACEs reported higher levels of trauma symptoms ( $M=24.72$ ,  $SD=15.85$ ).

Descriptive statistics also were calculated for mothers' self-reported temperament ratings on five dimensions of the DOTS-R Adult. Scores in this study were compared to a community sample (as suggested by Koettters, 2002). Adults in the community sample obtained by Koettters (2002) reported relatively moderate levels on the dimensions of Activity Level-General ( $M=16.41$ ,  $SD=4.47$ ), Approach-Withdrawal ( $M=19.54$ ,  $SD=3.46$ ), Flexibility-Rigidity ( $M=14.31$ ,  $SD=2.96$ ), Mood Quality ( $M=24.35$ ,  $SD=3.77$ ), and Rhythmicity-Daily Habits ( $M=13.02$ ,  $SD=3.36$ ). Consistent with that community sample (Koettters, 2002), mothers in the total sample of the present study also reported relatively moderate levels on the dimensions of Activity Level-General ( $M=16.84$ ,  $SD=4.61$ ), Approach-Withdrawal ( $M=18.68$ ,  $SD=3.59$ ), Flexibility-Rigidity ( $M=13.37$ ,  $SD=3.45$ ), Mood Quality ( $M=23.77$ ,  $SD=4.09$ ), and Rhythmicity-Daily Habits ( $M=12.76$ ,  $SD=2.93$ ). Mothers in the subsample who had high ACEs in the current study reported levels on the DOTS-R Adult that were highly consistent with levels reported in the overall sample for Activity Level-General ( $M=18.10$ ,  $SD=5.30$ ), Approach-Withdrawal ( $M=18.06$ ,  $SD=3.83$ ), Flexibility-Rigidity ( $M=13.17$ ,  $SD=3.54$ ), Mood Quality ( $M=23.08$ ,  $SD=4.55$ ), and Rhythmicity-Daily Habits ( $M=12.42$ ,  $SD=3.26$ ).

Additionally, the ASR was examined as a measure of mothers' self-reported behavior problems. Mothers in the total sample reported their Internalizing Problems ( $M=52.86$ ,

$SD=14.58$ ) and Externalizing Problems ( $M=48.59$ ,  $SD=12.19$ ) scales to be within the Nonclinical range. Mothers in the high ACEs subsample reported somewhat higher levels of Internalizing Problems ( $M=60.63$ ,  $SD=13.97$ ), falling in the Borderline range of functioning. Mothers in this subsample reported Nonclinical ranges on the Externalizing Problems ( $M=53.79$ ,  $SD=11.24$ ) scale.

Next, the PRFQ was examined as a measure of mothers' reflective functioning. Mothers in the total sample rated themselves as having moderate levels on the High-Low ( $M=5.11$ ,  $SD=.69$ ), Low-High ( $M=5.67$ ,  $SD=.73$ ), Middle ( $M=3.59$ ,  $SD=1.06$ ), and Total ( $M=4.80$ ,  $SD=.37$ ) scales. Consistently, mothers in the high ACEs subsample also rated themselves as having moderate levels of reflective functioning on the High-Low ( $M=5.07$ ,  $SD=.83$ ), Low-High ( $M=5.76$ ,  $SD=.61$ ), Middle ( $M=3.51$ ,  $SD=.99$ ), and Total ( $M=4.80$ ,  $SD=.36$ ) scales. Further, the PCF (perceived control over failure) scale of the PAT was examined as a measure of mothers' attributions. Mothers in the overall sample rated themselves as having relatively high perceived control ( $M=.51$ ,  $Mdn=.50$ ,  $SD=.82$ ). Consistently, mothers in the high ACEs subsample also rated themselves as having higher perceived control ( $M=.59$ ,  $Mdn=.50$ ,  $SD=.90$ ). In other words, mothers in the total sample and the high ACEs subsample endorsed higher ACF than CCF.

Next, the APQ-PR was examined as a measure of mothers' positive, negative/inconsistent, and punitive parenting behaviors. Mothers in the total sample reported moderate levels of Positive Parenting ( $M=53.19$ ,  $SD=6.44$ ), Negative/Inconsistent Parenting ( $M=14.00$ ,  $SD=5.06$ ), and Punitive Parenting ( $M=8.13$ ,  $SD=2.7$ ). Similarly, mothers who rated themselves as having experienced high levels of ACEs also reported moderate levels of Positive Parenting ( $M=53.29$ ,  $SD=6.37$ ), Negative/Inconsistent Parenting ( $M=13.82$ ,  $SD=5.18$ ), and Punitive Parenting ( $M=8.70$ ,  $SD=2.90$ ). Further, the PSOC was examined as a measure of mothers' self-

reported satisfaction with their parenting role. Mothers in the total sample ( $M=25.24$ ,  $SD=8.01$ ) and high ACEs subsample ( $M=25.24$ ,  $SD=8.09$ ) reported similar levels of moderate satisfaction with their role as a parent when compared with mothers in a normative sample in a previous study ( $M=22.72$ ,  $SD=5.84$ ; Gilmore & Cuskelly, 2009).

Finally, descriptive statistics also were examined for mothers' ratings of their young children on several variables of interest. First, descriptive statistics were calculated for mothers' perceptions of their children's temperament ratings on five dimensions of the DOTS-R Child. Consistent with the scores observed in mothers' self-report ratings of their own temperament, mothers reported relatively moderate levels in their young children on the dimensions of Activity Level-General ( $M=20.81$ ,  $SD=4.74$ ), Approach-Withdrawal ( $M=20.87$ ,  $SD=3.66$ ), Flexibility-Rigidity ( $M=14.01$ ,  $SD=3.48$ ), Mood Quality ( $M=26.28$ ,  $SD=3.09$ ), and Rhythmicity-Daily Habits ( $M=15.48$ ,  $SD=2.59$ ). Mothers in the subsample who reported high ACEs also reported temperament levels in their children similar to those found in the overall sample for Activity Level-General ( $M=20.48$ ,  $SD=5.16$ ), Approach-Withdrawal ( $M=20.80$ ,  $SD=3.65$ ), Flexibility-Rigidity ( $M=14.67$ ,  $SD=3.55$ ), Mood Quality ( $M=26.80$ ,  $SD=2.59$ ), and Rhythmicity-Daily Habits ( $M=15.97$ ,  $SD=2.46$ ).

Additionally, descriptive statistics were examined for young children's behavior problems as rated by mothers on the CBCL. Mothers in the total sample reported mean scores in the Nonclinical range on the Internalizing Problems ( $M=42.43$ ,  $SD=10.72$ ) and Externalizing Problems ( $M=43.62$ ,  $SD=10.20$ ) scales for their young children. Similarly, mothers in the high ACEs subsample also reported scores in the Nonclinical range on the Internalizing Problems ( $M=43.93$ ,  $SD=11.02$ ) and Externalizing Problems ( $M=45.87$ ,  $SD=10.49$ ) scales for their young children.



Finally, descriptive statistics were calculated for mothers' ratings of their children's adaptive functioning on the ABAS-II. Mothers in the total sample rated their children's General Adaptive Composite as being within the Average range ( $M=100.00$ ,  $SD=22.10$ ). Highly consistent with the total sample, mothers in the subsample who reported high ACEs also perceived their children's General Adaptive Composite to be within the Average range ( $M=98.50$ ,  $SD=19.64$ ). It was noteworthy that mothers in both the total sample and high ACEs subsample reported that their children's self-care skills as measured by the Self-Care subscale were Below Average (total sample:  $M=6.48$ ,  $SD=3.57$ ; high ACEs subsample:  $M=6.03$ ,  $SD=2.73$ ).

### **Multicollinearity**

Multicollinearity among the predictor variables was assessed to determine whether a strong correlation existed among two or more predictors in order to assess whether regression analyses may be biased (Bowerman & O'Connell, 1990; Field, 2013). Analyses of multicollinearity demonstrated that none of the variables exhibited multicollinearity (Bowerman & O'Connell, 1990; Field, 2013). Specifically, all Variance Inflation Factors (VIF) were less than 2, as scores ranged from 1.01 to 1.94. To support adequate multicollinearity analyses, the tolerance level of the predictor variables was assessed as well. Relatively high tolerance level proportions (i.e., scores ranged from .52 to .99) were noted and suggested that all variables of interest were satisfactory for use in the model (Field, 2013; Menard, 1995).

### Correlations

Correlations among mothers' characteristics (e.g., adverse childhood experiences, temperament, reflective functioning, attributions), parenting behaviors, and young children's

characteristics (e.g., temperament, behavior problems, adaptive functioning) were assessed to determine the relationships among these variables. Additionally, given the interest in examining these variables in the context of mothers' adverse childhood experiences, relationships among these variables were analyzed separately for the total sample as well as for mothers who reported a high number of adverse childhood experiences. Several of these relationships are described below. See Table 2.

### **Total Sample**

In the total sample, mothers' adverse childhood experiences (ACEs) were related significantly and positively with their general activity level (DOTS temperament), internalizing and externalizing behavior problems (ASR), and their ratings of their young children's externalizing behaviors (CBCL). Mothers' adverse childhood experiences also were related significantly and negatively to their approach-withdrawal (DOTS temperament) and their mood quality (DOTS temperament).

Additionally, mothers' temperament related to a number of other variables. Specifically, mothers' general activity level (DOTS temperament) was related significantly and positively to their internalizing and externalizing behavior problems (ASR), punitive parenting behaviors (APQ-PR), and ratings of their young children's activity level (DOTS temperament) and internalizing and externalizing behavior problems (CBCL). Mothers' general activity level (DOTS temperament) also was related significantly and negatively to their flexibility-rigidity (DOTS temperament), rhythmicity in their daily habits (DOTS temperament), satisfaction with their parenting role (PSOC), and their ratings of their children's flexibility-rigidity (DOTS temperament).

Next, mothers' approach-withdrawal (DOTS temperament) was related significantly and

positively to their flexibility-rigidity (DOTS temperament), mood quality (DOTS temperament), perceived control in parenting (PCF subscale of the PAT), positive parenting behaviors (APQ-PR), satisfaction with their parenting role (PSOC), and their ratings of their children's approach-withdrawal and flexibility-rigidity (DOTS temperament). Mothers' approach-withdrawal (DOTS temperament) also was related significantly and negatively to their internalizing and externalizing behavior problems (ASR) and to their ratings of their young children's general activity level (DOTS temperament) and internalizing and externalizing behavior problems (CBCL).

Further, mothers' flexibility-rigidity (DOTS temperament) was related significantly and positively to their mood quality (DOTS temperament), perceived control in parenting (PCF subscale of the PAT), satisfaction with their parenting role (PSOC), and their ratings of their young children's approach-withdrawal (DOTS temperament), flexibility-rigidity (DOTS temperament), mood quality (DOTS temperament), and self-care skills (ABAS-II). Mothers' flexibility-rigidity (DOTS temperament) also was related significantly and negatively to their internalizing and externalizing behavior problems (ASR), negative/inconsistent and punitive parenting behaviors (APQ-PR), and their ratings of their young children's general activity level (DOTS temperament) and internalizing and externalizing behavior problems (CBCL).

Moreover, mothers' mood quality (DOTS temperament) was related significantly and positively to their rhythmicity in daily habits (DOTS temperament), positive parenting behaviors (APQ-PR), satisfaction with their role as a parent (PSOC), and their ratings of their young children's approach-withdrawal (DOTS temperament), mood quality (DOTS temperament), rhythmicity in daily habits (DOTS temperament), and overall adaptive functioning and self-care skills (ABAS-II). Mothers' mood quality (DOTS temperament) also was related significantly and

negatively to their internalizing and externalizing behavior problems (ASR) and their ratings of their young children's internalizing behavior problems (CBCL).

Lastly, mothers' rhythmicity in daily habits (DOTS temperament) was related significantly and positively to their perceived control in parenting (PCF subscale of the PAT), maternal role satisfaction (PSOC), and ratings of young children's rhythmicity in daily habits (DOTS temperament). Additionally, mothers' rhythmicity in daily habits (DOTS temperament) was related significantly and negatively to their internalizing and externalizing behavior problems (ASR), their negative/inconsistent and punitive parenting behaviors (APQ-PR), and their ratings of their young children's internalizing and externalizing behavior problems (CBCL).

Additionally, mothers' reflective functioning (PRFQ) was related significantly and positively to their ratings of their young children's mood quality (DOTS temperament). Moreover, mothers' perceived control in parenting (PCF subscale of the PAT) was related significantly and positively to their positive parenting behaviors (APQ-PR) and to their ratings of young children's approach-withdrawal, flexibility-rigidity, mood quality, and rhythmicity in daily habits (DOTS temperament). Mothers' perceived control in parenting (PCF subscale of the PAT) also was related significantly and negatively to their externalizing behavior problems (ASR) and their negative/inconsistent and punitive parenting behaviors (APQ-PR).

Next, mothers' internalizing and externalizing behavior problems (ASR) were related significantly and positively to their ratings of their young children's internalizing and externalizing behavior problems (CBCL). Additionally, mothers' internalizing and externalizing behavior problems (ASR) were related significantly and negatively to their satisfaction in their role as a mother (PSOC) and to their ratings of their young children's self-care skills (ABAS-II). Mothers' internalizing behavior problems (ASR) alone also were related significantly and

positively to their externalizing behavior problems (ASR). Further, mothers' internalizing behavior problems (ASR) were related significantly and positively to children's general activity level (DOTS temperament). Finally, mothers' internalizing behavior problems (ASR) were related significantly and negatively to their ratings of their young children's flexibility-rigidity (DOTS temperament) and overall adaptive functioning (ABAS-II). Lastly, mothers' externalizing behavior problems (ASR) were related significantly and negatively to perceptions of children's rhythmicity in daily habits (DOTS temperament).

Further, mothers' specific parenting behaviors were related to several maternal and child variables. In particular, mothers' positive parenting behaviors (APQ-PR) were related significantly and positively to their satisfaction with their parenting role (PSOC) and their ratings of their young children's general activity level, approach-withdrawal, flexibility-rigidity, mood quality, and rhythmicity in daily habits (DOTS temperament) and their ratings of their young children's overall adaptive functioning and their self-care skills (ABAS-II). Mothers' positive parenting behaviors (APQ-PR) also was related significantly and negatively to their internalizing and externalizing behavior problems (ASR), their negative/inconsistent and punitive parenting behaviors (APQ-PR), and their ratings of their young children's internalizing and externalizing behavior problems (CBCL). Mothers' negative parenting behaviors (APQ-PR) were related significantly and positively with their internalizing and externalizing behavior problems (ASR), their punitive parenting behaviors (APQ-PR), and their ratings of their young children's internalizing and externalizing behavior problems (CBCL). Additionally, mothers' negative parenting behaviors (APQ-PR) were related significantly and negatively with their maternal role satisfaction (PSOC) and their ratings of their young children's approach-withdrawal, flexibility-rigidity, mood quality, and rhythmicity in daily habits (DOTS temperament). Finally, mothers'

punitive parenting behaviors (APQ-PR) were related significantly and positively to their internalizing and externalizing behavior problems (ASR) and to their ratings of their young children's internalizing and externalizing behavior problems (CBCL). Additionally, mothers' punitive parenting behaviors (APQ-PR) were related significantly and negatively to their maternal role satisfaction (PSOC) and to their ratings of their young children's rhythmicity in daily habits (DOTS temperament).

Additionally, mothers' satisfaction with their role as a parent (PSOC) was related significantly and positively with their ratings of their young children's approach-withdrawal, flexibility-rigidity, mood quality, and rhythmicity in daily habits (DOTS temperament) as well as their young children's overall adaptive functioning and self-care skills (ABAS-II). Maternal role satisfaction (PSOC) also was related significantly and negatively to their ratings of their young children's general activity level (DOTS temperament) and internalizing and externalizing behavior problems (CBCL).

Next, young children's temperament, behavior problems, and adaptive functioning also were related to a number of other child characteristics. Specifically, mothers' ratings of their young children's general activity level (DOTS temperament) were related significantly and positively to mothers' ratings of their young children's approach-withdrawal (DOTS temperament), mood quality (DOTS temperament), and externalizing behavior problems (CBCL). Additionally, mothers' ratings of their young children's general activity level (DOTS temperament) were related significantly and negatively to their ratings of their young children's flexibility-rigidity (DOTS temperament).

Moreover, mothers' ratings of their young children's approach-withdrawal (DOTS temperament) were related significantly and positively with their ratings of their young

children's flexibility-rigidity (DOTS temperament), mood quality (DOTS temperament), and overall adaptive functioning (ABAS-II). Mothers' ratings of their young children's approach-withdrawal (DOTS-temperament) also were related significantly and negatively to their ratings of their young children's internalizing behavior problems (CBCL).

Further, mothers' ratings of their young children's flexibility-rigidity (DOTS temperament) were related significantly and positively with their ratings of their young children's mood quality and rhythmicity in daily habits (DOTS temperament) and significantly and negatively with their ratings of their young children's internalizing and externalizing behavior problems (CBCL). Additionally, mothers' ratings of their young children's mood quality (DOTS temperament) were related significantly and positively with their ratings of their young children's rhythmicity in daily habits (DOTS temperament) and significantly and negatively with their ratings of their young children's internalizing behavior problems (CBCL).

Mothers' ratings of their young children's rhythmicity in daily habits (DOTS temperament) also were related significantly and positively to their ratings of their young children's overall adaptive functioning and self-care skills (ABAS-II) and significantly and negatively related to their ratings of their young children's internalizing behavior problems (CBCL).

With regard to mothers' ratings of their young children's behavior problems, their ratings of their young children's internalizing and externalizing behavior problems (CBCL) were related significantly and negatively with their ratings of their young children's overall adaptive functioning and self-care skills (ABAS-II). Additionally, mothers' ratings of their young children's internalizing behavior problems (CBCL) alone were related significantly and positively with their ratings of their young children's externalizing behavior problems (CBCL).

Finally, mothers' ratings of their young children's overall adaptive functioning (ABAS-II) were related significantly and positively with their ratings of their young children's self-care skills (ABAS-II).

### **Subsample with High ACEs**

Next, correlational relationships were examined for variables of interest among mothers who reported a significant number of adverse childhood experiences (ACEs; n=68). Results suggested several unique relationships relative to those described in the total sample. First, mothers' adverse childhood experiences (ACEs) were related significantly and negatively to their reflective functioning (PRFQ) and their punitive parenting behaviors (APQ-PR). Additionally, mothers' approach-withdrawal (DOTS temperament) was related significantly and positively with their ratings of their young children's rhythmicity in daily habits (DOTS temperament). Next, mothers' mood quality (DOTS temperament) was related significantly and negatively to their ratings of their young children's externalizing behavior problems (CBCL). Further, mothers' rhythmicity in daily habits (DOTS temperament) was related significantly and positively to their ratings of their young children's overall adaptive functioning and self-care skills (ABAS-II).

Additionally, mothers' reflective functioning was related significantly and negatively to their ratings of their young children's overall adaptive functioning (ABAS-II). Given that this effect was highly counterintuitive, the Yerkes-Dodson Law was considered, and it was hypothesized additionally that there may be a particularly desired level of reflective functioning in mothers for the prediction of well-developed adaptive functioning in their young children. In other words, high reflective functioning may work in favor of mothers' ability to help their young children gain adequate adaptive functioning skills to a certain extent but then impair



mothers' perceptions after a certain level, or "tipping point," of reflective functioning has been surpassed (Yerkes & Dodson, 1908). However, statistical analyses failed to provide support for this hypothesis as the quadratic equation was not significant ( $R^2=.45, p<.99$ ), and there was virtually no increase in the accounted variance when adding the quadratic variable. It is important to note that only 37 participants' ratings could be examined collectively in this model, and the available sample size may be hindering the demonstration of the proposed effect.

Next, mothers' perceived control in parenting (PCF subscale of the PAT) was related significantly and positively with mothers' ratings of their young children's self-care skills (ABAS-II). Further, mothers' internalizing behavior problems (ASR) were related significantly and negatively to their ratings of their young children's rhythmicity in daily habits (DOTS temperament). Additionally, mothers' externalizing behavior problems (ASR) were related significantly and negatively to their ratings of their young children's flexibility-rigidity (DOTS temperament).

Finally, with regard to young children's temperament, mothers' ratings of their young children's general activity level (DOTS temperament) were related significantly and negatively to their ratings of their young children's overall adaptive functioning (ABAS-II). Next, mothers' ratings of their young children's perceived mood quality (DOTS temperament) were related significantly and positively with their self-care skills (ABAS-II). Lastly, mothers' ratings of their young children's rhythmicity in daily habits (DOTS temperament) were related significantly and negatively to their ratings of their young children's externalizing behavior problems (CBCL).

### Mediation Analyses

Mediation analyses examined the predictive relationships among mothers' temperament,

reflective functioning and attributions, and parenting behaviors. To examine these relationships, the Activity Level-General, Approach-Withdrawal, Flexibility-Rigidity, Mood Quality, and Rhythmicity-Daily Habits subscales of the DOTS-R Adult were used along with the total score of the PRFQ and the Perceived Control over Failure subscale of the PAT as well as the Positive, Negative/Inconsistent, and Punitive Parenting subscales of the APQ-PR. A series of regression equations were examined to establish mediation (Baron & Kenny, 1986). In these equations, mothers' temperament had to predict their reflective functioning or attributions (path a) and their parenting behaviors (path c). Further, mothers' reflective functioning or attributions had to predict their parenting behaviors (path b). With reflective functioning or attributions included in the model, the relationship between temperament and parenting behaviors had to decrease to non-significance to establish the mediational role of reflective functioning or attributions. Given the possibility of significant mediation despite an insignificant relationship between the predictor and outcome variable (MacKinnon, Fairchild, & Fritz, 2007), the relationship between the predictor and outcome variable was considered unnecessary to establishing mediation. See Tables 3 and 4.

### **Total Sample**

**Mothers' Temperament Predicting Parenting Behaviors.** The first set of regression equations demonstrated that mothers' approach-withdrawal (DOTS temperament) predicted their positive parenting behaviors (APQ-PR) significantly,  $F(1,201)=4.63, p<.04, R^2=.02$ .

Additionally, mothers' mood quality (DOTS temperament) predicted significantly their positive parenting behaviors (APQ-PR),  $F(1,201)=15.94, p<.001, R^2=.07$ .

Next, mothers' flexibility-rigidity (DOTS temperament) predicted significantly their negative/inconsistent parenting behaviors (APQ-PR),  $F(1,207)=7.09, p<.01, R^2=.03$ . Mothers'

rhythmicity in daily habits (DOTS temperament) also predicted significantly their negative/inconsistent parenting behaviors (APQ-PR),  $F(1,209)=18.15, p<.001, R^2=.08$ .

Lastly, mothers' general activity level (DOTS temperament) predicted significantly their punitive parenting behaviors (APQ-PR),  $F(1,206)=4.87, p<.03, R^2=.02$ . Additionally, mothers' flexibility-rigidity (DOTS temperament) predicted their punitive parenting behaviors (APQ-PR) significantly,  $F(1,205)=3.93, p<.05, R^2=.02$ . Finally, mothers' rhythmicity in daily habits predicted significantly their punitive parenting behaviors (APQ-PR),  $F(1,209)=10.22, p<.003, R^2=.05$ .

**Mothers' Temperament Predicting Reflective Functioning and Attributions.** The second set of regression equations demonstrated that all five subscales used to represent mothers' temperament (DOTS) failed to predict mothers' reflective functioning (PRFQ). Consequently, reflective functioning was not examined further for mediation analyses. In contrast, mothers' approach-withdrawal (DOTS temperament) predicted significantly their perceived control in parenting (PCF subscale of the PAT),  $F(1,204)=5.73, p<.02, R^2=.03$ . Next, mothers' flexibility-rigidity (DOTS temperament) predicted significantly their perceived control in parenting (PCF subscale of the PAT),  $F(1,205)=5.16, p<.03, R^2=.03$ . Finally, mothers' rhythmicity in daily habits (DOTS temperament) predicted significantly their perceived control (PCF subscale of the PAT),  $F(1,202)=17.464, p<.03, R^2=.02$ .

**Mothers' Attributions Predicting Parenting Behaviors.** The third set of regression equation demonstrated that mothers' attributions (PCF subscale of the PAT) predicted significantly their positive parenting behaviors (APQ-PR),  $F(1,202)=17.50, p<.001, R^2=.08$ . Additionally, mothers' attributions (PCF subscale of the PAT) predicted their negative/inconsistent parenting behaviors (APQ-PR) significantly,  $F(1,205)=6.85, p<.02, R^2=.03$ .

Finally, mothers' attributions (PCF subscale of the PAT) predicted their punitive parenting behaviors (APQ-PR) significantly,  $F(1,202)=6.01, p<.02, R^2=.03$ .

**Mothers' Temperament and Attributions Predicting Parenting Behaviors.** The fourth and final set of regression equations only examined the variables that had significant paths in the previous sets of regressions that would suggest mediation. First, mothers' attributions (PCF subscale of the PAT) were examined as a mediator in the relationship between mothers' approach-withdrawal (DOTS temperament) and their positive parenting behaviors (APQ-PR). These analyses demonstrated that mothers' approach-withdrawal (DOTS temperament) and perceived control (PCF subscale of the PAT) predicted significantly their positive parenting behaviors (APQ-PR),  $F(2,194)=9.94, p<.001, R^2=.09$ . Specifically, when entered individually, mothers' approach-withdrawal predicted positive parenting behaviors significantly ( $p<.03$ ). When mothers' perceived control was entered into the equation, however, mothers' approach-withdrawal decreased in significance ( $p<.10$ ), and only mothers' perceived control was a significant predictor of positive parenting behavior ( $p<.001$ ). The mediational value of mothers' perceived control was confirmed with a significant Sobel Test ( $z=2.06, p<.04$ ).

Next, mothers' attributions (PCF subscale of the PAT) were examined as a potential mediator between mothers' flexibility-rigidity (DOTS temperament) and their negative parenting behaviors (APQ-PR). However, mothers' attributions failed to mediate the relationship between mothers' flexibility-rigidity and their negative parenting behaviors. Specifically, when entered individually, mothers' flexibility-rigidity predicted negative parenting behaviors significantly ( $p<.01$ ). When mothers' attributions were entered into the equation, mothers' flexibility-rigidity did not decrease to non-significance ( $p<.02$ ), and both variables remained significant predictors of negative parenting behaviors ( $p<.01$ ). Although mothers' flexibility-rigidity did not decrease

to non-significance, the possibility of partial mediation was considered given that the variable decreased in significance. However, a Sobel Test ( $z=-1.73, p<.09$ ) failed to confirm the mediational value of mothers' perceived control in this relationship. Thus, there was no mediational value in mothers' attributions with regard to the relationship between mothers' flexibility-rigidity and their negative parenting behaviors.

Further, mothers' attributions (PCF subscale of the PAT) also were examined as a potential mediator between mothers' rhythmicity in daily habits (DOTS temperament) and their negative parenting behaviors (APQ-PR). However, mothers' attributions failed to mediate this relationship. Specifically, when entered individually, mothers' rhythmicity in daily habits predicted negative parenting behaviors significantly ( $p<.001$ ). Then, when mothers' attributions were entered into the equation, mothers' rhythmicity in daily habits did not decrease to non-significance ( $p<.001$ ), and both variables remained significant predictors of negative parenting behaviors ( $p<.001$ ). Thus, mothers' attributions were not established to have a mediational role in the relationship between mothers' rhythmicity in daily habits and their negative parenting behaviors.

Additionally, mothers' attributions (PCF subscale of the PAT) were examined as a mediator in the relationship between mothers' flexibility-rigidity (DOTS temperament) and their punitive parenting behaviors (APQ-PR). Mothers' flexibility-rigidity (DOTS temperament) and mothers' attributions (PCF subscale of the PAT) predicted significantly their punitive parenting behaviors (APQ-PR),  $F(2,195)=4.34, p<.02, R^2=.04$ . Specifically, when entered individually, mothers' flexibility-rigidity predicted punitive parenting behaviors significantly ( $p<.05$ ). When mothers' attributions were entered into the equation, however, mothers' flexibility-rigidity decreased in significance ( $p<.09$ ), and only mothers' perceived control was a significant

predictor of punitive parenting behavior ( $p < .04$ ).

Nonetheless, a Sobel Test ( $z = -1.68, p < .10$ ) failed to confirm the mediational value of mothers' perceived control in this relationship. Thus, the decrease in significance of mothers' flexibility-rigidity was not a significant change. As a highly conservative statistical method, the Sobel test may not detect true relationships (Wilcox, 2005). One preferred way to overcome these limitations when examining indirect effects and an increasingly common method that is becoming preferred to Baron and Kenny's regression equations is bootstrapping. Bootstrapping generates confidence intervals around the indirect effect (Field, 2013). When applied to these particular variables, bootstrapping also failed to demonstrate an indirect effect of mothers' flexibility-rigidity on punitive parenting behaviors through their perceived control,  $b = -.02$ , 95% CI  $-.05$  to  $.00$ .

Finally, mothers' attributions (PCF subscale of the PAT) were examined as a potential mediator between mothers' rhythmicity in daily habits (DOTS temperament) and their punitive parenting behaviors (APQ-PR). However, mothers' attributions failed to mediate the relationship between mothers' rhythmicity in daily habits and their punitive parenting behaviors. Specifically, when entered individually, mothers' rhythmicity in daily habits predicted punitive parenting behaviors significantly ( $p < .01$ ). When mothers' attributions were entered into the equation, mothers' rhythmicity in daily habits did not decrease to non-significance ( $p < .03$ ), and both variables remained significant predictors of negative parenting behaviors ( $p < .01$ ). Although mothers' rhythmicity in daily habits did not decrease to non-significance, the possibility of partial mediation was considered given that the variable decreased in significance. However, a Sobel Test ( $z = -1.66, p < .10$ ) failed to confirm the mediational value of mothers' perceived control in this relationship. Thus, there was no mediational value in mothers' attributions with regard to

the relationship between mothers' rhythmicity in daily habits and their punitive parenting behaviors.

### **Subsample with High ACEs**

**Mothers' Temperament Predicting Parenting Behaviors.** The first set of regression equations demonstrated that mothers' approach-withdrawal (DOTS temperament) predicted significantly their positive parenting behaviors (APQ-PR),  $F(1,61)=6.52, p<.02, R^2=.10$ . Additionally, mothers' mood quality (DOTS temperament) predicted significantly mothers' positive parenting behaviors,  $F(1,61)=9.70, p<.004, R^2=.14$ .

Next, mothers' rhythmicity in daily habits (DOTS temperament) predicted significantly mothers' negative/inconsistent parenting behaviors (APQ-PR),  $F(1,61)=8.18, p<.007, R^2=.12$ .

Further, mothers' flexibility-rigidity (DOTS temperament) predicted their punitive parenting behaviors (APQ-PR) significantly,  $F(1,61)=4.86, p<.04, R^2=.07$ . Finally, mothers' rhythmicity in daily habits predicted significantly their punitive parenting behaviors,  $F(1,63)=5.54, p<.03, R^2=.08$ . All of the significant relationships among the variables of interest found within the subsample with high ACEs were consistent with those found in the overall sample.

**Mothers' Temperament Predicting Reflective Functioning and Attributions.** The second set of regression equations demonstrated that all five subscales used to represent mothers' temperament (DOTS-R Adult) failed to predict mothers' reflective functioning (PRFQ). Consequently, reflective functioning was not considered further in the context of these mediational analyses. Nonetheless, mothers' approach-withdrawal (DOTS temperament) predicted significantly mothers' perceived control (PCF subscale of the PAT),  $F(1,58)=12.22, p<.002, R^2=.17$ . Additionally, mothers' flexibility-rigidity (DOTS temperament) predicted

significantly mothers' perceived control,  $F(1,58)=11.85, p<.002, R^2=.17$ . Inconsistent with the overall sample, mothers' rhythmicity in daily habits (DOTS temperament) failed to predict mothers' perceived control,  $F(1,59)=1.55, p<.30, R^2=.03$ .

**Mothers' Attributions Predicting Parenting Behaviors.** The third set of regression equations demonstrated that, consistent with the overall sample, mothers' perceived control (PCF subscale of the PAT) predicted significantly their positive parenting behaviors (APQ-PR),  $F(1,60)=7.29, p<.01, R^2=.11$ . Inconsistent with the overall sample, mothers' perceived control failed to predict negative/inconsistent parenting behaviors (APQ-PR;  $F(1,58)=.78, p<.40, R^2=.01$ ) and punitive parenting behaviors (APQ-PR;  $F(1,59)=2.80, p<.10, R^2=.04$ ).

**Mothers' Temperament and Attributions Predicting Parenting Behaviors.** The fourth and final set of regression equations only examined the variables that were significant in the previous sets of regressions. These analyses demonstrated that, consistent with the overall sample, mothers' approach-withdrawal (DOTS temperament) and mothers' perceived control (PCF subscale of the PAT) predicted significantly their positive parenting behaviors (APQ-PR),  $F(2,57)=5.03, p<.01, R^2=.15$ . Specifically, when entered individually, mothers' approach-withdrawal predicted positive parenting behaviors significantly ( $p<.02$ ). However, when mothers' perceived control was entered into the equation, mothers' approach-withdrawal decreased in significance ( $p<.20$ ), and only mothers' perceived control was a significant predictor of positive parenting behavior ( $p<.05$ ). The mediational value of mothers' perceived control in this relationship was confirmed with a significant Sobel Test ( $z=2.15, p<.04$ ).

### Hierarchical Regression Analyses

Predictive relationships among mothers' characteristics (i.e., history of adverse childhood



experiences, temperament, psychological symptoms, and maternal satisfaction), reflective functioning and attributions, parenting, and their young children's characteristics (i.e., temperament, emotional and behavioral functioning, and adaptive functioning) were examined. Separate regression analyses were performed in the total sample and in the subsample with high ACEs. Maternal variables served as predictor variables, and young children's characteristics served as criterion variables in these regressions. Specifically, mothers' characteristics (i.e., history of childhood adverse experiences, temperament, psychological symptoms, and maternal satisfaction) were entered into Block 1, mothers' reflective functioning and attributions were entered into Block 2, and mothers' parenting behaviors (i.e., positive, negative/inconsistent, and punitive parenting behaviors) were entered into Block 3 to examine the unique predictive capacity of these variables in predicting young children's outcomes. See Tables 5 through 13.

### **Total Sample**

With regard to mothers' perceptions of young children's general activity level, mothers' characteristics predicted significantly their perceptions of young children's general activity level (DOTS temperament) when entered into Block 1,  $F(9,140)=2.33, p<.02, R^2=.13$ . In particular, mothers' own general activity level (DOTS temperament;  $p<.05$ ), approach-withdrawal (DOTS temperament;  $p<.05$ ), and mood quality (DOTS temperament;  $p<.03$ ) served as significant individual predictors. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation no longer remained significant,  $F(11,138)=2.29, p<.20, R^2=.16$ . Nonetheless, mothers' temperament variables (DOTS) of general activity level ( $p<.05$ ), approach-withdrawal ( $p<.04$ ), and mood quality ( $p<.05$ ) remained significant individual predictors of children's general activity level (DOTS temperament). When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,

$F(14,135)=1.14, p<.40, R^2=.18$ . Mothers' temperament variables (DOTS) of general activity level ( $p<.04$ ) and approach-withdrawal ( $p<.04$ ) continued to remain significant individual predictors. Thus, mothers' general activity level and level of approach to new stimuli provided unique incremental variance in predicting young children's general activity level although the regression equation was not significant overall.

Next, mothers' characteristics as a whole predicted significantly their perceptions of children's approach-withdrawal (DOTS temperament) when entered into Block 1,  $F(9,140)=2.18, p<.03, R^2=.12$ . There were no unique individual predictors, however (i.e., all individual predictors  $p>.05$ ). When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained significant,  $F(11,138)=3.47, p<.04, R^2=.17$ . Specifically, mothers' endorsements of their perceived control (PCF subscale of the PAT;  $p<.01$ ) served as a significant individual predictor. When mothers' parenting behaviors were entered into Block 3, the equation remained significant,  $F(14,135)=2.78, p<.05, R^2=.21$ . Here, mothers' rhythmicity in daily habits (DOTS temperament;  $p<.03$ ), became a significant predictor. Additionally, mothers' perceived control (PCF subscale of the PAT) remained a significant individual predictor ( $p<.04$ ), and mothers' negative/inconsistent parenting behaviors (APQ-PR;  $p<.02$ ) also was a significant individual predictor. Thus, mothers' regularity in their daily habits, perceived control over failure, and negative/inconsistent parenting behaviors provided unique incremental variance in predicting young children's level of approach to new stimuli in the environment.

Further, mothers' characteristics predicted significantly their perceptions of children's flexibility-rigidity (DOTS temperament) when entered into Block 1,  $F(9,138)=5.98, p<.001, R^2=.28$ . In particular, mothers' temperament variables (DOTS) of general activity level ( $p<.001$ )

and flexibility-rigidity ( $p < .02$ ) as well as mothers' externalizing behavior problems (ASR;  $p < .03$ ) and maternal role satisfaction (PSOC;  $p < .04$ ) served as significant individual predictors. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation did not remain significant,  $F(11,136)=1.11$ ,  $p < .40$ ,  $R^2=.29$ . However, mothers' temperament variables (DOTS) of general activity level ( $p < .001$ ) and flexibility-rigidity ( $p < .01$ ) as well as mothers' externalizing behavior problems (ASR;  $p < .02$ ) and satisfaction with their parenting role (PSOC;  $p < .05$ ) remained significant individual predictors. When mothers' parenting behaviors were entered into Block 3, the equation became significant,  $F(14,133)=2.78$ ,  $p < .05$ ,  $R^2=.33$ . Specifically, mothers' temperament variables (DOTS) of general activity level ( $p < .001$ ) and flexibility-rigidity ( $p < .01$ ) as well as mothers' externalizing behavior problems (ASR;  $p < .01$ ) and positive parenting behaviors (APQ-PR;  $p < .03$ ) were significant individual predictors. Thus, mothers' general activity level, flexibility in their behavior style, externalizing behavior problems, and positive parenting behaviors provided unique incremental variance in predicting young children's flexibility in their behavior style.

Additionally, mothers' characteristics predicted significantly their perceptions of children's mood quality (DOTS temperament) when entered into Block 1,  $F(9,136)=4.52$ ,  $p < .001$ ,  $R^2=.23$ . In particular, mothers' own mood quality (DOTS temperament;  $p < .001$ ) and maternal role satisfaction (PSOC;  $p < .04$ ) served as significant individual predictors. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation did not remain significant,  $F(11,134)=2.15$ ,  $p < .20$ ,  $R^2=.25$ . However, mothers' mood quality (DOTS temperament;  $p < .001$ ) and satisfaction with their parenting role (PSOC;  $p < .04$ ) remained significant individual predictors. When mothers' parenting behaviors were entered into Block 3, the equation became significant,  $F(14,131)=7.42$ ,

$p < .001$ ,  $R^2 = .36$ . Specifically, mothers' mood quality (DOTS temperament;  $p < .001$ ), positive parenting behaviors (APQ-PR;  $p < .001$ ), and negative/inconsistent parenting behaviors (APQ-PR;  $p < .03$ ) were significant individual predictors. Thus, mothers' mood as well as their positive and negative/inconsistent parenting behaviors provided unique incremental variance in predicting young children's mood.

Lastly, with regard to young children's temperament, mothers' characteristics predicted significantly their perceptions of children's rhythmicity in daily habits (DOTS temperament) when entered into Block 1,  $F(9,139) = 4.29$ ,  $p < .001$ ,  $R^2 = .22$ . In particular, mothers' own rhythmicity in daily habits (DOTS temperament;  $p < .001$ ) as well as their adverse childhood experiences (ACEs;  $p < .04$ ) served as significant individual predictors. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation did not remain significant,  $F(11,137) = .38$ ,  $p < .70$ ,  $R^2 = .22$ . However, mothers' rhythmicity in daily habits (DOTS temperament;  $p < .001$ ) and their adverse childhood experiences (ACEs;  $p < .05$ ) remained significant individual predictors. When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,134) = 1.68$ ,  $p < .20$ ,  $R^2 = .25$ . Here, only mothers' rhythmicity in daily habits (DOTS temperament;  $p < .001$ ) and positive parenting behaviors (APQ-PR;  $p < .05$ ) were significant individual predictors. Thus, mothers' regularity in their daily habits and positive parenting behaviors provided unique incremental variance in predicting young children's regularity in daily habits.

Next, mothers' characteristics predicted significantly their perceptions of children's internalizing behavior problems (CBCL) when entered into Block 1,  $F(9,143) = 5.66$ ,  $p < .001$ ,  $R^2 = .26$ . In particular, mothers' own externalizing behavior problems (ASR;  $p < .02$ ) served as an individual predictor. When mothers' reflective functioning (PRFQ) and perceived control (PCF

subscale of the PAT) were entered into Block 2, the equation did not remain significant,  $F(11,141)=.21, p<.90, R^2=.27$ . However, mothers' externalizing behavior problems (ASR;  $p<.01$ ) remained a significant individual predictor. When mothers' parenting behaviors were entered into Block 3, the equation became significant,  $F(14,138)=4.21, p<.01, R^2=.33$ . Specifically, mothers' externalizing behavior problems (ASR;  $p<.03$ ) and their positive parenting behaviors (APQ-PR;  $p<.01$ ) were significant individual predictors. Thus, mothers' externalizing behavior problems and their positive parenting behaviors provided unique incremental variance in predicting young children's internalizing behavior problems.

Additionally, mothers' characteristics predicted significantly their perceptions of children's externalizing behavior problems (CBCL) when entered into Block 1,  $F(9,143)=7.58, p<.001, R^2=.32$ . In particular, mothers' externalizing behavior problems (ASR;  $p<.001$ ) and their maternal role satisfaction (PSOC;  $p<.05$ ) served as individual predictors. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation did not remain significant,  $F(11,141)=2.98, p<.06, R^2=.35$ . However, mothers' externalizing behavior problems (ASR;  $p<.001$ ), maternal role satisfaction (PSOC;  $p<.04$ ), and perceived control (PCF subscale of the PAT;  $p<.02$ ) were significant individual predictors. When mothers' parenting behaviors were entered into Block 3, the equation became significant,  $F(14,138)=4.57, p<.005, R^2=.41$ . Specifically, mothers' externalizing behavior problems (ASR;  $p<.001$ ) and perceived control (PCF subscale of the PAT;  $p<.01$ ) remained significant individual predictors. Additionally, mothers' punitive parenting behaviors (APQ-PR;  $p<.01$ ) were a significant individual predictor of children's externalizing behavior problems. Maternal role satisfaction (PSOC;  $p<.90$ ) no longer remained a significant predictor. Thus, mothers' externalizing behavior problems, perceived control over failure, and punitive parenting

behaviors provided unique incremental variance in predicting young children's externalizing behavior problems.

Finally, mothers' characteristics failed to predict their perceptions of children's overall adaptive functioning (ABAS-II) when entered into Block 1,  $F(9,97)=1.82, p<.08, R^2=.15$ . However, mothers' mood quality (DOTS temperament;  $p<.02$ ) served as a significant individual predictor. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained non-significant,  $F(11,95)=.84, p<.50, R^2=.16$ . However, mothers' mood quality (DOTS temperament;  $p<.02$ ) remained a significant individual predictor. When mothers' parenting behaviors were entered into Block 3, the equation became significant,  $F(14,92)=5.93, p<.002, R^2=.30$ . Here, only mothers' positive parenting behaviors (APQ-PR;  $p<.001$ ) were a significant individual predictor. Thus, mothers' positive parenting behaviors provided unique incremental variance in predicting young children's overall adaptive functioning.

Lastly, given that mothers' scores for children's self-care skills (ABAS-II) were significantly lower than expected ( $M=6.48, SD=3.57$ ), self-care skills also became a variable of particular interest. Mothers' characteristics failed to predict significantly their perceptions of children's self-care skills (ABAS-II) when entered into Block 1,  $F(9,137)=1.33, p<.30, R^2=.08$ . There were no significant individual predictors with regard to mothers' characteristics predicting young children's self-care skills (all  $p>.05$ ). When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained non-significant,  $F(11,135)=.46, p<.70, R^2=.09$ . Similarly, there were no significant individual predictors with regard to mothers' characteristics predicting young children's self-care skills (all  $p>.05$ ). When mothers' parenting behaviors were entered into Block 3, the equation became

significant,  $F(14,132)=5.18, p<.003, R^2=.18$ . Specifically, mothers' adverse childhood experiences (ACES;  $p<.05$ ) and positive parenting behaviors (APQ-PR;  $p<.001$ ) were significant individual predictors. Thus, mothers' adverse childhood experiences and positive parenting behaviors provided unique incremental variance in predicting young children's self-care skills.

### **Subsample with High ACEs**

With regard to mothers' perceptions of young children's temperament, maternal characteristics failed to predict children's general activity level (DOTS temperament) when entered into Block 1,  $F(9,36)=.65, p<.80, R^2=.14$ . Additionally, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained non-significant,  $F(11,34)=1.38, p<.30, R^2=.20$ . Again, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,31)=.36, p<.80, R^2=.23$ , and no individual variables served as significant predictors (all  $p>.05$ ). Thus, mothers' characteristics, reflective functioning, attributions, and parenting behaviors failed to provide unique incremental variance in predicting young children's general activity level in the subsample with high ACEs.

Next, mothers' characteristics failed to predict children's approach-withdrawal (DOTS temperament) when entered into Block 1,  $F(9,36)=1.37, p<.30, R^2=.25$ . Additionally, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained non-significant,  $F(11,34)=1.89, p<.20, R^2=.33$ . Again, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,31)=1.15, p<.40, R^2=.40$ . Here,

mothers' rhythmicity in daily habits (DOTS temperament;  $p < .03$ ) served as a significant individual predictor. Thus, mothers' regularity in their daily habits provided unique incremental variance in predicting young children's level of approach to new stimuli in the subsample with high ACEs. This relationship was also significant in the total sample.

Further, mothers' characteristics predicted significantly their perceptions of children's flexibility-rigidity (DOTS temperament) when entered into Block 1,  $F(9,36)=2.58$ ,  $p < .03$ ,  $R^2=.39$ . In particular, mothers' general activity level (DOTS temperament;  $p < .03$ ) and mothers' satisfaction with their parenting role (PSOC;  $p < .03$ ) served as significant individual predictors. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation did not remain significant,  $F(11,34)=.72$ ,  $p < .50$ ,  $R^2=.42$ . However, mothers' general activity level (DOTS temperament;  $p < .04$ ) and mothers' satisfaction with their parenting role (PSOC;  $p < .03$ ) remained significant individual predictors. When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,31)=1.10$ ,  $p < .40$ ,  $R^2=.47$ . Here, mothers' mood quality (DOTS temperament;  $p < .04$ ) and maternal role satisfaction (PSOC;  $p < .04$ ) served as significant individual predictors. Mothers' general activity level (DOTS temperament;  $p < .06$ ) was no longer a significant individual predictor. Thus, mothers' mood and satisfaction with their role as a parent provided unique incremental variance in predicting young children's flexibility in their behavior style in the subsample with high ACEs. These relationships were unique to the subsample.

Additionally, mothers' characteristics failed to predict their perceptions of children's mood quality (DOTS temperament) when entered into Block 1,  $F(9,36)=1.34$ ,  $p < .30$ ,  $R^2=.25$ . No individual variables served as significant predictors (all  $p > .05$ ) When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2,



the equation remain non-significant,  $F(11,34)=1.98, p<.20, R^2=.33$ . Again, no variables served as individual significant predictors (all  $p>.05$ ) When mothers' parenting behaviors were entered into Block 3, the equation became significant,  $F(14,31)=4.27, p<.02, R^2=.53$ . Specifically, mothers' perceived control (PCF subscale of the PAT;  $p<.04$ ) and mothers' positive parenting behaviors (APQ-PR;  $p<.01$ ) were significant individual predictors. Thus, mothers' perceived control over failure and positive parenting behaviors provided unique incremental variance in predicting young children's mood in the subsample with high ACEs. Mothers' perceived control over failure as a significant predictor in this relationship was unique to the subsample.

Lastly, with regard to young children's temperament, maternal characteristics failed to predict children's rhythmicity in daily habits (DOTS temperament) when entered into Block 1,  $F(9,36)=1.56, p<.20, R^2=.28$ . Additionally, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained non-significant,  $F(11,34)=.77, p<.50, R^2=.31$ . Again, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,31)=1.02, p<.40, R^2=.37$ , and no individual variables served as significant predictors (all  $p>.05$ ). Thus, mothers' characteristics, reflective functioning, attributions, and parenting behaviors failed to provide unique incremental variance in predicting young children's regularity in their daily habits in the subsample with high ACEs.

Next, mothers' characteristics failed to predict their perceptions of children's internalizing behavior problems (CBCL) when entered into Block 1,  $F(9,37)=1.90, p<.09, R^2=.32$ . Additionally, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were

entered into Block 2, the equation remained non-significant,  $F(11,35)=.01$ ,  $p<.99$ ,  $R^2=.32$ . Again, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,32)=1.77$ ,  $p<.20$ ,  $R^2=.41$ . Here, mothers' mood quality (DOTS temperament;  $p<.05$ ) served as a significant individual predictor. Thus, mothers' mood provided unique incremental variance in predicting young children's internalizing behavior problems in the subsample with high ACEs. This relationship was unique to the subsample.

Additionally, mothers' characteristics failed to predict their perceptions of children's externalizing behavior problems (CBCL) when entered into Block 1,  $F(9,37)=2.08$ ,  $p<.06$ ,  $R^2=.34$ . Additionally, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained non-significant,  $F(11,35)=.59$ ,  $p<.60$ ,  $R^2=.36$ . Again, no individual variables served as significant predictors (all  $p>.05$ ). When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,32)=.63$ ,  $p<.70$ ,  $R^2=.39$ , and no individual variables served as significant predictors (all  $p>.05$ ). Thus, mothers' characteristics, reflective functioning, attributions, and parenting behaviors failed to provide unique incremental variance in predicting young children's externalizing behavior problems in the subsample with high ACEs.

Finally, mothers' characteristics failed to predict their perceptions of children's overall adaptive functioning (ABAS-II) when entered into Block 1,  $F(9,24)=2.22$ ,  $p<.06$ ,  $R^2=.46$ . However, mothers' adverse childhood experiences (ACEs;  $p<.04$ ) served as a significant individual predictor. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation remained non-significant,

$F(11,22)=2.40, p<.20, R^2=.55$ . Here, mothers' adverse childhood experiences (ACEs) no longer remained a significant individual predictor ( $p<.50$ ). When mothers' parenting behaviors were entered into Block 3, the equation remained non-significant,  $F(14,19)=.49, p<.70, R^2=.59$ , and no individual variables served as significant predictors (all  $p>.05$ ). Thus, mothers' characteristics, reflective functioning, attributions, and parenting behaviors failed to provide unique incremental variance in predicting young children's overall adaptive functioning in the subsample with high ACEs.

Lastly, given that mothers' scores for children's self-care skills (ABAS-II) were significantly lower than expected in the trauma subsample as well ( $M=6.03, SD=2.73$ ), self-care skills also became a variable of particular interest in the subsample. Mothers' characteristics predicted significantly their perceptions of children's self-care skills (ABAS-II) when entered into Block 1,  $F(9,37)=2.74, p<.02, R^2=.40$ . In particular, mothers' adverse childhood experiences (ACEs,  $p<.01$ ) served as a significant individual predictor. When mothers' reflective functioning (PRFQ) and perceived control (PCF subscale of the PAT) were entered into Block 2, the equation became non-significant,  $F(11,35)=.75, p<.50, R^2=.42$ . Specifically, mothers' adverse childhood experiences (ACEs;  $p<.02$ ) and self-reported internalizing behavior problems (ASR;  $p<.04$ ) served as significant individual predictors. When mothers' parenting behaviors were entered into Block 3, the equation became significant,  $F(14,32)=3.49, p<.03, R^2=.57$ . Specifically, mothers' adverse childhood experiences (ACES;  $p<.001$ ), internalizing behavior problems (ASR;  $p<.04$ ), and positive parenting behaviors (APQ-PR;  $p<.01$ ) were significant individual predictors. Thus, mothers' adverse childhood experiences, internalizing behavior problems, and positive parenting behaviors provided unique incremental variance in predicting

young children's self-care skills in the subsample with high ACEs. Mothers' internalizing behavior problems as a significant predictor in this relationship was unique to the subsample.

## CHAPTER FOUR: DISCUSSION

This study examined the relationships among mothers' characteristics, reflective functioning and perceived control over failure, and parenting behaviors as predictors of mothers' ratings of their young children's temperament, behavior problems, and adaptive functioning in the context of mothers' adverse childhood experiences (ACEs). Adverse events in childhood may include physical, emotional, and/or sexual abuse, neglect, witnessing domestic violence, and living with household members who misused substances, had a mental illness, were suicidal, or engaged in criminal behavior and were imprisoned (Felitti et al., 1998). Exposure to such difficulties while growing up has been found to impact parent-child relationships (Banyard, 1997; DiLillo & Damashek, 2003; Enlow et al., 2010, Lang et al., 2010) and mothers' perceptions of children's behavior problems (Enlow et al., 2010; Min et al., 2013). Thus, this study contributed uniquely to the existing literature by examining these relationships in the overall sample and in a subsample of mothers with high ACEs. Additionally, this study was unique in offering mothers' reflective functioning and perceived control over failure (i.e., attributions) as potential mediators in the relationship between mothers' temperament and specific parenting behaviors.

Support for the combination of variables used in this model has been detailed in the literature. First, research based on the New York Longitudinal Study demonstrated that mothers' and children's temperament was related bidirectionally (Lerner & Galambos, 1985), indicating that mother's temperament and children's temperament were related as originally suggested by the seminal works of Thomas and Chess (1977). Additional framework for the model utilized in the present study was derived from research demonstrating that children's difficult temperament

resulted in parents' punitive reactions, which, in turn, predicted children's behavior problems (Eisenberg et al., 1999). Another highly predictive indicator of children's problematic behavioral functioning was mothers' negative reactions toward their children (Atzaba-Poria et al., 2014; Chen et al., 2014). Thus, previous research established that several of the constructs examined in this study (i.e., mothers' and children's temperament, parenting behaviors, and mothers' perceptions of children's behavior problems) were related.

Given the established research demonstrating the relationships between mothers' temperament and parenting behaviors specifically, one of the aims of the present study was to corroborate previous findings and demonstrate a significant relationship between these two constructs. Consistent with previous findings and the hypotheses of this study, the results of the present study indicated that mothers' temperament predicted significantly their parenting behaviors. Because mothers' temperament was measured on five separate scales (i.e., Activity Level-General, Approach-Withdrawal, Flexibility-Rigidity, Mood Quality, and Rhythmicity in Daily Habits) and mothers' parenting behaviors were measured on three separate scales (i.e., Positive, Negative/Inconsistent, and Punitive Parenting Behaviors), more specific relationships among the variables were offered to add to the existing knowledge in this field.

In particular, mothers' approach-withdrawal and mood quality predicted significantly their positive parenting behaviors in the overall sample and in the subsample with high ACEs. Additionally, mothers' flexibility-rigidity and rhythmicity in daily habits predicted significantly their negative/inconsistent parenting behaviors in the overall sample, but only mothers' rhythmicity in daily habits remained a predictor of negative/inconsistent parenting behaviors for mothers in the subsample with high ACEs. Further, mothers' flexibility-rigidity and rhythmicity in daily habits predicted significantly their punitive parenting behaviors in the overall sample and

in the subsample with high ACEs. Finally, mothers' general activity level was found to be a predictor of their punitive parenting behaviors in the overall sample only. Thus, the present study corroborated previous research, suggesting that mothers' temperament was related to their parenting behaviors. Additionally, the present study offered unique findings with regard to the relationships among more specific constructs of temperament and parenting behaviors than have been offered previously.

Next, parents' attributions have been examined previously as predictors of parenting behaviors. Research found that individuals with lower perceived control over failure reacted more negatively in affect and in parenting behaviors to more difficult children (Bugental et al., 1989). This relationship had not been examined in the context of mothers' own temperament and adverse childhood experiences, however. Thus, more evidence was needed to determine whether there were additional predictors that served as potential mediators in the relationship between mothers' temperament and parenting behaviors. Specifically, in addition to mothers' temperament, two other predictors of parenting behaviors, reflective functioning and attributions, were examined in the present study. In theory, parents with high reflective functioning should be able to form a deeper understanding of their own and others' emotions, motivations, and actions, and regulate their affect and behavior towards their children appropriately (Fonagy & Bateman, 2006). In fact, children whose parents were high in reflective functioning demonstrated better outcomes, including higher self-esteem and fewer behavior problems (Fonagy et al., 1991; Slade et al., 2005; Steele & Steele, 2008). It is important to note, however, that experiencing childhood maltreatment may hinder future parents' ability to demonstrate high reflective functioning toward their children (Fonagy & Target, 1997).

Similarly, mothers' attributions, or perceived control over failure, must be considered

when attempting to understand their perceptions of success and failure in their interactions with their young children. Specifically, when examining caregiver perceptions of negative caregiving outcomes, Bugental and colleagues (1989) found that individuals with lower perceived control over failure exhibited more negative responses toward children who were perceived to exhibit more difficult temperament. These caregivers also were found to be at higher risk for abusive caregiving (Bugental et al., 1989). As a result, mothers' reflective functioning and perceived control over failure were examined as predictors and potential mediators in the relationship between mothers' temperament and parenting behaviors within the context of mothers' adverse childhood experiences. It was hypothesized that reflective functioning and/or attributions would mediate the relationship between mothers' temperament and parenting behaviors.

Contrary to expected hypotheses, mothers' temperament failed to predict reflective functioning in the overall sample and in the subsample with high ACEs. Thus, it was not considered further in the context of mediational analyses. It is possible that the construct of reflective functioning may require examination from a different theoretical standpoint. Specifically, given the previous relationship that was demonstrated between reflective functioning and childhood maltreatment (Borelli et al., 2014; Fonagy & Target, 1997), it may be beneficial to examine mothers' adverse childhood experiences as a predictor of their reflective functioning instead. Nonetheless, the present study was unique in demonstrating that the particular relationship between mothers' temperament and reflective functioning was not significant and that alternate models must be examined in the future.

Although reflective functioning did not serve as a mediator in the present study, mothers' attributions were noted to be a valuable mediator between mothers' temperament and their parenting behaviors. More specifically, mothers' approach-withdrawal and flexibility-rigidity



predicted their perceived control in the overall sample and in the subsample with high ACEs. Additionally, mothers' rhythmicity in daily habits predicted perceived control in the overall sample but not in the subsample with high ACEs. Further, mothers' perceived control predicted significantly their parenting behaviors, with attributions predicting positive, negative/inconsistent, and punitive parenting behaviors in the overall sample. Mothers' attributions only predicted significantly positive parenting behaviors in the subsample with high ACEs. Thus, mothers' perceived control over failure was found to be a significant mediator in the relationship between mothers' temperament and parenting behaviors.

Specifically, mothers' attributions mediated the relationship between their approach-withdrawal and their positive parenting behaviors, accounting for 9% of the variance in the overall sample and 15% of the variance in the subsample with high ACEs. This novel finding contributed valuable information to the current knowledge base on successful and unsuccessful parent-young child relationships. It is important to understand the specific detriments that mothers experience in general, and it is especially important to consider such detriments in the context of adverse childhood experiences. A deeper understanding of this relationship may help target dyadic interventions aimed at not only improving the current parent-young child relationship so as to enhance one particular mother's functioning and her young child's outcomes, but also to prevent the intergenerational transmission of harmful thought processes and behaviors.

Finally, the present study examined the impact of mothers' characteristics (i.e., adverse childhood experiences, temperament, psychological symptoms, and maternal role satisfaction), reflective functioning and attributions, and parenting behaviors on young children's temperament, behavior problems, and adaptive functioning. Again, these relationships were

examined in the context of mothers' ACEs. Given that foundational studies by Thomas and Chess (1977) suggested that mothers' and children's temperament were related bidirectionally, similar relationships were expected to be found in the present study. However, more recent research found that this relationship also may be related to mothers' psychosocial functioning (Friedlander et al., 1986; Kinsman & Wildman, 2001). In fact, research consistently showed that parents' psychological symptoms predicted worse child outcomes (Hughes et al., 2008). Thus, it was expected that the results of the present study would corroborate these findings in addition to contributing new information with regard to young children's adaptive functioning as an outcome measure based on maternal characteristics, reflective functioning and attributions, and parenting behaviors as predictors.

Consistent with expected hypotheses, mothers' temperament and other characteristics predicted significantly young children's temperament. Specifically, mothers' general activity level and level of approach to new stimuli predicted their young children's general activity level in the overall sample. These relationships did not remain significant in the subsample with high ACEs. In fact, none of the maternal variables that were examined predicted young children's general activity level in the subsample with high ACEs. Next, mothers' regularity in their daily habits, attributions, and negative/inconsistent parenting behaviors predicted young children's approach to new stimuli in the environment in the overall sample. Only mothers' regularity in their daily habits predicted young children's approach to new stimuli in the subsample with high ACEs. Further, mothers' general activity level, flexibility in their behavior style, externalizing behavior problems, and positive parenting behaviors predicted young children's flexibility in their behavior style in the overall sample. Uniquely, mothers' mood and satisfaction with their role as a parent predicted young children's flexibility in their behavior style in the subsample

with high ACEs. Additionally, mothers' mood and positive and negative/inconsistent parenting behaviors predicted young children's mood in the overall sample. In the subsample with high ACEs, mothers' attributions and positive parenting behaviors predicted significantly their young children's mood. The role of mothers' attributions in impacting young children's mood was unique to the subsample with high ACEs. Lastly, with regard to young children's temperament, mothers' regularity in their daily habits and positive parenting behaviors predicted young children's regularity in their own daily habits in the overall sample. No maternal variables predicted significantly their young children's regularity in their daily habits in the subsample with high ACEs.

Additionally, as hypothesized, mothers' psychological symptoms amongst other variables predicted significantly their young children's internalizing and externalizing behavior problems. In particular, mothers' externalizing behavior problems and positive parenting behaviors predicted their young children's internalizing behavior problems in the overall sample. Unique to the subsample with high ACEs, mothers' mood predicted their young children's internalizing behavior problems. Further, mothers' externalizing behavior problems, attributions, and punitive parenting behaviors predicted their young children's externalizing behavior problems in the overall sample. No maternal variables were demonstrated to predict young children's externalizing behavior in the subsample with high ACEs.

Finally, consistent with hypotheses, mothers' parenting behaviors predicted significantly their young children's adaptive functioning. Specifically, mothers' positive parenting behaviors predicted children's overall adaptive functioning in the total sample. No maternal variables were found to predict young children's overall adaptive functioning in the subsample with high ACEs. Given that young children's self-care skills became a variable of interest in the overall sample

and in the subsample with high ACEs since mean scores were significantly lower than expected, maternal variables also were examined as predictors of young children's self-care skills.

Interestingly, mothers' adverse childhood experiences and positive parenting behaviors predicted young children's self-care skills in the overall sample. Additionally, only mothers' internalizing behavior problems predicted their young children's self-care skills in the subsample with high ACEs. The findings related to young children's adaptive functioning were particularly interesting in both the overall sample and the high ACEs subsample. Previous research has not demonstrated these relationships, yet it is critical to gain a better understanding of the factors that may prevent young children from gaining the skills they need to function independently and successfully as they mature.

The limitations of the present study must be considered when interpreting the presented findings. First, all data were collected from one crowdsourcing Internet marketplace. Although one of the goals of this strategy of data collection was to capture a broad, national demographic, the vast majority of the participants indicated that they were Caucasian, married, had attended college, and were of middle class socioeconomic status. As such, it is difficult to determine the external validity of the findings to more culturally and economically diverse populations. Additionally, over 30% (n=68) of the participants in the total sample reported having been exposed to a high number of adverse childhood experiences (i.e., 4 or more categories of exposure). This number was believed to be an adequate subsample in the present study, given that previous studies showed significant findings from ~6% exposure in the total population (Felitti et al., 1998). However, it is possible that despite accurate reporting of exposure to adverse experiences in childhood, participants may not have felt comfortable sharing other information regarding their own characteristics, cognitive processes, and behaviors. As a result,

caution always must be exhibited when interpreting the results of studies that rely solely on self-report measures despite efforts to ensure accurate responses (i.e., disqualifying participants based on incorrect answers to validity questions). To address these limitations, future studies must target specifically much broader, culturally and economically diverse populations and utilize observational data to provide measures of parent-young child relationships and problematic behaviors. Finally, researchers must identify and focus on at-risk families. Specifically, particular attention should be given to parents who have sought treatment for their own undesirable outcomes as a result of their exposure to adverse childhood experiences. Even more importantly, additional resources should be devoted to those families who have been identified by their local child welfare systems as requiring intervention so as to cease the intergenerational patterns of maladaptive cognitive processes and behaviors.

Despite the limitations, the present study contributed uniquely to the literature on parent-young child relationships, parenting behaviors, and child outcomes. Specifically, previous research has not examined mothers' reflective functioning and perceived control over failure as potential mediators in these relationships. Another unique contribution is the finding that specific parenting behaviors and mothers' internalizing behavior problems predict young children's adaptive functioning. This area in particular deserves to be examined more extensively in future studies, especially given that adaptive functioning skills are just too critical at such a young age to succumb to potentially preventable setbacks. Most notably, the present study captures the importance of targeting families as a whole, rather than children alone who are presented for treatment, to provide lasting intervention services in an effort to improve each family member's functioning, prevent long-term negative outcomes for young children, break intergenerational cycles of adverse childhood experiences and negative or punitive parenting behaviors, and

enhance the skills necessary for parents to provide positive, nurturing, authoritative care to their children.

**APPENDIX A:  
DEMOGRAPHICS QUESTIONNAIRE**

1. Your Gender: M F

2. Your Age: \_\_\_\_\_

3. Your Ethnicity: Caucasian Hispanic African-American  
Asian-American Native-American Other \_\_\_\_\_

4. What, if any, is your religious affiliation? \_\_\_\_\_

On a scale of 1-10 (1 = not strong at all; 10 = very strong) how strong of a religious affiliation would you say you have? \_\_\_\_\_

5. Your Marital Status: Married Divorced Separated Widowed Single  
Living with Partner Remarried (If so, how many previous marriages\_\_\_\_)

6. Does your child's other parent live with you? Yes No

7. Please list the age and gender of your child(ren) and whether or not they live with you.

Age	Gender	Live with you?	
___	M F	Y	N
___	M F	Y	N
___	M F	Y	N
___	M F	Y	N

8. Do you live with any extended family members or friends? Y N

9. If yes, who? \_\_\_\_\_

10. Your 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

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

\$80,000 - \$90,000

\$10,000 - \$20,000

\$90,000 - \$100,000

\$20,000 - \$30,000

\$100,000 - \$110,000

\$30,000 - \$40,000

\$110,000 - \$120,000

\$40,000 - \$50,000

\$120,000 - \$130,000

\$50,000 - \$60,000

\$130,000 - \$140,000

\$60,000 - \$70,000

\$140,000 - \$150,000

\$70,000 - \$80,000

More than \$150,000

15. Estimated debt (please circle one):

Less than \$10,000

\$80,000 - \$90,000

\$10,000 - \$20,000

\$90,000 - \$100,000

\$20,000 - \$30,000	\$100,000 - \$110,000
\$30,000 - \$40,000	\$110,000 - \$120,000
\$40,000 - \$50,000	\$120,000 - \$130,000
\$50,000 - \$60,000	\$130,000 - \$140,000
\$60,000 - \$70,000	\$140,000 - \$150,000
\$70,000 - \$80,000	More than \$150,000

**APPENDIX B:  
ADVERSE CHILDHOOD EXPERIENCES STUDY QUESTIONNAIRE**

**While you were growing up, during your first 18 years of life:**

1. Did a parent or other adult in the household **often** ...

Swear at you, insult you, put you down, or humiliate you?

**or**

Act in a way that made you afraid that you might be physically hurt?

Yes    No

2. Did a parent or other adult in the household **often** ...

Push, grab, slap, or throw something at you?

**or**

**Ever** hit you so hard that you had marks or were injured?

Yes    No

3. Did an adult or person at least 5 years older than you **ever**...

Touch or fondle you or have you touch their body in a sexual way?

**or**

Try to or actually have oral, anal, or vaginal sex with you?

Yes    No

4. Did you **often** feel that ...

No one in your family loved you or thought you were important or special?

**or**

Your family didn't look out for each other, feel close to each other, or support each other?

Yes    No

5. Did you **often** feel that ...

You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?

**or**

Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

Yes    No

6. Were your parents **ever** separated or divorced?

Yes No

7. Was your mother or stepmother:

**Often** pushed, grabbed, slapped, or had something thrown at her?

**or**

**Sometimes or often** kicked, bitten, hit with a fist, or hit with something hard?

**or**

**Ever** repeatedly hit over at least a few minutes or threatened with a gun or knife?

Yes No

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

Yes No

9. Was a household member depressed or mentally ill or did a household member attempt suicide?

Yes No

10. Did a household member go to prison?

Yes No

**APPENDIX C:  
CHILDHOOD TRAUMA QUESTIONNAIRE**

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	Frequency				
		Never				Very Often
1.	I didn't have enough to eat.	1	2	3	4	5
2.	I knew that there was someone to take care of me and protect me.	1	2	3	4	5
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,	1	2	3	4	5

	neighbor, or doctor.					
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



**APPENDIX D:  
TRAUMA SYMPTOMS CHECKLIST**

How often have you experienced each of the following in the last two months?

	Never	Occasionally	Fairly Often	Very Often
	0	1	2	3
(1) Insomnia (trouble getting to sleep)	0	1	2	3
(2) Restless sleep	0	1	2	3
(3) Nightmares	0	1	2	3
(4) Waking up early in the morning and can't get back to sleep	0	1	2	3
(5) Weight loss (without dieting)	0	1	2	3
(6) Feeling isolated from others	0	1	2	3
(7) Loneliness	0	1	2	3
(8) Low sex drive	0	1	2	3
(9) Sadness	0	1	2	3
(10) Flashbacks (sudden, vivid, distracting memories)	0	1	2	3
(11) Spacing out (going away in your mind)	0	1	2	3
(12) Headaches	0	1	2	3
(13) Stomach problems	0	1	2	3
(14) Uncontrollable crying	0	1	2	3
(15) Anxiety attacks	0	1	2	3
(16) Trouble controlling temper	0	1	2	3
(17) Trouble getting along with others	0	1	2	3
(18) Dizziness	0	1	2	3
(19) Passing out	0	1	2	3
(20) Desire to physically hurt yourself	0	1	2	3

(21) Desire to physically hurt others	0	1	2	3
(22) Sexual problems	0	1	2	3
(23) Sexual overactivity	0	1	2	3
(24) Fear of men	0	1	2	3
(25) Fear of women	0	1	2	3
(26) Unnecessary or over-frequent washing	0	1	2	3
(27) Feelings of inferiority	0	1	2	3
(28) Feelings of guilt	0	1	2	3
(29) Feelings that things are "unreal"	0	1	2	3
(30) Memory problems	0	1	2	3
(31) Feelings that you are not always in your body	0	1	2	3
(32) Feeling tense all the time	0	1	2	3
(33) Having trouble breathing	0	1	2	3

**APPENDIX E:  
DIMENSIONS OF TEMPERAMENT SCALE – REVISED FOR ADULTS**

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

**On the line to the left of each statement write an A if the statement is usually false for you, write a B if the statement is more false than true for you, write a C if the statement is more true than false for you, or write a D if the statement is usually true for you.**

A = usually FALSE

B = more FALSE than true

C = more TRUE than false

D = usually TRUE

---

1. \_\_\_ It takes me a long time to get used to a new thing in the home.
2. \_\_\_ I can't stay still for long.
3. \_\_\_ I laugh and smile at a lot of things.
4. \_\_\_ I wake up at different times.
5. \_\_\_ Once I am involved in a task, nothing can distract me from it.
6. \_\_\_ I persist at a task until it's finished.
7. \_\_\_ I move around a lot.
8. \_\_\_ I can make myself at home anywhere.
9. \_\_\_ I can always be distracted by something else, no matter what I may be doing.
10. \_\_\_ I stay with an activity for a long time.
11. \_\_\_ If I have to stay in one place for a long time, I get very restless.
12. \_\_\_ I usually move towards new objects shown to me.
13. \_\_\_ It takes me a long time to adjust to new schedules.
14. \_\_\_ I do not laugh or smile at many things.
15. \_\_\_ If I am doing one thing, something else occurring won't get me to stop.
16. \_\_\_ I eat about the same amount for dinner whether I am home, visiting someone, or traveling.
17. \_\_\_ My first reaction is to reject something new or unfamiliar to me.

18. \_\_\_Changes in plans make me restless.
19. \_\_\_I often stay still for long periods of time.
20. \_\_\_Things going on around me can not take me away from what I am doing.
21. \_\_\_I take a nap, rest, or break at the same time every day.
22. \_\_\_Once I take something up, I stay with it.
23. \_\_\_Even when I am supposed to be still, I get very fidgety after a few minutes.
24. \_\_\_I am hard to distract.
25. \_\_\_I usually get the same amount of sleep each night.
26. \_\_\_On meeting a new person I tend to move towards him or her.
27. \_\_\_I get hungry about the same time each day.
28. \_\_\_I smile often.
29. \_\_\_I never seem to stop moving.
30. \_\_\_It takes me no time at all to get used to new people.
31. \_\_\_I usually eat the same amount each day.
32. \_\_\_I move a great deal in my sleep.
33. \_\_\_I seem to get sleepy just about the same time every night.
34. \_\_\_I do not find that I laugh often.
35. \_\_\_I move towards new situations.
36. \_\_\_When I am away from home, I still wake up at the same time each morning.
37. \_\_\_I eat about the same amount at breakfast from day to day.
38. \_\_\_I move a lot in bed.
39. \_\_\_I feel full of pep and energy at the same time each day.
40. \_\_\_I have bowel movements at about the same time each day.
41. \_\_\_No matter when I go to sleep, I wake up at the same time the next morning.
42. \_\_\_In the morning, I am still in the same place as I was when I fell asleep.
43. \_\_\_I eat about the same amount at supper from day to day.
44. \_\_\_When things are out of place, it takes me a long time to get used to it.

45. \_\_\_I wake up at the same time on weekends and holidays as on other days of the week.
46. \_\_\_I don't move around much at all in my sleep.
47. \_\_\_My appetite seems to stay the same day after day.
48. \_\_\_My mood is generally cheerful.
49. \_\_\_I resist changes in routine.
50. \_\_\_I laugh several times a day.
51. \_\_\_My first response to anything new is to move my head toward it.
52. \_\_\_Generally, I am happy.
53. \_\_\_The number of times I have a bowel movement on any day varies from day to day.
54. \_\_\_I never seem to be in the same place for long.

**APPENDIX F:  
PARENTAL REFLECTIVE FUNCTIONING QUESTIONNAIRE**



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 Disagree	1	2	3	4	5	6	7	Strongly Agree
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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. \_\_\_\_\_
28. 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. \_\_\_\_\_
39. At times I get confused about what my child is feeling. \_\_\_\_\_

**APPENDIX G:  
PARENT ATTRIBUTION TEST**

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?

- |  | Not at all<br>important  | Very<br>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  |                   |

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

1. SUPPOSE YOU TOOK CARE OF A NEIGHBOR'S CHILD ONE AFTERNOON, AND THE TWO OF YOU HAD A REALLY GOOD TIME TOGETHER. HOW IMPORTANT DO YOU BELIEVE THE FOLLOWING FACTORS WOULD BE AS REASONS FOR SUCH AN EXPERIENCE?
 

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 2 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 all important	Very important
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	
f. 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.	1 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.	1 2 3 4 5 6 7	
t. how little effort the child made to take an interest in what you said or did.	1 2 3 4 5 6 7	
u. 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 H:  
ALABAMA PARENTING QUESTIONNAIRE – PRESCHOOL REVISION**

*Alabama Parenting Questionnaire-Preschool Version (APQ-PR)*

*Please indicate how often you do/feel each of the following behaviors/feelings.*

*Scores range from 1 (never) to 5 (always).*

1. \_\_\_\_ You have a friendly talk with your child.
2. \_\_\_\_ You volunteer to help with special activities that your child is involved in.
3. \_\_\_\_ You play games or do other fun things with your child.
4. \_\_\_\_ You ask your child about his/her day in school.
5. \_\_\_\_ You help your child with his/her homework.
6. \_\_\_\_ You compliment your child when he/she does something well.
7. \_\_\_\_ You praise your child if he/she behaves well.
8. \_\_\_\_ You hug or kiss your child when he/she has done something well.
9. \_\_\_\_ You talk to your child about his/her friends.
10. \_\_\_\_ You tell your child that you like it when he/she helps around the house.
11. \_\_\_\_ You calmly explain to your child why his/her behavior was wrong when he/she misbehaves.
12. \_\_\_\_ You let your child know when he/she is doing a good job with something.
13. \_\_\_\_ You threaten to punish your child and then do not actually punish him/her.
14. \_\_\_\_ Your child talks you out of being punished after he/she has done something wrong.
15. \_\_\_\_ You feel that getting your child to obey you is more trouble than it's worth.
16. \_\_\_\_ You let your child out of a punishment early (e.g., lift restrictions earlier than you originally said).

17. \_\_\_\_ You get so busy that you forget where your child is and what he/she is doing.
18. \_\_\_\_ Your child is not punished when he/she has done something wrong.
19. \_\_\_\_ The punishment you give your child depends on your mood.
20. \_\_\_\_ You spank your child with your hand when he/she has done something wrong.
21. \_\_\_\_ You ignore your child when he/she is misbehaving.
22. \_\_\_\_ You slap your child when he/she has done something wrong.
23. \_\_\_\_ You hit your child with a belt, switch, or other object when he/she has done something wrong.
24. \_\_\_\_ You yell or scream at your child when he/she has done something wrong.
25. \_\_\_\_ You reward or give something extra to your child for obeying you or behaving well.
26. \_\_\_\_ You drive your child to a special activity.
27. \_\_\_\_ You attend PTA meetings, parent/teacher conferences, or other meetings at your child's school.
28. \_\_\_\_ You don't tell your child where you are going.
29. \_\_\_\_ Your child is at home without adult supervision.
30. \_\_\_\_ You take away privileges or money from your child as a punishment.
31. \_\_\_\_ You send your child to his/her room as a punishment.
32. \_\_\_\_ You use time out (make him/her sit or stand in corner) as a punishment.



**APPENDIX I:  
ADULT SELF-REPORT**



Please print your answers.

# ADULT SELF-REPORT FOR AGES 18-59

For office use only  
ID#

YOUR First Middle Last  
FULL NAME

YOUR GENDER  
 Male  Female

YOUR AGE

ETHNIC GROUP OR RACE

TODAY'S DATE

Mo. \_\_\_\_ Date \_\_\_\_ Yr. \_\_\_\_

YOUR BIRTHDATE

Mo. \_\_\_\_ Date \_\_\_\_ Yr. \_\_\_\_

Please fill out this form to reflect **your** views, even if other people might not agree. You need not spend a lot of time on any item. Feel free to print additional comments. **Be sure to answer all items.**

YOUR USUAL TYPE OF WORK, even if not working now. Please be specific—for example, auto mechanic; high school teacher; homemaker; laborer; lathe operator; shoe salesman; army sergeant; student (indicate what you are studying & what degree you expect).

Your work \_\_\_\_\_ Spouse or partner's work \_\_\_\_\_

PLEASE CHECK YOUR HIGHEST EDUCATION

- 1. No high school diploma and no GED
- 2. General Equivalency Diploma (GED)
- 3. High school graduate
- 4. Some college but no college degree
- 5. Associate's Degree
- 6. Bachelor's or RN Degree
- 7. Some graduate school but no graduate degree
- 8. Master's Degree
- 9. Doctoral or Law Degree
- Other education (specify): \_\_\_\_\_

## I. FRIENDS:

A. About how many close friends do you have? (Do not include family members.)

- None     1     2 or 3     4 or more

B. About how many times a month do you have contact with any of your close friends? (Include in-person contacts, phone, letters, e-mail.)

- Less than 1     1 or 2     3 or 4     5 or more

C. How well do you get along with your close friends?

- Not as well as I'd like     Average     Above average     Far above average

D. About how many times a month do any friends or family visit you?

- Less than 1     1 or 2     3 or 4     5 or more

## II. SPOUSE OR PARTNER:

What is your marital status?  Never been married     Married but separated from spouse  
 Married, living with spouse     Divorced  
 Widowed     Other—please describe: \_\_\_\_\_

At any time in the past 6 months, did you live with your spouse or with a partner?

- No—please skip to page 2.  
 Yes—Circle 0, 1, or 2 beside items A-H to describe your relationship during the past 6 months:

0 = Not True    1 = Somewhat or Sometimes True    2 = Very True or Often True

- |  |  |
|--|--|
| <p>0 1 2 A. I get along well with my spouse or partner</p> <p>0 1 2 B. My spouse or partner and I have trouble sharing responsibilities</p> <p>0 1 2 C. I feel satisfied with my spouse or partner</p> <p>0 1 2 D. My spouse or partner and I enjoy similar activities</p> | <p>0 1 2 E. My spouse or partner and I disagree about living arrangements, such as where we live</p> <p>0 1 2 F. I have trouble with my spouse or partner's family</p> <p>0 1 2 G. I like my spouse or partner's friends</p> <p>0 1 2 H. My spouse or partner's behavior annoys me</p> |
|--|--|

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 www.ASEBA.org

Please be sure you have answered all items. Then see other side.

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Please print. Be sure to answer all items.

**III. FAMILY:**

Compared with others, how well do you:

		Worse than Average	Variable or Average	Better than Average	No Contact
A. Get along with your brothers?	<input type="checkbox"/> I have no brothers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Get along with your sisters?	<input type="checkbox"/> I have no sisters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Get along with your mother?	<input type="checkbox"/> Mother is deceased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Get along with your father?	<input type="checkbox"/> Father is deceased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Get along with your biological or adopted children?	<input type="checkbox"/> I have no children				
1. Oldest child	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. 2nd oldest child	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. 3rd oldest child	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Other children	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Get along with your stepchildren?	<input type="checkbox"/> I have no stepchildren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**IV. JOB: At any time in the past 6 months, did you have any paid jobs (including self-employment and military service)?**

No—please skip to Section V.

Yes—please describe your job(s): \_\_\_\_\_

Circle 0, 1, or 2 beside items A-I to describe your work experience *during the past 6 months*:

0 = Not True      1 = Somewhat or Sometimes True      2 = Very True or Often True

0 1 2	A. I work well with others	0 1 2	F. I do things that may cause me to lose my job
0 1 2	B. I have trouble getting along with bosses	0 1 2	G. I stay away from my job even when I'm not sick or not on vacation
0 1 2	C. I do my work well	0 1 2	H. My job is too stressful for me
0 1 2	D. I have trouble finishing my work	0 1 2	I. I worry too much about work
0 1 2	E. I am satisfied with my work situation		

**V. EDUCATION: At any time in the past 6 months, did you attend school, college, or any other educational or training program?**

No—please skip to Section VI.

Yes—what kind of school or program? \_\_\_\_\_

What degree or diploma are you seeking? \_\_\_\_\_ Major? \_\_\_\_\_

When do you expect to receive your degree or diploma? \_\_\_\_\_

Circle 0, 1, or 2 beside items A-E to describe your educational experience *during the past 6 months*:

0 = Not True      1 = Somewhat or Sometimes True      2 = Very True or Often True

0 1 2	A. I get along well with other students	0 1 2	D. I am satisfied with my educational situation
0 1 2	B. I achieve what I am capable of	0 1 2	E. I do things that may cause me to fail
0 1 2	C. I have trouble finishing assignments		

**VI. Do you have any illness, disability, or handicap?**  No  Yes—please describe:

**VII. Please describe your concerns or worries about family, work, education, or other things:**  No concerns

**VIII. Please describe the best things about yourself:**



Please print your answers. Be sure to answer all items.

IX. Below is a list of items that describe people. For each item, please circle 0, 1, or 2 to describe yourself over the past 6 months. Please answer all items as well as you can, even if some do not seem to apply to you.

0 = Not True	1 = Somewhat or Sometimes True	2 = Very True or Often True
0 1 2	1. I am too forgetful	0 1 2 37. I get in many fights
0 1 2	2. I make good use of my opportunities	0 1 2 38. My relations with neighbors are poor
0 1 2	3. I argue a lot	0 1 2 39. I hang around people who get in trouble
0 1 2	4. I work up to my ability	0 1 2 40. I hear sounds or voices that other people think aren't there (describe): _____
0 1 2	5. I blame others for my problems	
0 1 2	6. I use drugs (other than alcohol and nicotine) for nonmedical purposes (describe): _____	0 1 2 41. I am impulsive or act without thinking
		0 1 2 42. I would rather be alone than with others
0 1 2	7. I brag	0 1 2 43. I lie or cheat
0 1 2	8. I have trouble concentrating or paying attention for long	0 1 2 44. I feel overwhelmed by my responsibilities
0 1 2	9. I can't get my mind off certain thoughts (describe): _____	0 1 2 45. I am nervous or tense
		0 1 2 46. Parts of my body twitch or make nervous movements (describe): _____
0 1 2	10. I have trouble sitting still	0 1 2 47. I lack self-confidence
0 1 2	11. I am too dependent on others	0 1 2 48. I am not liked by others
0 1 2	12. I feel lonely	0 1 2 49. I can do certain things better than other people
0 1 2	13. I feel confused or in a fog	0 1 2 50. I am too fearful or anxious
0 1 2	14. I cry a lot	0 1 2 51. I feel dizzy or lightheaded
0 1 2	15. I am pretty honest	0 1 2 52. I feel too guilty
0 1 2	16. I am mean to others	0 1 2 53. I have trouble planning for the future
0 1 2	17. I daydream a lot	0 1 2 54. I feel tired without good reason
0 1 2	18. I deliberately try to hurt or kill myself	0 1 2 55. My moods swing between elation and depression
0 1 2	19. I try to get a lot of attention	56. Physical problems <b>without known medical cause:</b>
0 1 2	20. I damage or destroy my things	0 1 2 a. Aches or pains ( <b>not</b> stomach or headaches)
0 1 2	21. I damage or destroy things belonging to others	0 1 2 b. Headaches
0 1 2	22. I worry about my future	0 1 2 c. Nausea, feel sick
0 1 2	23. I break rules at work or elsewhere	0 1 2 d. Problems with eyes ( <b>not</b> if corrected by glasses) (describe): _____
0 1 2	24. I don't eat as well as I should	
0 1 2	25. I don't get along with other people	0 1 2 e. Rashes or other skin problems
0 1 2	26. I don't feel guilty after doing something I shouldn't	0 1 2 f. Stomachaches
0 1 2	27. I am jealous of others	0 1 2 g. Vomiting, throwing up
0 1 2	28. I get along badly with my family	0 1 2 h. Heart pounding or racing
0 1 2	29. I am afraid of certain animals, situations, or places (describe): _____	0 1 2 i. Numbness or tingling in body parts
		0 1 2 57. I physically attack people
0 1 2	30. My relations with the opposite sex are poor	0 1 2 58. I pick my skin or other parts of my body (describe): _____
0 1 2	31. I am afraid I might think or do something bad	
0 1 2	32. I feel that I have to be perfect	0 1 2 59. I fail to finish things I should do
0 1 2	33. I feel that no one loves me	0 1 2 60. There is very little that I enjoy
0 1 2	34. I feel that others are out to get me	0 1 2 61. My work performance is poor
0 1 2	35. I feel worthless or inferior	0 1 2 62. I am poorly coordinated or clumsy
0 1 2	36. I accidentally get hurt a lot, accident-prone	



Please print your answers. Be sure to answer all items.

0 = Not True	1 = Somewhat or Sometimes True	2 = Very True or Often True
0 1 2	63. I would rather be with older people than with people of my own age	0 1 2 93. I talk too much
0 1 2	64. I have trouble setting priorities	0 1 2 94. I tease others a lot
0 1 2	65. I refuse to talk	0 1 2 95. I have a hot temper
0 1 2	66. I repeat certain acts over and over (describe): _____	0 1 2 96. I think about sex too much
	_____	0 1 2 97. I threaten to hurt people
0 1 2	67. I have trouble making or keeping friends	0 1 2 98. I like to help others
0 1 2	68. I scream or yell a lot	0 1 2 99. I dislike staying in one place for very long
0 1 2	69. I am secretive or keep things to myself	0 1 2 100. I have trouble sleeping (describe): _____
0 1 2	70. I see things that other people think aren't there (describe): _____	
	_____	0 1 2 101. I stay away from my job even when I'm not sick or not on vacation
0 1 2	71. I am self-conscious or easily embarrassed	0 1 2 102. I don't have much energy
0 1 2	72. I worry about my family	0 1 2 103. I am unhappy, sad, or depressed
0 1 2	73. I meet my responsibilities to my family	0 1 2 104. I am louder than others
0 1 2	74. I show off or clown	0 1 2 105. People think I am disorganized
0 1 2	75. I am too shy or timid	0 1 2 106. I try to be fair to others
0 1 2	76. My behavior is irresponsible	0 1 2 107. I feel that I can't succeed
0 1 2	77. I sleep more than most other people during day and/or night (describe): _____	0 1 2 108. I tend to lose things
	_____	0 1 2 109. I like to try new things
0 1 2	78. I have trouble making decisions	0 1 2 110. I wish I were of the opposite sex
0 1 2	79. I have a speech problem (describe): _____	0 1 2 111. I keep from getting involved with others
	_____	0 1 2 112. I worry a lot
0 1 2	80. I stand up for my rights	0 1 2 113. I worry about my relations with the opposite sex
0 1 2	81. My behavior is very changeable	0 1 2 114. I fail to pay my debts or meet other financial responsibilities
0 1 2	82. I steal	0 1 2 115. I feel restless or fidgety
0 1 2	83. I am easily bored	0 1 2 116. I get upset too easily
0 1 2	84. I do things that other people think are strange (describe): _____	0 1 2 117. I have trouble managing money or credit cards
	_____	0 1 2 118. I am too impatient
0 1 2	85. I have thoughts that other people would think are strange (describe): _____	0 1 2 119. I am not good at details
	_____	0 1 2 120. I drive too fast
0 1 2	86. I am stubborn, sullen, or irritable	0 1 2 121. I tend to be late for appointments
0 1 2	87. My moods or feelings change suddenly	0 1 2 122. I have trouble keeping a job
0 1 2	88. I enjoy being with people	0 1 2 123. I am a happy person
0 1 2	89. I rush into things without considering the risks	
0 1 2	90. I drink too much alcohol or get drunk	124. <i>In the past 6 months</i> , about how many times per day did you use tobacco (including smokeless tobacco)? _____ times per day.
0 1 2	91. I think about killing myself	125. <i>In the past 6 months</i> , on how many days were you drunk? _____ days.
0 1 2	92. I do things that may cause me trouble with the law (describe): _____	126. <i>In the past 6 months</i> , on how many days did you use drugs for nonmedical purposes (including marijuana, cocaine, and other drugs, except alcohol and nicotine)? _____ days.
	_____	

**APPENDIX J:  
PARENTING SENSE OF COMPETENCE SCALE**

Please rate the extent to which you agree or disagree with each of the following statements.

	Strongly Disagree	Somewhat Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree
	1	2	3	4	5	6
1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	1	2	3	4	5	6
2. Even though being a parent could be rewarding, I am frustrated now while my child is at his / her present age.	1	2	3	4	5	6
3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.	1	2	3	4	5	6
4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	1	2	3	4	5	6
5. My mother was better prepared to be a good mother than I am.	1	2	3	4	5	6
6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent.	1	2	3	4	5	6
7. Being a parent is manageable, and any problems are easily solved.	1	2	3	4	5	6
8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.	1	2	3	4	5	6
9. Sometimes I feel like I'm not getting anything done.	1	2	3	4	5	6
10. I meet by own personal expectations for expertise in caring for my child.	1	2	3	4	5	6
11. If anyone can find the answer to what is troubling my child, I am the one.	1	2	3	4	5	6
12. My talents and interests are in other areas, not being a parent.	1	2	3	4	5	6
13. Considering how long I've been a mother, I feel thoroughly familiar with this role.	1	2	3	4	5	6
14. If being a mother of a child were only more interesting, I would be motivated to do a better job as a parent.	1	2	3	4	5	6

15. I honestly believe I have all the skills necessary to be a good mother to my child. 1 2 3 4 5 6
16. Being a parent makes me tense and anxious. 1 2 3 4 5 6
17. Being a good mother is a reward in itself. 1 2 3 4 5 6



**APPENDIX K:  
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 A if the statement is usually false of your child, write a B if the statement is more false than true of your child, write a C if the statement is more true than false of your child, or write a D if the statement is usually true of your child.**

**On the second line to the right of each statement write a 0, 1, or 2. Write a 0 if it is a behavior that not important to you at all, write a 1 if it is a behavior that is somewhat important to you, and write a 2 if it is a behavior that is very important to you.**

A = usually FALSE

B = more FALSE than true

C = more TRUE than false

D = usually TRUE

0 = NOT important

1 = SOMETIMES important

2 = VERY important

- 
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.
  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.
20. \_\_Things going on around my child can not take him/her away 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.
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:  
CHILD BEHAVIOR CHECKLIST**

Please print. Be sure to answer all items.

## CHILD BEHAVIOR CHECKLIST FOR AGES 1½ - 5

For office use only  
ID # \_\_\_\_\_

CHILD'S FULL NAME	First _____	Middle _____	Last _____
CHILD'S GENDER <input type="checkbox"/> Boy <input type="checkbox"/> Girl	CHILD'S AGE _____	CHILD'S ETHNIC GROUP OR RACE _____	
TODAY'S DATE Mo. _____ Date _____ Yr. _____		CHILD'S BIRTHDATE Mo. _____ Date _____ Yr. _____	

PARENTS' USUAL TYPE OF WORK, even if not working now. Please be specific—for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.

FATHER'S TYPE OF WORK: \_\_\_\_\_

MOTHER'S TYPE OF WORK: \_\_\_\_\_

THIS FORM FILLED OUT BY: (print your full name)

\_\_\_\_\_

Please fill out this form to reflect *your* view of the child's behavior even if other people might not agree. Feel free to write additional comments beside each item and in the space provided on page 2. **Be sure to answer all items.**

Your relationship to child:

Mother  Father  Other (specify): \_\_\_\_\_

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

**0 = Not True (as far as you know)      1 = Somewhat or Sometimes True      2 = Very True or Often True**

- |  |   |
|--|---|
| <p>0 1 2    1. Aches or pains (without medical cause; <i>do not</i> include stomach or headaches)</p> <p>0 1 2    2. Acts too young for age</p> <p>0 1 2    3. Afraid to try new things</p> <p>0 1 2    4. Avoids looking others in the eye</p> <p>0 1 2    5. Can't concentrate, can't pay attention for long</p> <p>0 1 2    6. Can't sit still, restless, or hyperactive</p> <p>0 1 2    7. Can't stand having things out of place</p> <p>0 1 2    8. Can't stand waiting; wants everything now</p> <p>0 1 2    9. Chews on things that aren't edible</p> <p>0 1 2    10. Clings to adults or too dependent</p> <p>0 1 2    11. Constantly seeks help</p> <p>0 1 2    12. Constipated, doesn't move bowels (when not sick)</p> <p>0 1 2    13. Cries a lot</p> <p>0 1 2    14. Cruel to animals</p> <p>0 1 2    15. Defiant</p> <p>0 1 2    16. Demands must be met immediately</p> <p>0 1 2    17. Destroys his/her own things</p> <p>0 1 2    18. Destroys things belonging to his/her family or other children</p> <p>0 1 2    19. Diarrhea or loose bowels (when not sick)</p> <p>0 1 2    20. Disobedient</p> <p>0 1 2    21. Disturbed by any change in routine</p> <p>0 1 2    22. Doesn't want to sleep alone</p> <p>0 1 2    23. Doesn't answer when people talk to him/her</p> <p>0 1 2    24. Doesn't eat well (describe): _____</p> <p>0 1 2    25. Doesn't get along with other children</p> <p>0 1 2    26. Doesn't know how to have fun; acts like a little adult</p> <p>0 1 2    27. Doesn't seem to feel guilty after misbehaving</p> <p>0 1 2    28. Doesn't want to go out of home</p> <p>0 1 2    29. Easily frustrated</p> | <p>0 1 2    30. Easily jealous</p> <p>0 1 2    31. Eats or drinks things that are not food—<i>don't</i> include sweets (describe): _____</p> <p>0 1 2    32. Fears certain animals, situations, or places (describe): _____</p> <p>0 1 2    33. Feelings are easily hurt</p> <p>0 1 2    34. Gets hurt a lot, accident-prone</p> <p>0 1 2    35. Gets in many fights</p> <p>0 1 2    36. Gets into everything</p> <p>0 1 2    37. Gets too upset when separated from parents</p> <p>0 1 2    38. Has trouble getting to sleep</p> <p>0 1 2    39. Headaches (without medical cause)</p> <p>0 1 2    40. Hits others</p> <p>0 1 2    41. Holds his/her breath</p> <p>0 1 2    42. Hurts animals or people without meaning to</p> <p>0 1 2    43. Looks unhappy without good reason</p> <p>0 1 2    44. Angry moods</p> <p>0 1 2    45. Nausea, feels sick (without medical cause)</p> <p>0 1 2    46. Nervous movements or twitching (describe): _____</p> <p>0 1 2    47. Nervous, highstrung, or tense</p> <p>0 1 2    48. Nightmares</p> <p>0 1 2    49. Overeating</p> <p>0 1 2    50. Overtired</p> <p>0 1 2    51. Shows panic for no good reason</p> <p>0 1 2    52. Painful bowel movements (without medical cause)</p> <p>0 1 2    53. Physically attacks people</p> <p>0 1 2    54. Picks nose, skin, or other parts of body (describe): _____</p> |
|--|---|

**Be sure you have answered all items. Then see other side.**

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**7-28-00 Edition**



Please print your answers. Be sure to answer all items.

0 = Not True (as far as you know)			1 = Somewhat or Sometimes True			2 = Very True or Often True			
0	1	2	55.	Plays with own sex parts too much	0	1	2	79.	Rapid shifts between sadness and excitement
0	1	2	56.	Poorly coordinated or clumsy	0	1	2	80.	Strange behavior (describe): _____
0	1	2	57.	Problems with eyes (without medical cause) (describe): _____	0	1	2	81.	Stubborn, sullen, or irritable
0	1	2	58.	Punishment doesn't change his/her behavior	0	1	2	82.	Sudden changes in mood or feelings
0	1	2	59.	Quickly shifts from one activity to another	0	1	2	83.	Sulks a lot
0	1	2	60.	Rashes or other skin problems (without medical cause)	0	1	2	84.	Talks or cries out in sleep
0	1	2	61.	Refuses to eat	0	1	2	85.	Temper tantrums or hot temper
0	1	2	62.	Refuses to play active games	0	1	2	86.	Too concerned with neatness or cleanliness
0	1	2	63.	Repeatedly rocks head or body	0	1	2	87.	Too fearful or anxious
0	1	2	64.	Resists going to bed at night	0	1	2	88.	Uncooperative
0	1	2	65.	Resists toilet training (describe): _____	0	1	2	89.	Underactive, slow moving, or lacks energy
0	1	2	66.	Screams a lot	0	1	2	90.	Unhappy, sad, or depressed
0	1	2	67.	Seems unresponsive to affection	0	1	2	91.	Unusually loud
0	1	2	68.	Self-conscious or easily embarrassed	0	1	2	92.	Upset by new people or situations (describe): _____
0	1	2	69.	Selfish or won't share	0	1	2	93.	Vomiting, throwing up (without medical cause)
0	1	2	70.	Shows little affection toward people	0	1	2	94.	Wakes up often at night
0	1	2	71.	Shows little interest in things around him/her	0	1	2	95.	Wanders away
0	1	2	72.	Shows too little fear of getting hurt	0	1	2	96.	Wants a lot of attention
0	1	2	73.	Too shy or timid	0	1	2	97.	Whining
0	1	2	74.	Sleeps less than most children during day and/or night (describe): _____	0	1	2	98.	Withdrawn, doesn't get involved with others
0	1	2	75.	Smears or plays with bowel movements	0	1	2	99.	Worries
0	1	2	76.	Speech problem (describe): _____	0	1	2	100.	Please write in any problems the child has that were not listed above.
0	1	2	77.	Stares into space or seems preoccupied	0	1	2		_____
0	1	2	78.	Stomachaches or cramps (without medical cause)	0	1	2		_____

Please be sure you have answered all items.  
Underline any you are concerned about.

Does the child have any illness or disability (either physical or mental)?  No  Yes—Please describe:

What concerns you most about the child?

Please describe the best things about the child:

**APPENDIX M:  
ADAPTIVE BEHAVIOR ASSESSMENT SYSTEM**



Rate the child according to how often he or she **correctly** performs a behavior, when the behavior needs to be displayed. The rating you choose should reflect the frequency with which the child performs the behavior **when it is needed**. The child should be able to perform the activity or behavior without help unless otherwise indicated in the item. Record your response for each item by circling one of the following:

0 = Is Not Able

1 = Never or Almost Never When Needed

2 = Sometimes When Needed

3 = Always or Almost Always When Needed

The following table is provided to further assist you in filling out this form.

Rating	The child:
<b>0</b> Is Not Able	<ul style="list-style-type: none"> <li>cannot perform the behavior;</li> <li>is too young to have tried the behavior; or</li> <li>has a physical condition that prevents the behavior.</li> </ul>
<b>1</b> Never or Almost Never When Needed	<p>has the ability to perform the behavior, but</p> <ul style="list-style-type: none"> <li>never or almost never does it when needed; or</li> <li>never or almost never does it on his/her own without being reminded.</li> </ul>
<b>2</b> Sometimes When Needed	<p>has the ability to perform the behavior, and</p> <ul style="list-style-type: none"> <li>only does it sometimes when needed;</li> <li>sometimes does it without help, but sometimes needs help; or</li> <li>sometimes does it on his/her own, but sometimes needs to be reminded.</li> </ul>
<b>3</b> Always or Almost Always When Needed	<p>has the ability to perform the behavior, and</p> <ul style="list-style-type: none"> <li>displays the behavior most or all of the time without being reminded; or</li> <li>displayed the behavior at a younger age, but has now outgrown it.</li> </ul>
Column Check If You Guessed	Check this column if:
	<ul style="list-style-type: none"> <li>your rating was an estimate.</li> <li>you have never seen the child in a situation in which the behavior is needed.</li> <li>the child has not had the opportunity to perform the behavior.</li> </ul>
Comments	<ul style="list-style-type: none"> <li>you do not understand an item.*</li> <li>you feel it would be helpful to discuss an item with the assessment professional.*</li> </ul>
* You may make a brief note of your concerns in the Notes box on page 10 of this Rating Form.	

### Communication

	BEHAVIOR FREQUENCY				Check If You Guessed	Comments
	Is Not Able	Never When Needed	Sometimes When Needed	Always When Needed		
1. Looks at others' faces when they are talking.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
2. Laughs when a parent or other person laughs.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
3. Raises and lowers voice to express different feelings or needs.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
4. Cries or fusses when upset.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
5. Raises voice to get attention.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
6. Says the names of other people, for example, "Mama," "Daddy," or friends' names.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
7. Shakes head or says "yes" or "no" in response to a simple question, for example, "Do you want something to drink?"	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
8. Points to common items in a room when asked, for example, "Show me the TV."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
9. Listens closely for at least one minute when people talk.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
10. Repeats words others say, for example, says "baby" when an adult says "baby."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
11. Says the name of an object clearly enough so that others recognize it, for example, "ball," "dog," "cup."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
12. Follows simple commands, for example, "No" or "Come here."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
13. Follows simple directions that include <i>over</i> or <i>under</i> , for example, "Put your hands over your head."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
14. Sings all or part of the words to songs.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
15. Makes plurals of words by adding an -s, for example, <i>shoes</i> , <i>socks</i> , and <i>dogs</i> .	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>

continued

	Is Not Able	BEHAVIOR FREQUENCY			Check if You Guessed	Comments
		Never When Needed	Sometimes When Needed	Always When Needed		
<b>Communication</b> <i>continued</i>						
16. Names 20 or more familiar objects.	0	1	2	3	<input type="checkbox"/>	
17. Uses sentences with a noun and a verb.	0	1	2	3	<input type="checkbox"/>	
18. Speaks in sentences of six or more words.	0	1	2	3	<input type="checkbox"/>	
19. Tells parent, friends, or others about his/her favorite activities.	0	1	2	3	<input type="checkbox"/>	
20. Asks questions such as "Will you play with me?"	0	1	2	3	<input type="checkbox"/>	
21. Uses past tense to talk about prior events, for example, "I stayed inside."	0	1	2	3	<input type="checkbox"/>	
22. Discusses a topic for more than three minutes.	0	1	2	3	<input type="checkbox"/>	
23. Ends conversations appropriately.	0	1	2	3	<input type="checkbox"/>	
24. Refrains from interrupting others when they are talking.	0	1	2	3	<input type="checkbox"/>	
25. States his/her own telephone number.	0	1	2	3	<input type="checkbox"/>	
<b>Total</b>				<b>75</b>	<b>Total Guessed</b>	

**Community Use**

*Do not complete the Community Use skill area if the child being rated is younger than 1 year old.*

1. Recognizes own home in his/her immediate neighborhood.	0	1	2	3	<input type="checkbox"/>	
2. Walks on sidewalk rather than street.	0	1	2	3	<input type="checkbox"/>	
3. Informs parents when someone comes to the door.	0	1	2	3	<input type="checkbox"/>	
4. Shows respect for public property, for example, throws trash in cans, does not damage property.	0	1	2	3	<input type="checkbox"/>	
5. Knocks on a door or rings the doorbell before entering another person's home.	0	1	2	3	<input type="checkbox"/>	
6. Refrains from talking loudly in a public place, for example, in a theater, movie, or church.	0	1	2	3	<input type="checkbox"/>	
7. Remains seated during a religious service or a movie.	0	1	2	3	<input type="checkbox"/>	
8. Refrains from touching items in a store.	0	1	2	3	<input type="checkbox"/>	
9. Asks to go to a park or other favorite community place.	0	1	2	3	<input type="checkbox"/>	
10. Asks to eat in a favorite restaurant.	0	1	2	3	<input type="checkbox"/>	
11. Says what items are purchased at various stores, for example, food at grocery stores.	0	1	2	3	<input type="checkbox"/>	
12. Recognizes and names buildings, for example, hospital, gas station, or fire department.	0	1	2	3	<input type="checkbox"/>	
13. Recognizes the need to pay for an item before leaving a store.	0	1	2	3	<input type="checkbox"/>	
14. Identifies neighborhood locations where his/her family obtains needed items, for example, where to buy food.	0	1	2	3	<input type="checkbox"/>	
15. Describes the duties of workers, for example, says that firefighters put out fires and doctors help the sick.	0	1	2	3	<input type="checkbox"/>	
16. Looks both ways before crossing a street or parking lot.	0	1	2	3	<input type="checkbox"/>	
17. Asks to go to the library.	0	1	2	3	<input type="checkbox"/>	
18. Finds the restroom in public places.	0	1	2	3	<input type="checkbox"/>	
19. Orders his/her own meals when eating out.	0	1	2	3	<input type="checkbox"/>	
20. Makes a small purchase at a food store.	0	1	2	3	<input type="checkbox"/>	
21. Walks alone to friends' houses in the neighborhood.	0	1	2	3	<input type="checkbox"/>	
22. Carries enough money to make small purchases, for example, a soft drink.	0	1	2	3	<input type="checkbox"/>	
<b>Total</b>				<b>66</b>	<b>Total Guessed</b>	

### Functional Pre-Academics

Is Not Able	BEHAVIOR FREQUENCY			Check If You Guessed	Comments
	Never When Needed	Sometimes When Needed	Always When Needed		

Do not complete the Functional Pre-Academics skill area if the child being rated is younger than 1 year old.

1. Points to pictures in books when asked, for example, points to a horse or cow.	0	1	2	3	<input type="checkbox"/>	
2. Holds crayon or pencil with point down when using paper.	0	1	2	3	<input type="checkbox"/>	
3. States his/her age in years when asked.	0	1	2	3	<input type="checkbox"/>	
4. Counts three or more objects.	0	1	2	3	<input type="checkbox"/>	
5. Attempts to imitate simple drawings, for example, copying a line or circle.	0	1	2	3	<input type="checkbox"/>	
6. Sings the alphabet song.	0	1	2	3	<input type="checkbox"/>	
7. Names six or more colors including red, blue, and yellow.	0	1	2	3	<input type="checkbox"/>	
8. Recites nursery rhymes from memory.	0	1	2	3	<input type="checkbox"/>	
9. Identifies at least two numbers from a group of numbers.	0	1	2	3	<input type="checkbox"/>	
10. Names four or more shapes such as circle, square, rectangle, triangle.	0	1	2	3	<input type="checkbox"/>	
11. Reads own name when printed.	0	1	2	3	<input type="checkbox"/>	
12. Counts 10 or more objects without using fingers.	0	1	2	3	<input type="checkbox"/>	
13. Draws a recognizable face that includes two eyes, a nose, mouth, and hair.	0	1	2	3	<input type="checkbox"/>	
14. Names at least two letters when shown own name.	0	1	2	3	<input type="checkbox"/>	
15. Names most letters when shown the alphabet.	0	1	2	3	<input type="checkbox"/>	
16. Counts from 1 to 20.	0	1	2	3	<input type="checkbox"/>	
17. Prints at least two letters in own name.	0	1	2	3	<input type="checkbox"/>	
18. Reads and obeys common signs, for example, <i>Do Not Enter</i> , <i>Exit</i> , or <i>Stop</i> .	0	1	2	3	<input type="checkbox"/>	
19. States the days of the week in order.	0	1	2	3	<input type="checkbox"/>	
20. Writes numbers 1 to 10.	0	1	2	3	<input type="checkbox"/>	
21. Tells what day comes before another, for example, "Wednesday comes before Thursday."	0	1	2	3	<input type="checkbox"/>	
22. Writes his/her first and last names.	0	1	2	3	<input type="checkbox"/>	
23. States time and day of favorite television shows.	0	1	2	3	<input type="checkbox"/>	
Total				69	Total Guessed	

### Home Living

Do not complete the Home Living skill area if the child being rated is younger than 1 year old.

1. Removes cookies, chips, or other food from a box or bag.	0	1	2	3	<input type="checkbox"/>	
2. Turns television on and off.	0	1	2	3	<input type="checkbox"/>	
3. Shows concern when he/she spills something, for example, says "Oh no" or tells an adult.	0	1	2	3	<input type="checkbox"/>	
4. Points to the place where his/her clothes are stored.	0	1	2	3	<input type="checkbox"/>	
5. Uses wall switch to turn lights on and off, even if a chair or stool is needed.	0	1	2	3	<input type="checkbox"/>	
6. Assists other people with putting away toys, games, and other items.	0	1	2	3	<input type="checkbox"/>	
7. Picks up and throws away trash or paper at home.	0	1	2	3	<input type="checkbox"/>	
8. Does simple errand when asked, for example, runs to get a towel for a spill.	0	1	2	3	<input type="checkbox"/>	
9. Attempts to wipe up spills, even if an adult must help.	0	1	2	3	<input type="checkbox"/>	
10. Refrains from kicking or hitting furniture.	0	1	2	3	<input type="checkbox"/>	
11. Gets own snacks from cabinet or pantry.	0	1	2	3	<input type="checkbox"/>	

ABAS-II PARENT/PRIMARY CAREGIVER (Ages 0-5)

	BEHAVIOR FREQUENCY				Check If You Guessed	Comments
	Is Not Able	Never When Needed	Sometimes When Needed	Always When Needed		
12. Offers to help a parent or other adult with tasks.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
13. Refrains from throwing food or paper on the floor.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
14. Assists adults with preparing simple snacks or meals, for example, hands slices of bread to adult for making sandwiches.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
15. Places dirty clothes in the proper place, for example, a hamper or clothesbasket.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
16. Wipes up spills at home.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
17. Puts own dirty glass or plate in sink or dishwasher.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
18. Takes own clothes from drawers or closet when getting dressed.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
19. Keeps dirty shoes and feet off furniture.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
20. Puts things in their proper places when finished using them.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
21. Keeps toys, games, and other belongings neat and clean.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
22. Wipes wet or dirty shoes before entering a house or a building.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
23. Disposes of own leftover food.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
24. Makes his/her own bed.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
25. Folds clean clothes.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
<b>Total</b>				<b>75</b>	<b>Total Guessed</b>	

Health and Safety

1. Cries or whimpers when he/she does not feel well or is injured.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
2. Swallows liquid medicines if needed for illness.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
3. Avoids bumping into walls or objects when crawling or walking.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
4. Shows, points to, or tells another person about a cut, bruise, or other minor injury.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
5. Follows an adult's directions to "Stop" when in danger, for example, near a hot stove.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
6. Points to the body part that hurts when sick or injured.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
7. Avoids getting too near a fire or hot stove.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
8. Allows temperature to be taken without fussing.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
9. Remains fairly still when an adult treats a cut or scrape.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
10. Tests hot foods before eating them.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
11. Avoids touching or playing with dangerous items, for example, insect spray or sharp knives.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
12. Tells an adult if he/she has a stomach ache or other illness.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
13. Refrains from putting toys in mouth.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
14. Avoids crawling or climbing on high or dangerous places.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
15. Stays within sight of parents or other familiar adults in a public place without wandering off.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
16. Puts on a coat or sweater when cold.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
17. Carries breakable objects safely and carefully.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
18. Asks an adult before going near something that could be dangerous, for example, animals or playground equipment.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
19. Buckles his/her seatbelt in a car.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
20. Carries scissors safely.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>

continued

**Health and Safety** *continued*

	Is Not Able	BEHAVIOR FREQUENCY			Check if You Guessed	Comments
		Never When Needed	Sometimes When Needed	Always When Needed		
21. Follows safety rules for fire or weather alarms at home.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
22. Carries hot containers safely and carefully.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
23. Uses electrical outlets or sockets safely.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
24. Cares for his/her minor injuries, for example, paper cuts, knee scrapes, or nosebleeds.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
<b>Total</b>				<b>72</b>	<b>Total Guessed</b>	

**Leisure**

1. Plays with a single toy or game for at least one minute.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
2. Plays alone with toys, games, or other fun activities.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
3. Looks at pictures in books or magazines with an adult.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
4. Watches for a few minutes as people play with toys or games.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
5. Plays simple games like "peek-a-boo" or rolls a ball to others.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
6. Chooses a game or toy during playtime.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
7. Plays with a single toy or game for more than five minutes.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
8. Plays on playground equipment with an adult.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
9. Plays with toys, games, or other fun items with other people.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
10. Plays with other children when asked.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
11. Plays on playground equipment.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
12. Asks to be read to from a favorite book.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
13. Attends fun activities at another's home.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
14. Plays simple games with playmates without adult supervision.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
15. Invites others to join him/her in playing games and other fun activities.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
16. Participates in a specific fun activity on a routine basis, for example, listening to a certain type of music or playing a favorite computer game.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
17. Waits for his/her own turn in games and other fun activities.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
18. Saves things of interest, for example, rocks, feathers, pictures.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
19. Invites others home for a fun activity.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
20. Plays simple board games.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
21. Follows the rules in games.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
22. Participates in an organized program for a sport or hobby, for example, takes a music class or practices basketball.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
<b>Total</b>				<b>66</b>	<b>Total Guessed</b>	

**Self-Care**

1. Swallows liquids with no difficulty.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
2. Nurses, drinks, or eats willingly, with little encouragement.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
3. Swallows soft, strained, or mashed food such as baby food or applesauce.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
4. Sleeps through most of the night, waking no more than one or two times.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
5. Opens mouth when offered food on a spoon.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
6. Feeds himself/herself crackers, cookies, dry cereal, or other finger foods.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
7. Drinks from a cup or glass, even if another person must hold it.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>



**ABAS-II PARENT/PRIMARY CAREGIVER (Ages 0–5)**

Self-Care <i>continued</i>	BEHAVIOR FREQUENCY				Check If You Guessed	Comments
	Is Not Able	Never When Needed	Sometimes When Needed	Always When Needed		
8. Holds and drinks from a sipping cup.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
9. Lifts arms as needed when another person is dressing or undressing him/her.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
10. Points to or asks for food when hungry.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
11. Takes shoes off.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
12. Sleeps through the entire night without waking.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
13. Washes hands with soap.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
14. Sits on the toilet or potty seat without being held.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
15. Wipes own face when given a cloth by an adult.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
16. Goes to bed with few or no complaints.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
17. Tells parent or other adult when he/she needs to use the bathroom.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
18. Brushes own teeth with little fussing when told by an adult.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
19. Uses bathroom without help.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
20. Dresses himself/herself.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
21. Buttons his/her own clothing.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
22. Takes a bath or shower without help.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
23. Washes his/her own hair.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
24. Cuts meats or other foods into bite-size pieces.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
<b>Total</b>				<b>72</b>	<b>Total Guessed</b>	

**Self-Direction**

1. Shows interest in a toy or other object by looking at it for a few seconds.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
2. Stops fussing or crying when picked up or spoken to.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
3. Entertains self in crib or bed for at least one minute after waking.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
4. Sits quietly for at least one minute without demanding attention.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
5. Finds something to do for at least five minutes without demanding attention.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
6. Shows interest in a toy or other object by pointing to it.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
7. Moves a few feet away from a parent in a new situation as long as the parent is in sight, for example, when visiting in an unfamiliar house.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
8. Chooses the food or snack he/she wishes to eat when given a choice.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
9. Explores an unfamiliar room or other new situation, even if parent must encourage it, for example, a waiting room.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
10. Obeys an adult's request to "quiet down" or "behave."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
11. Tries to do most things without an adult's help, for example, dressing or feeding self.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
12. Follows simple household rules such as, "No running in the house."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
13. Resists pushing or hitting another child when angry or upset.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
14. Starts an activity almost immediately when told to do so, for example, taking a bath.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
15. Keeps working on hard tasks without becoming discouraged or quitting.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
16. Asks permission from adult when needed, for example, "May I play outside?"	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
17. Works independently and asks for help only when necessary.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>

*continued*

**Supplemental Analysis**

**Self-Direction** *continued*

	Is Not Able	BEHAVIOR FREQUENCY			Check If You Guessed	Comments
		Never When Needed	Sometimes When Needed	Always When Needed		
18. Controls temper when a parent or other adult takes a toy or object away.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
19. Works on one home or school activity for at least 15 minutes.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
20. Stops a fun activity, without complaints, when told that time is up.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
21. Controls temper when disagreeing with friends.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
22. Follows a routine without being reminded, for example, brushing teeth before bedtime or regularly feeding a pet.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
23. Asks permission before playing with another child's toy or game.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
24. Chooses own clothes almost every day.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
25. Discusses ways to solve conflicts with others, for example, "You can have this now if I can have it later."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
<b>Total</b>				<b>75</b>	<b>Total Guessed</b>	

**Social**

1. Smiles when he/she sees parent.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
2. Squeals or laughs when happy or delighted.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
3. Relaxes body when held, for example, snuggles.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
4. Lifts arms to express a desire to be picked up.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
5. Shows a sense of humor, for example, laughs when someone acts silly.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
6. Displays a special closeness or relationship to parent, for example, acts happy when parent returns.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
7. Responds differently to familiar and unfamiliar persons, for example, is less warm to an unfamiliar person.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
8. Hugs and kisses parents or others.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
9. Runs to greet special family members and friends.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
10. Imitates actions of adults, for example, pretends to clean house or drive a car.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
11. Shares toys willingly with others.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
12. Greets other children, for example, says "Hi."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
13. Says "Thank you" when given a gift.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
14. Shows sympathy for others when they are sad or upset.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
15. Seeks friendship with others in his/her age group.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
16. Responds appropriately when introduced to others, for example, says "Hello."	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
17. Moves out of another person's way without being asked.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
18. Offers assistance to others, for example, offers to carry packages or put away food.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
19. Says when he/she feels happy, sad, scared, or angry.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
20. States when others seem happy, sad, scared, or angry.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
21. Apologizes if he/she hurts the feelings of others.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
22. Places reasonable demands on friends, for example, does not become upset when a friend plays with another friend.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
23. Refrains from saying something that might embarrass or hurt others.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
24. Personally makes or buys gifts for family members on major holidays.	0	1	2	3	<input type="checkbox"/>	<input type="radio"/>
<b>Total</b>				<b>72</b>	<b>Total Guessed</b>	



**ABAS-II PARENT/PRIMARY CAREGIVER (Ages 0-5)**

Motor	BEHAVIOR FREQUENCY				Check If You Guessed	Comments
	Is Not Able	Never When Needed	Sometimes When Needed	Always When Needed		
1. Follows a moving object by turning head.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
2. Lifts head to look around.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
3. Rolls from stomach to side.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
4. Shakes rattle or other toys.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
5. Reaches for objects such as a bottle or toy.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
6. Moves to a sitting position, even if balance is unsteady.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
7. Sits balanced for 30 seconds or more without support.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
8. Pulls self to a standing position, for example, in a crib.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
9. Picks up small flat objects from a table, for example, coins or buttons.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
10. Stands up from a sitting position.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
11. Crawls for about 10 feet without falling over.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
12. Rolls ball to others.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
13. Walks without help.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
14. Stands on tiptoe to reach objects.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
15. Throws small ball overhanded.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
16. Runs for several yards, even if the steps are unsteady.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
17. Kicks ball without falling.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
18. Runs without falling.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
19. Walks up and down stairs with no help from others (may use handrail).	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
20. Blows out candles, for example, on birthday cake.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
21. Bounces ball for several seconds.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
22. Catches ball tossed from 5 to 10 feet away.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
23. Draws straight lines across a piece of paper.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
24. Uses scissors to cut paper without assistance, even if must be supervised.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
25. Colors within the lines of a drawing or in a coloring book.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
26. Uses scissors to cut along a straight line.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
27. Uses scissors to cut shapes with curved lines.	0	1	2	3	<input type="checkbox"/>	<input type="checkbox"/>
<b>Total</b>				<b>81</b>	<b>Total Guessed</b>	

**Notes**

**APPENDIX N:  
MEDIATION MODEL**

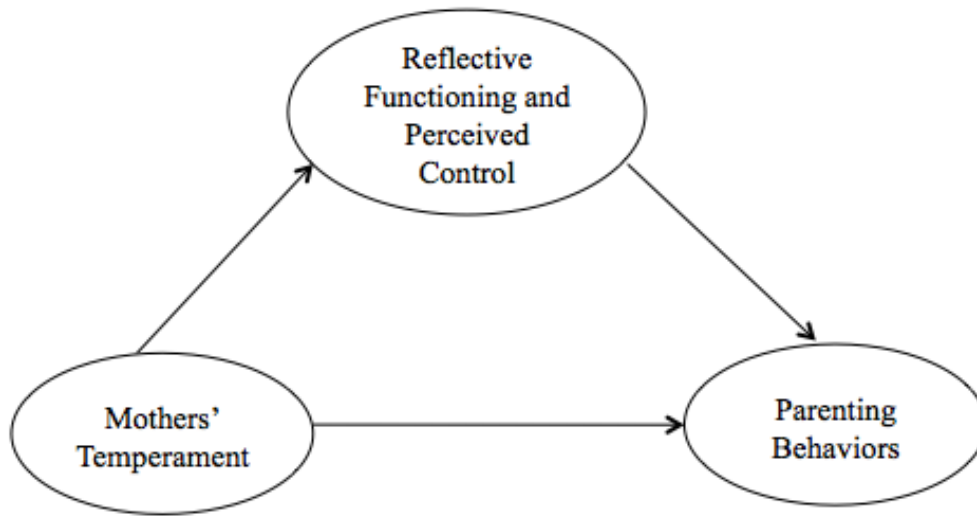


Figure 1: **Mediation Model**

**APPENDIX O:  
TABLES**

Table 1. Descriptive Statistics of Variables of Interest for Total and Trauma Samples

Variables (Available Range)	Total <i>M</i> ( <i>SD</i> )	Trauma <i>M</i> ( <i>SD</i> )	Actual Range Total	Actual Range Trauma
<i>Mothers' Adverse Childhood Experiences</i>				
Total Adverse Childhood Experiences (0-10)	2.34 (2.49)	5.59 (1.73)	0-10	4-10
<i>Mothers' Childhood Trauma</i>				
Total Childhood Trauma (28-140)	44.96 (20.97)	69.02 (19.57)	28-119	33-119
<i>Mothers' Trauma Symptoms</i>				
Total Trauma Symptoms (0-99)	15.86 (14.28)	24.72 (15.85)	0-61	0-61
<i>Mothers' Temperament</i>				
General Activity Level (7-28)	16.84 (4.61)	18.10 (5.30)	7-27	7-27
Approach-Withdrawal (7-28)	18.68 (3.59)	18.06 (3.83)	9-28	9-27
Flexibility-Rigidity (5-20)	13.37 (3.45)	13.17 (3.54)	5-20	6-20
Mood Quality (7-28)	23.77 (4.09)	23.08 (4.55)	8-28	13-28
Rhythmicity in Daily Habits (5-20)	12.76 (2.93)	12.42 (3.26)	5-20	5-20
<i>Mothers' Reflective Functioning</i>				
Total Reflective Functioning (1-7)	4.80 (.37)	4.80 (.36)	4-6	4-6
<i>Mothers' Attributions</i>				
Total Perceived Control Over Failure	.51 (.82)	.59 (.90)	-2.17-3.50	-1.50-3.50
<i>Mothers' Parenting Behaviors</i>				
Positive Parenting (12-60)	53.19 (6.44)	53.29 (6.37)	31-60	32-60
Negative/Inconsistent Parenting (7-35)	14.00 (5.06)	13.82 (5.18)	7-35	7-35
Punitive Parenting (5-25)	8.13 (2.70)	8.70 (2.90)	5-20	5-16
<i>Mothers' Satisfaction with their Parenting</i>				
Total Satisfaction (7-42)	25.24 (8.01)	25.24 (8.09)	9-41	9-41
<i>Mothers' Behavior Problems</i>				
Internalizing Behavior Problems ( $\leq 50$ -100)	52.86 (14.58)	60.63 (13.97)	30-90	30-89
Externalizing Behavior Problems ( $\leq 50$ -100)	48.59 (12.19)	53.79 (11.24)	30-88	34-87
<i>Young Children's Temperament</i>				
General Activity Level (7-28)	20.81 (4.74)	20.48 (5.16)	8-28	8-28
Approach-Withdrawal (7-28)	20.87 (3.66)	20.80 (3.65)	9-28	9-27
Flexibility-Rigidity (5-20)	14.01 (3.48)	14.67 (3.55)	5-20	5-20
Mood Quality (7-28)	26.28 (3.09)	26.80 (2.59)	15-28	15-28
Rhythmicity in Daily Habits (5-20)	15.48 (2.59)	15.97 (2.46)	7-20	9-20
<i>Young Children's Behavior Problems</i>				
Internalizing Behavior Problems ( $\leq 50$ -100)	42.43 (10.72)	43.93 (11.02)	29-77	29-75
Externalizing Behavior Problems ( $\leq 50$ -100)	43.62 (10.20)	45.87 (10.49)	28-70	28-69
<i>Young Children's Adaptive Functioning</i>				
General Adaptive Composite (40-160)	100.00 (22.10)	98.50 (19.64)	42-158	62-152
Self-Care Skills (1-19)	6.48 (3.57)	6.03 (2.73)	1-19	1-15

**Table 2. Correlations Among Mothers' Adverse Childhood Experiences, Temperament, Reflective Functioning, Attributions, and Parenting Behaviors for Total and Trauma Samples**

<b>Variables</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
1. Adverse Childhood Experiences	-	.09	-.19	-.07	-.16	.01	-.27*	.13	-.15	-.15	-.25*
2. Mothers' General Activity Level (DOTS Temperament)	<b>.19**</b>	-	.04	-.23	.09	-.20	.08	.03	-.09	.01	.21
3. Mothers' Approach-Withdrawal (DOTS Temperament)	<b>-.15*</b>	<b>.07</b>	-	.61***	.43***	.05	-.07	.42***	.31*	-.13	-.04
4. Mothers' Flexibility-Rigidity (DOTS Temperament)	<b>-.06</b>	<b>-.21**</b>	<b>.55***</b>	-	.29*	.08	-.12	.41***	.19	-.10	-.27*
5. Mothers' Mood Quality (DOTS Temperament)	<b>-.15*</b>	<b>.04</b>	<b>.34***</b>	<b>.26***</b>	-	.32*	.01	.22	.37**	-.18	-.18
6. Mothers' Rhythmicity in Daily Habits (DOTS Temperament)	<b>-.12</b>	<b>-.14*</b>	<b>.06</b>	<b>.00</b>	<b>.21**</b>	-	-.09	.16	.21	-.34**	-.28*
7. Reflective Functioning (PRFQ)	<b>-.01</b>	<b>-.01</b>	<b>-.04</b>	<b>.08</b>	<b>.06</b>	<b>-.06</b>	-	.06	.10	-.11	-.07
8. Attributions (PAT)	<b>.08</b>	<b>-.04</b>	<b>.17*</b>	<b>.16*</b>	<b>.09</b>	<b>.15*</b>	<b>.08</b>	-	.33**	-.12	-.21
9. Positive Parenting Behaviors (APQ-PR)	<b>-.02</b>	<b>.01</b>	<b>.15*</b>	<b>.11</b>	<b>.27***</b>	<b>.06</b>	<b>.02</b>	<b>.28***</b>	-	-.08	-.22
10. Negative/Inconsistent Parenting Behaviors (APQ-PR)	<b>-.04</b>	<b>.11</b>	<b>-.09</b>	<b>-.18**</b>	<b>-.10</b>	<b>-.28***</b>	<b>-.04</b>	<b>-.18**</b>	<b>-.20**</b>	-	.37**
11. Punitive Parenting Behaviors (APQ-PR)	<b>.09</b>	<b>.15*</b>	<b>-.03</b>	<b>-.14*</b>	<b>-.13</b>	<b>-.22**</b>	<b>-.01</b>	<b>-.17*</b>	<b>-.22**</b>	<b>.43***</b>	-

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , Total Sample Bolded Below Diagonal, Trauma Sample Above Diagonal

<b>Variables</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>
1. Adverse Childhood Experiences	.41***	.36***	-.03	-.01	-.01	.12	.13	.11	.13	.17*	.02	-.03
2. Mothers' General Activity Level (DOTS Temperament)	.25***	.32***	-.27***	.20**	-.08	-.30***	-.10	-.04	.24***	.24***	-.06	-.02
3. Mothers' Approach-Withdrawal (DOTS Temperament)	-.28***	-.13*	.18**	-.17*	.21**	.16*	.02	.03	-.18**	-.24***	.07	.12
4. Mothers' Flexibility-Rigidity (DOTS Temperament)	-.28***	-.20**	.36***	-.21**	.23***	.43***	.15*	.05	-.26***	-.31***	.07	.17*
5. Mothers' Mood Quality (DOTS Temperament)	-.43***	-.27**	.29***	.08	.19**	.02	.33***	.16*	-.19**	-.11	.24**	.19**
6. Mothers' Rhythmicity in Daily Habits (DOTS Temperament)	-.38***	-.35***	.28***	-.04	-.12	.01	-.01	.35***	-.14*	-.20**	.14	.12
7. Reflective Functioning (PRFQ)	.10	.07	-.04	.11	.07	.04	.20**	.04	.01	.08	.00	.03
8. Attributions (PAT)	-.07	-.17*	.14	.13	.22***	.16*	.25***	.17*	-.06	.02	.13	.05
9. Positive Parenting Behaviors (APQ-PR)	-.15*	-.18**	.30***	.14*	.20**	.15*	.38***	.18*	-.26***	-.16*	.50**	.32***
10. Negative/Inconsistent Parenting Behaviors (APQ-PR)	.32***	.31**	-.48***	-.03	-.15*	-.20**	-.28***	-.30***	.34***	.32***	-.15	-.12
11. Punitive Parenting Behaviors (APQ-PR)	.25***	.74**	-.41***	.09	-.01	-.05	-.11	-.14*	.28***	.36***	-.16	-.18*

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , Total Sample

<b>Variables</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>
1. Adverse Childhood Experiences	.10	.12	-.03	.04	-.02	.05	.01	.01	.02	-.06	.24	.25
2. Mothers' General Activity Level (DOTS Temperament)	.17	.20	-.23	.19	-.15	-.38**	-.05	.04	.24*	.26*	-.01	.12
3. Mothers' Approach-Withdrawal (DOTS Temperament)	-.40***	-.24	.06	-.09	.10	.15	.14	.30*	-.23	-.29*	.15	.20
4. Mothers' Flexibility-Rigidity (DOTS Temperament)	-.32**	-.32*	.35**	-.17	.28*	.37**	.19	.24	-.32*	-.38**	.15	.20
5. Mothers' Mood Quality (DOTS Temperament)	-.46***	-.37**	.35**	-.07	.01	-.10	.31*	.32**	-.16	-.33**	.28	.22
6. Mothers' Rhythmicity in Daily Habits (DOTS Temperament)	-.47***	-.41***	.45***	-.04	-.22	.10	.13	.29*	-.16	-.31*	.40*	.26*
7. Reflective Functioning (PRFQ)	.15	.11	.18	.10	-.01	-.10	.22	.03	.02	.14	-.45**	-.18
8. Attributions (PAT)	-.08	-.17	.08	.15	.28*	.25	.05	.18	-.11	-.06	.29	.31*
9. Positive Parenting Behaviors (APQ-PR)	-.27*	-.25*	.30*	.06	.10	.19	.39**	.22	-.20	-.26*	.41**	.33**
10. Negative/Inconsistent Parenting Behaviors (APQ-PR)	.24	.27*	-.37**	-.08	-.17	-.14	-.38**	-.44***	.24	.16	-.21	-.14
11. Punitive Parenting Behaviors (APQ-PR)	.20	.42***	-.43***	.10	-.15	-.21	-.24	-.30*	.25**	.42***	-.27	-.11

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , Trauma Sample



<b>Variables</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>
12. Mothers' Internalizing Behavior Problems (ASR)	-	.72***	-.58***	.22	.13	-.27*	-.13	-.30*	.51***	.54***	-.43**	-.38**
13. Mothers' Externalizing Behavior Problems (ASR)	<b>.74***</b>	-	-.55***	.10	.01	-.26*	-.22	-.31*	.61***	.49***	-.30	-.27*
14. Maternal Role Satisfaction (PSOC)	<b>-.54***</b>	<b>-.48***</b>	-	-.18	.08	.31*	<b>.25</b>	.23	-.42***	-.46***	.28	.23
15. Children's General Activity Level (DOTS Temperament)	<b>.14*</b>	<b>.07</b>	<b>-.16*</b>	-	.24	-.12	.20	.00	.20	.53***	-.41**	-.08
16. Children's Approach-Withdrawal (DOTS Temperament)	<b>-.01</b>	<b>.01</b>	<b>.15*</b>	<b>.23***</b>	-	.51***	.38***	.09	-.30***	.03	.21*	-.08
17. Children's Flexibility-Rigidity (DOTS Temperament)	<b>-.17*</b>	<b>-.09</b>	<b>.32***</b>	<b>-.14*</b>	<b>.51***</b>	-	.24***	.16*	-.41***	-.25***	.16	.14
18. Children's Mood Quality (DOTS Temperament)	<b>-.03</b>	<b>-.12</b>	<b>.28***</b>	<b>.26***</b>	<b>.38***</b>	<b>.24***</b>	-	.36***	-.23***	.04	.07	.29*
19. Children's Rhythmicity in Daily Habits (DOTS Temperament)	<b>-.13</b>	<b>-.17*</b>	<b>.21**</b>	<b>.08</b>	<b>.09</b>	<b>.16*</b>	<b>.36***</b>	-	-.36**	-.28*	.35*	.35**
20. Children's Internalizing Behavior Problems (CBCL)	<b>.48***</b>	<b>.51***</b>	<b>-.39**</b>	<b>.11</b>	<b>-.30***</b>	<b>-.41***</b>	<b>-.23***</b>	<b>-.22***</b>	-	.65***	-.32***	-.20
21. Children's Externalizing Behavior Problems (CBCL)	<b>.47***</b>	<b>.52***</b>	<b>-.41***</b>	<b>.44***</b>	<b>.03</b>	<b>-.25***</b>	<b>.04</b>	<b>-.06</b>	<b>.65***</b>	-	-.21*	-.19
22. Children's Overall Adaptive Functioning (ABAS-II)	<b>-.17*</b>	<b>-.16</b>	<b>.25**</b>	<b>-.09</b>	<b>.21*</b>	<b>.16</b>	<b>.07</b>	<b>.21*</b>	<b>-.32***</b>	<b>-.21*</b>	-	.76***
23. Children's Self-Care Skills (ABAS-II)	<b>-.23**</b>	<b>-.17*</b>	<b>.16*</b>	<b>-.07</b>	<b>.11</b>	<b>.12</b>	<b>.05</b>	<b>.18*</b>	<b>-.28***</b>	<b>-.20**</b>	<b>.82***</b>	-

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , Total Sample Bolded Below Diagonal, Trauma Sample Above Diagonal

Table 3. **Mediational Regression Analyses for Total Sample**

<b>Regression/Variables</b>	<b><math>\beta</math></b>	<b><math>t</math></b>	<b><math>p</math></b>
<i>Mediator: Attributions</i>			
Approach-Withdrawal and Positive Parenting Behaviors: $F(1,201)=4.63, p<.04, R^2=.02$			
Approach-Withdrawal	.15	2.15	.04*
Approach-Withdrawal and Attributions: $F(1,204)=5.73, p<.02, R^2=.03$			
Approach-Withdrawal	.17	2.40	.02*
Attributions and Positive Parenting Behaviors: $F(1,202)=17.50, p<.001, R^2=.08$			
Attributions	.28	4.18	.001***
Approach-Withdrawal, Attributions, and Positive Parenting Behaviors: $F(2,194)=9.94, p<.001, R^2=.09$			
Approach-Withdrawal	.12	1.69	.09
Attributions	.26	3.79	.001***

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

Table 4. **Mediational Regression Analyses for Trauma Sample**

<b>Regression/Variables</b>	<b><math>\beta</math></b>	<b><math>t</math></b>	<b><math>p</math></b>
<i>Mediator: Attributions</i>			
Approach-Withdrawal and Positive Parenting Behaviors: $F(1,61)=6.52, p<.02, R^2=.10$			
Approach-Withdrawal	.31	2.60	.02*
Approach-Withdrawal and Attributions: $F(1,58)=12.22, p<.002, R^2=.17$			
Approach-Withdrawal	.42	3.50	.002**
Attributions and Positive Parenting Behaviors: $F(1,60)=7.29, p<.01, R^2=.11$			
Attributions	.33	2.79	.01**
Approach-Withdrawal, Attributions, and Positive Parenting Behaviors: $F(2,57)=5.03, p<.01, R^2=.15$			
Approach-Withdrawal	.18	1.40	.18
Attributions	.27	2.04	.05*

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

**Table 5. Hierarchical Regression Analyses for Young Children’s Temperament (General Activity Level) for Total and Trauma Samples**

	<b>Total Sample</b>			<b>Trauma Sample</b>		
<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>
Block 1. $F(9,140)=2.33, p<.02, R^2=.13$			Block 1. $F(9,36)=.65, p<.80, R^2=.14$			
General Activity Level	.18	.09	.18*	.23	.19	.22
Approach-Withdrawal	-.29	.14	-.22*	.15	.42	.09
Flexibility-Rigidity	.01	.15	.01	-.10	.38	-.06
Mood Quality	.24	.11	.21*	-.15	.24	-.12
Rhythmicity in Daily Habits	.02	.14	.01	.12	.34	.07
Adverse Childhood Experiences	-.22	.17	-.12	.07	.58	.02
Internalizing Problems	.03	.05	.10	.08	.11	.18
Externalizing Problems	-.04	.05	-.11	-.11	.13	-.17
Maternal Role Satisfaction	.09	.06	.16	.13	.15	.18
Block 2. $F(11,138)=2.29, p<.20, R^2=.16$			Block 2. $F(11,34)=1.38, p<.30, R^2=.20$			
General Activity Level	.19	.09	.19*	.22	.19	.22
Approach-Withdrawal	-.30	.14	-.23*	-.04	.43	-.02
Flexibility-Rigidity	-.01	.15	-.01	-.14	.38	-.10
Mood Quality	.21	.11	.19*	-.14	.24	-.12
Rhythmicity in Daily Habits	-.03	.14	-.02	.01	.35	.01
Adverse Childhood Experiences	-.25	.17	-.13	-.06	.59	-.02
Internalizing Problems	.02	.05	.05	.03	.11	.06
Externalizing Problems	-.03	.05	-.08	-.09	.13	-.15
Maternal Role Satisfaction	.10	.06	.16	.17	.16	.24
Reflective Functioning	.89	1.05	.07	.34	2.97	.02
Attributions	.90	.48	.15	1.97	1.27	.29
Block 3. $F(14,135)=1.14, p<.40, R^2=.18$			Block 3. $F(14,31)=.36, p<.80, R^2=.23$			
General Activity Level	.19	.09	.19*	.25	.20	.25
Approach-Withdrawal	-.31	.15	-.23*	-.06	.45	-.04
Flexibility-Rigidity	.01	.15	.01	-.06	.42	-.04
Mood Quality	.20	.11	.18	-.19	.26	-.16

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>
Rhythmicity in Daily Habits	-.03	.15	-.02	-.02	.40	-.01
Adverse Childhood Experiences	-.30	.18	-.16	-.02	.66	-.01
Internalizing Problems	.02	.05	.06	.02	.12	.04
Externalizing Problems	-.03	.05	-.08	-.06	.15	-.10
Maternal Role Satisfaction	.12	.07	.20	.22	.18	.31
Reflective Functioning	.10	1.07	.08	-.17	3.20	-.01
Attributions	.81	.50	.14	1.71	1.42	.25
Positive Parenting Behaviors	.07	.07	.09	.15	.17	.18
Negative/Inconsistent Parenting Behaviors	-.12	.11	-.12	-.11	.31	-.08
Punitive Parenting Behaviors	.21	.18	.12	-.12	.43	-.01

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

**Table 6. Hierarchical Regression Analyses for Young Children’s Temperament (Approach-Withdrawal) for Total and Trauma Samples**

	Total Sample			Trauma Sample		
Variables	B	SE B	$\beta$	B	SE B	$\beta$
Block 1. $F(9,140)=2.18, p<.03, R^2=.12$			Block 1. $F(9,36)=1.37, p<.30, R^2=.25$			
General Activity Level	-.08	.07	-.11	-.16	.13	-.22
Approach-Withdrawal	.12	.11	.11	.10	.28	.09
Flexibility-Rigidity	.11	.12	.11	.15	.25	.14
Mood Quality	.14	.08	.16	.05	.16	.06
Rhythmicity in Daily Habits	-.17	.11	-.14	-.33	.23	-.26
Adverse Childhood Experiences	-.03	.14	-.02	.26	.38	.12
Internalizing Problems	.02	.04	.08	.11	.07	.34
Externalizing Problems	.03	.04	.09	.01	.09	.02
Maternal Role Satisfaction	-.06	.05	-.14	-.16	.10	-.32
Block 2. $F(11,138)=3.47, p<.04, R^2=.17$			Block 2. $F(11,34)=1.89, p<.20, R^2=.33$			
General Activity Level	-.08	.07	-.10	-.16	.12	-.22
Approach-Withdrawal	.09	.11	.08	.01	.28	.01
Flexibility-Rigidity	.11	.12	.10	.07	.25	.07
Mood Quality	.13	.08	.15	.07	.16	.08
Rhythmicity in Daily Habits	-.22	.11	-.18	-.43	.23	-.33
Adverse Childhood Experiences	-.06	.13	-.04	.08	.38	.04
Internalizing Problems	.01	.03	.04	.10	.07	.30
Externalizing Problems	.04	.04	.13	.04	.09	.09
Maternal Role Satisfaction	-.05	.05	-.12	-.18	.10	-.35
Reflective Functioning	-.04	.81	-.01	-2.49	1.94	-.21
Attributions	.97	.37	.22**	1.48	.83	.30
Block 3. $F(14,135)=2.78, p<.05, R^2=.21$			Block 3. $F(14,31)=1.15, p<.40, R^2=.40$			
General Activity Level	-.09	.07	-.11	-.14	.12	-.19
Approach-Withdrawal	.10	.11	.10	.06	.29	.05
Flexibility-Rigidity	.12	.11	.11	.06	.26	.06
Mood Quality	.13	.08	.15	.08	.16	.09

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>
Rhythmicity in Daily Habits	-.25	.11	-.20*	-.59	.25	-.46*
Adverse Childhood Experiences	-.10	.13	-.07	-.01	.42	-.01
Internalizing Problems	.02	.03	.06	.08	.07	.26
Externalizing Problems	.05	.04	.15	.06	.09	.13
Maternal Role Satisfaction	.01	.06	.02	-.09	.11	-.18
Reflective Functioning	-.16	.80	-.02	-3.29	2.02	-.28
Attributions	.82	.38	.18*	1.69	.90	.34
Positive Parenting Behaviors	.07	.05	.12	.04	.11	.07
Negative/Inconsistent Parenting Behaviors	-.19	.08	-.24*	-.31	.20	-.31
Punitive Parenting Behaviors	.03	.13	.02	-.11	.27	-.08

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

**Table 7. Hierarchical Regression Analyses for Young Children’s Temperament (Flexibility-Rigidity) for Total and Trauma Samples**

Variables	Total Sample			Trauma Sample		
	B	SE B	$\beta$	B	SE B	$\beta$
Block 1. $F(9,138)=5.98, p<.001, R^2=.28$			Block 1. $F(9,36)=2.58, p<.03, R^2=.39$			
General Activity Level	-.20	.06	-.29***	-.24	.11	-.36*
Approach-Withdrawal	-.03	.09	-.04	.12	.23	.12
Flexibility-Rigidity	.25	.10	.26*	.04	.21	.04
Mood Quality	-.06	.07	-.08	-.26	.13	-.32
Rhythmicity in Daily Habits	-.04	.09	-.04	-.01	.19	-.01
Adverse Childhood Experiences	.19	.11	.15	.07	.32	.04
Internalizing Problems	-.03	.03	-.14	.01	.06	.02
Externalizing Problems	.07	.03	.25*	.05	.07	.12
Maternal Role Satisfaction	-.09	.04	-.21*	-.20	.08	-.44*
Block 2. $F(11,136)=1.11, p<.40, R^2=.29$			Block 2. $F(11,34)=.72, p<.50, R^2=.42$			
General Activity Level	-.20	.06	-.28***	-.24	.11	-.36*
Approach-Withdrawal	-.05	.09	-.05	.08	.24	.08
Flexibility-Rigidity	.25	.10	.27**	-.01	.22	-.01
Mood Quality	-.06	.07	-.08	-.25	.13	-.31
Rhythmicity in Daily Habits	-.06	.09	-.06	-.06	.20	-.05
Adverse Childhood Experiences	.18	.11	.14	-.02	.33	-.01
Internalizing Problems	-.04	.03	-.15	.01	.06	.01
Externalizing Problems	.07	.03	.28*	.06	.07	.16
Maternal Role Satisfaction	-.09	.04	-.21*	-.22	.09	-.47*
Reflective Functioning	-.21	.68	-.02	-1.49	1.67	-.14
Attributions	.48	.32	.11	.74	.72	.16
Block 3. $F(14,133)=2.78, p<.05, R^2=.33$			Block 3. $F(14,31)=1.10, p<.40, R^2=.47$			
General Activity Level	-.19	.06	-.28***	-.21	.11	-.32
Approach-Withdrawal	-.08	.09	-.08	.01	.25	.01
Flexibility-Rigidity	.28	.10	.30**	.11	.23	.11
Mood Quality	-.10	.07	-.12	-.31	.14	-.40*



<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>
Rhythmicity in Daily Habits	-.05	.09	-.05	.03	.22	.03
Adverse Childhood Experiences	.15	.11	.12	.12	.36	.06
Internalizing Problems	-.04	.03	-.16	.01	.06	.01
Externalizing Problems	-.08	.03	.28**	.08	.08	.20
Maternal Role Satisfaction	-.07	.05	-.18	-.22	.10	-.46*
Reflective Functioning	-.09	.68	-.01	-1.49	1.74	-.14
Attributions	.34	.32	.08	.25	.77	.06
Positive Parenting Behaviors	.10	.04	.19*	.17	.09	.30
Negative/Inconsistent Parenting Behaviors	-.06	.07	-.08	.08	.17	.09
Punitive Parenting Behaviors	.16	.11	.13	.10	.23	.08

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

**Table 8. Hierarchical Regression Analyses for Young Children’s Temperament (Mood Quality) for Total and Trauma Samples**

	<b>Total Sample</b>			<b>Trauma Sample</b>		
<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>
Block 1. $F(9,136)=4.52, p<.001, R^2=.23$			Block 1. $F(9,36)=1.34, p<.30, R^2=.25$			
General Activity Level	-.05	.05	-.09	-.09	.08	-.20
Approach-Withdrawal	-.12	.07	-.16	.17	.17	.24
Flexibility-Rigidity	.09	.08	.13	-.11	.15	-.17
Mood Quality	.23	.05	.38***	.17	.10	.32
Rhythmicity in Daily Habits	-.08	.07	-.09	.00	.14	.01
Adverse Childhood Experiences	.10	.09	.10	.19	.23	.14
Internalizing Problems	.04	.02	.23	.05	.04	.27
Externalizing Problems	-.04	.02	-.18	-.08	.05	-.31
Maternal Role Satisfaction	-.07	.03	-.22*	-.05	.06	-.15
Block 2. $F(11,134)=2.15, p<.20, R^2=.25$			Block 2. $F(11,34)=1.98, p<.20, R^2=.33$			
General Activity Level	-.05	.05	-.09	-.09	.08	-.20
Approach-Withdrawal	-.12	.08	-.16	.19	.17	.26
Flexibility-Rigidity	.08	.08	.12	-.06	.15	-.09
Mood Quality	.22	.05	.35***	.16	.09	.30
Rhythmicity in Daily Habits	-.10	.08	-.12	.04	.14	.05
Adverse Childhood Experiences	-.09	.09	.09	.30	.23	.22
Internalizing Problems	.04	.02	.19	.05	.04	.24
Externalizing Problems	-.03	.02	-.15	-.10	.05	-.38
Maternal Role Satisfaction	-.07	.03	-.22*	-.02	.06	-.06
Reflective Functioning	.76	.55	.11	2.21	1.18	.31
Attributions	.34	.25	.11	-.60	.51	-.20
Block 3. $F(14,131)=7.42, p<.001, R^2=.36$			Block 3. $F(14,31)=4.27, p<.02, R^2=.53$			
General Activity Level	-.05	.05	-.09	-.05	.07	-.12
Approach-Withdrawal	-.12	.07	-.17	.13	.15	.18
Flexibility-Rigidity	.11	.08	.15	.07	.14	.11
Mood Quality	.19	.05	.30***	.09	.09	.17

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>
Rhythmicity in Daily Habits	-.10	.07	-.11	.06	.14	.08
Adverse Childhood Experiences	.06	.09	.06	.43	.23	.31
Internalizing Problems	.03	.02	.18	.04	.04	.22
Externalizing Problems	-.03	.02	-.14	-.08	.05	-.29
Maternal Role Satisfaction	-.02	.04	-.06	.02	.06	.06
Reflective Functioning	.73	.52	.10	1.88	1.08	.26
Attributions	.11	.24	.03	-1.04	.48	-.35*
Positive Parenting Behaviors	.12	.03	.30***	.20	.06	.54**
Negative/Inconsistent Parenting Behaviors	-.12	.05	-.21*	-.05	.11	-.08
Punitive Parenting Behaviors	.07	.09	.08	.07	.15	.09

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

**Table 9. Hierarchical Regression Analyses for Young Children’s Temperament (Rhythmicity in Daily Habits) for Total and Trauma Samples**

	<b>Total Sample</b>			<b>Trauma Sample</b>		
<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>
Block 1. $F(9,139)=4.29, p<.001, R^2=.22$			Block 1. $F(9,36)=1.56, p<.20, R^2=.28$			
General Activity Level	-.01	.05	-.02	.01	.07	.02
Approach-Withdrawal	-.05	.07	-.06	.14	.16	.20
Flexibility-Rigidity	.01	.08	.02	-.03	.14	-.04
Mood Quality	.06	.05	.09	.03	.09	.06
Rhythmicity in Daily Habits	.27	.08	.31***	.14	.13	.19
Adverse Childhood Experiences	.19	.09	.18*	.07	.22	.05
Internalizing Problems	.01	.02	.01	-.18	.04	-.09
Externalizing Problems	-.03	.02	-.12	-.06	.05	-.22
Maternal Role Satisfaction	-.03	.03	-.10	-.03	.06	-.09
Block 2. $F(11,137)=.38, p<.70, R^2=.22$			Block 2. $F(11,34)=.77, p<.50, R^2=.31$			
General Activity Level	-.01	.05	-.02	.01	.07	.02
Approach-Withdrawal	-.05	-.07	-.06	.16	.17	.23
Flexibility-Rigidity	.01	.08	.01	.01	.15	.01
Mood Quality	.05	.06	.08	.03	.09	.05
Rhythmicity in Daily Habits	.27	.08	.31***	.18	.13	.24
Adverse Childhood Experiences	.18	.09	.18*	.14	.23	.10
Internalizing Problems	-.01	.02	-.01	-.02	.04	-.09
Externalizing Problems	-.02	.02	-.11	-.07	.05	-.26
Maternal Role Satisfaction	-.03	.03	-.11	-.02	.06	-.05
Reflective Functioning	.37	.56	.05	1.16	1.15	-.17
Attributions	.12	.26	.04	-.48	.49	.17
Block 3. $F(14,134)=1.68, p<.20, R^2=.25$			Block 3. $F(14,31)=1.02, p<.40, R^2=.37$			
General Activity Level	-.01	.05	-.01	.03	.07	.06
Approach-Withdrawal	-.06	.08	-.08	.16	.17	.24
Flexibility-Rigidity	.03	.08	.04	.02	.16	.04
Mood Quality	.03	.06	.05	-.01	.10	-.01

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>
Rhythmicity in Daily Habits	.27	.08	.31***	.14	.15	.19
Adverse Childhood Experiences	.17	.09	.17	.08	.25	.06
Internalizing Problems	-.01	.02	-.02	-.03	.04	-.16
Externalizing Problems	-.02	.02	-.10	-.04	.06	-.15
Maternal Role Satisfaction	-.02	.04	-.07	.03	.07	.09
Reflective Functioning	.43	.56	.06	.63	1.20	.09
Attributions	.02	.27	.01	-.57	.53	-.20
Positive Parenting Behaviors	.07	.04	.17*	.07	.07	.20
Negative/Inconsistent Parenting Behaviors	-.03	.06	-.06	-.08	.12	-.13
Punitive Parenting Behaviors	.08	.09	.08	-.13	.16	-.17

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

Table 10. Hierarchical Regression Analyses for Young Children’s Internalizing Problems for Total and Trauma Samples

	Total Sample			Trauma Sample		
Variables	B	SE B	$\beta$	B	SE B	$\beta$
Block 1. $F(9,143)=5.66, p<.001, R^2=.26$			Block 1. $F(9,37)=1.90, p<.09, R^2=.32$			
General Activity Level	.16	.19	.07	.27	.31	.14
Approach-Withdrawal	.06	.29	.02	-.27	.64	-.10
Flexibility-Rigidity	-.44	.31	-.14	-.26	.62	-.09
Mood Quality	.13	.21	.05	.57	.39	.26
Rhythmicity in Daily Habits	.18	.29	.05	.38	.52	.12
Adverse Childhood Experiences	-.36	.34	-.09	-.52	.79	-.09
Internalizing Problems	.14	.09	.19	.05	.17	.06
Externalizing Problems	.24	.09	.28*	.35	.21	.31
Maternal Role Satisfaction	.14	.13	.11	.34	.25	.26
Block 2. $F(11,141)=.21, p<.90, R^2=.27$			Block 2. $F(11,35)=.01, p<.999, R^2=.32$			
General Activity Level	.16	.19	.07	.27	.32	.14
Approach-Withdrawal	.02	.29	.01	-.29	.69	-.10
Flexibility-Rigidity	-.42	.31	-.14	-.27	.64	-.10
Mood Quality	.14	.22	.05	.57	.40	.26
Rhythmicity in Daily Habits	.16	.29	.05	.38	.55	.12
Adverse Childhood Experiences	-.38	.35	-.09	-.56	.89	-.10
Internalizing Problems	.14	.09	.19	.05	.19	.06
Externalizing Problems	.25	.09	.29**	.36	.22	.31
Maternal Role Satisfaction	.15	.13	.11	.33	.27	.25
Reflective Functioning	-.97	2.14	-.03	-.52	4.88	-.02
Attributions	.50	.99	.04	.17	2.14	.01
Block 3. $F(14,138)=4.21, p<.01, R^2=.33$			Block 3. $F(14,32)=1.77, p<.20, R^2=.41$			
General Activity Level	.19	.18	.09	.16	.31	.08
Approach-Withdrawal	.03	.29	.01	-.15	.68	-.05
Flexibility-Rigidity	-.54	.31	-.18	-.50	.66	-.18
Mood Quality	.25	.22	.10	.86	.41	.39*
Rhythmicity in Daily Habits	.14	.29	.04	.05	.57	.02

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>
Adverse Childhood Experiences	-.42	.35	-.10	-.61	.99	-.11
Internalizing Problems	.16	.09	.21	.10	.19	.12
Externalizing Problems	.22	.09	.25*	.20	.24	.17
Maternal Role Satisfaction	-.06	.14	-.05	.30	.29	.23
Reflective Functioning	-.54	2.09	-.02	1.16	4.91	.04
Attributions	1.39	.99	.11	1.87	2.23	.15
Positive Parenting Behaviors	-.41	.13	-.25**	-.55	.28	-.35
Negative/Inconsistent Parenting Behaviors	.19	.21	.08	-.55	.47	-.21
Punitive Parenting Behaviors	.38	.35	.10	.61	.68	.17

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

Table 11. Hierarchical Regression Analyses for Young Children’s Externalizing Problems for Total and Trauma Samples

Variables	Total Sample			Trauma Sample		
	B	SE B	$\beta$	B	SE B	$\beta$
Block 1. $F(9,143)=7.58, p<.001, R^2=.32$			Block 1. $F(9,37)=2.08, p<.06, R^2=.34$			
General Activity Level	.06	.17	.03	.12	.31	.06
Approach-Withdrawal	-.31	.26	-.11	-.29	.64	-.10
Flexibility-Rigidity	-.36	.28	-.13	-.44	.62	-.16
Mood Quality	.30	.19	.13	-.15	.39	-.07
Rhythmicity in Daily Habits	-.02	.26	-.01	-.02	.52	-.01
Adverse Childhood Experiences	-.08	.31	-.02	-1.01	.79	-.18
Internalizing Problems	.03	.08	.04	.10	.17	.12
Externalizing Problems	.30	.08	.37***	.18	.21	.15
Maternal Role Satisfaction	.23	.11	.19*	.31	.25	.23
Block 2. $F(11,141)=2.98, p<.06, R^2=.35$			Block 2. $F(11,35)=.59, p<.60, R^2=.36$			
General Activity Level	.07	.17	.03	.11	.31	.06
Approach-Withdrawal	-.39	.26	-.14	-.49	.68	-.17
Flexibility-Rigidity	-.37	.28	-.13	-.48	.63	-.17
Mood Quality	.29	.19	.12	-.15	.39	-.07
Rhythmicity in Daily Habits	-.11	.26	-.03	-.14	.54	-.04
Adverse Childhood Experiences	-.16	.31	-.04	-1.14	.88	-.20
Internalizing Problems	.01	.08	.01	.04	.18	.04
Externalizing Problems	.34	.08	.41***	.19	.22	.17
Maternal Role Satisfaction	.25	.11	.20*	.36	.26	.27
Reflective Functioning	-.41	1.90	-.02	.90	4.79	.03
Attributions	2.14	.88	.18*	2.06	2.11	.16
Block 3. $F(14,138)=4.57, p<.005, R^2=.41$			Block 3. $F(14,32)=.63, p<.70, R^2=.39$			
General Activity Level	.12	.16	.06	.06	.32	.03
Approach-Withdrawal	-.46	.25	-.17	-.47	.70	-.16
Flexibility-Rigidity	-.39	.27	-.14	-.50	.68	-.18
Mood Quality	.29	.19	.12	.01	.42	.01
Rhythmicity in Daily Habits	-.06	.26	-.02	-.31	.59	-.10



<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>
Adverse Childhood Experiences	-.19	.31	-.05	-.93	1.02	-.17
Internalizing Problems	.01	.08	.01	.08	.19	.09
Externalizing Problems	.29	.08	.36***	.07	.24	.06
Maternal Role Satisfaction	.03	.13	.02	.34	.30	.25
Reflective Functioning	.41	1.84	.02	2.30	5.06	.22
Attributions	2.75	.88	.23**	2.80	2.31	.08
Positive Parenting Behaviors	-.17	.12	-.11	-.21	.29	-.13
Negative/Inconsistent Parenting Behaviors	.22	.19	.10	-.39	.50	-.15
Punitive Parenting Behaviors	.85	.31	.23**	.71	.70	.20

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

**Table 12. Hierarchical Regression Analyses for Young Children’s Adaptive Functioning (General Adaptive Composite) for Total and Trauma Samples**

	<b>Total Sample</b>			<b>Trauma Sample</b>		
<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b>β</b>	<b>B</b>	<b>SE B</b>	<b>β</b>
Block 1. $F(9,97)=1.82, p<.08, R^2=.15$			Block 1. $F(9,24)=2.22, p<.06, R^2=.46$			
General Activity Level	-.71	.48	-.17	.02	.71	.01
Approach-Withdrawal	.18	.73	.03	.25	1.20	.05
Flexibility-Rigidity	-.35	.73	-.06	.11	1.17	.02
Mood Quality	1.33	.53	.28*	.69	.76	.18
Rhythmicity in Daily Habits	.47	.71	.07	1.48	.97	.28
Adverse Childhood Experiences	.56	.91	.07	3.12	1.40	.35*
Internalizing Problems	.03	.24	.02	-.32	.36	-.21
Externalizing Problems	.10	.23	.06	-.19	.39	-.10
Maternal Role Satisfaction	-.46	.34	-.18	-.15	.53	-.06
Block 2. $F(11,95)=.84, p<.50, R^2=.16$			Block 2. $F(11,22)=2.40, p<.20, R^2=.55$			
General Activity Level	-.67	.49	-.16	-.12	.68	-.03
Approach-Withdrawal	-.09	.74	.02	.02	1.19	.01
Flexibility-Rigidity	-.36	.73	-.07	-.74	1.18	-.15
Mood Quality	1.32	.53	.27*	.69	.72	.18
Rhythmicity in Daily Habits	.36	.72	.05	1.43	.93	.27
Adverse Childhood Experiences	.50	.93	.06	1.26	1.57	.14
Internalizing Problems	-.01	.25	-.01	-.41	.36	-.27
Externalizing Problems	.14	.23	.09	.16	.41	.08
Maternal Role Satisfaction	-.48	.34	-.18	-.43	.54	-.17
Reflective Functioning	3.42	5.38	.06	-20.79	10.80	-.37
Attributions	2.52	2.42	.10	5.74	3.91	.25
Block 3. $F(14,92)=5.93, p<.002, R^2=.30$			Block 3. $F(14,19)=.49, p<.70, R^2=.59$			
General Activity Level	-.65	.45	-.15	.09	.75	.03
Approach-Withdrawal	-.41	.70	-.07	-.26	1.29	-.05
Flexibility-Rigidity	.30	.70	.05	-.20	1.36	-.04
Mood Quality	.76	.53	.16	.39	.84	.10

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b>B</b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	
Rhythmicity in Daily Habits	.65	.70	.10		1.47	1.11	.28
Adverse Childhood Experiences	.57	.89	.07		1.32	1.87	.15
Internalizing Problems	-.12	.23	-.08		-.53	.38	-.35
Externalizing Problems	.24	.22	.14		.22	.44	.11
Maternal Role Satisfaction	-.09	.37	-.04		-.08	.66	-.03
Reflective Functioning	3.08	5.05	.06		-19.16	11.63	-.34
Attributions	.21	2.32	.01		4.31	4.60	.19
Positive Parenting Behaviors	1.37	.33	.42***		.66	.60	.21
Negative/Inconsistent Parenting Behaviors	.16	.54	.04		-.05	.99	-.01
Punitive Parenting Behaviors	-.74	.85	-.10		0.57	1.20	-.09

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

**Table 13. Hierarchical Regression Analyses for Young Children’s Adaptive Functioning (Self-Care Skills) for Total and Trauma Samples**

Variables	Total Sample			Trauma Sample		
	B	SE B	$\beta$	B	SE B	$\beta$
Block 1. $F(9,137)=1.33, p<.30, R^2=.08$			Block 1. $F(9,37)=2.74, p<.02, R^2=.40$			
General Activity Level	-.10	.06	-.02	.08	.07	.17
Approach-Withdrawal	.01	.09	.01	.10	.15	.15
Flexibility-Rigidity	.03	.10	.04	.00	.15	.00
Mood Quality	.11	.07	.16	.04	.09	.07
Rhythmicity in Daily Habits	.06	.09	.06	.05	.12	.07
Adverse Childhood Experiences	.16	.11	.14	.50	.19	.36**
Internalizing Problems	-.03	.03	-.14	-.08	.04	-.36
Externalizing Problems	.02	.03	.07	-.05	.05	-.18
Maternal Role Satisfaction	-.01	.04	-.03	.01	.06	.01
Block 2. $F(11,135)=.46, p<.70, R^2=.09$			Block 2. $F(11,35)=.75, p<.50, R^2=.42$			
General Activity Level	-.01	.06	-.01	.08	.07	.16
Approach-Withdrawal	.02	.09	.02	.07	.16	.10
Flexibility-Rigidity	.02	.10	.02	.01	.15	.01
Mood Quality	.11	.07	.15	.04	.09	.07
Rhythmicity in Daily Habits	.05	.09	.05	.03	.13	.04
Adverse Childhood Experiences	.16	.11	.14	.53	.21	.38*
Internalizing Problems	-.03	.03	-.16	-.09	.04	-.44*
Externalizing Problems	.02	.03	.07	-.06	.05	-.20
Maternal Role Satisfaction	-.02	.04	-.04	.03	.06	.08
Reflective Functioning	.65	.68	.08	.94	1.12	.20
Attributions	.03	.32	.01	.31	.49	.13
Block 3. $F(14,132)=5.18, p<.003, R^2=.18$			Block 3. $F(14,32)=3.49, p<.03, R^2=.57$			
General Activity Level	-.01	.06	-.01	.11	.07	.22
Approach-Withdrawal	-.02	.09	-.03	-.01	.15	-.01
Flexibility-Rigidity	.08	.10	.10	.14	.14	.21
Mood Quality	.03	.07	.04	-.03	.09	-.05

<b>Variables</b>	<b>B</b>	<b>SE B</b>	<b><math>\beta</math></b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>
Rhythmicity in Daily Habits	.11	.09	.11	.11	.12	.14***
Adverse Childhood Experiences	.22	.11	.19*	.74	.21	.54*
Internalizing Problems	-.05	.03	-.24	-.09	.04	-.41
Externalizing Problems	.02	.03	.10	-.05	.05	-.18
Maternal Role Satisfaction	.01	.05	.01	.02	.06	.07
Reflective Functioning	.62	.66	.08	1.02	1.06	-.07
Attributions	-.26	.31	-.07	-.20	.48	.14
Positive Parenting Behaviors	.16	.04	.33***	.18	.06	.46**
Negative/Inconsistent Parenting Behaviors	.11	.07	.17	.07	.10	.11
Punitive Parenting Behaviors	-.08	.11	-.07	.18	.15	.20

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

**APPENDIX P:  
IRB HUMAN SUBJECTS APPROVAL LETTER**



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](http://www.research.ucf.edu/compliance/irb.html)

## Approval of Exempt Human Research

From: **UCF Institutional Review Board #1  
FWA00000351, IRB00001138**

To: **Kimberly D. Renk and Co-PI: Ellen Kolomeyer**

Date: **July 22, 2015**

Dear Researcher:

On 07/22/2015, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination  
Project Title: How Are Enduring Maternal Characteristics Related to Mothers' Perceptions of Their Young Children?  
Investigator: Kimberly D Renk  
IRB Number: SBE-15-11440  
Funding Agency:  
Grant Title:  
Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

A handwritten signature in black ink that reads "Joanne Muratori".

Signature applied by Joanne Muratori on 07/22/2015 11:49:06 AM EDT

IRB manager

## REFERENCES

- Achenbach, T. M., & Rescorla, L. (2000). *ASEBA preschool forms & profiles: An integrated system of multi-informant assessment*. Burlington, VT: University of Vermont Department of Psychiatry.
- Achenbach, T. M., & Rescorla, L. A. (2003). *Manual for the ASEBA adult forms & profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Ainsworth, M. D. S., & Wittig, B. A. (1969). Attachment and exploratory behavior of one-year-olds in a strange situation. In B. M. Foss (Ed.), *Detriments of infant behavior* (Vol. 4). London: Methuen.
- Atzaba-Poria, N., Deater-Deckard, K., & Bell, M.A. (2014). It takes more than one for parenting: How do maternal temperament and child's problem behaviors relate to maternal parenting behaviors? *Personality & Individual Differences, 69*, 81-86.
- Aring, S., & Renk, K. (2010). Associations among young children's temperament, parents' perceptions of their young children, and characteristics of the parent-young child relationship. *Journal of Early Childhood and Infant Psychology, 6*, 59-83.
- Banyard, V. L. (1997). The impact of childhood sexual abuse and family functioning on four dimensions of women's later parenting. *Child Abuse & Neglect, 21*, 1095-1107.
- Bates, J. E., Freeland, C. A. B., & Lounsbury, M. L. (1979). Measurement of infant difficultness. *Child Development, 50*, 794-803.
- Bates, J. E., Maslin, C. A., & Frankel, K. A. (1985). Attachment security, mother-child interaction, and temperament as predictors of behavior-problem ratings at age three years. *Monographs of the Society for Research in Child Development, 50*, 167-193.
- Barnett, R.C. (1982). Multiple roles and well-being: A study of mothers of preschool age children. *Psychology of Women Quarterly, 7*, 175-178.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs, 4* (1, Pt.2), 1-103.
- Baumrind, D. (1991). Effective parenting during the early adolescent transition. In P. A. Cowan & E. M. Hetherington (Eds.), *Advances in family research* (pp. 111-143). Hillsdale, NJ: Erlbaum.



- Baumrind, D., Larzelere, R.E., & Owens, E.B. (2010). Effects of preschool parents' power assertive patterns and practices on adolescent development. *Parenting: Science and Practice, 10*, 157-201.
- Bernstein, D. P., Ahluvalia, T., Pogge, D., & Handelsman, L. (1997). Validity of the Childhood Trauma Questionnaire in an adolescent psychiatric population. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*, 340-348.
- Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel, K., . . . Ruggiero, M. A. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *The American Journal of Psychiatry, 151*, 1132-1136.
- Billman, J., & McDevitt, S. C. (1980). Convergence of parent and observer ratings of temperament with observations of peer interaction in nursery school. *Child Development, 395-400*.
- Bondy, E. M., & Mash, E. J. (1999). Parenting efficacy, perceived control over caregiving failure, and mothers' reactions to preschool children's misbehavior. *Child Study Journal, 29(3)*, 157-73.
- Borelli, J. L., Compare, A., Snavely, J. E., & Decio, V. (2014, September 8). Reflective functioning moderates the association between perceptions of parental neglect and attachment in adolescence. *Psychoanalytic Psychology*. Advance online publication.
- Bowerman, B. L., & O'Connell, R. T. (1990). *Linear statistical models: An applied approach* (pp. 106-129). PWS-Kent Publishing Company.
- Briere, J., & Runtz, M. (1989). The Trauma Symptom Checklist (TSC-33): Early data on a new scale. *Journal of Interpersonal Violence, 4*, 151-163.
- Brody, G. H. (1988). Child temperament and parental perceptions of individual child adjustment: An intrafamilial analysis. *American Journal of Orthopsychiatry, 58*, 532-542.
- Bugental, D. (2011). *Parent Attribution Test (Manual)*. [Online]. Available: <https://labs.psych.ucsb.edu/bugental/daphne/PARENT%20ATTRIBUTION%20TEST.mannual.2011.pdf>
- Bugental, D. B., Blue, J., & Cruzcosa, M. (1989). Perceived control over caregiving outcomes: Implications for child abuse. *Developmental Psychology, 25(4)*, 532-539.
- Buss, D. M., Block, J. H., & Block, J. (1980). Preschool activity level: Personality correlates and developmental implications. *Child Development, 51*, 401-408.
- Campbell, S. B., Matestic, P., von Stauffenberg, C., Mohan, R., & Kirchner, T. (2007).

- Trajectories of maternal depressive symptoms, maternal sensitivity, and children's functioning at school entry. *Developmental Psychology*, *43*, 1201-1215.
- Campbell, S. B., Szumowski, E. K., Ewing, L. J., Gluck, D. S., & Breaux, A. M. (1982). A multidimensional assessment of parent-identified behavior problem toddlers. *Journal of Abnormal Child Psychology*, *10*, 569-591.
- Chen, N., Deater-Deckard, K., & Bell, M. A. (2014). The role of temperament by family environment interactions in child maladjustment. *Journal of Abnormal Child Psychology*, *42*, 1251-1262.
- Choe, D. E., Olson, S. L., & Sameroff, A. J. (2014). Effortful control moderates bidirectional effects between children's externalizing behavior and their mothers' depressive symptoms. *Child Development*, *85*, 643-658.
- Clarkson Freeman, P. A. (2014). Prevalence and relationship between adverse childhood experiences and child behavior among young children. *Infant Mental Health Journal*, *35*(6), 544-554.
- Clerkin, S. M., Halperin, J. M., Marks, D. J., & Policaro, K. L. (2007). Psychometric properties of the Alabama Parenting Questionnaire–Preschool Revision. *Journal of Clinical Child and Adolescent Psychology*, *36*(1), 19-28.
- Coplan, R. J., Reichel, M., & Rowan, K. (2009). Exploring the associations between maternal personality, child temperament, and parenting: A focus on emotions. *Personality and Individual Differences*, *46*, 241-246.
- Crawford, N. A., Schrock, M., & Woodruff-Borden, J. (2011). Child internalizing symptoms: Contributions of child temperament, maternal negative affect, and family functioning. *Child Psychiatry & Human Development*, *42*, 53-64.
- DiLillo, D., & Damashek, A. (2003). Parenting characteristics of women reporting a history of childhood sexual abuse. *Child Maltreatment*, *8*, 319–333.
- DiLillo, D., Tremblay, G. C., & Peterson, L. (2000). Linking childhood sexual abuse and abusive parenting: The mediating role of maternal anger. *Child Abuse & Neglect*, *24*, 767–779.
- Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I. K., Murphy, B. C., & Reiser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development*, *70*, 513–534.
- Elman, M. R., & Gilbert, L. A. (1984). Coping strategies for role conflict in married professional women with children. *Family Relations*, *33*, 317-327.
- Enlow, M. B., Kitts, R. L., Blood, E., Bizarro, A., Hofmeistera, M., & Wright, R. J. (2011).

- Maternal posttraumatic stress symptoms and infant emotional reactivity and emotion regulation. *Infant Behavior and Development*, 34, 487-503.
- Esbjörn, B. H., Pedersen, S. H., Daniel, S. I. F., Hald, H. H., Holm, J. M., & Steele, H. (2013). Anxiety levels in clinically referred children and their parents: Examining the unique influence of self-reported attachment styles and interview-based reflective functioning in mothers and fathers. *British Journal of Clinical Psychology*, 52, 394-407.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A.M., Edwards, E., ... Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14, 245-258.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.
- Fergusson, D. M., Horwood, L. J., & Shannon, F. T. (1984). Relationship of family life events, maternal depression, and child-rearing problems. *Pediatrics*, 73, 773-776.
- Fonagy, P., & Bateman, A. (2006). Mechanisms of change in mentalization-based treatment of BPD. *Journal of Clinical Psychology*, 62, 411-430.
- Fonagy, P., Gergely, G., Jurist, E., & Target, M. (2002). *Affect regulation, mentalization, and the development of the self*. New York, NY: Other Press.
- Fonagy, P., Steele, M., Steele, H., Moran, G., & Higgitt, A. (1991). The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment. *Infant Mental Health Journal*, 12, 201-218.
- Fonagy, P., & Target, M. (1997). Attachment and reflective function: Their role in self-organization. *Development and Psychopathology*, 9, 679-700.
- Fonagy, P., Target, M., Steele, H., & Steele, M. (1998). *Reflective functioning manual. Version 5: For application to Adult Attachment Interviews*. Unpublished manuscript. London, UK: University College.
- Foster, C. E., Webster, M. C., Weissman, M. M., Pilowsky, D. J., Wickramartne, P. J., Rush, A. J., ... King, C. A. (2008). Course and severity of maternal depression: Associations with family functioning and child adjustment. *Journal of Youth and Adolescence*, 37, 906-916.
- Frick, P. J., Christian, R. E., & Wootton, J. M. (1999). Age trends in the association between parenting practices and conduct problems. *Behavior Modification*, 23, 106-128.
- Friedlander, S., Weiss, D. S., & Traylor, J. (1986). Assessing the influence of maternal depression on the validity of the Child Behavior Checklist. *Journal of Abnormal Child Psychology*, 14, 123-133.

- Gibaud-Wallston, J., & Wandersman, L. P. (1978). *Parenting Sense of Competence Scale*. Lawrence Erlbaum Associates.
- Gilmore, L., & Cuskelly, M. (2009). Factor structure of the Parenting Sense of Competence scale using a normative sample. *Child: Care, Health and Development*, 35(1), 48-55.
- Goldsmith, H. H., Buss, A. H., Plomin, R., Rothbart, M. K., Thomas, A., Chess, S., . . . McCall, R. B. (1987). Roundtable: What is temperament? Four approaches. *Child Development*, 58, 505–529.
- Graham, P., & Stevenson, J. (1985). A twin study of genetic influences on behavioral deviance. *Journal of the American Academy of Child Psychiatry*, 24, 33-41.
- Harrison, P. L., & Oakland, T. (2003). *Adaptive Behavior Assessment System-Second Edition*, San Antonio, TX: The Psychological Corporation.
- Hayden, E. P., Durbin, C. E., Klein, D. N., & Olino, T. M. (2010). Maternal personality influences the relationship between maternal reports and laboratory measures of child temperament. *Journal of Personality Assessment*, 92, 586-593.
- Hirsch, B. J., & Rapkin, B. D. (1986). Multiple roles, social networks, and women's well-being. *Journal of Personality and Social Psychology*, 51, 1237-1247.
- Hesse, E., & Main, M. (1999). Second-generation effects of unresolved trauma in nonmaltreating parents: Dissociated, frightened, and threatening parental behavioral. *Psychoanalytic Inquiry: A Topical Journal for Mental Health Professionals*, 19, 481-540.
- Hughes, A. A., Hedtke, K. A., & Kendall, P. C. (2008). Family functioning in families of children with anxiety disorders. *Journal of Family Psychology*, 22, 325-328.
- Isabella, R. A. (1994). Origins of maternal role satisfaction and its influences upon maternal interactive behavior and infant-mother attachment. *Infant Behavior and Development*, 17(4), 381-387.
- Jewsuwan, R., Luster, T., & Kostelnik, M. (1993). The relation between parents' perceptions of temperament and children's adjustment to preschool. *Early Childhood Research Quarterly*, 8, 33-51.
- Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, 18(2), 167-175.
- Kagan J. (1994). *Galen's prophecy*. New York: Basic Books.

- Kagan, J. (2003). Biology, context, and developmental inquiry. *Annual Review of Psychology*, *54*, 1-23.
- Katainen, S., Räikkönen, K., Keski-Vaara, P., & Keltikangas-Järvinen, L. (1999). Maternal child-rearing attitudes and role satisfaction and children's temperament as antecedents of adolescent depressive tendencies: Follow-up study of 6-to 15-year-olds. *Journal of Youth and Adolescence*, *28*(2), 139-163.
- Kerstis, B., Engström, G., Edlund, B., & Aarts, C. (2013). Association between mothers' and fathers' depressive symptoms, sense of coherence and perception of their child's temperament in early parenthood in Sweden. *Scandinavian Journal of Public Health*, *41*, 233-239.
- Kinsman, A. M., & Wildman, B. G. (2001). Mother and child perceptions of child functioning: Relationship to maternal distress. *Family Process*, *40*, 163-172.
- Koetters, J. A. (2002). Relating the concepts of personality, temperament and self-esteem (Masters Thesis). *Student Theses & Publications*. Available: <http://thekeep.eiu.edu/theses/1553>
- Lancaster, S., Prior, M., & Adler, R. (1989). Child behavior ratings: The influence of maternal characteristics and child temperament. *Journal of Child Psychology and Psychiatry*, *30*, 137-149.
- Lang, A. J., Gartstein, M. A., Rodgers, C. S., & Lebeck, B. A. (2010). The impact of maternal childhood abuse on parenting and infant temperament. *Journal of Child and Adolescent Psychiatric Nursing*, *23*, 100-110.
- Lengua, L. J., & Kovacs, E. A. (2005). Bidirectional associations between temperament and parenting and the prediction of adjustment problems in middle school. *Applied Developmental Psychology*, *26*, 21-38.
- Lerner, J. V., & Galambos, N. L. (1985). Maternal role satisfaction, mother-child interaction, and child temperament: A process model. *Developmental Psychology*, *21*, 1157-1164.
- Luyten, P., Mayes, L. C., Sadler, L., Fonagy, P., Nicholls, S., Crowley, M., ... & Slade, A. (2009). *The parental reflective functioning questionnaire-1 (PRFQ-1)*. Unpublished manual, University of Leuven, Leuven, Belgium.
- MacKinnon, D. P., Cheong, J., & Pirlott, A. G. (2012). Statistical mediation analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.). (2012). *APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 313-331). Washington, DC: American Psychological Association.

- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593.
- Main, M. (2000). The organized categories of infant, child, and adult attachment: Flexible vs. inflexible attention under attachment-related stress. *Journal of the American Psychoanalytic Association*, 48, 1055-1096.
- Main, M. (1996). Introduction to the special section on attachment and psychopathology 2. Overview of the field of attachment. *Journal of Consulting and Clinical Psychology*, 64, 237-243.
- Main, M., & Goldwyn, R. (1984). Predicting rejection of her infant from mother's representation of her own experience: Implications for the abused-abusing intergenerational cycle. *Child Abuse & Neglect*, 8, 203-217.
- Majewski, J. L. (1986). Conflicts, satisfactions, and attitudes during the transition to the maternal role. *Nursing Research*, 35, 10-14.
- Menard, S. (2000). Coefficients of determination for multiple logistic regression analysis. *The American Statistician*, 54(1), 17-24.
- Min, M. O., Singer, L. T., Minnes, S., Kim, H., & Short, E. (2013). Mediating links between maternal childhood trauma and preadolescent behavioral adjustment. *Journal of Interpersonal Violence*, 28, 831-851.
- Murphy, A., Steele, M., Dube, S.R., Bate, J., Bonuck, K., Meissner, P., ... Steele, H. (2014). Adverse Childhood Experiences (ACEs) Questionnaire and Adult Attachment Interview (AAI): Implications for parent-child relationships. *Child Abuse & Neglect*, 38, 224-233.
- Oakland, T., & Algina, J. (2011). Adaptive Behavior Assessment System-II Parent/Primary Caregiver Form: Ages 0-5: Its factor structure and other implications for practice. *Journal of Applied School Psychology*, 27(2), 103-117.
- Panaccione, V. F., & Wahler, R. G. (1986). Child behavior, maternal depression, and social coercion as factors in the quality of child care. *Journal of Abnormal Child Psychology*, 14, 263-278.
- Richman, N., Stevenson, J., & Graham, P. J. (1982). *Preschool to school: A behavioral study*. London: Academic Press.
- Ringel, S. (2011). Developing the capacity for reflective functioning through an intersubjective process. *Clinical Social Work Journal*, 39(1), 61-67.
- Rothbart, M. K., Sheese, B. E., Rueda, M. R., & Posner, M. I. (2011). Developing mechanisms of self-regulation in early life. *Emotion Review*, 3, 207-213.

- Shelton, K. K., Frick, P. J., & Wootton, J. (1996). Assessment of parenting practices in families of elementary school-age children. *Journal of Clinical Child Psychology, 25*, 317-329.
- Slade, A., Grienenberger, J., Bernbach, E., Levy, D., & Locker, A. (2005). Maternal reflective functioning, attachment, and the transmission gap: A preliminary study. *Attachment & Human Development, 7*, 283-298.
- Steele, H., & Steele, M. (2008). On the origins of reflective functioning. In F. N. Busch (Ed.), *Mentalization. Theoretical considerations, research findings, and clinical implications. Psychoanalytic Inquiry Book Series Vol. 29* (pp. 133-158). London, UK: The Analytic Pres.
- Steinberg, L. (2001). We know some things: Adolescent-parent relationships in retrospect and prospect. *Journal of Research on Adolescence, 11*, 1-19.
- Thomas, A., & Chess, S. (1977). *Temperament and development*. Oxford, England: Brunner/Mazel.
- Thomas, A., Chess, S., & Birch, H. G. (1968). *Temperament and behavior disorders in children*. New York: New York University Press.
- Thomas, A., Chess, S., & Birch, H. G. (1986). The New York longitudinal study: From infancy to early adult life. In R. Plomin & J. Dunn (Eds.), *The study of temperament: Changes, continuities, and challenges* (pp. 39-52). Hillsdale, NJ: Erlbaum.
- Voydanoff, P., & Donnelly, B. W. (1989). Work and family roles and psychological distress. *Journal of Marriage and the Family, 51*, 923-932.
- Wilcox, R. (2005). *Introduction to robust estimation and hypothesis testing (2nd ed.)*. San Diego, CA: Academic Press.
- Windle, M., & Lerner, R. M. (1986). Reassessing the dimensions of temperamental individuality across the life span: The Revised Dimensions of Temperament Survey (DOTS-R). *Journal of Adolescent Research, 1*, 213-229.
- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit formation. *Journal of Comparative Neurology and Psychology, 18*(5), 459-482.