

REFLECTIVE FUNCTIONING CAPACITY IN MOTHERS OF BOYS  
WITH ADHD, LEARNING DISORDERS AND ASSOCIATED  
BEHAVIOR PROBLEMS

by

ANNE-BRITT EKERT ROTHSTEIN

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Date

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Steven B. Tuber, Ph.D.  
Chair of Examining Committee

---

Date

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Maureen O'Connor, Ph.D.  
Executive Officer

Hilary Gomes, Ph.D.  
Lissa Weinstein, Ph.D.  
Arietta Slade, Ph.D.  
Peter Fraenkel, Ph.D.

Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

Abstract

REFLECTIVE FUNCTIONING CAPACITY IN MOTHERS OF BOYS WITH ADHD,  
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by

Anne-Britt Ekert Rothstein

Advisor: Steven B. Tuber, Ph.D.

The present study investigated the experience of mothers who have children with ADHD, learning disabilities and behavior problems. Data were collected from 18 mothers of 7 to 9 year old boys with ADHD, and/or learning disabilities and behavior problems using the Parent Development Interview, (PDI-R); (Slade, Aber, Berger, Bresgi, & Kaplan, 2003). The PDI is a semi-structured interview, which asks parents to describe themselves and their children and to talk about their child's and their own emotional experiences, thoughts and feelings at times when things between parent and child go well and when they do not go smoothly. A large amount of psychologically rich data was gathered on the mothers' experience, which was qualitatively analyzed with the aim to add to our knowledge of the experience of mothers raising boys with ADHD, LDs and associated behavior problems. In addition, the narratives of the PDI were scored for *reflective functioning* ("RF") capacity (Fonagy, Steele, Moran, Steele & Higgitt, 1991; Fonagy, Steele, Steele, Leigh, Kennedy, Mattoon & Target, 1995). RF capacity describes a parent's ability to reflect on her own and her child's state of mind; much research to date suggests that there are many benefits to a mother having good mentalizing capacity, for her child and for her relationship with her child.

In the qualitative portion of the analysis of the interview, nine primary themes emerged relating to the mother's parenting experience: 1) the child's experiencing difficulties; 2) frustration and anger; 3) the mothers experiencing difficulties; 4) guilt; 5) loss; 6) worry; 7) overcoming problems; 8) learning from experience; 9) wish for the child to reach his potential. These themes are consistent with prior research, and the present study expands our knowledge of a mother's parenting experience.

The other aim of the study was to investigate the mothers' RF capacity and whether it varied dependent on the content of the various subsections of the interview. A possible relationship between RF capacity and mothers' reports of a more positive and rewarding parenting experience was considered. However, the study's findings suggest that in the current sample RF capacity did not mediate a mother's report of a more positive parenting experience. In addition, the study explored a mother's ability to mentalize while talking specifically about her affective experience of parenting compared to her RF capacity overall as measured with the PDI. The study findings suggest that only the mothers with the highest RF scores in the sample (low average) evidenced a variation in their RF functioning in this regard. Results showed that it was harder for those mothers with the higher sample scores to reflect specifically on the affective experience compared to the rest of the interview questions. Additionally this research explored a mother's ability to reflect when responding to questions that directly asked about the child's learning and behavior challenges. The study findings suggest that mothers had a more difficult time, as reflected in lower RF scores, when talking about their experiences raising a learning disabled child as well as the effect their children's learning and behavior issues had on their relationship.

Results showed that the overall RF scores of the study sample were significantly lower compared to other nonclinical samples. The study's investigation of a relationship which may exist between parenting a child with ADHD/LDs and associated behavior problems and a mother's RF capacity suggests that the emotional and psychological strains of mothering a child with these issues may lead to certain coping mechanisms and defenses that may significantly decrease a mother's ability to mentalize. If future studies confirm lower levels of mentalizing functioning in the population under study, this has far-reaching implications for clinical practice. The current study highlights the importance of working with this population therapeutically to increase its RF capacity, as it links parenting stress in this population with RF capacity, as well as coping mechanisms and defensive activity.

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## **CHAPTER I**

### **Introduction**

Many different estimates exist in the literature on the number of children affected by Attention Deficit/Hyperactivity Disorder (ADHD) and learning disabilities in general. The prevalence of ADHD is estimated to be between 3% and 7% in children of school age (DSM-IV-TR, 2000). The prevalence of learning disabilities ranges from 1% to 14% of the general population (Lagae, 2008; Pastor & Reuben, 2008). This large range in number is likely due to differences in how learning disorders are defined. The Interagency Committee on Learning Disabilities concluded that approximately 5% to 10% is a reasonable estimate of the percentage of the general population affected by learning disabilities. In 1994 the U.S. Department of Education reported that more than 4% of all school aged children -over 2 million- received special education services for learning disabilities (Interagency Committee on Learning Disabilities, 1987).

The large prevalence of these problems in children highlights the necessity of a continued effort to develop better therapeutic interventions to support their desire and ability to learn and their self-esteem. However, it is equally critical to develop interventions for the parents of these children. Many studies have been undertaken with children who have learning and behavior problems -particularly ADHD- and their families (Chronis, Chacko, Fabiano, Wymbs, Pelham, 2004; Cunningham, 2007; Harpin, 2005; Johnston & Mash, 2001; Whalen, Henker, Jamner, Ishikawa, Floro, Swindle, Perwien, Johnston, 2006). The results show that parents of children with ADHD, learning disabilities and behavioral problems often experience considerable stress

and upset as a result of their children's difficulties (Anastopoulos, Guervremont, Shelton, DuPaul, 1992; Barkley, 1990; Brown & Pacini, 1989; Harrison & Sofronoff 2002; Hechtman, 1996; Johnson & Reader, 2002; Podolski & Nigg, 2001; West, Houghton, Douglas, Wall & Whiting, 1999). Problems with attention, language, restlessness, and difficulty with reading social cues can be frustrating to parents and make it difficult for them to stay connected, remain patient, feel positively toward their children and feel good about their parenting. Unfortunately for many parents it is often a challenge to be optimistic and involved at times when their child does not achieve academic and social success and does not respond to the types of supportive strategies that work for other children.

Interventions to date have focused on the biological -through medication- and the environment. Many parenting training programs have been developed for families with children with attentional, impulse and behavior problems, to achieve better parent-child relationships, more effective parenting strategies, and improved child compliance (e.g. Forehand & McMahon, 1981; Barkley 1990; Webster-Stratton, 1981; 1984; Cunningham, C.E, & Bremner, R.B., 1995; Eyberg & Robinson 1982; Eyberg, 1988; Sanders, 1999). Although there is convincing empirical support for the efficacy of some of these programs with regard to addressing the issues mentioned above (e.g. Forehand & Long, 1988; Long, Forhand, Wierson & Morgan, 1994; Barkley, Guevremont, Anastopoulos & Fletcher, 1992; Kohut & Andrews, 2004; Webster-Stratton, 1981; 1984; 1990; Taylor, Schmidt, Pepler & Hodgins, 1998; Jones, Daley, Hutchings, Bywater & Eames, 2007; Thorell, 2009; Eyberg & Robinson, 1982; Schumann, Foote, Eyberg & Boggs, 1998; Gallagher, 2003; Bor, Sanders & Markie-Dadds, 2002), evidence is still lacking to date that shows that the programs also aid parents -particularly mothers- with problems that are

associated specifically with the parents' experience, such as parenting stress and depression. Therefore a continued need exists for effective therapeutic techniques that are tailored to support the parents with regard to the specific needs that arise for them. It is likely that parents who can better deal with the stresses, their anger and disappointment they face as a result of their children's problems are better able to stay connected to their children and help them manage some of their feelings and behaviors. This is important as it enables parents to provide better support for their children and gives them the necessary assistance in their own struggles. Supporting the parents will, in turn, have a positive impact on the relationship between parent and child.

Given the large number of diagnoses in the general population and the extent to which learning disorders, especially ADD/ADHD, have been studied, it is noteworthy that to date not much is known about the qualitative experience of these families' everyday lives through systematic study. Findings of a few recent studies begin to shed more light on both mothers' and children's perspective of the challenges of living with ADHD (Johnston & Mash, 2001; Whalen et al. 2006). Results of these studies suggest that the experience of the mothers in the ADHD sample is significantly different compared to a "normal" control group. The mothers of children with ADHD reported more problematic behaviors and mood states in their children and, more negative -particularly angry- mood states in themselves. Mothers also reported "feeling good" and "feeling effective" as a parent much less often (Johnston & Mash, 2001; Whalen et al. 2006). Studies also reported that mothers felt that their families' activities were limited by their children's problems (Johnston & Mash, 2001; Whalen et al. 2006; Brown & Pacini, 1989; Podolski & Nigg, 2001). Findings of other studies have suggested that mothers and fathers have

reported dissatisfaction with family life, lack of family cohesion and lack of family support (Brown & Pacini, 1989). Finally, the results of additional studies seem to suggest that the quality of marital relationships is negatively impacted by a child's ADHD diagnosis (Hechtman, 1996) and that parents of children with ADHD appear to get divorced more often than their controls (Brown & Pacini, 1989).

A first and necessary step toward improving existing interventions and developing new and more effective ones for these parents is to examine more systematically -and understand more in depth- what their actual parenting experience is like. More specifically, understanding which aspects of raising a child with ADHD, learning disabilities and behavior problems are particularly challenging is needed to tailor the most effective therapeutic support for both parents and their children. More research is needed that examines parents' reactions to their children's difficulties and what impact these types of problems have on parenthood and family life. It is further necessary to explore how parents experience themselves, their children and the relationship between parent and child, both in terms of parents' experience of the child in the world and in terms of the impact of the learning disability and behavior problems on moment-to-moment interactions.

It is the aim of this exploratory research study to contribute to a deeper understanding of the experience of mothers who have children with ADHD, learning disabilities and behavior problems. Given the fact that research in this area is in its beginning stages and little is known about the parenting experience, it is a main goal of this study to gather psychologically rich data of the parents' internal experience. A special focus will be on the mothers' internal experience with regard to various aspects of raising their children, especially in times of heightened

emotional arousal. A further goal is to learn about how mothers process their children's difficulties. In addition it is hoped to learn more about how the parents perceive their child's and their own internal experience and the quality of this perception; i.e. how well are these parents able to generate a detailed, complex, empathic, and truthful narrative about what their own and their children's internal experience is like.

To reach these goals it appeared particularly useful to directly examine mothers' capacity to reflect on their own and their child's state of mind. This capacity has been termed *Reflective Functioning* (RF) capacity in the theoretical, clinical and clinical research literature (Fonagy, 1991; Fonagy & Higgitt, 1989; Morton & Frith, 1995). Previous research studying RF capacity, as scored on the Adult Attachment Interview, (AAI) (George, Kaplan & Main, 1985) and its relationship to the mothers' own and her child's attachment status suggests that mothers with higher reflective capacity are more likely categorized as securely attached and are also more likely to have securely attached children (e.g. Fonagy, Steele, Moran, Steele & Higgitt, 1991. Additional research examining more specifically maternal RF capacity, as scored on the Parent Development Interview, (PDI: Aber, J.L., Slade, A., Berger, B., Bresgi, I. & Kaplan, M., 1985; PDI-R: Slade, A., Aber, J.L., Bresgi, I., & Kaplan, M., 2003) , and its relationship to attachment outcomes in children, suggests that maternal reflective functioning capacity is positively related to child attachment security (Slade, Grienberger, Bernbach, Levy & Locker, 2005b). Other research examining maternal RF capacity and the quality of affective communication, as well as sensitive mothering behavior, suggests that higher levels of overall reflective functioning capacity are correlated with mothers' most flexible affective communication and most sensitive parenting (Grienberger; Kelly & Slade, 2005). In sum, these findings appear to point to a

positive relationship between the presence of high levels of RF capacity and very desirable goals for parenting.

As the current research project attempts to understand the nature of the experience of the mothers, it lends itself to talking to them directly to find out what they are thinking, feeling and doing, and recording the findings for an in-depth qualitative evaluation of the data. A qualitative approach to collecting data is useful as it is difficult to extract detailed information about phenomena such as feelings, thought processes, and emotions through more conventional research methods. To accomplish this, the Parent Development Interview, (PDI: Aber, et al., 1985; PDI-R: Slade, et al., 2003) was chosen. This interview was developed originally to study parental representations. After Peter Fonagy introduced a scale to measure RF capacity on the AAI, Slade and colleagues adapted it for use with the PDI as well, to score specifically parents' reflective functioning capacity, meaning a parents' ability to reflect on both her own internal experience of parenting and on the child's internal experience. The interview used with the current research was slightly modified from its original version to better fit the population studied. It sought to supply rich narratives that would shed light not only on the parents' individual internal experience, but also on their capacity to know about the internal experience of their child.

It is an additional goal of this project that the data gathered will lay a foundation for future research. Finally it is hoped that more research in this area will ultimately aid in developing more effective therapeutic techniques tailored to specifically support the parents of children with ADHD as well as various types of learning disabilities and associated behavior problems. However, the development of such an intervention is beyond the scope of this current

research project.

## **CHAPTER II**

### **Literature Review**

The present study examines the reflective functioning capacity in mothers of boys with a diagnosis of ADHD and/or a variety of learning disorders and associated behavioral problems. The literature review supporting this study is divided into ten parts. The first section gives a description of childhood ADHD, beginning with a listing of the primary characteristics of children with ADHD, then followed by an outlining of the developmental course during childhood and adolescence, and concluding with a description of comorbid disorders. The second section deals with various aspects of the challenges for families living with ADHD, learning disabilities and behavioral problems. It includes a summary of the problems that have been identified in the literature to date and research on the interactions specifically between mother and child. The next section of the review consists of an outlining of what type of parent interventions have been developed to date for parents of children with ADHD, learning disorders and behavioral problems and the empirical evidence supporting the effectiveness of some of these programs with regard to various issues in the family. Evidence for the effectiveness of parent training programs on parenting stress and parent depression in particular is discussed.

Then follows a section on the contribution of the current study, i.e. the advantages of qualitative versus quantitative study, a focus on the current experience in the mother-child dyad, potential new findings regarding the parenting experience as well as the RF capacity in mothers, and finally potential contributions to a better understanding of why so many families with ADHD do not receive the services that would be helpful to them. The following section presents

the main measure used in the study, the Parent Development Interview. The sixth section contains a brief history of Attachment theory, including the work of John Bowlby and Mary Ainsworth, followed by a description of Mary Main's work which introduced a shift in attachment theory and research into the representational era. Also included here is brief discussion of the transgenerational transmission of attachment styles. The next part of the literature review looks at the concept of parental/maternal representations of the child, including how this idea has been examined empirically. This is followed by a description of the concept of reflective functioning as developed by Fonagy and colleagues, including a discussion about the importance of acquiring RF capacity for personal functioning. The research on Reflective Functioning utilizing the Adult Attachment Interview (AAI) and the Parent Development Interview (PDI), is then summarized, concluding the literature review with a summary and a list of the hypotheses of the study.

### **A. Children with ADHD**

In order to get a sense of the mother's parenting experience and the relationship that may exist between her and her child, what follows next is a brief description of the primary symptoms that are part of the ADHD diagnosis, including an outlining of the developmental course of the disorder during childhood and adolescence, followed by a brief elaboration of the comorbid problems and disorders that are frequently associated with a diagnosis of ADHD.

#### **Primary Characteristics of Children with ADHD**

Children who receive the diagnosis of Attention-Deficit Hyperactivity Disorder are generally described as having significant problems in three different yet related areas:

inattention, impulsivity and overactivity. According to the 4<sup>th</sup> edition of the DSM (DSM-IV, 2000) three different types of Attention Deficit/Hyperactivity Disorder have been established: the predominantly inattentive type, the predominantly hyperactive-impulsive type, and the combined type. The diagnostic criteria are classified into two groups, the inattentive criteria and the hyperactive-impulsive criteria. Six or more symptoms have to have been present for at least six months, present before the age of 7, and impairments from the symptoms need to be present in two or more settings. The intensity of chronic symptoms in these areas can vary significantly for each child and there can be a marked difference in terms of how the symptoms show up across a variety of situations. In the US this disorder is one of the most common reasons why children are being seen by a mental health care provider (Barkley, 1990; Greene, Biederman, Faraone, Quéllette, Penn, Griffin, 1996), and as much as 50% of children referred for psychiatric treatment are being seen for symptoms related to ADHD (Cantwell, 1995).

Research in the area of inattention seems to point to a significant lack in the ability in these children to sustain attention to a specific task and focus on enough detail to see it through. In addition these children are often easily distracted by outside stimuli. Problems become particularly notable in an unstructured play situation when children quickly move from one toy or game to another without being able to engage more fully in any one activity and stay with it for a period of time. However, difficulty with inattention appears to become most pronounced when children try to engage independently in repetitive and somewhat boring and unappealing tasks, such as home work or household chores etc. Children that evidence inattentive symptoms are often forgetful, lose things that are necessary for what they need to do, have difficulties organizing their tasks and do not succeed in following through with any necessary instructions.

In parent/teacher reports and rating scales these children are often described as: “Doesn’t seem to listen”, “Fails to finish assigned tasks”, “Daydreams”, “Often loses things”, “Can’t concentrate”, “Easily distracted”, “Can’t work independently of supervision”, “Requires more redirection”, “Shifts from one uncompleted activity to another”, and “Confused or “Seems to be in a fog” (Barkley, 1990; DSM-IV, 2000).

The second characteristic of children diagnosed with ADHD is their increased behavioral disinhibition or impulsivity compared to their peers. The way this translates into behavior is that these children often respond to tasks quickly and without waiting for instructions, or spending enough time before responding to think through what is required and making an adequate plan. In terms of their school work, this behavior often results in seemingly careless mistakes. It also often becomes apparent that children with ADHD do not pay enough attention to any risks connected to their actions, so that they end up destroying their things or other peoples’ things. Difficulty with paying attention to and assessing risks makes these children also more accident prone. Any situation that requires children with ADHD to wait their turn or delay gratification is very difficult. They may choose a less significant reward that is immediately available or nag a parent or teacher continuously in order to avoid having to wait for something they want but that they cannot have yet (Barkley, 1990).

Thirdly, children with ADHD -the hyperactive type- exhibit excessive activity with regard to their speech as well as their motor activity. They often appear restless or fidget and have trouble staying in their seat or in the room at school. They generally move their bodies around a great deal more than their peers and do so often in a way that seems unnecessary and is not related to any activity or task they are involved with. They generally have great difficulty

engaging in any activity quietly. Teachers, caregivers and peers often describe these children as “constantly being on the go”, “climbing, moving and talking excessively” and “humming or making odd noises” etc. (Barkley, 1990; DSM-IV, 2000).

### Developmental Course

Although preschoolers in general have high activity levels, are impulsive and have difficulty focusing on one specific task and staying with that task, young children with ADHD often already stand out at this age level. They often evidence physical restlessness surpassing that of their peers and can also lack intensity in their play. Further these preschoolers often show that they do not have the kind of social skills their peers are beginning to develop. They frequently show other delays in their development compared to children of the same age without the diagnosis and may in addition evidence some oppositional behaviors. Continuing on into the elementary school years, the problems of children with ADHD usually become even more apparent as they become more different than their peers who continue to develop and learn skills which enable them to achieve academic and social success. Entering into doing academic work, which requires greater cognitive efforts, is frequently a challenge for these children (Harpin, 2005; Barkley 1990; Cantwell, 1995). At the time when children are entering into primary school it often becomes more obvious that children with ADHD have problems partaking in normal daily activities, such as after school programs, play dates, accompanying their parents on errands or shopping, and during family outings, etc. Children with ADHD are often not able to succeed academically and in addition their difficulties with impulsivity and inattention make friendships with class mates challenging; children with ADHD are therefore often rejected by their peers, which can lead to stress, disappointment, depression and low self-esteem.

During adolescence activity levels are often markedly decreased; however, the problems with attention, impulsivity and inner restlessness continue on. As teens want to become more independent and are expected to do so by their environment, they are presented with more difficulties in terms of their day-to-day lives, academic work, family life and friendships. Especially as relationships with peers become more complex they can further present challenges for these teens. Problems with aggressive as well as antisocial behavior can emerge at this time making life a lot harder for these children and everyone else involved. (Harpin, 2005; Barkley 1990; Cantwell, 1995).

#### Related Problems/Comorbid Disorders

Comorbid symptoms, affiliated with a diagnosis of ADHD, are usually evidenced early in the child. Although there is great variability with regard to the extent of the symptoms, children diagnosed with ADHD are much more likely than their “normal” peers to have various additional difficulties, such as a diagnosis of one or more learning disorders, physical health issues, developmental problems, and emotional and/or behavior problems. Academic problems are also often associated with a diagnosis of ADHD as the children’s difficulties with inattention, impulsiveness and excessive activity make it very difficult for them to do well in school, often performing well below their level of intelligence. Although children are frequently able to achieve a markedly better school performance once they are successfully medicated for their ADHD symptoms, about 20% to 30% of school-age children do not positively respond to medication or show side effects that are bothersome enough so that ongoing medication treatment does not present a viable option (Barkley, 1990).

There is some discrepancy in the literature regarding the prevalence of Learning

Disabilities in the ADHD child population based on how learning disorders are defined; however, it is estimated that between 19% and 26% (Barkley, 1990) and up to 30% (Greene et al, 1996) of ADHD children also have at least one type of learning disorder. Research in the area of speech and language development also seems to point to children with ADHD having some difficulty with expressive speech. This is thought to be due to problems with “executive processing”, which is needed for various cognitive processes having to do with thinking and behavior in the process of talking. Although research on motor delays in these children is not conclusive at this time, research seems to be indicating that ADHD children may be somewhat more likely to have poor motor coordination (Barkley, 1990).

With regard to health issues some studies have shown that children with ADHD are more likely to suffer from otitis media, ear infections or are having some trouble with their vision. Children with ADHD are also more likely than their “normal” peers to report physical discomforts such as headaches and stomach aches, or other more vague physical symptoms. Some studies show that ADHD children have more general health issues during infancy and childhood and more chronic health problems such as respiratory illnesses and allergies. In addition, children with ADHD often also have sleep problems, such as difficulties falling and staying asleep, which interferes with the kind of restful sleep that is needed for them to wake up, feel rested and ready for their day (Barkley, 1990).

Emotional difficulties are very frequently associated in children with a diagnosis of ADHD; as many as 41% are diagnosed with one psychiatric disorder, as many as 32% are diagnosed with two, and about 11% have three additional psychiatric diagnoses (Barkley, 1990). Although research is not conclusive regarding whether or not these children meet all criteria for a

diagnosis of a mood or affective disorder, it appears to be clear that they certainly suffer from emotional symptoms significantly more than their peers without the ADHD diagnosis. Further there seems to be a consensus among researchers looking at ADHD children's difficulties, that they have much more trouble with behavior problems, such as stubbornness, frequent temper tantrums and disobedience; 65% of clinic-referred children are diagnosed with such problems. About 40% of children and 65% of adolescents with ADHD may be diagnosed with Oppositional Defiant Disorder; in addition 21% to 45% of children and 44% to 50% of adolescents with ADHD are diagnosed with Conduct Disorder (Barkley, 1990).

One area of research has developed the construct of "Social Disability" for children with ADHD to describe the presence of significant problems with social functioning (Greene et. al, 1996). The authors argue that Social Disability may be a useful psychometric construct to help identify those children who are at an increased risk for extremely severe difficulties with social functioning. Given what is known about the negative impact of problems with social functioning over time, the authors make a point that it may be helpful to be able to identify those children most at risk so that specific targeted interventions can be planned for and implemented accordingly.

It appears that all the problems outlined in the previous section, which may be part of the ADHD symptom picture as well as any comorbid problems described directly above would likely result in significant problems with a child's social functioning and mental well being. As these children blurt out what they want to say or act without thinking of the consequences first and intrude on others conversations or play etc., they are bound to run into serious problems getting along with others, being accepted by peers and fitting into a group of friends. It is

unfortunately not surprising that these children are often experienced by others as being selfish, rude, immature and annoying and it is only logical that as a result they would feel sad, frustrated, angry and disappointed and potentially becoming seriously depressed.

Three distinct areas of problems with peer interactions have been identified in the literature: children's deficits with regard to social communications; their difficulties with regulating their emotions, especially aggressive feelings and behavior; and deficits in social skills knowledge (Saunders & Chambers, 1996). Saunders and Chambers' research has shown that ADHD children have poor social communication and that they become involved in negative patterns of social behavior with their peers. They have been termed as "eliciting problematic behavior in others" and as being a "negative social catalyst". Children with ADHD often show more intense feelings as they can easily become over-aroused, not being able to regulate their affective processing. They frequently over-react to situations or interactions with their peers, displaying much more intense behavior and outbursts than other children, which can be unexpected and explosive and ultimately putting others off and/or scaring them (Saunders & Chambers, 1996). However, difficulties with interactions and relationships are not limited to the child's peer and school environment -having a child with ADHD usually presents a long term challenge for the parents and the family as a whole. Relevant issues will be discussed more in detail in the following section.

## **B. Challenges for the Family of Living with ADHD, Learning Disabilities & Behavioral Problems**

Children with learning and behavior problems - especially ADHD - and their families

have been studied for over 25 years and since then much progress has been made in understanding and conceptualizing the cognitive and biological underpinnings of these disorders (Johnston & Mash, 2001). However, although we know that the children's problems with attentional focus, disorganization and related problematic behaviors impact the whole family in significant ways (Johnston & Mash, 2001, Whalen et. al, 2006), studies of the interpersonal and family relationships have been lagging behind and attention to this particular topic just appeared in recent years. What is presented in this section is a summary of what challenges have been identified in the literature to date for families with ADHD children and how these challenges are defined. A special focus will be on mother-child interactions.

#### What Problems have been Identified to Date and How are they Described?

Although there is often significant improvement achieved with pharmacotherapy in the difficult behaviors associated with ADHD, such as restlessness, impatience, excessive talk, loudness, and difficulty concentrating, these same problems frequently remain to an extent that they are a burden on the family as a whole as well as other social environments, such as after-school and weekend activities, friendships etc. (Whalen et. al 2006). Medication treatment focuses primarily on targeting symptoms during the school day, leaving other important times of the day -when the child is at home with family or busy with activities outside the school- unaffected (Harpin, 2005). The recently developed longer-acting stimulant medications treating ADHD can help relieve some of the problems associated with the original short-acting medications, but there are residual problems that are noticeable to the child and to the people in the child's environment (Whalen et. al 2006). In their study mapping child and parental moods

and problematic behaviors throughout the day, Whalen et. al (2006) found in fact that mornings and weekends are times of particular challenges for children with ADHD and their families.

With their review of a large portion of the literature in this area to date Johnston & Mash (2001) noted the need for a better understanding of the specific family difficulties that often are associated with ADHD. The authors further emphasize the need for a better descriptive outlining of the difficulties with regard to how family relationships are impacted by ADHD and how parenting is shaped by its challenges. Most importantly they highlight that there has been a lack of discussion concerning what they call a “developmental perspective”, which they claim captures an interaction of the specifics of family environment with the child’s unique diagnosis, personality and individual temperament. They propose a “developmental psychopathology framework” that describes various possible connections between different aspects of family -biology as well as environment- which may be linked to child ADHD characteristics. The authors use this model to critically look at previous research, examining which dynamic/interactive and which developmental factors may play a role in childhood ADHD.

One group of children with ADHD that Johnston & Mash (2001) looked at are those with a genetic predisposition for the disorder, which make up about 50% of children with ADHD. In this group challenges in the family are understood as resulting from the child’s ADHD. Considering the strong genetic link in the prevalence of ADHD, it is often a shared trait between family members and naturally interactions between members of the family and the dynamic within the family are influenced by more than one person having the disorder. This group spans from children that have a strong genetic predisposition to ADHD who live in a highly positive and sensitive family environment, to children with a very weak genetic foundation for ADHD

who live in an extremely disorganized and unresponsive family environment. Therefore both risk factors and protective factors can vary widely in this group, creating different outcomes based on potentially very dissimilar factors. Johnston & Mash (2001) conclude that factors inherent in the family environment may not only impact symptoms associated with ADHD but also exacerbate other co-morbid symptoms. The meaning of these research findings are particularly relevant for the present study as it highlights what strong impact -positive or negative- family environment, and more specifically the relationships between parents and children as well as parenting style can have on the symptom picture in the child. Naturally, how well the child with ADHD is coping influences greatly how things go for the family as a whole and for all its members individually.

A variety of specific and significant problems have been identified to date in the literature for the members of families with one or more children who have a diagnosis of ADHD and associated problems and disorders, which seriously impact a family's coping. This impact is felt by each member of the family individually and by the family as a whole. The problems most studied are the following: lack of satisfaction with family life and support available from the family; mental health issues, such as stress and depression; dissatisfaction and problems with marital relationships (Brown & Pacini, 1989; Anastopoulos, Guervremont, Shelton, DuPaul, 1992; Hechtman, 1996; West, Houghton, Douglas, Wall & Whiting, 1999; Podolski & Nigg, 2001; Johnson & Reader, 2002).

Research indicates that ADHD families report less emotional closeness about their family relationships, less family cohesiveness, and less freedom of expression (Brown & Pacini, 1989). The parents of families with ADHD also reported that they felt their family environment to be

less supportive than the “normal” control group. The families further said that they took part in fewer social activities as a family compared to families without the ADHD diagnosis (Brown & Pacini, 1989). One study showed that various sources of social support can have a positive effect on parental coping in families with children with ADHD; however, families with children with ADHD were found to have less contact with extended family and the contacts the family did have were not found to be too helpful (Podolski & Nigg, 2001). The quality of marital relationships also seems to be negatively affected as well as the overall emotional atmosphere of the home life (Hechtman, 1996). The study by Brown and Pacini (1989) showed that more ADHD parents than non ADHD parent controls were divorced or separated.

The literature suggests that in general families with ADHD children have more difficulties than “normal” controls. This appears to be true with regard to the mental health of other family members, especially minor symptoms which often go untreated (Hechtman, 1996). Parents, especially mothers, of ADHD children report more distress and depression with regard to their parenting role than “normal” controls but also regarding their mental well being overall (Brown & Pacini, 1989; Anastopoulos, Guervremont, Shelton, DuPaul, 1992; West, Houghton, Douglas, Wall & Whiting, 1999; Podolski, Nigg, 2001; Johnson & Reader, 2002). Research by Brown & Pacini (1989) and Podolski & Nigg (2001) shows that both mothers and fathers are most distressed by the child’s oppositional conduct problems and/or aggressive behaviors. Mothers, but not fathers were also shown to be distressed by inattentive symptoms.

Studies further revealed that the severity of the mother’s depression was linked to ADHD type (West et. al, 1999; Johnson & Reader, 2002), with the combined diagnosis in the child leading to higher levels of depression, as well as more than one child with an ADHD diagnosis

also leading to more severe depressive symptoms. Research by Anastopoulos and colleagues (1992) and Harrison & Sofronoff (2002) shows that severity of ADHD symptoms significantly predicts parental stress. An additional predictor for parental stress is aggressive and oppositional defiant behaviors in the child; this was especially significant when children have a dual diagnosis of ADHD and oppositional defiant disorder. Further, an added stressor for parents is the presence of health issues in the child with ADHD. The same study found that if mothers reported health issues for themselves, their depression and other mental health issues became a very strong predictor for parental distress (Anastopoulos, Guervremont, Shelton, DuPaul, 1992).

It is important to note here that the parent's stress and depressive feelings do not only stem directly from the child's ADHD symptoms alone but also from the burden of other, related demands having to do with caring for a child with ADHD, such as responding to phone calls regarding their child's behavior and/or academic difficulties in school, tending to any problems that have come up in after school programs and other peer environments. Parents often report having to talk to other parents about their children's behavior difficulties, resolving any problems and/or educating them about their child's disorder. It is also frequently difficult for the family to find and keep a babysitter, which inhibits any social activity the parents might want to engage in. Parents often mention having to schedule meetings with teachers or health care providers regarding their child which leads them to miss work (Johnson & Reader, 2002). These are just some of the parenting responsibilities that place ongoing demands on the parents and can lead to a variety of negative feelings, such as frustration, anger, depression, and worry.

In summary we can state that according to the studies described, every individual in the family as well as the family as a whole appear to be negatively impacted by the child's ADHD

diagnosis in several major ways. All members of the family may be experiencing increased levels of stress and conflict, the relationship between the parents may be impacted in a negative way sometimes even leading to the dissolution of the union. Parents experience less satisfaction when taking care of their children and have often a more limited sense of feeling competent as a parent and that they are effective with their parenting. Finally, and not surprisingly, there frequently seems to be an increased presence of anxiety and depression in the families studied.

The review by Johnston & Mash (2001), which looked at a large number of studies examining family relationships and functioning in families with children who have ADHD, supports many of the previous findings listed above. The reviewed studies varied considerably with regard to many aspects concerning their participants, such as ADHD diagnosis, comorbid problems, child IQ, parental psychopathology, parent genotype, parenting style, socioeconomic status, etc. Although it is unclear what relationships and pathways may exist linking certain types of diagnosis with various factors concerning family environment and functioning, the authors found that most studies reported more stressful family environments and more conflicts in the families of children with ADHD compared to nonproblem control groups. Specifically, although not entirely consistent, the majority of the evidence in this area of study points to a relationship between marital discord, higher rates of divorce and separation and child ADHD diagnosis. In the studies reviewed, the parents of the ADHD children reported less parenting satisfaction, efficacy, and parenting competence. Concerning the presence of depression and anxiety in families of children with ADHD, although again the findings of the reviewed studies were not entirely consistent, there appears to be enough evidence suggesting a link between the two disorders.

Whalen et al. (2006) examined the daily lives of mothers and their school-age children who had a diagnosis of ADHD. One of the main goals of this study was to look at the challenges of child ADHD as they relate to parental functioning and quality of family life. Whalen and his colleagues list four major areas in which families are experiencing the impact of living with ADHD, as they are beginning to emerge in the literature. These areas are: 1) perception of choice versus obligation; 2) perceived level of difficulty or challenge in everyday tasks; 3) extent to which the child is perceived as limiting or constraining families activities; and 4) positive and negative maternal moods and self-perceived parental effectiveness.

The authors highlight that the challenges in the four domains described above are not simply a byproduct of having a child with ADHD. In concordance with Johnston and Mash's (2001) "developmental psychopathology framework" model they underline how stress is generated by caring for a child with ADHD and how associated burdens impact the perception of the families' quality of life, play a crucial part in the experience of everyone in the family but also impact the child's development over time and the ultimate outcome of how the child with ADHD fares in life.

One of the main findings of the Whalen et al. (2006) study, related to maternal functioning and family life, revealed higher levels of anger experienced by the mothers, lower parenting esteem, and a perception that the child was limiting activities for the whole family. The authors caution that the high anger levels in the mothers may be contributing to their children's problems, either maintaining symptoms or even exacerbating them. Although the literature indicates that pharmacotherapy appears to improve interactions between parent and child and appears to also improve overall parental attitudes, Whalen and his colleagues warn that

there is no evidence of a normalized family life. The authors conclude that medication for the child is not effective enough in treating the child's symptoms and that alleviating parental stress associated with raising a child with ADHD means also addressing parental as well as child attitudes and behaviors.

A research study from the nursing discipline (Peters & Jackson, 2008) examined the perceptions and experiences of eleven mothers of children with attention deficit hyperactivity disorder with in-depth interviews, mostly utilizing open-ended questions. The researchers applied a technique for the analysis of the narratives that focused on listening for: self-evaluative statements that speak to the relationships between a concept of self and generally perceived cultural norms; meta-statements when mothers stopped and reflected back on their experience; and where the mothers' narratives appear to be consistent and where not. Peters & Jackson found that several meaningful themes emerged from the mothers' narratives. Mothers often found the responsibility of caring for their child overwhelming, especially as they felt the need to be their child's advocate with regard to their medical treatment and school. At times mothers also felt blamed for their child's difficulties by their environments but also attributed blame to themselves. Further, themes around guilt and sadness were evident in the mothers' narratives. In addition mothers often felt that their children were stigmatized by the diagnosis and that the families experienced a certain degree of social rejection due to the child's problems. The authors highlight the intense need for support for families with ADHD -especially for the mothers.

### Mother-Child Interactions

Given the previously outlined research findings, especially as they pertain to a mother's

overall experience, mood, stress, depression, anger and perceived effectiveness with regard to raising a child with ADHD, learning disabilities and associated behavior problems, it makes sense to take a closer look at mother-child interactions specifically and review some of the literature that has examined this dyad in particular in this context. This is especially relevant given the population of the present study. A review by Hechtman (1996) looking at previous studies examining parent-child relationships reports that discipline issues usually seem to appear early in the parenting when the child is young and difficulties with parenting -and discipline in particular- then often continue to be an issue. Frequent power struggles between parent and child often become part of the parenting experience and parents may resort to more rigid and authoritarian styles of parenting.

Brown & Pacini (1989) showed in their research on perceptions of parents of children with ADHD regarding their family environment that in one-on-one interactions with their children mothers supply more direct help, verbal direction, suggestions and encouragement to help their children with their difficulties with impulse control and problems with sustaining attention and keeping on task. The researchers also found that mothers ended up giving fewer positive responses to their children and wound up focusing primarily on helping their children manage their behaviors and structuring their activities.

Several of the studies reviewed by Hechtman (1996), comparing mother-child interaction during times when the child received medication and when not, indicated that mothers of ADHD boys gave more encouragement and direction on difficult tasks to their unmedicated children, but that they also evidenced more expressions of criticism and were overall more disapproving and lacking in displays of affections. The studies further showed that the mothers overall tended to be more severe in their punishment and employed more punitive-authoritarian styles compared to

their “normal” control groups. In addition findings of the same review revealed that in free play situations mothers of ADHD children seemed to engage less with their children and encouraged play less. One could speculate that mothers are likely so focused on helping their children staying with their activities and managing their related behaviors that little space and energy is left for them to truly enter into their children’s play and do so in a way that it becomes a joyful experience.

What is further meaningful is that although mothers seemed to initially react to their ADHD children with negative responses while they were unmedicated they also had some level of negative reaction, albeit reduced, to their children while they were medicated and evidencing less symptoms. Hechtman (1996) noted in her review that consequent research, with matched controls as well as sibling studies, examining the theory that mothers of ADHD children become engaged in negative interaction patterns, revealed that in fact this appears to be the case.

A study by Woodward, Taylor & Dowdnye (1998) showed that parents, who did not cope well with their children’s hyperactivity symptoms, ended up not only negatively impacting their children’s conduct problems but also increasing their children’s ADHD symptoms. Results of the same study showed that when a parent resorted to aggressive means to discipline their children and displayed hostility and anger, the children’s ADHD symptoms also worsened.

The previously outlined findings on the challenges of raising a child with ADHD for the families as a whole and for the mothers in particular, highlights the magnitude of her stresses and the burden parenting a child with ADHD and various comorbid problems places on her. Mothers who struggle with only one, some or many of the problems outlined here as a result of their children’s ADHD are often in need of professional help and therapeutic support, which may aid them to feel better, parent more effectively and consistently, resulting in a better family life,

better relationships and better outcomes for their children. The following section will discuss such interventions for parents of children with ADHD, learning disabilities and behavioral problems and the empirical evidence for their efficacy.

### **C. Interventions for Parents of Children with ADHD, Learning Disabilities and Behavioral Problems**

This section will give brief descriptions of some of the most well known and best researched interventions for families with children with a variety of behavior problems, including a listing of the empirical evidence for the efficacy of such parent training programs and a discussion on the empirical support for their efficacy in terms of improving parenting stress and depression. Concluding this section is a discussion of the measures used to date in the study of families with ADHD and an outlining of the contributions of the current study.

Many behavioral interventions have been developed for children and adolescents with ADHD and/or behavioral problems and their families besides pharmacotherapy. These parenting programs, which are mainly based in social learning theory, offer effective parenting techniques and provide skills training for behavior modification. They include family-based interventions, school-based interventions, classroom behavior management, academic interventions, peer interventions, social skills training, summer treatment programs, and combined interventions. (For a detailed review see Chronis, Jones, Raggi, Evidence-Based Psychosocial Treatments for Children and Adolescents with Attention-Deficit/Hyperactivity Disorder, 2006).

Numerous research studies have been undertaken to evaluate the efficacy of such programs and for the most part the studies suggest that these interventions lead to an

improvement in the children's behavior and functioning as well as to an improvement of observed negative parenting (Chronis et al., 2006). Based on the extensive and convincing empirical evidence these types of interventions have been classified as "empirically validated treatments" according to the American Psychological Association (APA) Division 53 criteria (Chronis et al., 2006). Consequently participation in such programs is often recommended when the ADHD diagnosis is made for a child or adolescent.

### Parent Training Programs & Empirical Evidence for their Effectiveness

Most of these intervention programs originate in the work of psychologist Constance Hanf (1969), who developed a cognitive-behavioral program for mothers and their developmentally disabled children, which was designed to help mothers achieve better child behavior and compliance. Hanf's program has two stages, the first focuses on the mother playing with her child and only paying attention to and praising the child's cooperative behaviors and ignoring the child's minor uncooperative behaviors, thereby reinforcing the child's positive behavior. The second stage is aimed at helping the mother with giving appropriate direct commands, encouraging the child for compliance, and using time-out for non-compliance. Hanf also used "live" coaching, where the therapist gives the parent immediate feedback and guidance through a small microphone attached to the parent's ear, while observing the family through a one-way mirror during training sessions.

Many of the numerous parent training programs that followed are also cognitive behavioral approaches and similarly focus on improving parenting skills to achieve more positive interactions between parent and child and more compliant child behavior and cooperation, avoiding conflict, setting priorities and solving problems. It is these programs' aim to disrupt a

coercive cycle in parent-child interactions, encouraging positive pro-social behaviors and discouraging, and as much as possible eliminating, conduct problems in the child. Parents are taught how to provide appropriate and efficient consequences for compliance for their child as well as for noncompliance. Some of the programs are designed to work with individual parents, in groups or both. Depending on program type, different modalities are used to counsel parents and to teach new parenting skills, such as didactic materials, courses, workshops, homework, direct demonstration working together with the parents and the child during training sessions and at home, role play and the use of video tape.

As coping with any of the stresses outlined in the previous sections such as marital discord, depression and anxiety can make participation in a parent training program difficult to impossible, or sabotaging any potential positive outcomes, some of the programs developed a counseling portion in order to support parents in taking care of their own needs and by teaching them better personal coping skills to reduce stress and depressive feelings. What follows is a brief description of some of the most well known, utilized and researched parenting programs and relevant empirical evidence for their efficacy, such as the “Helping the Noncompliant Child” program (Forehand & McMahon, 1981); the curriculum developed by Barkley (1990); “The Incredible Years” program (Webster-Stratton, 1981); 1984); “Community Parent Education Program” (COPE) (Cunningham, C.E, & Bremner, R.B., 1995); “Parent-Child Interaction Therapy” (PCIT) (Eyberg & Robinson 1982; Eyberg, 1988); and “Triple P Positive Parenting” program (Sanders, 1999).

The "Helping the Noncompliant Child" program, developed by Forehand & McMahon (1981), was designed for preschool and elementary school age children and their parents. Similar to Hanf’s model, the program is made up of two phases, both geared toward helping

them interrupt a coercive cycle of interaction. The first phase consists of skills training for parents to help focus on positive interactions with the child, rewarding positive child behavior and by ignoring lesser problematic behaviors. During this part of the training parents are also taught to significantly decrease and then eliminate any verbal commands, questions and criticism expressed toward the child. During the second phase parents are being taught skills for giving clear commands and responding with consistent, appropriate consequences to child behavior, such as rewarding the child with praise and time spent playing with the child for compliant behavior and providing time out for non compliant behavior. Parents and children jointly take part in ten weekly, 60 to 90 minute sessions. The emphasis in the sessions is on extensive demonstrations, role playing and practice with the whole family, either in the training setting or at the family's home.

Effects of this type of parenting training were demonstrated for specific treated child behaviors compared to non-treated child behaviors and for treated children compared to their non-treated siblings. Parent behaviors also improved compared to those of controls and treatment effects were shown to generalize from the clinic to the home setting. These treatment effects were demonstrated short-term and at four and a half years follow-up (Forehand & Long, 1988). A long term follow up study looking at 21 families and their children with significant non-compliance issues, aggression towards others, destruction of property, and negative verbal behavior, showed that, approximately 7 1/2 years later the -now adolescents- from the original treatment group, although they did not do as well academically, were otherwise doing as well as a non-clinical community sample.

An additional follow up by Long, Forehand, Wierson & Morgan (1994) extended the follow up period from the previous study up to a 14 year total time span; it assessed four general

areas of functioning: relationship with parents, delinquency, emotional adjustment, and academic performance. The adolescent/young adult study participants were shown to do as well as their peers from the community across all areas of functioning. Although the authors did not find the results to be entirely conclusive, they nevertheless suggested that treatment effects may have continued on after this considerable time period and when adolescents were making the challenging transition into young adulthood.

An additional parenting training program was developed by Barkley (1990), which has several aims. It supplies a comprehensive education to parents about ADHD, its symptoms and diagnosis, comorbid symptoms, developmental course and impact on the family. Another goal is to address parents' incorrect perceptions related to the diagnosis, their child, or themselves, including any difficult and negative feelings they may have regarding any aspect of the ADHD. The treatment program further helps parents understand defiant child behavior as well as teach parents about the principles involved in how behavior may be managed in ADHD children. Parents are also shown how to enhance parent's skills for "positive attending" of appropriate behavior and "ignoring" minor transgressions of their children's while engaged in playing with them. Next the program involves teaching parents to apply the previously learned positive attending skills to other areas, as well teaching how to give more effective commands. Home token systems are being taught, as well as effective techniques for time-out in the home as well as in public places. It is a further objective to provide constant clinical support to parents while involved in the parent training process but then also help parents transition into functioning independently and addressing future problems on their own.

In a study by Barkley, Guevremont, Anastopoulos and Fletcher (1992), three family programs for treating family conflicts in adolescents with ADHD were compared, the program

designed by Barkley, structural family therapy approach developed by Minuchin, and problem solving and communication training program (PSCT) by Patterson. The authors looked at 64 adolescents with ADHD and their families pre and post treatments, finding that their data suggests that the treatment group following the Barkley curriculum, like the other two groups, produced significant improvements in parent-adolescent communication, number of conflicts, as well as anger levels during conflicts. In addition all treatments were able to achieve significant reduction in parent-reported school problems, as well as other internalizing and externalizing symptoms of the disorder. In addition, mothers reported less depressive feelings following treatment. All improvements were maintained at 3 months follow up. One limitation of the study however was that no control group existed, which made the results somewhat tentative.

Kohut and Adrews (2004) describe two additional studies examining the efficacy of the Barkley program. In one study 36 mothers and their ADHD children reported significantly less hyperactivity symptoms in their children as well as reduced noncompliance problems after nine weekly one hour group sessions, compared to a wait list control group. The mothers in the treatment group also reported significantly less stress and increased self esteem compared to the mothers in the control group. The improvements were found to be maintained at two months follow up. Another study, which was part of the same review, examined the treatment effects of a six week once-a-week 90 minute group session following the Barkley program on 25 parents and their twenty-five ADHD children. The results indicated that parents having received the intervention achieved significant improvement in knowledge and understanding of ADHD as well as skills for behavior management. A mild lessening of parental stress was also found after the training sessions. However, no improvements in the child behaviors were achieved as defined by a decrease of problem behavior at home.

A parent training program using videotape modeling called “The Incredible Years” was developed by Webster-Stratton, (1981; 1984). The program consists of 8 to 10 group parent sessions lead by a therapist. Over the course of the sessions 180 videotaped vignettes are being presented, showing parents with their children in both positive as well as undesirable interactions. The contents of the vignettes cover a variety of topics, such as playing with children, using rewards and praise, setting limits effectively and using time-outs, ignoring certain behaviors, making consequences of behavior clear and teaching preventive strategies. The therapist leads the parent group in a discussion after each 1-2 minute segment of the video material, focusing on parenting skills, communicating with children and handling their children’s behavior problems. Role play and rehearsal is part of the sessions and the parents receive printed didactic materials as well a homework.

In a study by Webster-Stratton (1981) of 35 mothers with their 3 to 5 year old children showed that the treatment group evidenced marked positive behavioral changes in the mothers after participating in the Incredible Years Videotaped Modeling program. An additional study by Webster-Stratton (1984) of mothers and their conduct disordered children examining maternal attitudes and parenting behavior as well as child behavior, indicated that not only the mother’s attitudes and behaviors were improved after the videotaped modeling program but the children’s noncompliant behaviors were reduced as well. The positive changes were maintained at a one year follow up. Webster-Stratton (1990) studied parents of 43 conduct disordered children between the ages of 3 and 8, who participated in self-administered videotaped parenting training, and found that for the parent group participating in the training program showed significant improvements in the reports mothers gave of their children’s behavior compared to controls. Mothers also reported significant lower levels of stress. Further, reports of children’s deviant

behaviors were also significantly reduced in the treatment group.

Another study by Taylor, Schmidt, Pepler and Hodgins (1998) looking at 108 families who sought help with conduct problems in their 3 to 8 year old children at a children's mental health center, showed evidence that parents who participated in the videotaped modeling group reported significantly less problematic behaviors in their children after completing the program. In fact the Webster-Stratton program showed superior treatment effects compared to an eclectic therapy model which was offered as well. Finally a study by Jones, Daley, Hutchings, Bywater and Eames (2007), which examined the efficacy of the Incredible Years Webster-Stratton model in a sample of families with pre-school age children who were at risk for developing conduct problems and ADHD, found that the parents receiving the intervention reported significantly less inattentive and hyperactive behavior problems for their children.

Influenced by the Webster-Stratton videotape modeling program, the Community Parent Education Program (COPE, Cunningham, 1990) was developed. It also uses videotaped material to teach parents effective parenting strategies, in addition to role play, goal setting and homework to practice new skills. It also uses the point system to reward positive behavior as well as behavior charts. This program was developed with a family systems approach to parent training. A difference of the COPE program compared to most other programs is that it is non-didactic and that it is organized through the community, rather than a mental health agency, and meets in schools or community centers in large groups. The main goals of this program are to improve parenting skills and family functioning and to help the parents with developing individual rationales. A study by Thorell (2009) looked at 25 families and their children with ADHD and/or ODD who had been referred to an adolescent psychiatric clinic for care and received COPE treatment. The results of the study suggest that COPE was effective in lessening

conduct problems, daily problem behaviors, hyperactive symptoms, lack of perceived parental control and parental stress.

Parent-Child Interaction Therapy (PCIT) (Eyberg & Robinson 1982; Eyberg, 1988) is based on Attachment Theory in addition to social learning theory in that it aims at enhancing the parent-child relationship in terms of the parent's responsiveness, warmth and overall sensitivity to the child, which is aimed at helping to support a secure working model of the child's relationships as well as supporting the child's ability to self regulate their emotions. The training techniques of PCIT focus on creating and supporting a loving relationship between child and parent, establishing a nurturing environment in which the parent can teach the child to achieve desirable behaviors and new skills and help eliminate or reduce unwanted behaviors and problematic ways of interacting with others. Another part of the PCIT program is to teach parents how to help their children to clarify their thoughts and behaviors. This treatment model consists of two parts, the child-directed interactions and parent-directed interactions. In the first part the parents are being taught new skills didactically, in following sessions the child is included and parents are taught further through life coaching during play sessions with a bug-in-ear.

In a study by Eyberg and Robinson (1982) the researchers looked at seven families and their young children with reported behavior problems, such as disobedience, aggression, destructiveness, hyperactivity or temper tantrums. The study showed that after receiving PCIT the parents were able to make significant positive changes in their parenting behavior as well as in their attitudes toward their child. Child behaviors also improved according to parent reports and were within a normal range for the age group. In spite of the encouraging results the authors caution that the study lacked a control group comparison and results are therefore tentative.

Another study by Schuhmann, Foote, Eyberg and Boggs (1998) examined 64 families and their 3 to 6 year old children who were clinically referred for conduct problems, comparing a PCIT treatment group with a wait list control. The authors report statistically and clinically significant positive changes in the parents' interaction style with their children, as well as in the children's behavior. In addition, parents reported after completing the program that they felt more confident in their ability to parent effectively and that they felt less distressed by their child's behavior issues.

A study by Gallagher (2003) examined child-outcomes for 628 preschool-aged children with ADHD in 17 studies whose families received Parent-Child Interaction Therapy (PCIT). The findings showed significant improvements for reports of behavior problem frequency and intensity, inattention/hyperactivity symptoms, child compliance, negative behaviors and verbalizations compared to the controls in all 17 studies. Furthermore, 6 of the 8 longitudinal studies showed evidence that gains from the PCIT treatment were maintained at all follow-up intervals. Six of the 17 studies included measures looking at positive change in the children's social and emotion functioning; although some of the studies showed some improvements, the findings were much less convincing. The authors caution that the assumption that a reduction of disruptive behaviors in children should automatically lead to the children's improved social and emotional life needs further investigation.

Triple P Positive Parenting Program developed by Sanders (1999) is a multi-level parenting training program that is oriented towards supporting parents and families at various levels that correspond to the specific needs of a family. The 5 levels of interventions, which increase in strength, are designed for children from birth to age 16 and their parents. The first level is comprised of media-based methods disseminating useful general parenting information

in the community, i.e. fliers and electronic media on how to address minor problems with behavior in children and information of parenting resources. The next level is a brief (1 to 2 sessions) intervention which parents pursue based on a need for help with mild behavior problems. The following level is again a brief intervention (4 sessions), which parents seek based on a specific need for parent skills training, targeting mild to moderate behavior problems in children. The next level is designed for parents who need intensive training (8 to 10 sessions) for help with more serious behavior problems in their children. Finally level 5 supplies an intense family oriented intervention that is tailored towards families with problems in addition to the child's behavior problems, such as parental stress, depression, and/or marital problems.

The interventions for all levels can be supplied in various ways, such as brief face-to-face consultations with a clinician, group sessions, telephone consultations, and/or use of self directed materials. Various program materials have been developed for clinicians and parents participating in this program; the materials target different challenges and are tailored towards addressing problems in four different developmental periods. Although the higher level interventions of this program are geared toward more severe problems that have persisted for some time, the Triple P Positive Parenting Program was designed to be a preventative program. Stepping Stones Triple P (SSTP) Parenting Program builds on the basic principles of the Triple P Program but is geared toward families who have a child with a variety of disabilities, such as intellectual and physical disabilities, disruptive behavior problems, and developmental issues (Sanders, Mazzucchelli, Studman, 2004).

Bor, Sanders and Markie-Dadds (2002) studied 87 families and their children, who evidenced, based on the mother's reports, 6 or more symptoms of inattention or hyperactivity-impulsivity in addition to scoring above the 90<sup>th</sup> percentile on the Inattentive Behavior subscale

on the Eyberg Child Behavior Inventory (ECBI) designed to assess parental report of conduct behavioral problems in children and adolescents. Two treatment groups, who were compared to a wait-list control, were given either the Positive Triple P intervention or an enhanced version of the Positive Triple P intervention, which included cognitive behavior therapy to treat depression in the mothers. The results of the study indicate that both treatment groups evidenced improvements for parents and children compared to the control group. Both interventions resulted in significantly less disruptive child behavior; the enhanced treatment group also evidenced less negative child behavior. There were also significant improvements in parenting skills and satisfaction. The enhanced treatment also resulted in significantly increased parenting efficacy and competence. The gains were maintained at 1 year follow up across all outcome measures. Contrary to the researchers expectations the enhanced treatment condition did not perform superior to the original treatment on the outcome measures or at one year follow up. A review and meta-analysis of 24 studies looking at the efficacy of PCIT and Triple P Positive Parenting Program, found that both interventions appeared to improve parental warmth, parental self-efficacy, decreased parental hostility and reduced parental stress. In most studies a reduction of aggressive child behaviors and extreme tantrums and opposition were also evidenced after either PCIT or Triple P Positive Parenting. There was some, however tentative, indication that some of the improvements could be maintained at 3 months follow up. Comparing both treatment programs, it turned out the PCIT had greater improvements overall.

#### Effectiveness of Parent Training Programs and Parenting Stress and Depression

Although empirical support for the effectiveness of many of the parenting programs has been shown with regard to improving parenting techniques, parent-child interaction, and family

atmosphere, it is not clear to date whether the programs also reduce some of the problems associated with a child's ADHD diagnosis concerning the parent experience, such as parenting stress and parent depression. There have been few studies directly examining the effects of parent training programs for ADHD families on family stress and maternal depression. Wells, Epstein, Hinshaw, Conners, Klaric, Abikoff, Arnold, Elliott, Greenhill, Hechtman, Hoza, Jensen, March, Pelham, Pfiffner, Severe, Swanson, Vitiello & Wigal (2000) report on three studies that found "positive improvements" in this regard, defined as parenting stress, parenting self-esteem, maternal depression, and parents' sense of competence.

Wells et al (2000) analyzed the findings of the MTA Study<sup>1</sup>, which looked at the treatment outcomes of 579 boys and girls with ADHD and their parents, who had been randomly assigned to either behavior therapy alone, medication management, a combination of the two or a community comparison group. This large multi-site study aimed at undertaking a more stringent examination of any relationship that may exist between medication treatment and/or cognitive behavioral treatment, and family distress, as defined by parenting stress, maternal depression, and marital conflict. The findings by Wells et al. (2000) could not support the positive previous findings for parenting stress, depression and marital conflict. The authors report that, although all treatment groups achieved significant decreases in parents engaging in negative and ineffective discipline compared to the community comparison group, there were no differences between the treatment groups, meaning parents in the medication management only group did

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<sup>1</sup>The MTA (Multimodal Treatment Study of Children with Attention Deficit Hyperactivity Disorder) is a cooperative treatment study performed by six independent research teams in collaboration with the staff of the Division of Clinical Treatment Research of the National Institute of Mental Health (NIMH), Rockville, Maryland and the Office of Special Education Programs (OSEP) of the U.S. Department of Education (DOE).

just as well with their parenting as did the parents who received behavior therapy alone or in combination with medication management. Further the findings of the same study revealed that there were no differences noted between groups for positive parenting, again showing that parents without the behavioral therapy did no better or worse achieving a positive parenting style than the comparison group.

Also important to note for the present study is that the findings further showed no group differences in maternal depression, marital conflict, and parenting stress, suggesting that neither the behavioral therapy alone or in combination with medication management improve family stress. The authors also stated that they failed to find their expected results when they did not see any synergistic effects of putting the behavioral therapy and the medication management together in terms of negative parenting compared to either treatment modality alone. The authors describe as some limitations of the study, which may have obscured any of the results, the fact that the treatment groups could not be compared to a real control group, receiving no treatment, as it would not have been ethical given what is known of the efficacy of various treatments. They further state that there may have been some added treatment from outside the study in the two one-treatment-alone groups that were unplanned and were not being controlled for.

Another study by Hoofdakker, Veen-Mulders, Sytema, Emmelkamp, Minderaa and Nauta (2007) which examined the effectiveness of two such parenting training programs, again indicated that although the training programs evidenced improvements with regard to parent-reported behavioral problems, there appeared to be no change for parenting stress. Research undertaken by the same group (Hoofdakker, Nauta, Veen-Mulders, Sytema, Emmelkamp, Minderaa and Hoekstra; 2009) looking at moderators of treatment responses, showed that only

the mothers who were rated to have "high parenting self-efficacy", were able to achieve superior treatment effects. It leaves to argue whether many if not most parents -once seeking out parenting training- would find themselves in the group parents evidencing high self-efficacy. Previously cited research by (Johnston & Mash, 2001; Whalen et al, 2006) showed that parents of children with ADHD report feeling "effective as parents" significantly less often than the "normal" controls.

In summary we can state that there appears to be convincing evidence presented to date to show the efficacy of cognitive behavioral treatment techniques for families with ADHD to achieve improvements in parenting strategies and style, more positive and less negative parenting, including better reports on parent-child relationships and interactions, and improving family atmosphere. However, no clear empirical support has been presented to date to show that parenting programs are able to also achieve improvement for reports on maternal depression and stress. It seems that more research is needed to clarify this issue further and parent programs need to continue to be developed to begin reaching more significant results in improving the various areas of parental stress. An ongoing study, sponsored by the National Institute of Mental Health, comparing the treatment efficacy of Behavioral Parent Training (BPT) with an integrated parent training program that is designed to treat depression in mothers of children with ADHD, may shed more light on this issue once completed and certainly highlights the need for continued research in this area, but also addressing the issue of tailoring programs more effectively to alleviate maternal stress and depression.

## **D. Contribution of the Current Study**

### Qualitative Versus Quantitative Measures

In studying the different ways in which ADHD, learning disorders and behavioral problems can impact families and their children, numerous questionnaires, structured interviews and self-report measures have been used to date. These examine parent, child and family factors, including parenting style, relationships between parent and child, family relationships, interactions between the parents, parental cognitions, child functioning and parental adjustment. (For a detailed review see Cunningham, A Family Centered Approach to Planning and Measuring Outcome of Interventions for Children with Attention-Deficit/Hyperactivity Disorder, 2007.) Most studies to date looking at the various challenges for the family inherent in raising a child with ADHD, learning disorders and behavioral difficulties, used quantitative measures to ascertain symptoms, such as symptom checklists and behavior inventories and reports. However, the experience of parenting is clearly much more complex than being assigned a check for the occurrence of a symptom and a number to reflect the severity of such a symptom or a feeling present.

As stated previously the focus of this study is on the mothers' experience of parenting a child with ADHD and a variety of learning disorders and associated behavioral problems. By using a semi-structured interview with open ended questions it was possible to collect much more detailed information about a mother's experience compared to data gathered with some of the widely used inventories and check lists recording merely a presence of symptoms and a severity rating. A qualitative approach to collecting and evaluating the data allowed for in-depth learning about the mothers' experience. The open ended nature of the questions also gave an

opportunity to learn something about the parenting experience and interactions that we may not have anticipated beforehand.

### Current Experience Versus Retrospective View

Whalen et al. (2006) used electronic diaries, a novel technique, to record experiences of both parents and children in families living with the challenges of ADHD. Although the authors note the value of more traditional measures such as self-report scales and interviews, with their advantages such as standardization, availability of normative data, relative low cost and ease of use and administration, they also caution that these measures, as they collect data mostly retrospectively, may also have some disadvantages. They note that when asked about events and experiences participants may only remember more recent data and in addition may also overlay personal bias or culturally accepted theories to their experiences retrospectively, which may obscure the original event or experience. An added advantage to the qualitative approach of the current study is that the questions ask about the experience and the relationship in the present, as it is current and evolving, rather than from a retrospective perspective.

### New Findings Re Parenting Experience

The findings of this study may contribute to the existing research as it adds to the knowledge about a mother's reaction to and processing of her child's problems with learning and behavior. It may reveal information about her view of the child, the relationship with the child, and about her experience with regard to various aspects of being a parent, overall and in terms of several aspects of the parenting experience. Both the review by Johnston and Mash (2001), as well as the study by Whalen et al. (2006), highlight the limited knowledge that exists to date

about the parenting experience of raising a child with ADHD, learning disorders and behavioral problems. The data this study gathered aims to contribute to a more in-depth understanding of a mother's experience with regard to raising her child, especially during times that are emotionally challenging. It will be useful to see if the current study will yield interview data that contain themes of difficult emotions in the mother, such as frustration, anger, guilt, disappointment, shame etc. related to the challenges of raising her child, as would be expected given the previous research on parental depression in ADHD families. Only with a clear understanding of what the parents' challenges are will it be possible to support the parents successfully in their efforts with raising their children, so that they can do a better job, feel better and more satisfied in their role as parents, possibly have less depression and anxiety where it is present, and potentially better the relationships between the parents, in addition to improving family life overall. This is especially relevant as a relationship has been suggested in the literature regarding the importance of the family environment for the outcome related to the child with ADHD (Johnston & Mash, 2001; Whalen et al., 2006).

### Barriers to Services

Although much empirical evidence has been gathered to date to show the efficacy of some parent training programs, it is noteworthy that ADHD children and their parents often do not receive the kind of services that could help the child and the family as a whole. Research on barriers to service use for children with ADHD and their families' show that parents and their children do not always receive the services they need for themselves and their children. A study by Bussing, Zima Gary and Wilson Garvan (2003) of 1615 elementary school children and their families showed a disparity between parents recognizing problematic ADHD symptoms in their

children and seeking professional help, with most parents being able to identify symptoms but not having their children professionally evaluated or enrolled in appropriate services. The groups much less likely to receive services were girls and African American children. It is striking that over two thirds of the parents in this study said that they did not feel the need for treatment although their children had met criteria to receive a diagnosis of ADHD.

In terms of an explanation for these puzzling findings, the researchers hypothesized that parents either have a lack of understanding of the nature of ADHD and the course of the disorder or that for some reason there is an unexpected high tolerance for the child's problems and that parents may have found some kind of explanation for these problems that may not lead them to seeking services. Although the researchers consider that other important systems barriers may exist, such as a lack of specialists, difficulty getting appointments, and nonacceptance of Medicaid, they urge that more qualitative research is necessary to shed light on why parents who are detecting troubling symptoms in their children do not seek professional help. Although no specific questions in the PDI (Slade et al. 2003), which was used in the current study, are geared toward eliciting this type of information, it is hoped that the psychologically rich data that will be gathered may give some clue as to where to look next for answers to these questions.

The following section will describe in detail the measure which was used in the present study, the PDI (PDI-2R; Slade et al., 2003).

### **E. Main Measure of the Current Study - The Parent Development Interview (PDI)**

In order to achieve the goals of the present study, an interview measure was chosen that asked the mothers a large number of direct questions about challenging moments and times of heightened emotional states with their children. The measure, the Parent Development Interview

(PDI-2R; Slade et al., 2003) (Appendix A) is a 45 item semi-structured clinical interview created to study parents' representations of their children, themselves in the role of parents, and the relationship they have with their children. The questions of the interview are grouped into seven categories. The mother is first asked to give a view of the child and a view of the relationship between herself and the child; she is then asked to elaborate on the affective experience of parenting. The interview further inquires about the mother's family history, her feelings regarding issues such as dependence/independence, separation and loss, and views of the past and the future in the context of the relationship with the child. The parent is asked to answer many of the questions in the context of the current relationship with her child, prompting for descriptions of occurrences in the past week or two. Therefore the PDI aims at eliciting responses about the current relationship with the child as it is ongoing and evolving, which helps to keep the data current and alive, adding some immediacy to it.

The PDI was revised slightly to better fit the population of the present study. Several questions were added to specifically address the issues that arise in families with children with learning disabilities and behavioral problems. The questions of the PDI address many of the issues that have been summarized in the review by Johnston and Mash (2001), such as increased stress and conflict in the family, less parenting satisfaction, efficacy and competence, as well as the prevalence of depression and anxiety. The data from the current study may also add to the findings by Whalen et. al (2006) that speak to a number of challenges of parental functioning, such as mothers' feeling of choice versus obligation in taking care of their children, their sense of effectiveness and how difficult it felt to them to get everyday tasks accomplished, being able to do the things they wanted to do with their families, and their negative feelings with regard to their child rearing, as well as overall quality of life for the whole family. Another advantage of

the PDI is that although the interview is structured, the nature of the questions and their prompts are open ended and therefore result in the collection of a large amount of psychologically rich data. Given that research is just in the beginning stages of addressing the parents' experience with raising children with learning disabilities and behavior problems, using a measure that is inviting of expansive answers seemed most appropriate to use for this exploratory study.

The PDI has its origin in Attachment theory. As many important concepts and findings from this field of research are directly relevant to the measure used in the study presented, the following section will give a brief history of Attachment theory, including the work of John Bowlby and Mary Ainsworth, followed by a description of Mary Main's work which introduced a shift in attachment theory and research into the representational era.

## **F. Attachment Theory**

### **The Beginnings: John Bowlby and the Attachment Behavioral System**

Attachment theory and the term "attachment" was developed by John Bowlby (1969, 1973, 1980), who initiated the idea that, beginning in earliest infancy, all humans develop relationships with others that are profoundly meaningful in a variety of ways and even necessary for survival. Bowlby thought that these relationships are organized around biological, emotional, psychological and cognitive functions, which are relatively predictable and stable over time. According to his evolutionary theory the child develops ways to stay physically and emotionally close to its mother as a survival mechanism, through "attachment behaviors": sucking, smiling, clinging, crying and following. These were assumed to be inborn, instinctual traits that are naturally and physically programmed in both child and parent and geared toward being and staying in close proximity to the mother (Bowlby, 1969, 1973).

According to Bowlby, this attachment behavioral system aids the child in regulating his emotional and physical needs. When the child has a need such as hunger, discomfort or fear the system becomes activated and he will show his mother with his behavior that he needs her help. In the ideal scenario she then recognizes and fulfills the need. Once the baby feels comfortable and safe again the system becomes deactivated (Bowlby, 1969, 1973). Bowlby thought of attachment as the patterns of behavior and resulting states and emotions that develop over the course of the child's development within the context of an ongoing relationship between the mother and the child that becomes established through repetition.

Another important notion within Bowlby's model of attachment is the construct of "internal working models" (IWMs) (1969, 1973). Based on repeated experiences of interaction with his/her primary caregiver(s) over time the child comes to have certain expectations regarding the behavior of his/her attachment figures and his interaction with them. These IWMs become firmly established in the way children and their parents interact with one another so that they endure into adulthood, where they become expressed again and again in all relationships (Bowlby, 1969, 1973). Bowlby's model of the "attachment system" describes how throughout the child's development, he will adapt his behavior and the expression of his needs, specifically to his mother's responsive style, as the relationship with the mother is central to his emotional and physical well being and survival (Bowlby, 1969, 1973). Therefore the child will at times distort his thoughts, emotions and expressions of his needs in order to remain "attached" to the primary caregiver (Bowlby, 1969, 1973).

In Bowlby's research two important concepts emerged: First he felt that early separation from the mother, either temporary or permanent loss through her death, has a significant negative impact on the child. Second he was certain that a predominantly negative

maternal attitude, such as hostility toward the child or inability to tolerate the child's aggression has a strong negative impact on the child as well, and that both are often tragic from a developmental point of view (Karen, 1990). The latter finding regarding maternal attitude and its impact on the child and the parent/child relationship is directly relevant to the issues in the population studied with the present study, as will be discussed later on.

### Mary Ainsworth & The Strange Situation

Mary Ainsworth, a personality and developmental psychologist, continued the research and development of attachment theory, moving the field into its next phase. Ainsworth was interested in studying the emotional and cognitive development of the child and the research question she identified and pursued, addressed what happens in the very early mother-child relationship that impacts the child's feeling secure or insecure in exploring the world around her (Karen, 1990; 1994; Main, 1999). In her research, Ainsworth found that certain specific attachment styles appeared to emerge and to be universal. The mothering styles which began to emerge in her observations were related to how the children responded to being separated from and reunited with their mothers. Her theory was that she was seeing different attachment styles, some of which were more or less secure than others (Ainsworth et al., 1978).

Up until this point, research in this area had been limited to observations in the field. In order to examine her theories more scientifically, Ainsworth developed a controlled laboratory experiment, which she called the "Strange Situation" (Ainsworth & Wittig, 1969; Ainsworth et al, 1978). It was designed to put the child in a stressful situation, where she finds herself alone and is then reunited with her mother again. This allows the researchers to observe and record the attachment system that is activated and displayed during the stress of being separated from and

without the mother in an unfamiliar environment.

Ainsworth observed three distinct patterns of behavior in the infants, which she termed secure, insecure-avoidant, and insecure-resistant (Ainsworth et al., 1978). These patterns ranged from infants having minor difficulty separating from their mothers and then engaging in play without her and being able to reunite with her without much trouble, to infants evidencing more difficulty with the separation, being unable to engage in play without her and not reunite with her easily. Through her research Ainsworth made the significant discovery that specific maternal attitudes and behaviors matched each responsive style of the infants, in that there is a significant correlation between the degree of “maternal sensitivity” or “sensitive responsiveness” and the infants’ attachment security at one year. She found that mothers of securely attached children were responsive in a positive way to the needs and cues given by the children. She further saw that the mothers of anxious-avoidant children were significantly unresponsive and rejecting when their children approached them. Finally she found that mothers of anxious-resistant children were unpredictable, sometimes responsive and comforting and at other times rejecting and unempathic (Ainsworth, 1978; Slade & Aber, 1992; Karen, 1994).

The existence of the three categories, originally identified by Ainsworth through the examination of the Strange Situation behavior, has been replicated worldwide, suggesting that these different types of attachment styles may be universal (Main, 1996). Research findings also showed that attachment styles are relatively consistent over time (Main & Goldwyn, 1995). This gave more credence to Bowlby’s initial theory of IWMs (1969; 1973), which assumed that over time the child creates an internal system of representing the relationship between himself and his mother that is durable and extends to all other relationships. Furthermore, children who are securely attached to their mothers in infancy show greater ego resilience and more competence

with regard to social interactions, cognitive abilities and play, and exploratory behaviors as observed in peer and school settings. Children who are securely attached may also be less vulnerable to developing psychopathology in the future (Slade & Aber, 1992; Main, 1996).

### Mary Main & The Adult Attachment Interview: The Representational Era

After studying 12-18 month old infants' attachment styles in relation to their mothers and fathers, Main and her colleagues later also studied the parents of the original infant sample to assess the parents and examine if there was anything in their psychology that could be related to their child's attachment status. In order to accomplish this Main and her colleagues developed the Adult Attachment Interview (AAI) (George, Kaplan & Main, 1985) and gave this interview to the parents. The AAI is a semi-structured interview lasting 1 to 1 ½ hours and is comprised of 18 questions. The questions aim at assessing a person's overall understanding of his/her experiences and relationships with parents. Specifically subjects are asked to describe their relationship with both their mother and their father. The AAIs were rated for security regarding experiences, thoughts and feelings around attachment (Main & Goldwyn, 1985; Karen, 1994).

Corresponding to Ainsworth's Strange Situation categories, Main and her colleagues proposed three adult attachment classifications, secure/autonomous, insecure/dismissing, and insecure/preoccupied. Transcripts are rated as secure/autonomous when participants appear to value attachment relationships, acknowledging their influence in an objective and independent manner. In this category a believable picture can be described either of supportive and loving parents or parents who lacked these qualities without the need to be overly idealizing or derogating of the parents. The transcripts are rated as insecure/dismissive if participants are dismissive of attachment relationships in general and talk about the relationship in a devaluing

manner. In this category often only very few childhood memories can be retrieved and parents may be idealized without supplying the autobiographical memories. In other transcripts in this category parents may be described as unloving and unsupportive but participants insist that any harsh experiences and unloving relationships have not had any negative impact on his/her development. Transcripts that fall into the category of insecure/preoccupied show proof that the participant is preoccupied with his/her attachment relationships, has some confusion about them, and is not able to talk about the relationships in an objective and coherent manner. These interviews often show a striking amount of anger toward one or both parents, and/or it becomes evident in the material that the interviewee may have struggled in the role of a parentified child. Although a person in this category is often able to supply a fair amount of early memories, it appears that he/she is often not able to integrate those into a consistent and articulate description of the relationship (Main & Goldwyn, 1985).

An additional classification surfaced termed unresolved loss (Adam, 1993; Slade & Aber, 1992). There were several participants who seemed “unscorable” in both Main’s work with the AAI and in Ainsworth’s work with the Strange Situation. It appeared that all of those participants had experienced either early separations from primary caregivers or loss of one of their caregivers through death, or had been the victim of some type of abuse (Slade & Aber, 1992).

Up until the design of the AAI different attachment styles had only been identified in terms of interpreting behavior, rather than their underlying psychological and cognitive processes. Attachment classifications of infants relied on observable non verbal behavior of the children towards a parent in the Strange Situation. The caretaking behaviors of the parents could also only be observed, then described and grouped into categories. Feelings, thoughts and other

cognitive processes that seemed so clearly related to attachment styles could not be taken into account (Main et al, 1985). The use of the AAI made it possible to gather empirical evidence for the relationship between the internal representations of attachment of the mother and her child's attachment relationship to her.

The findings of Main's research showed a significant and strong relationship between the mother's and her child's security of attachment and that this relationship is also relatively stable over time (Main et al, 1985; Karen, 1994). These results emphasize the powerful relationship between the mother's representation of her own early attachment experiences and the quality of her child's attachment style. The finding that the children's attachment styles, based on the Strange Situation behavior, could be predicted from the mothers' attachment classification based on the AAI lent powerful empirical evidence to the notion of a generational transmission of attachment (Fonagy et al., 1993; Van IJzendoorn & Bakermans-Kranenburg, 1996).

### Transgenerational Transmission of Attachment Styles

Many studies followed utilizing the AAI and confirming the "transgenerational link" between the AAI classifications that mothers receive and the Strange Situation classifications of their children. (For a comprehensive review of this body of research see Fonagy et al 1995). It had long been believed that a parent's history, including the relationship with both parents, impacts how the parent thinks about and feels toward his/her child and how the relationship with this child develops, e.g. Fraiberg's seminal psychoanalytic paper "Ghost in the Nursery" (Fraiberg et al, 1975).

Like many other researchers in this area, Main initially thought that the mother's state of mind with regard to attachment is primarily transmitted to her child through her behavior (Main

et al., 1985). However, research has not been able to establish a significant correlation between maternal sensitivity and infant attachment. A meta-analysis of 18 studies examining the transmission of attachment between child and parent by Van IJzendoorn (1995) examined the predictive validity of the AAI. He found that maternal sensitivity expressed in the mother's behavior alone is not solely responsible for the correlation between the attachment status of the mother and her child. IJzendoorn (1995) first used the term "transmission gap" to describe this lack of explanation regarding how attachment style may otherwise be transmitted generationally from the mother to her child.

With the development of the AAI and the resulting groundbreaking findings, attachment research and theory began distinctly shifting away from observing and interpreting attachment behaviors with the Strange Situation in children alone and moving toward the exploration of the mental representations underlying the attachment style in adults as well. What followed was a whole new understanding of how attachment experiences become integrated into the psychological and cognitive make-up of a person.

### **G. Parental/Maternal Representations of the Child**

For the past twenty years one area of Attachment research has focused on examining an adults' capacity to reflect on his/her past experiences in their relationships with their parents. The AAI provided a way of studying different styles of attachment organizations in adults and also provided a means for linking parental attachment status to attachment status in their children. Another more recent area of research turned to the investigation of an additional representational system -the parent's/mother's representations of her child. Bowlby's original notion of the attachment system already implied that it worked in a reciprocal manner; he

understood that not only do children form internal representations of their relationships with their parents but that parents also have an internal representations of their relationships with their children (Bowlby, 1969; 1982). Research has shown that parents, especially mothers, develop fantasies and ideas about what their children are like even early in pregnancy. Over time and especially once the baby is born those representations of the child become richer and more complex and begin to include the parents' representations of their experience as parents.

Over the past decade, numerous researchers have studied how parents develop representations of their children and what the nature of these representations are (Slade & Aber, 1992; Aber, Belsky, Slade & Crnic, 1999; Slade, Belsky, Aber & Phelps, 1999; Benoit, Parker & Zeanah, 1997; Zeanah, Benoit, Hirshberg, Barton & Regan, 1995; George & Solomon, 1989; 1996). Based on this work several measures and coding systems have been developed, using different approaches to forming a concept of and measuring the parental representations of a child. Two research groups, Zeanah et al., 1995 and George & Solomon, 1996, worked with a categorical approach in defining and coding parental representations of their child. Another group, Aber and colleagues, developed an additional measure, the PDI (Aber, Slade, Berger, Bresgi & Kaplan, 1985), using a different approach to classifying and coding parental representations of the child. With the PDI parental representations are conceptualized and measured on various continuous dimensions. The two main measures of the categorical approach will be described briefly, including a list of the research. Then a summary of the relevant research with the PDI will be discussed in more detail.

### Categorical Approaches:

#### Working Model of the Child Interview

Zeanah and his research group developed the Working Model of the Child Interview (WMCI, Zeanah et al., 1994), which is a one-hour structured interview aimed at drawing out a narrative from the parent that describes the internal representations of the child. Parents are asked to describe their infants' personalities in some detail as well as to elaborate on what their young children are like when emotionally upset or difficult, and their own responses during those times. Further, parents are asked to talk about their relationships with their infants, what they like and dislike about them and how they expect their relationships to change over time as their infant develops. The interviews are audio-taped, later transcribed verbatim and then rated using a five point scale for six categories: richness of perception; openness to change; intensity of involvement; coherence; caregiving sensitivity; and acceptance. In addition, the entire narrative is assigned one of three types of parental representations of the child: "balanced", "disengaged", and "distorted". This classification system corresponds to Main's system for categorizing adult attachment, with "balanced" corresponding to Main's "secure" attachment category, "disengaged" corresponding with Main's "dismissing", and "distorted" corresponding with the "preoccupied" category.

In a preliminary investigation (Zeanah et al., 1994), 45 non-clinical, middle-class mothers between the ages of 20 and 40 who had one-year-old infants were given the WMCI one to two weeks before the Strange Situation procedure was performed with the mothers and their infants. Results of this study showed a significant concordance (69%) between the mothers' classifications of their representations of their infants according to the WMCI (balanced, disengaged, distorted) and their infants Strange Situation classifications (secure, avoidant, resistant).

Another study (Benoit et al., 1997) of 78 expectant, Caucasian mothers between 20 and

40 years of age from stable, upper-middle-class backgrounds and their one-year-old infant, replicated the previously mentioned results and found a substantial overall concordance between WMCI and Strange Situation classifications at 12 months (73%). The researchers further found that the stability of WMCI classifications of the mothers during pregnancy and one year later was significant (80%).

In summary the findings of Zeanah and his research group show that relationships exist between the parental representations of the child prenatally and at one year and between parental representations of the child and the child's attachment status at one year.

### *Experience of Caregiving Interview*

While Zeanah and his group focused on a parent's representations of the child, another group- George and Solomon, (1996), examined a mother's representations of herself as a caregiver. To that end they designed the Experience of Caregiving Interview (George & Solomon, 1996), which is an intensive semi-structured clinical interview and which was adapted from the PDI. Like the WMCI it utilizes a categorical approach in the classification and coding of the mothers' representations of herself as a caregiver. During the interview mothers are asked to describe themselves as parents, as well as describe the relationship with their children. Mothers are further asked how they handle issues concerning attachment, such as the children first starting school and other times of separation. Maternal representations are categorized as secure, rejecting, uncertain and helpless. In a study of 32 predominantly white and middle-class mothers and their approximately 6-year-old children George and Solomon (1996) found that a strong correlation existed between maternal representations or caregiving and child attachment.

Continuous Approach:

Parent Development Interview

To evaluate parents' representations of their relationship with their children the Parent Development Interview (Aber et al., 1985) was developed which enabled researchers to study in a more straightforward manner a parents' representations of his/her relationship with a child as it is in the process of shaping and developing, rather than remembering relationships and feelings and events in the past as was captured with the AAI.

To evaluate maternal representation of the child, the PDI is scored along dimensions, rather than categories, utilizing various rating scales that assess affective and organizational features of the mothers' representation of the parent-child relationship. The three major dimensions are: 1) parental representations of the affective experience of parenting, 2) parental representations of the child's affective experience, and 3) parental state of mind in relation to the child (Slade, Belsky, Aber & Phelps, 1999). This type of scoring made possible a more detailed capturing and in depth study of maternal representations of the child.

The PDI was first used by Slade, Belsky, Aber & Phelps (1999) to study the maternal representation of the relationship with her child and its relationship to the mother's own attachment status as well as her observed mothering behavior. The research also examined how maternal representations of the relationship with the child might mediate any relationship between the mother's attachment status and parenting behavior. In this study 125 maritally intact, middle- and working -class Caucasian women between 28 and 30 years who are rearing their firstborn sons were given the PDI. The interview transcripts were coded along the three dimensions described above. The codes for maternal representation of affective experience

included: (a) degree, acknowledgment and modulation of anger; (b) neediness; (c) degree, acknowledgment and modulation of separation; (d) degree, acknowledgment and modulation of guilt; (e) experience of joy and pleasure; and (f) sense of competency and efficacy. The results of this research showed that from these variables three distinct factors emerged: joy/pleasure and coherence; anger; and guilt/separation distress.

The researchers used this coding system to investigate the relationship between the mothers' attachment status as determined by the AAI, the maternal representations of the child, and the quality of the mothering behavior. The authors found that maternal representations of the child are related in meaningful ways not only to the mothers' attachment but also to their parenting behavior. They discovered that mothers who were classified as "autonomous", as determined by the AAI, scored significantly higher on the joy-pleasure/coherence dimension. Mothers who were classified as "dismissing" scored significantly higher than other mothers on the anger dimension. Mothers who scored higher on the joy-pleasure/coherence dimension were also more positive in their parenting behavior. In addition, mothers who expressed more anger on the PDI were more negative in their mothering behavior.

A second analysis of the data was undertaken by Aber, Slade, Belsky & Crinic (1999), which included repeated testing using the PDI approximately one year after the first administration. The findings of this additional research revealed that the data for maternal representations of the younger children regarding the three factors - joy/pleasure and coherence, anger and guilt/separation distress fits the maternal representations of the 13 months older children as well. However, it appeared that there was a significant increase in the mother's anger levels. Analysis of this data suggests that a correlation exists between the mother's representation of the joy-pleasure/coherence and the anger over the time period from the

children's ages 15 - 28 months. Furthermore, it appeared that observed positive mothering predicted an increase in joy-pleasure/coherence and that conversely negative mothering led to an increase in the anger dimension. A relationship was found to exist between an increase of positive feelings with regard to the parenting experience during toddlerhood and a decrease in negative feelings, and vice versa.

Two ideas which are closely related to the concept of mental representations in the attachment literature are metacognitive monitoring (Main 1985, 1991, 1995) and reflective functioning (RF) (Fonagy et al, 1991, Fonagy et al, 1993, Fonagy et al, 1995). Metacognitive Monitoring will be described briefly followed by a more expansive description of the concept of Reflective Functioning as it is central to the study presented.

### Metacognitive Monitoring

Main placed great emphasis on the relationship between a person's attachment style and their patterns of language, attention, memory and cognition beyond feelings and behavior alone (Main et al, 1985). Main felt that the most important factor in achieving secure attachment style in adulthood, as established by the AAI, is to be able to give a "coherent" account of one's past experiences, i.e. being able to talk in a clear and believable manner without contradicting oneself or becoming confused and losing track (Slade, 1999a). Metacognitive monitoring is described as the ability to "step back and consider his or her own cognitive processes as objects of thought or reflection." (Main 1991, p.135). Main holds that a person's ability to be coherent results from having formed a single, internally consistent working model of attachment, in that a person is able to have access to a complete range of emotions and memories concerning attachment relationships. When particular feelings or memories cannot be allowed into consciousness

without a threat to the self or important relationships a person needs to form multiple working models of attachment (Slade, 1999).

## **H. Reflective Functioning/Mentalization**

The term reflective functioning (RF) describes various psychological processes that make up the ability to mentalize. It describes a person's capacity to think about and make sense of another's behavior in terms of subjective mental states including feelings, wishes and intentions. It further denotes a person's ability to engage in the kind of psychological processes necessary to reflect on one's own and another's states of mind, which are indispensable to regulating one's emotions and engaging in successful relationships with others. This ability had been defined first in the psychoanalytic (Fonagy, 1991; Fonagy & Higgitt, 1989) and the cognitive psychology literature (Morton & Frith, 1995). The construct reflective functioning (RF) was initially coined in the early 1990s by psychologists in the field of attachment theory and research (Fonagy, Steele, Moran, Steele & Higgitt, 1991; Fonagy, Steele, Steele, Leigh, Kennedy, Mattoon & Target, 1995). In the theoretical and clinical research that followed it has been shown that the capacity to reflect on one's own and other's mental states is a crucial aspect of a person's ability to regulate affect and be able to engage in productive and lasting interpersonal relationships.

Fonagy (1991) describes the concept of a person's mental representations of objects, illustrating how different levels of psychic functioning in this area relate to the overall functioning of a person in this regard. Fonagy draws from different disciplines, including the behavioral sciences, philosophy and developmental psychology, denoting six primary psychological processes and requirements that underlie the concept of reflective functioning:

- 1) the capacity to mentalize, meaning to have an understanding of various different

mental states in oneself and another

- 2) the ability to perceive and have internalized whole objects and to understand mental processes of others as separate from the self, leading to actions in the real world
- 3) the ability to further mentally separate self and other and not needing to intensely project one's own self state on to the internal representation of the other (as happens during normal earlier development)
- 4) the capacity to mentally represent emotions and thus to be able to self-regulate;
- 5) the ability to employ more sophisticated defense mechanisms which do not hinder interactions and relationships with others and to mentally represent feelings and wishes;
- 6) the ability to develop a "theory of mind", meaning an understanding of one's own mind and that of another, by having experienced some measure of safety and consistency in the early caregiver relationships, especially with the primary caretaker.

Fonagy and Target (1996) and Target and Fonagy (1996) describe the normal development of mentalizing capacity in the young child as beginning with the changes in the child's experiences of "psychic reality", the subjective experience of outer reality. In the conceptualization of this development the authors find that the infant first experiences two types of "psychic reality", the "psychic equivalent" and the "pretend modes". The main difference between the two relates to how the relationship between internal and external is experienced. Throughout infancy and early childhood both types of experienced realities become more and more integrated, with this process usually completed when the child has reached the fourth or fifth year of life, although the research of many developmental psychologists has shown beginnings of this development much earlier in a child's life - as early as 6-9 months.

They describe the "psychic equivalent" mode of experiencing "psychic reality" as the

young child feeling his inner experiences to be the same as the outer reality rather than being able to recognize it as their internal subjective stance. For a child at this developmental level, subjective and objective reality are basically the same. Until approximately age three the child feels that his/her and anyone else's thoughts are a mirror of the real world; therefore he does not yet have a full appreciation for what is real and what is not. As the young child develops he is increasingly able to engage in the "pretend mode". This mode allows the child to hold ideas in his mind that are not real, i.e. a child of this age can play at being in a boat on the sea while sitting in a cardboard box in his room. Fonagy and Target (1996) highlight that a child's capacity to pretend is far greater during play than when the child is not playing. They therefore emphasize the importance of the role of play in the development of children's understanding of the mental world. In addition, they maintain that it is important to be mindful of this fact and not underestimate the role of the adult as containing the child's pretend play, serving as protection from the reality that may be hindering the play or make it too frightening.

The authors further establish that for the integration of both modes to take place by age four or five and make way for a more reflective capacity, three types of experiences need to be sufficiently present within the child-caregiver relationship. First the child needs to be able to repeatedly experience his/her own thoughts and feelings; then he needs for these thoughts to be represented in a sensitive play partner's mind, who thirdly also contains the play and protects the child from overwhelming and/or frightening experiences. With these factors provided, the child is able to see his internal ideas, desires, fantasies etc. reflected in the mind of the adult and is in turn able to take the representations back into himself/herself recognizing them as their own thinking.

Once integration has taken place, usually by the oedipal age in normal development, the

child has achieved a “theory of mind”. This means that children of this age are relatively able to understand that their own perceptions of reality are different from others, and that others also have intentions, such as wishes, desires, hopes, and beliefs, that again are different for everyone. They can now see inner and outer reality as separate yet related in important and meaningful ways. This capacity naturally includes a reflective mode. The quality of this ability is positively correlated to the level of integration which has taken place; the more integration that has occurred in the context of a wider area of various affect states, the higher the level of the capacity to be reflective. The authors emphasize a developmental perspective with regard to the acquisition of an understanding of the mental world and highlight the importance of caregivers themselves having reasonable competency in understanding mental life.

#### The Importance of Acquiring RF for Personal Functioning

Fonagy and his colleagues address why the ability to mentalize is valuable to a very high degree with regard to five main areas of personal functioning (Fonagy et al., 1991; Fonagy et al., 1998).

1) As the child develops further toward integrating inner and outer realities he/she is able to experience an increasing degree of meaning with regard to other people’s actions.

This is not only important in that this capacity adds richer understanding and meaning to the child’s experience, but it also helps the child increasingly to anticipate other’s behavior. The child begins to be able to “read” people, being able to interpret their behavior.

2) As the child becomes more sophisticated in making the distinction between inner and outer reality in self and others, he/she is much better equipped to make sense out of the

world beyond what things seem to be like. This adds an important layer of sophistication to the defensive function and the child is no longer at the mercy of having to accept things as they appear but begins to be able to interpret others' behavior in the context of all information he/she has about a person or a situation. The authors state that this ability might be particularly useful in internally responding to maltreatment. The child that has not acquired the integration of both modes is stuck taking the maltreatment to mean that there is something bad about him/her rather than being able to interpret the maltreatment in the context of what else they know.

3) Mentalizing capacity adds richness to the child's communication with others. Without having a sense of the others' thoughts, feelings and general experience, it is impossible to have an in-depth conversation.

4) Closely related to the previous point is that without an increasing ability to integrate inner and outer reality and having an understanding of varied intentions in self and others it is not possible to have any kind of meaningful exchange with others beyond mere words.

5) The authors make a specific point of the importance of the capacity for mentalization with regard to attachment security.

This last point especially highlights the importance of good reflective functioning capacity in caregivers as it is so closely related to mothers and fathers being able to provide a sensitive parenting environment, raising children who are securely attached and who can also develop their capacity for reflective functioning. The research which will be described following further elaborates this point.

## **I. Previous Research Studying RF**

### **Previous Research Studying RF Utilizing the AAI**

Previous research of RF capacity in normal populations utilizing the AAI has shown that a mother's capacity for self-reflection predicts her child's attachment status and adjustment (Fonagy et al., 1991; Slade et al., 2005b). In addition George and Solomon (1996) reported, that mothers' who described themselves as "secure" parents were more likely to also have "secure" children, and vice versa. A positive relationship seems to exist between a parent's RF capacity and the child's attachment status, meaning the higher rated the parent's RF capacity, the better is the attachment of the child. This relationship suggests that a high ability with regard to RF enables a mother or father to parent in a way that leads to better attachment in the child.

Further, adults with high RF capacity are able to see their own parents' experiences as separate from their own (Fonagy, Steele, Moran, Steele, & Higgitt, 1991). These finding imply that increased capacity for RF aids in the process that enables a person to see herself as healthfully separate from her parents. This has important implications for good parenting, as successful separation from one's own parents is necessary for being able to help one's child in a developmentally appropriate way to experience the self as separate and whole as well.

Given the findings described above it appears that increased capacity for RF in the parent positively impacts parenting and parenting outcome. Having worked through one's own childhood experiences and relationships with one's own family of origin enough to be able to think and talk about them in a cohesive manner without needing to heavily rely on one's defensive system or become overwhelmed by affect is crucial to good parenting. Being able to understand, tolerate and express thoughts and feelings, other's and one's own, has a protective

function with regard to not needing to employ the kind of defenses that are inherent in intra and inter personal problems or characterological problems. A parent who has access to her childhood memories and can richly reflect on her history will also be better able to take in, acknowledge and tolerate her child's individual emotional expression.

### Parental RF Capacity

It is important to note here that up until this point the data available for analysis was limited to evaluating and examining adults' RF abilities, as scored on the AAI, in the context of their thinking about and describing the relationships with their own parents. Although it appeared to be a fair assumption that a person's RF capacity as measured on the AAI would have bearing on person's capacity to keep her own child in mind, it had not been possible to directly assess RF capacity in parents and in the context of the relationship with their own children (Slade, 2005).

In recent years Slade and colleagues have adapted the original scale developed by Fonagy et al. (1998) for measuring reflective functioning on the AAI to also score the PDI for parental RF capacity (Slade, Bernbach, Grienberger, Levy & Locker, 2005). This way parental descriptions of an "*ongoing, current and developing relationship with the child*" were evaluated with the PDI for parental RF capacity, versus coding the narratives of the AAI which "*refer to relationships that were formed many years hence, and to incidents and memories in the long ago past*" (Slade, 2005). By creating a way to assess the parents' narratives of the PDI for RF capacity, Slade and colleagues achieved a direct assessment of parental reflective functioning. By changing the focus of RF research from looking at past relationships, accessed through memory, to studying parental RF capacity with regard to present, "*live and immediate*"

experiences of the parent-child relationship, a major shift was introduced by Slade and her colleagues in this area of research (Slade, 2005).

#### Previous Research Studying Parental RF Utilizing the PDI

Slade notes that the research studies, utilizing the PDI and this new coding system, that follow have been undertaken with the understanding that a mother's capacity to give voice to and make meaning of her child's and her own mental states is of utmost importance to nurturing parenting. It is this function, Slade and her colleagues state, of knowing and understanding her own and her child's internal experience, that make it possible for her to "*create both a physical and psychological experience of comfort and safety for the child*" (Slade, Bernbach, Grienberger, Levy & Locker, 2005b). As the parent mirrors back to the child his/her feelings, thoughts, wishes etc., the child can safely get to know his/her own internal states and become familiar with them. The child's affective experiences that accompany the child's internal states may be too strong and/or frightening, and without the parents containing and protective influence too difficult or impossible to tolerate. As the sensitive parent helps the child in this way over and over again as the child matures, she/he will eventually begin to internalize this function.

In the first research study by Slade, Grienberger, Bernbach, Levy & Locker (2005b), the researchers looked at maternal reflective functioning capacity in first time mothers and its relationship to attachment outcomes in children. The analysis of the data for this predominantly white, educated, metropolitan sample indicated that maternal reflective functioning capacity, as measured with the PDI, is linked to adult attachment status as well as linked to child attachment security.

In an additional study Grienberger, Kelly & Slade (2005) examined the link between

mental states and observed caregiving behavior. One of the hypotheses the authors explored in their research pertained to the question of how attachment status may be transmitted from one generation to the next. What was explored in particular in this longitudinal research study is a connection between maternal RF capacity and the quality of affective communication between mother and child. In their sample of 45 first-time, upper-middle and middle class, educated mothers and their children, the authors' results indicate that maternal RF capacity and mothering behavior are closely related.

The results pointed toward mothers with high RF capacity being able to supply the most sensitive parenting. More specifically, mothers with high RF capacity had the least disruption in affective communication with their children as evidenced during the Strange Situation. The authors hypothesized that good maternal RF capacity appears to have a preventative function with regard to disturbances in affect regulation during moments when the child is experiencing distressing emotions. In addition to pointing to a link between reflective functioning capacity in mothers and adult and child attachment styles, the findings of this research further indicate that maternal reflective functioning may play a mediating role in the intergenerational transmission of attachment.

### **J. Summary and Hypotheses of Study**

The previous sections provided a context for the proposed study and elaborated on how it may fit into and add to the already existing research. The women that are part of this study are mothers of boys with ADHD and/or significant learning disabilities and a variety of related behavioral problems. These mothers experience considerable stress and upset due to their children's difficulties on a day-to-day basis. Our knowledge to date about the specific

challenges the mothers face is limited; we do not yet fully understand what their experience is like and how it interacts with their own and their children's lives and how it impacts family life. We also do not yet fully understand how the mothers perceive their own and their children's experience.

The purpose of this present study is to contribute to a better understanding of the mothers' experience, particularly with regard to various aspects of raising children, especially during more challenging moments. Special attention will be paid to the mothers' internal experience and their perception of their sons' internal experience. To reach these goals it seemed appropriate to examine the mothers' capacity to reflect on her own and her child's state of mind. To this end a measure was employed that directly measures maternal RF functioning.

### Statement of Goals and Hypotheses

This study will have three goals:

- (1) It will examine the hypotheses and the guiding questions that were posed;
- (2) Qualitatively analyze the data for what themes emerge in the mothers' responses to the interview questions;
- (3) Generate new hypotheses for future research.

It is hypothesized that mothers with higher overall levels of RF will report a more positive view of the child, of the relationship with the child and of their parenting experience. We further expect that those mothers who report a more positive experience with their children and parenting them will reach higher levels of RF in related passages on the PDI. Mothers will reach only lower levels of RF in the passages in the PDI that relate to feelings such as frustration, anger, guilt, disappointment, shame, etc. Variability of RF levels around negative themes will be

examined as well as RF Levels in the responses to questions regarding any LD issues in the family. Specifically, the RF levels in the responses to feelings of joy, pain and worry as they related to parenting will be compared to RF levels in responses to the LD questions. The themes that will emerge in the mothers' narratives will evidence more difficult feelings such as frustration, anger, guilt, disappointment, shame, etc. Case material will be presented to illustrate all findings related to our hypotheses, to describe themes discovered, and in support of any new hypotheses. Directions for future research in this area will be discussed based on the information gathered.

## CHAPTER III

### Methods

What follow in this section is a description of the study participants and the setting, the inclusion and exclusion criteria, general procedures used and an elaboration on the goals for the research with assumptions about the findings it will yield, as well as lists of the hypotheses posed and the exploratory questions, which guided the evaluation of the data. The measures used to analyze the data will be described, the appropriateness of their use discussed and their specific procedures for administration listed. Next the qualitative analysis will be described and then limitations and delimitations of the research will be acknowledged. An illustration of the results from the neuropsychological testing battery that is included in the current study concludes this chapter.

#### **A. Participants & Inclusion/Exclusion Criteria**

A group of 18 mothers was recruited to participate in this study. These participants were part of a larger ongoing research project, examining attention and language in children, funded by the National Institute on Deafness and Other Communication Disorders (Grant # 04992-02), titled: *Attention in Children with Language Impairments (ACLI)*. This research was conducted under the supervision of Dr. Hilary Gomes in the Neuropsychology laboratory in the North Academic Center at the City College of New York (Gomes, Halperin, Tartter, Ritter, Wolfson & Moody, 2001). The children who participated in this study were usually referred to the project because of problems in school due to difficulties with learning, attention and/or behavior.

### General Inclusion/Exclusion Criteria for the ACLI project

The children participating in the original project were aged between 7 and 9 years, they had to be fluent in English, have normal or corrected to normal vision, normal hearing, and pass a hearing test on the day of the experimental testing. The children also had to have a nonverbal IQ of at least 85 on the Test of Nonverbal Intelligence-Third Edition (TONI-3) (Brown; Sherbenou; & Johnsen, 1997). Children were excluded from the ACLI study if they had any chronic, medical or neurological illness or were taking systemic medication. Children who were on ADHD medication were accepted into the study but were asked to not take the medication on the day of their testing. Children were further excluded from the study if they had a history of neurological problems, if they had schizophrenia, major affective disorder, autism, pervasive developmental disorder, or a chronic tic disorder, or if they were not attending school.

### Inclusion and Exclusion Criteria for the Current Study

Most commonly in the families coming into the laboratory for testing, the biological mothers were the primary care takers of the children. It was also the mothers who were most frequently in charge of making initial contact with the laboratory, setting up the testing for their children, and bringing their children for the testing appointments. Therefore it made the most sense to recruit this population explicitly for our sample, both from the perspective of interviewing the parent who spends the most time with the child and further of creating the most cohesive sample. As a large part of the children with school issues who come into the Neuropsychology laboratory for testing are male, all mothers who have been interviewed for this study were mothers of boys by chance. However, being the mother of a son was not a criterion

for inclusion in the study. A further criterion for inclusion into the present sample of mothers was proficiency in the English language. Criteria for exclusion of mothers from the study were major chronic or acute medical illnesses or major psychiatric disorder including a psychiatric hospitalization in the recent past. No upper limit was imposed on how many mothers would be recruited for this study, but rather over a period of many months every mother who appeared eligible for the study was approached. Due to scheduling issues a small number of mothers could not be interviewed.

## **B. Procedures & Setting**

### Procedures & Setting for the ACLI Project

In addition to being administered the TONI-3 to assess nonverbal intelligence and the hearing screen, children underwent a two-part neuropsychological testing battery, consisting of the administration of the following tests: the Clinical Evaluation of Language Fundamentals 4<sup>th</sup> Edition (CELF-4, Semel, E., Wiig, E.H., & Secord, W.A., 2003); the reading subtests of the Wechsler Individual Achievement Test – Second Edition (WIAT-II; Psychological Corporation, 2001); Wechsler Abbreviated Scale of Intelligence (WASI, Psychological Corporation, 1999); and the Beery-Buktenica Developmental Test of Visual-Motor Integration – Fourth Edition Revised (Beery, K.E., 1997). During their child's testing the mothers completed the Child Behavior Checklist (CBCL; Achenbach, 2001), the Social Skills Rating System – Parent Form (SSRS-Parent Form; Gresham & Elliot, 1990) and the Attention Deficit/Hyperactivity Disorder Checklist (DSM IV, American Psychiatric Association, 1994). The teachers of the children were asked to complete the Attention Deficit/Hyperactivity Disorder Checklist (DSM IV, American Psychiatric Association, 1994).

Prior to testing begin informed consent was obtained from the mothers and informed assent was obtained from the children. Approval was granted from the Internal Review Board for this research project. After the completion of the child testing, the parents were given a written testing report describing their child's performance on all tests also providing recommendations with regard to relevant areas of weakness. At completion of all testing mothers were given \$ 50 for the families' participation and the children were given a book. The child and parent evaluation took place in Dr. Gomes' laboratory facilities 7/237 in a small, quiet testing room in the North Academic (NAC) building of the City College of New York.

#### Procedures & Setting for the Current Project

For the present study mothers were approached on one of the days of their child's testing after they had completed the parent-interview portion of Gomes' study and while they were waiting for their child's testing to be completed. The member of Gomes' laboratory who conducted the parent portion of the research approached the mother regarding participating in this new study. If the mother expressed interest in learning more about the study and potentially participating in it she met with the Principal Investigator (PI) of this research study who was also a member of Gomes' laboratory staff. The PI described the study and participation as follows in more detail with an invitation to join.

The script for first contact with potential research participants:

*"My name is Anne-Britt Ekert Rothstein. I am a doctoral candidate in the clinical psychology program at the City University of New York. I am also a member of Dr. Hilary Gomes' lab. I am currently conducting a research study with mothers who have children with learning and/or behavior problems and I wonder if you would be interested in participating in this project. I am examining what the experience of mothers who have children with school issues is like and am using a measure that looks at a mothers' reaction and processing of her child's difficulties. The interview takes approximately 1 ½*

*to 2 hours to complete. I will ask you some questions about your child and about yourself. Whether or not you participate in this study will have no bearing on your participation in Dr. Gomes' study. We will give you \$25.00 as a partial reimbursement for your time. All that we will talk about will be confidential and you will never be identified by name at any time in any written or verbal reports."* I then respond to any questions a mother might have and explain more about the interview and arrange for the interview to take place immediately afterwards.

Mothers were given an opportunity to ask any questions they may have had about the study and their participation in it. All mothers were informed that their participation in the study is voluntary, and that they may withdraw at any time. Once a mother decided to participate, a signed consent form was obtained; by signing it the mother agreed to first complete a questionnaire, the Brief Symptom Inventory (BSI), lasting between 5 and 10 minutes and then to be given the Parent Development Interview-2R LD Version (PDI-2R-LD) (Appendix A), lasting approximately 1 ½ to 2 hours. The consent included a release for tape recording the interview, increasing the accuracy of the evaluation of the data.

The Brief Symptom Inventory (BSI) is a self administered checklist which is used to ascertain the presence of symptoms of a psychiatric disorder. For the checklist mothers were asked to answer each item and respond to brief queries by the interviewer if further expansion on any item appeared relevant. However, regardless of whether or not a mother met criteria for inclusion into the subject group, as determined by the BSI, the interview was conducted. Immediately following the completion of the BSI each mother was given the PDI-2R-LD. All research measures were administered in a private office room of the Neuropsychological laboratory on the 7th floor of the NAC building. This research study has been granted approval by the City College Internal Review Board, protocol # H-0473.1.

Five of the 18 mothers included in the current study were recruited for another IRB

approved study (Ilardi, 2010) also recruiting from the same larger ACLI project previously described. This study is titled “Maternal Mentalization and Child Psychosocial Adaptation for Children with Learning and Behavioral Disorders”. For this study mothers whose sons had participated in the larger project within the last 3 years were contacted and asked if they were interested in participating in another study examining how mothers think about themselves, their children and the relationship with their children. Once a mother decided to participate she was scheduled for an interview. In addition to the BSI and the PDI-2R-LD the mothers also completed the Child Behavior Checklist (CBCL; Achenbach, 2001) and the Social Skills Rating System-Parent Form (SSRS-Parent Form, Gresham & Elliot, 1990). As with the recruitment of the current study the Ilardi study participants also signed a consent form prior to the evaluation and they also received \$ 25 upon completion. Both measures, the BSI and the PDI-2R-LD were administered in a small, quiet testing room or a treatment room.

### **C. Goals of Research**

This exploratory research study was designed to examine in depth how mothers whose children have (a) diagnosed learning disability(ies) and associated behavioral problems think about their own and their child’s internal experience and the relationship they have with their child. It investigates how well mothers are able to reflect on their relationship with their child, including the affective experience of parenting, as well as their own childhood experiences with their parents. As described more in-depth in the previous chapter, the term reflective functioning (RF) has been defined in the psychoanalytic and the cognitive psychology literatures. It describes a person’s ability to engage in the kind of psychological processes necessary to reflect on one’s own and another’s states of mind, which are indispensable to regulate one’s emotions

and to engage in successful relationships with others.

This research project also looks at the mothers' thoughts about the past and the future as well as their thoughts on issues of separation, loss and dependence/independence, all with regard to the parenting experience. It is a further goal of this research to contribute to our knowledge specifically of a mother's reaction and processing of her child's difficulties with learning and behavior. Although there are certain expectations and assumptions about the findings and their potential meaning, based on previous research, the main aim of this study was the generation of hypotheses for future studies rather than proving current ones. Specifically the mothers' reflective functioning (RF) capacity was looked at overall and with regard to various aspects of the parenting experience, especially as it relates to specific heightened emotional responses inherent in the parenting experience. In evaluating the findings, the data were further qualitatively analyzed for what themes emerged in the mothers' responses to the interview questions.

#### **D. Measures**

The measures used in the present study include the Brief Symptom Inventory (BSI), which was used as a tool to screen for acceptance. It is designed to ascertain presence or absence of current psychopathology. The main measure used in this study is the Parent Development Interview, Learning Disabilities Version (PDI-2R -LD Version) (Appendix B), which is a slightly shortened and somewhat amended version of the original PDI (PDI: Aber, et al., 1985; PDI-R, Slade et al., 2003) to better fit the population of this study. In this semi-structured interview, which lasts about 1 ½ to 2 hours, mothers were being asked to describe themselves and their children. The 44 questions that comprise the measure asked the mothers to talk about

her child's and her own emotional experiences, thoughts and feelings in moments of heightened arousal when things between parent and child go well and when they do not go smoothly. The PDI-2R - LD Version was administered immediately following the BSI.

Parental Development Interview (PDI-2R) Learning Disabilities Version (LD):

The original PDI-2R (Appendix A) is a 45 item semi-structured clinical interview, which was originally created with the aim to study parents' representations of their children, themselves in the role of parents, and the relationship they have with their children. As described in the previous section, in recent years Slade and colleagues have adapted the original scale developed by Fonagy et al. (1998) for measuring reflective functioning on the AAI to also score the PDI for parental RF capacity (Slade, et al., 2005).

The PDI-2R was selected and amended slightly for use with this study in order to provide a comprehensive measure that would allow for an in-depth study of the parenting experience of the mothers in our particular population, namely mothers of children with learning and/or behavior problems. To achieve that goal it was necessary to not only examine the mothers' level of RF capacity alone, but also to generate a substantial amount of data on the general experience of parenting children with learning and/or behavior problems that can then be qualitatively analyzed.

*Description:*

As stated previously, the PDI-2R-LD Version is a slightly shortened and somewhat amended version of the original PDI (PDI: Aber, et al., 1985; PDI-R: Slade, A., Aber, J.L.,

Bresgi, I., & Kaplan, M., 2003) to better fit the population of our study. The questions of the original interview are designed to show the parents' ability to understand their children's actions, thoughts and feelings. Most of the questions require the parent to put their answers into the context of the present and interactions with their children that have occurred within the past week or two. This allows the rater to capture a parent's responses and capacity for understanding the child and the relationship with it that are very current and alive.

Several questions were added to the original interview to draw more directly on the mothers' experiences of having a child with learning problems and/or behavior issues: A3. *Did you ever struggle in school like your child does?*; B5. *How do you think your child's learning and behavior difficulties are affecting the relationship between the two of you?*; D10. *Do you know of any problems with learning or behavior in your family? How about your mother? How about your father?*; G2. *How do you think being a mother of a child with learning and behavior problems has changed you as a mother?*

The following questions were eliminated from the original interview for use with this study. Section C: *Do you ever feel you need somebody to take care of you? What kinds of situations make you feel this way? How do you handle your needy feelings?*; Section G: *Can you imagine yourself as a grandparent? What do you imagine? What would you hope for?* These questions were chosen to be removed, not so much because of what they target in terms of gathering information, but rather as it seemed possible to eliminate them without losing data that was thought to be most relevant to our study. Additionally, given the length of the interview it was an aim to not further increase its duration.

The questions of the PDI-2R-LD Version, as with the original PDI-2R, are grouped into seven categories. The questions of the first two categories ask the mothers to give a view of the

child and a view of the relationship between herself and her child. The parent is asked to list three adjectives that describe their child, themselves and the relationship between mother and child, and then to elaborate on the words they chose for each by telling a story about it. Other questions ask about what parents like and dislike about their child, what the child likes to do on a day-to-day basis and what he has trouble with. Mothers are asked to describe two recent incidents when they felt that they and their children were and were not clicking. They are also asked in this section how they feel their relationship with their child is generally affecting the child's development and how they feel that the child's learning problems have affected the relationship.

Next, mothers are asked to elaborate on their affective experience of parenting. They are asked for three adjectives that describe their feelings about being a parent. The questions further address the experience of feeling joy, pain, anger, worry and guilt related to the parenting experience. The questions in the following portion of the interview explore the history of the mother's own family of origin. The mother is asked to list three adjectives to describe both her own mother and father and then three more adjectives to describe the relationship with each and elaborate on each with a story or an incident that comes to mind. Other questions in this category explore how the parent wants to be like or unlike each of her own parents and how she feels this has turned out in actuality.

The questions in the following three categories inquire about the parents' feelings around broader issues such as dependence/independence, separation and loss, and views of the past and the future in the context of the relationship with her child. Questions include, "when does your child need attention from you" and when not and why the parent feels this may be so in each case. Additional questions ask the mothers to reflect on times and feelings of separation and loss,

such as experienced while mother and child were physically separate and when the child started school. Parents are also asked about their impression of any potential setbacks their child may have had. Finally mothers are asked what they would do differently as a parent, given the chance, also how they feel having a child with school problems has changed them as a mother and how they imagine the relationship with their child in the future once the child is an adult.

*Appropriateness of Sample and Application:*

The PDI-2R has been used either in its original version or an adapted form for use in a variety of clinical settings, with different nonclinical populations, and examining various research questions. The PDI-2R is a particularly appropriate measure for the present exploratory study given that a) it presents a reliable measure of a person's reflective functioning capacity, especially within the context of the parenting experience as it takes place in the current parent/child relationship; b) it further yields a large amount of psychologically rich data on the mother's internal experience and her capacity to reflect on her own and her child's inner life. This is useful not only in terms of looking at RF capacity but also as it allows for an exploration on what particular themes are relevant in the parent/child relationship and parenting experience in our sample; c) the individuals represented in our sample - persons not identified as patients currently fall into the category of one of the normative samples for this measure.

*Instructions for Interview:*

Instructions for interviewers, as given by the original authors of the measure (Fonagy et al., 1998), include the following (in a shortened version): It should be the interviewers aim to put the parent at ease; the tone of the interview should be friendly and relaxed. Mothers should

be assured that there are no “right” or “wrong” answers and that the interviewers are generally interested in their individual thoughts and feelings about their parenting experience. Basic features of the interview are described, such as its length, the number of questions asked and the general themes to be covered: the parent’s view of the child and her relationship with him; her view of herself as a parent, including various intense emotions inherent in parenting; and their ideas about how they have changed as a parent since their child has been born. Questions about the mothers own childhood experiences are also included. Mothers are reminded that they can refuse to answer any questions and also decide at any point to stop the interview.

After the introduction and description, mothers are given the opportunity to ask any questions they may have before beginning and are also encouraged to ask any questions during the interview. Then the mother is told that the questions she will be asked have been prepared and must be asked in a particular order even if that means that certain questions are asked that she has spoken to previously. It is explained that adhering to this format is necessary for methodological reasons and therefore needs to be the same for each participant. Mothers are also told that some questions may seem irrelevant or foreign to them. In addition, given the length of the interview, the interviewers at times may have to speed up the participant. Interviewers are further instructed to introduce each section. Questions are to be asked exactly as they are written and should almost be committed to memory; standard probes must be asked.

Interviewers are further urged to do the interview in a manner that does not influence or change a parent’s style of answering. In other words it is important not to push the parent to reveal more than she might feel comfortable with at the moment and to resist the urge to organize a parent who is vague and disorganized. Finally after the interview is over parents should again be given the opportunity to ask any questions they have about any aspect of the interview and to

raise any concerns they may have. They are further told how to contact the interviewer in the future if there are any questions or feelings they would like to discuss further.

### The Brief Symptom Inventory (BSI):

The Brief Symptom Inventory (BSI, Derogatis, 1979) was selected for this study in order to provide a brief but comprehensive measure that captures currently present psychological symptoms, their severity and patterns. Its application specifically is to screen for psychiatric disorders in our sample population. The BSI, a shorter version of the Symptom Checklist 90 R (SCL-90-R), is a 53-item self-report inventory on a 5-point scale. The primary aim of the measure is to provide a broad sketch of a person's psychopathological condition in the present time. It measures currently existing symptoms with regard to nine primary psychological symptom categories, as described below. Although the BSI is not a measure of personality it may indirectly point to specific personality problems, as some Axis II disorders may evidence particular symptoms on a multidimensional symptom scale.

#### *Description:*

Each of the 53 items of the inventory assesses psychopathology and psychological well-being within nine primary symptom areas and is rated on a five-point scale of distress from 0 to 4, ranging from "not at all" (0), "a little bit" (1), "moderately" (2), "quite a bit" (3), and "extremely" (4) on the other end. The nine primary symptom dimensions of the BSI are: *Somatization (SOM)* – Reflects distress stemming from experiences regarding bodily problems and dysfunctions. Items mainly include distress with regards to the cardiovascular, gastrointestinal, and respiratory systems among others. *Obsessive-Compulsive*

(*O-C*) – Focuses on feelings, thoughts, impulses and actions that appear relentless and overwhelming and are experienced as ego-alien by a person. More general cognitive performance deficit are also scored within this dimension. *Interpersonal Sensitivity (I-S)* – Reflects the personal experience of feeling inadequate and inferior. *Depression (DEP)* – Centers around indications of clinical depression. Lack of motivation, loss of interest in life as well as dysphoric mood and affect are being captured with the items of this dimension. *Anxiety (ANX)* – Includes nervousness, tension, feelings of panic and terror as well as cognitive and somatic signs related to the experience of anxiety. *Hostility (HOS)* – Includes cognition, feelings, and actions that are typical of the affective state of anger. *Phobic Anxiety (PHOB)* – Captures experiences such as persistent fear responses to a person, object or situation that are out of proportion and unfounded and that ultimately lead to avoidance behavior regarding the stimulus. *Paranoid Ideation (PAR)* – Captures items related to disordered cognition including projective thought, delusion, general hostility, grandiosity, feelings of suspicion, and fear of loss of autonomy. *Psychoticism (PSY)* – Includes a range of experiences, from withdrawal and isolation, indicative of mild interpersonal alienation, to symptoms of schizophrenia indicative of psychosis.

There are four items on the BSI that are not included in any of the nine primary symptom dimensions. These items are “poor appetite”, “trouble falling asleep”, “thoughts of death and dying”, “feelings of guilt”. Although they add information to several dimensions they cannot exclusively be incorporated into any. However, they have clinical importance. These additional items are not scored collectively as a group but the items are rather added to the global scores on the BSI.

*Appropriateness of Sample and Application:*

The BSI can be used with psychiatric and medical patients as well as with a non-patient population and has already been successfully used with a broad range of individuals in a wide range of clinical settings. The measure has shown to be extremely sensitive with a large variety of populations. The BSI can be used singly as a point-in-time assessment or may be used as a repeated measure. Epidemiological research with the BSI has not been as extensive as with the original SCL-90; however, research that has utilized the BSI has shown it to reach satisfactory levels of sensitivity and specificity across varied populations (Derogatis, 1979, 1993).

The BSI is a particularly appropriate measure for the present exploratory study, given that: a) it presents a reliable measure of a person's level of psychopathology and psychological well-being; b) the individuals represented in our sample - persons not identified as patients currently fall into the category of one of the normative samples for this measure; and c) its short administration time (8 to 10 minutes) helps to maximize participant compliance, attention and staying power. Very little difficulty has been reported with participant compliance in completing the BSI. This is especially important in the context of study participants being given a relatively long interview immediately after self-administering the BSI.

*Instructions on How to Complete the Measure:*

As recommended in the Procedures Manual (Derogatis, 1979, 1993), the interviewer remains nearby to be accessible to answer any questions the participant may have. Generally the BSI takes about 2 to 5 minutes to complete. The instructions for the BSI are as follows:

*“On the next page is a list of problems people sometimes have. Please read each one carefully, and blacken the circle that best describes how much that problems has distressed or bothered you during the last 7 days including today. Blacken the circle for only one number for each*

*problem and do not skip any items. If you change your mind, erase your mark first carefully. Read the example before beginning, and if you have any questions please ask them. The term “number” in the directions refers to the standard descriptor phrases: 0 = not at all; 1 = a little bit; 2 = moderately; 3 = quite a bit; 4 = extremely”.*

### **E. Hypotheses and Exploratory Research Questions Guiding the Evaluation of the Data**

(I) The first step in evaluating the data was to determine, by looking at the BSI scores of the participants, whether the sample is primarily a clinical or non-clinical one. The expectation is that the sample is primarily a non-clinical one. In which case it will be interesting to see what the RF capacity is, as scored from the PDI. If RF scores are in fact low, it will further be meaningful to see if RF scores are low overall and/or with regards to certain sections or individual questions. Then meaningful questions can be asked regarding any possible relationships that may exist between the results of these two measures, such as for example specific relationships between level of RF scores in the mothers and their children’s symptomatology. (II) Mothers who report more positive and rewarding experiences of their children and raising them will achieve higher levels of RF in related sections of the PDI. (III) Mothers will reach only lower levels of RF with regard to passages in the interview that speak to emotional states, such as frustration, anger, guilt, disappointment, shame etc. Therefore questions like “What do you like least about your child?; “Describe a time (...) when you and your child weren’t clicking.”; “What gives you the least joy in being a parent?”; and “Tell me about a time when you felt, guilty as a parent/ ...angry with your child.”, will not get as high individual RF scores even for mothers who evidence high RF scores overall. (IV) In addition, it will be

meaningful to look more carefully at RF levels in responses to questions that address LD issues. (V) Further it will be interesting to look at the PDI questions concerning the mothers' experience of and feelings about motherhood, such as questions exploring feelings of joy, pain and worry with regard to being a parent and then comparing their level of RF with those of the LD issues questions. A relationship may exist between the mother's feelings about motherhood and her specific experience in connection with the LD issues. (VI) We will find many themes of difficult emotions in the mother, such as frustration, anger, guilt, disappointment, shame etc. related to the challenges of raising a child with learning and behavior problems.

## **F. Results/Data Analysis**

### **Parent Development Interview - Learning Disabilities Version (PDI-2R-LD Version)**

The data were scored for RF capacity according to the Addendum to the Reflective Functioning Manual (Slade, Bernbach, Grienberger, Levy and Locker, 2005) which was used as an adjunct to the original Reflective-Functioning Manual by Fonagy et al. (1998), developed for use with the AAI. The two raters, who scored the interviews for RF, have been trained by the first author of the original PDI-2R Arietta Slade, PhD and have been found to be reliable. The PI of the current study has also been given appropriate training by Dr. Slade to administer the PDI.

The raters assigned an overall RF score for each interview after studying the verbatim transcripts of the interviews in their entirety. There are no principle rules for deciding on an overall score, such as computing an arithmetic average of passage scores, but rather the interview is judged in its entirety in terms of the interviewee's capacity for RF. However, the original manual (Fonagy et al, 1998) gives a number of basic rules on how to give an overall rating to an

interview. In scoring the interviews raters are asked to pay particular attention to four general “types” of mentalization as identified in the RF manual (Fonagy et al. 1998) as follows: 1) awareness of the nature of mental states; 2) explicit effort to tease out mental states and underlying behavior; 3) recognizing developmental aspects of mental states; and 4) mental states in relation to the interviewer. There are several subtypes to each of these four categories, which may also overlap across categories.

The general category of “awareness of the nature of mental states” encompasses the following characteristics: the opaqueness of mental states, mental states are susceptible to disguise, recognition of the limitation of insight, mental states tied to expressions of appropriate normative judgments, and awareness of the defensive nature of certain mental states. The general category of “explicit effort to tease out mental states and underlying behavior” includes: the accurate attribution of mental states to others; envisioning the possibility that feelings concerning a situation may be unrelated to observable aspects of it; recognition of diverse perspectives; taking into account one’s own mental state in interpreting other’s behavior; evaluating mental states from the point of view of their impact on one’s own or other’s behavior; and freshness of recall and thinking about mental states.

The general category of “recognizing developmental aspects of mental states” includes: the struggle to comprehend the child’s developmental level and constantly evolving capacities; taking a developmental perspective; taking an intergenerational perspective, making links across generations; envisioning changes of mental states between past and present, and present and future; envisioning transactional processes between parent and child; understanding factors which developmentally determine affect regulation, and awareness of family dynamics. The general category of “mental states in relation to the interviewer” include: acknowledging the

separateness of minds; not assuming knowledge; and emotional attunement.

Levels of RF capacity in the interview responses were rated on how rich they were with regard to the above types of mental activities. The manual cautions that what needs to be taken into consideration is that responses are usually a mix of some or all of the categories. Not all categories have to always be present in a passage, although the number and frequency with which they occur is of importance and needs to be noted. Also the response rated should describe complex interactions with another, including interactions of states of self. Further, rated responses must be relevant to the situation that is being described as well as specific to mental states rather than personality characteristics.

In addition to an overall RF score for the interview the raters also give individual scores for certain passages of the interview by identifying the responses to 23 identified questions, the “demand” questions. The interview is comprised of two different types of questions, “demand” questions and “permit” questions. The “demand” questions are those questions that literally require the participant to show evidence of their reflective functioning capacities. The remaining “permit” questions give the interviewee an opportunity to show their ability to reflect but may not necessarily be answered in this way and can potentially be responded to by simply filling in history or describing events. Responses to “demand” questions are therefore the most central ones in rating the reflective functioning capacity of an interviewee; however, responses to permit questions were also rated if they added richness to the interview. The questions which were added to the original interview for the purposes of the current study, to inquire more in-depth about a mothers’ experience of having a child with learning and behavior issues, were also demand questions and scored accordingly.

The following is a list of the demand questions of the PDI-2R-LD:

B. View of the Relationship

*B2. Describe a time in the last week when you and your child really “clicked”. B3. Now, describe a time in the last week when you and your child really weren’t “clicking”. B4. How do you think your relationship with your child is affecting his development or personality? B5. How do you think your child’s learning and behavior difficulties are affecting the relationship between the two of you?*

C. Affective Experience of Parenting

*C2. What gives you the most joy in being a parent? C3. What gives you the most pain or difficulty in being a parent? C5. How has having your child changed you? C8. Tell me about a time when you got angry at your child. What happened? How did your child handle his upset? What effect did these feelings have on your child? C9. Tell me about a time when you felt guilty as a parent. What happened? How did your child handle his upset? What effect did these feelings have on your child? C10. Tell me about a time when your child was really upset. What happened? How did your child handle his upset? What effect did these feelings have on your child? C11. Does your child ever feel rejected?*

D. Parent’s Family History

*D3. Did you ever feel rejected or hurt (physically or emotionally) by your parents as a young child? D4. How do you think your experiences being parented affect your experience of being a parent now? D5. Why do you think your parents behaved the way they did during your childhood? D6. How do you want to be like and unlike your mother as a parent? D7. How about your father? D8. How are you like and unlike your mother as a parent? How are you like and unlike your father as a parent? D9. Do you know of any problem with learning or behavior*

*in your family? How about your mother? How about your father?*

*E. Dependence/Independence*

*E1. When does your child need attention from you? E2. Why do you think those are the things that he needs help with? E3. When does he feel comfortable doing things on his own? E4. What happens when he can't do things on his own?*

*F. Separation and Loss*

*F1. Think of a time you and your child weren't together, when you were separated; can you describe it? F2. What was it like when your child first went to school? F3. Has there ever been a time in your child's life when you felt as if you were losing him/her just a little bit? What did that feel like for you? F5. Do you think there are experiences in your child's life that have been a setback for him?*

*G. Looking Behind Looking Ahead*

*G2. How do you think being a mother of a child with learning and behavior issues changed you as a mother?*

The RF scale exists on a 11-point continuum from low to high mentalizing capacity. The Fonagy et al Manual (1998) supplies detailed definitions for RF capacity on six scale points: *Negative (-1) to full or exceptional (9) Reflective Functioning*, with the following intermediate points: *absent but not repudiated (1); questionable or low (3); definite or ordinary (5); and marked (7)*. The scale is supposed to be understood as making a distinction between *Negative-Limited RF (-1 to 3)* and *Moderate to High RF (5 to 9)*. Scores that fall under 5 indicate either negative, absent or low (and not fully realized) RF. Scores of 5 and higher indicate unambiguous support of mentalizing capacities. A score of 5 has been shown to be the most common overall

score in a “normal” sample (Slade et al., 2005).

### The Brief Symptom Inventory (BSI)

The raw scores for each of the nine symptom dimensions are calculated. In addition to the nine primary symptom dimensions, the BSI is scored and profiled in terms of three global indices of distress: Global Severity Index (GSI), Positive Symptom Total (PST), and Positive Symptom Distress Index (PSDI). The three global indices are added to the measure to provide a more detailed evaluation of a person’s psychopathology on a more wide-ranging plane of psychological well-being, regardless of specific symptomatology. The GSI is calculated by summing up the responses for the nine symptom dimensions and the additional items and dividing this number by the total number of items (53 if all items were responded to). The PST is obtained by adding the number of items that had a non-zero response. The PSDI is derived by dividing the sum of all values for each item on the PST.

Raw scores for the nine symptom dimensions and the three global indices are then converted into standardized T scores and plotted on the appropriate profile according to the norm group (adult nonpatients). The PST is charted separately as it reveals a different numerical raw score range. The BSI is interpreted on three different yet related levels. It yields information regarding discreet psychological symptoms, in addition to providing information on the global and dimensional level. All information joins to convey an integrated picture of each participant’s current psychological symptom status and overall well-being. The operational rule for “caseness” states that if a participant’s GSI score is greater than or equal to a T score of 63, or if any two primary dimension scores are greater than or equal to a T score of 63, then the individual will be considered a positive diagnosis or a case. Although the authors of the measure

caution that generalizability of this decision rule has not been fully explored across a large number of populations, correct assignment of diagnoses have been made to a satisfactory degree (Derogatis, 1979; 1993).

#### Qualitative Analysis of the Narratives of the PDI-2R:

In addition to scoring the responses to the PDI for RF and analyzing the RF results, the data was further qualitatively analyzed for any themes that appeared. Given the sample it was expected that themes of difficult emotions in the mother, such as frustration, anger, guilt, disappointment, shame etc. related to the challenges of raising a child with learning and behavior problems would emerge. In addition to these themes, which were expected based on the literature review other themes were expected to also emerge from the data itself. In order to generate the themes of the narratives, the transcribed interviews were first read repeatedly, then sections in which mothers speak to their children's learning and behavior issues will be highlighted, following a "cutting and sorting technique", which was used; further quotes that spoke to the same theme were grouped together. Finally, with a further examination of the data within each theme, subthemes were created within each main theme.

#### **G. ACLI Neuropsychological Test Battery Results Included in Current Study**

Some of the testing results from the neuropsychological test battery, which the children underwent as part of the ACLI project, that examined intelligence, ADHD status, language and reading, were used for the current study. Relevant data from this larger project is presented in order to establish that the mothers in the current study are in fact part of the population described in the literature review preceding this section. It is demonstrated that the mothers from the

current study, whose children took part in the ACLI study, are indeed parents of children with ADHD, various learning disabilities and behavioral problems, and that they may experience considerable stress and upset comparable to what is reported for this population in the literature, such as reviewed in the previous section.

Regarding ADHD status, mothers, the children's teachers and the examiners who did the children's evaluation completed the DSM-IV ADHD rating scale (DuPaul, Power, Anastopoulos & Reid, 1998). This measure uses ADHD criteria as defined by the DSM-IV (American Psychiatric Association, 1994) to ascertain the presence and magnitude of ADHD symptoms. Raters are asked to indicate ADHD related symptoms on a 4-point Likert scale ranging from 0 "never or rarely" to 3 "very often". Symptoms are considered to be present if a rating of 2 or 3 is given.

To identify language impairments, scores from the Clinical Evaluation of Language-4<sup>th</sup> Edition (CELF-4, Semel, Wiig & Secord, 2003) were used. Previous research using the same sample as the current study suggests that using only the summary scores for expressive and receptive language may not give a complete picture of the children's language abilities (Ilardi, 2010). The author argues that looking at the individual language subtests scores of the CELF-4 instead may be yielding a much more accurate picture of the children's difficulties with language, as children may experience problems in very specific areas of language, which can become obscured by looking at the summary scores alone (Ilardi, M., 2010). Following this author's lead, the same evaluation criteria were used for the current study with regards to language impairments. Scores for the following subtests of the CELF-4 were used to identify the children's weaknesses in receptive language abilities: Concepts and Directions, Word Classes and Sentence Structure. To identify areas of difficulty within the children's expressive language

abilities the following subtests were used: Word Structure, Recalling Sentences, Formulated Sentences and Word Classes.

In order to identify children with reading impairments, Reading Composite Scores from the Wechsler Individual Achievement Test – Second Edition (WIAT-II) (Psychological Corporation, 2001) were used. The subtests that made up the composite score for reading included the following: Word Reading, Reading Comprehension and Pseudoword Decoding.

## **CHAPTER IV**

### **Results**

Five sets of results are presented in this chapter. The first includes descriptive statistics for the mothers who participated in this study. Basic demographics were recorded in an effort to give a broad overall picture of the population under study. The second set of results shows the BSI scores for the participants with an analysis to determine whether or not the current sample is a clinical or non-clinical one. The third data set describes the participants' sons with regard to their ADHD status and any language impairments or reading disorders. The fourth data set examines the RF capacity of the mothers. The final set of data is a qualitative analysis of the narrative of each mother's PDI interview and looks at some of the themes that were found in the narratives of the interviews related to the mothers' experience of raising a child with learning and behavior problems.

#### **A. Sample Characteristics**

Eighteen mothers consented for participation in this study. The mean age of the mothers was 39.8 years (SD=3.80), with an age range of 34 to 46 years. All mothers were the biological mothers and the primary caregivers of the boys who participated in the study. Eleven of the mothers (61.1%) were married to the biological father of their sons; 1 mother (5.5%) was married to her son's step father. There were four single parent mothers (22.2%), one mother

(5.5%) was divorced and one mother (5.5%) was separated from her son's biological father. The racial/ethnic background that the mothers reported on for their families was as follows: 8 families (44.4%) were Black or African American/non-Hispanic; 2 families (11.1%) were Caucasian/non-Hispanic; 5 families (27.7%) were Hispanic/Latino; 2 families (11.1%) were Caucasian-Hispanic; and 1 family (5.5%) identified as Hispanic/Latino American Indian or Alaska Native. All participants were fluent in English, with 9 households (50%) being bilingual, of which 8 (44.4%) spoke Spanish in addition to English and one household (5.5%) spoke Creole.

All mothers (94.4%) but one (5.5%) had completed high-school, with an overall mean number of 14 years of education, with a range of 11 years to 16 years of education. Four mothers (22.2%) had completed a four-year college; 8 mothers (44.4%) had some college education, one mother (5.5%) completed a degree from a two-year college; and one additional mother (5.5%) was one year into her master's degree. Fourteen of the mothers (77.8%) were employed, 3 (16.7%) were homemakers and one (5.5%) was unemployed. Fourteen of the mothers (77.7%) reported no school or behavior issues in either parent's history. One mother (5.5%) reported school issues for herself and three mothers (16.6%) reported school and behavioral problems for the son's biological father.

The sons' mean age at the time when the mothers were given the PDI-2R-LD was 122 months (10 years and 2 months) ( $SD=20.65$ ). Thirteen of the boys (72.2%) had not repeated a grade, 3 boys (16.7%) had repeated a grade and for 2 boys (11.1%) this information was missing. Twelve of the boys (66.7%) did not receive special services in school, 4 of the boys (22.2%) did receive such services and for the remaining two boys (11.1%) this information was not given at the time of testing. Two of the boys (11.1%) had been prescribed medication to help control

their ADHD symptoms. Most of the mothers 12 (66.7%) were administered the PDI-2R-LD within one or two months of their children undergoing the two part testing battery of the ACLI project. As previously mentioned, 6 (33.3%) of the 18 mothers were recruited for another IRB approved study (Ilardi, 2010); for that research project mothers, whose sons had participated in the ACLI study within the last 3 years, were contacted and asked to participate in the study. The mean number of months between those children's last ACLI evaluation and their mothers being administered the PDI-2R-LD was 20.5 (SD=8.22).

## **B. BSI Scores for Participants**

Seventeen (94.4%) of the 18 participants completed the Brief Symptom Inventory (Derogatis, 1975); however, one (5.5%) of the 17 entered all zero responses, rendering the test invalid. The remaining 16 (88.8%) BSIs were evaluated for the sample. The BSI scores of the participants are shown in Tables 1 and 2 below. For the purpose of evaluation and comparison the absolute BSI values were transformed into *T*-scores. Table 1 shows the *T*-scores of the study sample for each of the 9 symptoms, as well as the three global indices of distress associated with the BSI: the General Severity Index (GSI), the Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST). Table 1 also indicates which of the participants qualifies for the definition of a positive case. According to Derogatis (1979), *T*-scores  $\geq 63$  are used as cut off values to define a positive case. The rule for caseness states that if a participant has a GSI score  $\geq 63$ , or has a score  $\geq 63$  on any two primary dimensions the individual is considered a positive case. Although the generalizability of this definition of caseness has not been explored to the fullest extent, comparisons with medical cohorts as well as with patient and community samples have yielded high levels of correct assignment with acceptable error levels (Derogatis, 1979).

Applying the above described rules for the statistical cut-off point, two of the mothers (5.5%) in the sample were classified as clinical cases.

Further, a one-sample *t*-test analysis was used to compare the mean standardized *T*-scores for the participants in the present study with the published BSI standardized scores ( $M=50$ ,  $SD=10$ ) for a non-clinical community sample, regarding overall psychological distress, as well as with regards to each primary symptom dimension. See Table 2 for the published means and standard deviations and the current sample means and standard deviations (Derogatis, 2007). After evaluation of this study's sample data and comparison with the norm data available, it can be determined that our sample does not differ significantly from the normative group in terms of overall psychological distress and with regard to the majority of the symptoms measured by the subscales of the BSI. However, the data indicate that our sample differs significantly on three of the subscales compared to a normative sample. These 3 subscales are the measure of obsessive, compulsive symptoms, [ $t(16)=2.82$ ,  $p<0.01$ , sample  $M=56.25$ ,  $SD=8.88$ ]; the measure of interpersonal sensitivity, [ $t(16)=2.20$ ,  $p<0.04$ , sample  $M=45.81$ ]; and the measure of anxiety, [ $t(16)=2.61$ ,  $p<0.05$ , sample  $M=45.69$ ].

After analyzing the BSI data once more, this time excluding the data for the two mothers who qualified as "cases", the measure of obsessive-compulsive symptoms did no longer differ significantly compared to a normative sample. The remaining two measures of interpersonal sensitivity and anxiety remained significantly different, [ $t(14)=3.36$ ,  $p<0.05$ , sample  $M=44.29$ ,  $SD=6.35$ ]; [ $t(14)=2.81$ ,  $p<0.01$ , sample  $M=44.43$ ]. In summary, although our sample with regard to overall psychological distress and the majority of symptoms evaluated, does not differ significantly from a normative sample, it does appear that the current sample reported elevated symptoms for interpersonal sensitivity and anxiety and to a certain extent also obsessive

compulsive symptoms, which do differ significantly from “normal” controls.

Although the analysis of the BSI data suggests that our population has somewhat elevated symptoms on three of the subscales compared to a normative sample, it also shows that the sample does not differ significantly with regard to overall psychological distress and most symptoms reported for the majority of the subscales, compared to a non-clinical population. Therefore it appears reasonable to make interpretations regarding the mothers’ ability to reflect on their own and their children’s experience in the context of the parenting experience with children who have a variety of learning issues and associated behavior problems.

Given the challenges and stresses the existing literature describes for mothers of children with ADHD and other learning and behavior issues, it may be expected that our sample would differ from the norm on some of the reported symptoms. The final chapter, following this one, will present a discussion on the findings of this study and it will further examine any meaning these elevated symptoms may be given for this sample in the area of interpersonal sensitivity, anxiety and obsessive compulsive symptoms.

Table 1

*Brief Symptom Inventory: T-Scores for Participants on 9 Primary Symptom Dimensions and the Three Global Indices of Distress Associated with the BSI (n = 16)*

ID	SOM	O-C	I-S	DEP	ANX	HOS	PHOB	PAR	PSY	GSI	PSDI	PST
5021	49	53	41	42	38	39	45	55	45	43	65	39
5018	53	58	49	42	55	55	45	43	46	52	50	52
5015	49	45	41	50	51	56	45	55	45	53	55	51
5014	41	50	41	42	38	39	45	52	46	41	43	41
5013	49	50	63	57	51	51	57	59	58	55	46	58
5012	53	61	41	42	45	65	45	55	46	53	55	51
5037	60	53	41	44	51	51	45	43	46	52	56	51
5047*												
5004	41	50	41	42	38	39	45	43	45	36	43	36
5009	53	58	41	54	38	55	45	53	46	50	54	49
5036**												
5024	41	38	41	42	38	51	55	43	46	36	44	36
5042	58	65	41	42	38	51	45	59	46	52	67	46
5048 $\alpha$ 53		69	63	68	60	59	45	61	75	65	56	55
5052 $\alpha$ 58		65	68	57	70	55	53	65	62	64	58	65
2103	41	53	41	42	38	51	45	59	46	46	44	48
2101	41	66	49	62	45	39	45	43	62	57	62	53
2100	41	61	49	54	58	62	60	71	46	59	57	59

\*Invalid test, all zero responses

\*\*Missing BSI

$\alpha$  positive caseness

Table 2

*Brief Symptom Inventory: Published and Current Sample Means and Standard Deviations (n = 16)*

Subscales	M	SD	T	P
Published Community Norm	50	10		< 0.5
Subscales				
SOM	49.94	9.54	ns	< 0.5
O-C	56.25	8.88	2.82	< 0.01
I-S	45.81	7.62	2.20	< 0.04
DEP	49.75	10.12	ns	< 0.9
ANX	45.69	7.97	2.61	< 0.05
HOS	50.88	8.22	ns	< 0.7
PHOB	47.38	5.03	ns	< 0.05
PAR	53.56	8.58	ns	< 0.1
PSY	50.75	9.55	ns	< 0.76
GSI	51.19	9.26	ns	< 0.6
PSDI	53.81	8.14	ns	< 0.08
PST	49.31	8.12	ns	< 0.7

### **C. ADHD Status, Language Impairments and Reading Disorders for the Children of the Study Participants**

#### **ADHD Status:**

The children were categorized as having ADHD using the DSM-IV ADHD checklist (DuPaul et al., 1998). The checklists were completed by the boys' mothers, their teachers and the examiners who performed the neuropsychological testing. A child was categorized as having ADHD if it displayed a significant amount of symptoms in two or more settings, with the settings being home, school, and the testing situation. If one of the raters attributed at least 6 out of the 9 inattentive or hyperactive/impulsive symptoms, and an additional rater attributed at least 5 out of the 9 symptoms, the child was classified as having ADHD. The DSM-IV ADHD rating scale has four levels, where the value 0 corresponds to the given symptom occurring "never", 1 corresponds to "sometimes", 2 corresponds to "often", and 3 to "always". For a symptom to be endorsed it needed to be reported as either occurring "often" (2) or "always" (3). In order to minimize single-rater bias two of the raters had to identify the same ADHD type for a child, either the inattentive or the hyperactive/impulsive symptoms. Table 3 reflects the numbers of inattentive symptoms as well as the hyperactive/impulsive symptoms for each of the boys. The table also indicates which of the boys were categorized as having ADHD and what type they were identified as.

According to the criteria described above 7 of the boys (38.9%) were categorized as having ADHD. Five (27.8%) met criteria for the combined type and 2 (11.1%) met criteria for the inattentive type. Eleven of the boys (61.1%) did not meet criteria for either type; however, 9 of those boys (50%) showed significant symptoms in one setting. There was data missing for one setting for 3 of the boys diagnosed as not having ADHD; however, had any of the missing data

been significant, it would have changed the ADHD status for two of the boys (11.1%), therefore the ADHD status of those 2 boys was inconclusive. Two boys (11.1%) did not display significant symptoms in any of the settings.

Table 3  
*ADHD Symptoms as Reported by Parents, Teachers and Examiners (n=18)*

ID	Inattention Parent	Inattention Teacher	Inattention Examiner	Hyperactive/ Impulsive Parent	Hyperactive/ Impulsive Teacher	Hyperactive/ Impulsive Examiner	Diagnosis Type
5021	4	--*	8	1	--*	9	Inconclusive
5018	3	2	0	1	0	1	No ADHD
5015	7	5	1	4	5	0	Inattentive
5014	2	8	8	2	7	9	Combined
5013	0	6	0	0	1	0	No ADHD
5012	5	0	0	1	0	0	No ADHD
5037	5	4	0	2	1	1	No ADHD
5047	7	0	0	4	0	0	No ADHD
5004	1	9	5	4	9	5	Combined
5009	7	9	6	4	8	9	Combined
5036	9	9	2	4	2	1	Inattentive
5024	6	6	6	5	6	7	Combined
5042	5	2	0	0	1	0	No ADHD
5048	1	--*	0	3	--*	0	No ADHD
2092	7	--*	0	1	1	0	Inconclusive
2103	3	1	5	0	2	4	No ADHD
2101	3	7	5	3	2	9	Combined
2100	4	7	1	1	0	0	No ADHD

--\*=missing data

Language Impairments:

Children were identified as having a language impairment if they scored 1 standard deviation below the mean on two of the administered expressive language subtests or two of the receptive language subtests, or if they scored 2 standard deviations below the mean on one expressive or receptive language subtest of the CELF-4. Previous research (Ilardi, 2010), using the identical sample as the current study, has suggested that looking at the individual language

subtests of these children gives a more complete picture of their difficulties with language. The author argues that the children may experience problems in very specific areas of language, which may become obscured by looking at the summary scores alone (Ilardi, M., 2010). To also capture more in depth the reading issues of the children of the mothers in our sample; the current research study follows this lead and utilizes the same criteria to categorize the children in terms of language deficits. Table 4 below displays the standard scaled scores for the receptive and expressive language subtests of the CELF-4. The table also indicates which of the boys were categorized as having deficits in either receptive or expressive language or in both areas. Seven of the children (38.9%) were classified as having a receptive language impairment. The scores of 9 of the boys (50%) implied they had an expressive language impairment. A total of 6 children (33.3%) appeared to have both, a receptive and expressive language impairment. Eight of the children (44.4%) did not evidence any deficits in either receptive or expressive language.

Table 4

*Receptive and Expressive Language Deficits; Standard Scaled Scores, CELF-4 (n=18)*

ID	Receptive Language			Imp. Class. Receptive	Expressive Language				Imp. Class. Expressive	Imp. Class. Both
	C & D	WC	SS		WS	RS	FS	WC		
5021	4	2	5	☑	4	3	6	6	☑	☑
5018	14	12	13		11	9	12	15		
5015	9	15	n/a		n/a	9	2	15	☑	
5014	6	9	--*		--*	8	6	10		
5013	5	5	--*	☑	--*	3	6	6	☑	☑
5012	11	11	9		11	9	9	15		
5037	11	10	n/a		n/a	10	11	11		
5047	8	11	n/a		n/a	10	1	13	☑	
5004	11	8	n/a		n/a	8	10	5		
5009	4	8	n/a	☑	n/a	6	7	8	☑	☑
5036	9	1	12	☑	6	7	8	6	☑	☑
5024	4	9	--*	☑	--*	7	3	11	☑	☑
5042	12	9	n/a		n/a	9	8	11		
5048	13	15	--*		n/a	11	14	12		
2092	4	10	7	☑	n/a	9	10	9		
2103	9	7	11		4	8	8	6	☑	
2101	11	10	11		11	12	12	9		
2100	5	4	5	☑	4	4	5	6	☑	☑

(μ = 10, σ = 3) --\* missing data

Reading Disorders:

Children were classified as having a reading disorder if their Reading Composit score fell 1 standard deviation or more below the mean (WIAT-II, Psychological Corporation, 2001). The subtests scores that made up the Reading Composit score were as follows: Word Reading, Reading Comprehension and Pseudoword Decoding. Table 5 presents the standard scores of the subtests as well as the Reading Composit scores for each of the participants' sons. Using these guidelines 6 of the boys (33.3%) were classified as having a reading disorder.

Table 5  
*Reading Deficits; WIAT-II Standard Scores (n=18)*

ID	Word Reading	Reading Comprehension	Pseudoword Decoding	Reading Composit Score	Reading Impaired
5021	84	74	100	83	<input checked="" type="checkbox"/>
5018	103	116	113	111	
5015	108	100	100	100	
5014	91	94	78	85	<input checked="" type="checkbox"/>
5013	69	61	75	64	<input checked="" type="checkbox"/>
5012	107	112	97	103	
5037	91	82	81	82	<input checked="" type="checkbox"/>
5047	100	102	96	98	
5004	100	111	92	98	
5009	80	79	68	74	<input checked="" type="checkbox"/>
5036	105	97	100	98	
5024	108	90	96	95	
5042	84	94	80	83	<input checked="" type="checkbox"/>
5048	119	113	118	121	
2092	102	93	104	97	
2103	109	99	93	98	
2101	109	110	116	113	
2100	104	99	94	96	

( $\mu = 100, \sigma = 15$ )

*Overview of ADHD Status and Learning Issues for the Children:*

Table 6 provides a summary of the children’s diagnoses. Fourteen of the boys (77.8%) were characterized as having at least one deficit with regard to ADHD status, language and reading achievement. Two of the boys (11.1%) were classified as having ADHD only. Four boys (22.2%) met criteria for ADHD and a language impairment. One (5.5%) of the boys met criteria for ADHD, language impairment and a reading disorder. Four boys (22.2%) were classified as having a language disorder alone and 2 boys (11.1%) were classified as having a language impairment as well as a reading disorder. Two of the boys (11.1%) met criteria for a reading disorder alone.

Three (16.7%) of the children did not meet criteria for ADHD, a language impairment or a

reading disorder. However, although two of those boys' scores with regard to ADHD symptoms were not in the significant realm they were still elevated enough to lead to a referral into the ACLI study. The mothers and teachers of both of these children also reported observing difficulties with regard to different aspects of reading, writing and speaking in well-formed sentences. Therefore they are included in the current study as well. The missing ADHD symptom data for the third boy clouds the picture with regard to his ADHD status; however, the boy's teacher reports notable conduct and attentional problems, difficulties sitting still or calling out answers without being called on. These reported symptoms and difficulties seem significant enough to also include this mother-son pair in the current study as well.

The comorbidity of ADHD and other learning disorders evidenced in our sample has been stated in the literature extensively; as previously mentioned it is estimated that between 19% and 30% (dependent on how LDs are defined) of children with ADHD also have another type of learning disorder. Research in the area of speech and language development also seems to indicate that children with ADHD also may have some difficulty with expressive language due to their difficulties with executive processing (Barkley, 1990; Green et al., 1996).

Table 6  
*Summary of Children's Diagnoses with Regard to ADHD, Language and Reading Disorders, (n=18)*

ID	ADHD	Language	Reading
5021		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5018			
5015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5014	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
5013		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5012			
5037			<input checked="" type="checkbox"/>
5047		<input checked="" type="checkbox"/>	
5004	<input checked="" type="checkbox"/>		
5009	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5036	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5024	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5042			<input checked="" type="checkbox"/>
5048			
2092		<input checked="" type="checkbox"/>	
2103		<input checked="" type="checkbox"/>	
2101	<input checked="" type="checkbox"/>		
2100		<input checked="" type="checkbox"/>	

It appears that the sons of the mothers in our sample fit well the description of children experiencing a variety of problems related to ADHD symptoms, as well as problems with learning, language, reading and other school issues, as described in the literature review section. Consequently, the mothers in the sample of this study are likely also experiencing comparable challenges to the parent population described in depth previously. Previous studies indicate that parents of children with ADHD, LDs and associated behavior problems experience a magnitude of challenges pertaining to parenting their children, family life, relationships with other family members, issues around stress and depression in the family, and problems with the marital relationship, among others.

## **D. Exploratory Questions and Hypotheses**

### *1st Exploratory Question – What does RF look like for our sample?*

The current study's first exploratory question investigated overall RF levels for the participating mothers, as well as RF levels with regard to certain sections or aspects of the interview. According to Slade (2005), reaching an overall RF score of 5 is the most common score in a nonclinical sample. As can be seen below (table 7), the mean for the overall level of RF in the mothers in the current sample was 4 and ranges from 3 to 5 (SD=0.77). It is notable that this sample as a whole scored one point below the average observed by Slade. The most common score in the sample was a 4, the overall RF capacity of 8 mothers (44.4%) was categorized in this way. According to Slade et al. (2005), interviews that are rated below a 5 do not show convincing evidence that that the person giving the narrative has a kind of “model of their own mind” or their children's. Only five of the mothers (27.8%) received a score of 5, “definite or ordinary RF”; 5 more mothers (27.8%) received a 3, “questionable or low RF”. Although persons receiving a score of 3 show some evidence of mentalizing efforts, their responses lack true signs of RF capacity, such as showing efforts to integrate opposing emotions as well as conflict and uncertainty (Slade et al., 2005).

Table 7  
*RF Overall (n=18)*

---

Mean	4.00
Median	4.00
Std. Deviation	.76696
Skewness	.000
Kurtosis	-1.190
Minimum	3.00
Maximum	5.00

---

The mothers' RF scores for the individual demand questions were consequently also in

the lower range, compared to a nonclinical sample. Table 8 shows the means and standard deviations for the RF scores overall and for each of the demand questions. It appears quite striking that none of the means for any of the demand questions reached a score of 5. Highest scores ranged from 4 to 4.22 and were assigned to the answers to 5 questions. Those questions asked the mothers the following: a) a time when she felt she did not “click” with her son; b) when asked about her feelings of guilt and anger as a parent; c) about her child’s feelings of upset, and d) about her child’s need for affection. The bulk of the scores, 16 (88.9%), ranged from 3.11 to 3.94, with the scores being relatively close to one another. The two lowest scores were given to the mothers’ responses to the question about what may have been a setback for their child (2.61) and the question about whether the mothers had ever felt that they were losing their child just a little (2.44).

Table 8  
*PDI-2R Means and Standard Deviations (n=18)*

	M	SD
PDI overall score	4	0.77
Clicked	3.67	0.84
Not clicked	4.22	0.81
Relationship affects personality development	3.56	0.92
Child LD affects relationship	3.44	1.29
Joy in parenting	3.78	0.81
Pain in parenting	3.94	1.06
How has having child changed you	3.11	0.90
Guilty feelings	4	0.91
Angry feelings	4.22	0.88
Child upset	4.19	1.17
Child ever feel rejected	3.38	1.5
Mother felt rejected/hurt by own parents	3.18	1.38
Experience being parented	3.56	0.98
Why parent behaved as did	3.39	0.92
Mother wants to be like and unlike parents	3.89	0.9
Child feelings about separation	3.28	1.02
Mother feelings about separation	3.94	0.83
Loosing child	2.44	1.5
Childs needing affection	4.22	0.88
Child comfortable doing things on own	3.56	1.04
Child cannot do things on own	3.88	0.93
Experience as setback	2.61	1.24
Mother changed by child issues	3.33	0.59

1<sup>st</sup> Hypothesis:

This study’s first hypothesis states that mothers with higher “levels” or capacities for reflective functioning are expected to report more positive and rewarding experiences of raising their children.

The PDI interview does not directly ask the mothers about the degree to which they have found the experience of raising their children to be a positive or rewarding one. In lieu of that, nine thematic scores, which were identified in a qualitative analysis of the narratives of the PDI-2R-LD and which will be described in depth in the last section of this chapter, are used to test this hypothesis. More specifically, it is perhaps reasonable to expect that those women with

relatively higher RF scores will report fewer mentions on the more negatively valenced themes, e.g., ‘Difficulties Raising the Child’, and more frequent mentions regarding the more positively valenced themes, e.g., ‘Overcoming Problems – Mother and Child’. The data below presents the correlations between Reflective Functioning and the nine thematic scores, i.e., those scores which tap various aspects or “dimensions” of these mothers’ experiences raising a child with learning and behavior issues.

Nine “themes” were scored for the purpose of describing the mothers’ experience of raising a learning disabled child. The nine identified themes are the following: (1) A mother’s description of her son experiencing difficulties related to any aspect of having learning and behavior issues, and (2) a description of her own difficulties in raising her child related to his school and behavior issues. A third theme (3) emerged around the mothers’ voicing any frustration and/or anger related to the experience of having a child with these difficulties. Themes around (4) guilt, (5) loss and (6) worry related to her specific parenting experience emerged, as well as themes regarding (7) the mother and her child overcoming LD and behavior problems. Finally, themes around (8) the mother learning from the experience of raising her child emerged in addition to the theme of (9) her expressing a wish for her child to reach his potential.

Table 9 below indicates how frequently a mother spoke to a theme in the narrative of her PDI-2R-LD and if she did so at all, as well as the means and standard deviations for each theme. These “thematic scores” are simple counts of the number of “mentions” for each theme. As seen below, there are two themes, ‘Child Experiencing Difficulties’ (M= 4.39, SD=1.91) and ‘Frustration / Anger for Mother and Child’ (M=4.25, SD=2.70), which are most frequently mentioned by the mothers in the study. ‘Guilt’ is the third most commonly mentioned theme with

nearly two mentions, on average (M=2.43, SD=1.65); followed by ‘Overcoming Problems – Mother and Child’ with slightly more than one mention, again, on average (M=2.11, SD=1.20).

The remaining five themes were each mentioned, on average, less than once.

Table 9  
Themes in the PDIs (n=18)

ID	CD*	D*	F/A*	G*	OP*	L*	LO*	WR*	POT*
5021	1	2	2	4	0	1	0	2	1
5018	6	1	3	0	0	0	0	0	0
5015	2	1	5	1	0	1	1	0	1
5014	5	3	3	2	1	1	1	1	1
5013	2	1	0	3	1	1	0	1	0
5012	6	3	4	3	0	1	2	1	1
5037	2	0	0	0	0	1	0	0	0
5047	5	1	1	1	2	0	0	0	0
5004	3	0	3	1	4	3	0	0	0
5009	6	3	7	2	2	3	0	1	4
5036	5	3	1	1	4	1	0	2	1
5024	4	7	5	7	2	0	2	2	1
5042	7	0	8	3	3	1	0	1	2
5048	5	0	4	3	1	0	1	2	0
2092	3	0	2	0	0	0	0	0	0
2103	5	0	2	0	0	0	0	2	0
2101	4	3	9	1	0	0	0	1	0
2100	8	5	9	2	1	1	1	0	0
M	4.39	2.75	4.25	2.43	2.11	.36	1.33	1.45	1.5
SD	1.91	1.81	2.70	1.65	1.20	0.81	0.52	0.52	1.07

\*CD=Child Experiencing Difficulties; \*D=Mother Experiencing Difficulties; \*F/A=Frustration and Anger; \*G=Guilt; \*OP=Overcoming Problems; \*L=Learning from the Experience; \*LO=Loss; \*WR=Worry; \*POT=Child Reaching his Potential

A 2 tailed Pearson Correlation was performed to examine if a relationship exists between the mother’s overall mean RF score and the frequency with which she mentioned a theme. As displayed in table 11 below, there is one correlation, between Reflective Functioning and ‘Difficulties in Raising the Child’, which is of “moderate” strength ( $r = .39, p = .11$ ). Based on

Cohen's recommendations regarding "effect size", there is only one other correlation which is arguably approaching the "small-to-medium"-size range ( $r \geq .20$ ), i.e., the correlation between Reflective Functioning and 'Worry about the Child re the Child's Learning Problems' ( $r = .18$ ,  $p = .46$ ). Note that given the small sample size ( $n = 18$ ), the interpretational emphasis makes use of "effect sizes", i.e., the magnitude (and direction) of these correlations rather than their statistical significance.

Aside from the fact that there are only one or two correlations whose effect sizes are large enough to seriously consider, neither of these correlations is consistent with the claim made in this hypothesis. That is to say, rather than these two correlations exhibiting an inverse or negative relationship to Reflective Functioning, both exhibit positive relationships to the latter construct. Therefore, given the presumably counterintuitive signs of these two correlations, and the fact that most of the other correlations in the table below are essentially trivial, the data cannot be said to support this hypothesis. However, an alternative perspective on these findings suggests that perhaps the thematic variables are suboptimal indicators of the degree to which these mothers have found the experience of raising a learning disabled child to be a positive or otherwise rewarding experience. It may be that the two positively signed correlations worthy of consideration simply express the fact that more "reflective" mothers, having thought about the difficulties of raising a learning disabled child, are better able to give those difficulties a "voice" as reflected by their more frequent mentions on these two variables.

Table 10

*Pearson Correlation: Mothers' Overall Mean RF Score and Frequency of Mentioning any Theme (n=18)*

Themes	Pearson Correlation	2 tailed Sig.
Child Experiencing Difficulties	.120	.635
Difficulties in Raising the Child	.388	.112
Frustration/Anger	.160	.527
Guilt	.129	.609
Overcoming Problems	.055	.827
Learning from the Experience	.166	.510
Loss	.109	.667
Worry	.184	.464
Child Reaching Potential	.075	.769

2<sup>nd</sup> Hypothesis:

The second hypothesis under study claims that the RF score derived from those questions in the PDI which tap or address the “affective experience of parenting” (section C) will be demonstrably lower than the “overall” RF scores from the same mothers. In addition, it is also hypothesized that this will be true for those women who report the highest levels of RF in the study.

Each of these hypotheses was tested by conducting a single sample or a one-sample t-test in which the mean RF score for the affective experience of parenting is compared to, first, the overall RF score for the entire sample of 18 women in the study, and, second, to the overall RF score for that subgroup of these women (n = 5) with highest RF scores. As seen in the table immediately below, the mean RF score for the affective experience of parenting is 3.78 (SD=.62). While this mean value is, in fact, lower than the “overall” RF score for the sample, i.e., 4.00, it is not significantly lower (t = -1.52, df=17, p < .15). Therefore, the data available for investigation in this study do not support the first claim made in Hypothesis 2.

Table 11

*One Sample Statistics: RF Score re Affective Experience of Parenting (n=18)*

N	Mean	Std. Deviation	Std. Error Mean
5	4.5429	.34107	.15253

Table 12

*One Sample Test: RF Score re Affective Experience of Parenting (n=18)*

t	df	Sig. (2tailed)	Mean Difference	95% Confidence Interval Of the Difference	
				Lower	Upper
-2.997	4	.040	-.45714	-.8806	-.0337

With regard to the second claim, again, that the mean RF score associated with the “affective experiencing of parenting” will be lower for those women with the highest, overall RF scores, the following table provides evidence that this is, in fact, the case. For the five women with the highest overall RF scores, i.e., mean = 5, the mean affective experience of parenting RF score (M= 4.54, SD = 0.34) is significantly lower (t = -3.00, df = 4, p = .04).

2<sup>nd</sup> Exploratory Question – What RF Levels do Mothers have in their Responses to Questions that address LD Issues?

The second exploratory research question simply reports the mean RF score for those PDI questions which explore the mothers’ experiences of raising a learning disabled child. In order to “contextualize” this mean it is compared to these mothers’ overall RF scores. In order to do this another single sample or one-sample t-test was used. As displayed in the table below, the mean

RF score for those questions which tap the mothers' experiences of raising a learning disabled child ( $M = 3.39$ ,  $SD = 0.78$ ) is, in fact, significantly lower than these same mothers' overall RF score ( $M = 4.00$ ,  $t = 2.74$ ,  $df = 17$ ,  $p = .014$ ).

Table 13  
*Paired Samples Statistics: Mothers' Overall PDI Score and RF Score re LD Questions (n=18)*

Mean	N	Std. Deviation	Std. Error Mean
4.0000	18	.76696	.18078
3.3889	18	.77754	.18327

Table 14  
*Paired Samples T-Test: Mothers' Overall RF Score and RF Score re LD Questions (n=18)*

Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval Of the Difference		t
			Lower	Upper	
.61111	.94799	.22344	.13968	1.08254	2.735

3<sup>rd</sup> Exploratory Question – What is a Mother's RF Regarding Motherhood (section C)

Compared to RF for LD Issue Questions?

The section of the PDI which asks about the affective experience of parenting (section C) is the one that investigates most directly a mother's experience of and feelings about motherhood, as the mothers respond to questions exploring feelings of joy, pain and worry associated with being a parent, etc. This third exploratory research question examines a potential

relationship between the RF scores for this aspect of parenthood as investigated by the PDI and the mothers' RF scores with regard to the LD questions. In order to answer this question, one more single sample or one-sample t-test was used. This test shows that the mean RF score for the LD questions on the PDI (M=3.39) is not significantly different from the mean of the mothers' RF score that tap into her "affective experience or raising a child with learning issues ( $t = -1.92, df = 17, p < .08$ ) (table 16 and 17).

Table 15  
*Paired Sample Statistics: Mothers' RF Score for LD Questions and Mothers' RF Score for Affective Experience of Parenting (n=18)*

Mean	N	Std Deviation	Std. Error Mean
3.3889	18	.77754	.18327
3,7778	18	.62093	.14635

Table 16  
*Paired Sample Test: Mothers' RF Score for LD Questions and Mothers' RF Score for Affective Experience of Parenting (n=18)*

Mean	Std. Deviation	Std Error Mean	Lower	Upper	T	df	Sig. 2-tailed
-.38889	.86099	.20294	-.81705	.03927	-1.916	17	.072

## **E. Themes**

### **How the narrative data of the PDI-2R were qualitatively analyzed**

The following is a description of how the narrative data of the PDI-2R-LD were qualitatively analyzed. The 18 interviews, which had been tape recorded, were transcribed and

then analyzed, based on a technique developed by the researcher. First all interviews were read once with the aim to become familiar once more with the various women's "voices". Sentences or paragraphs that appeared meaningful, stood out in some way or were particularly moving were highlighted and handwritten notes were made to their potential meaning or significance. During a second, more systematic reading of each narrative, those sections were highlighted, in which the mothers spoke directly about anything related to their children's learning and behavior issues. Upon going over all segments again, "loose" or working categories were named that most quotes could be assigned to.

Although several themes had already been identified during the review of the relevant literature and therefore the narratives were analyzed with those themes in mind, the researcher remained open to discovering new themes as well which would emerge simply from the data itself. During the process of reading, rereading and sorting the mothers' quotes into categories it became clear that some of the quotes would not fit into any category; as a result new "piles" were created, some only temporarily as not enough other quotes entered into them to create a new theme category, other "piles" turned into legitimate themes that were added to the main themes.

As mentioned previously, after concluding this portion of the data analysis, 9 main themes were identified in the mothers' PDI-2R-LD narratives. Those themes were: (1) a mother's description of her son experiencing difficulties related to any aspect of having learning and behavior issues, and (2) a description the mothers' voicing any frustration and/or anger related to the experience of having a child with these difficulties. A third theme (3) emerged around her own difficulties in raising her child related to his school and behavior issues. Themes around (4) guilt, (5) loss and (6) worry related to her specific parenting experience emerged, as

well as themes regarding (7) the mother and her child overcoming LD and behavior problems and finally themes around (8) the mother learning from the experience of raising her child emerged in addition to the theme of (9) her expressing a wish for her child to reach his potential.

During the next phase of analyzing the narrative data each of the mother's responses for each theme was tallied. Each quote was only used to assign to one theme. At times it was a challenge to decide as to which theme a quote should be assigned to, as for example a mother would start by talking about her son's difficulties and then move into talking about her own struggles and in the process, finally coming in contact with her feelings of frustration and anger about it and then speaking about that part of the experience. In such a case, the researcher used her best clinical judgment to discern which theme a quote belonged to most strongly and obviously. Sometimes a mother's narrative could be separated into two or more pieces and assigned to different themes; however, much care was taken to ensure that each piece remained a whole with integrity.

Next, a "cutting and sorting" technique was used, where all quotes which had been assigned to a theme were cut out from the transcripts, with enough of the context in which they occurred, and labeled with the participant's id number, the theme it was assigned to as well as the number of the question from the PDI interview it was a response to. Following, the quotes of each main theme were read over and again sorted into piles within each main theme. This process eventually created the subcategories of each theme.

It is important to consider that the narratives of the PDI resulted from giving a semi-structured interview, unlike an interview with more open ended questions, such as asking simply, "tell me about you and your child". As previously described in depth, the PDI-2R was designed to study parents' representation of their children, themselves in the role of parents, and the

relationship they have with their children. Many of the questions of the PDI-2R query directly about the mother's emotional states, experiences, relationship with her child etc. Further several questions regarding the children's ADHD and/or LD issues were added to the existing measure to tailor it specifically to the population of the current research project. In addition, given the context of the interview setting – it being while the mothers waited for their sons to complete their neuropsychological evaluation, it is to be expected that mothers would respond to the questions of the PDI, at least to a certain extent in the context of their children's learning and behavior issues. Consequently, the majority of the themes derived from the mothers' narratives surfaced mainly as a result of these direct questions, as they were more or less prompted by them.

This was particularly useful for the purposes of the current study, as it aimed at generating a large amount of data about the experience of the mothers in our research sample. In addition to generating the main themes, the one's previously identified by the review of the literature, as well as those themes which emerged from the data itself, it became particularly useful to also examine the extensive data that flowed in the subthemes within each theme category. This final portion of the data analysis aimed at providing more insight into what specifically a mother may be feeling guilty, worried or angry about, within the larger context of these feelings regarding her parenting a child with learning and behavior issues.

## Theme 1: Child Experiencing Difficulties

### 1.1. Descriptions

To the question that asks directly about what the child has the most trouble with, many mothers spoke to their sons' academic and learning difficulties or their challenges with regard to

their behavior. The question about “What do you like least about your child”, was sometimes also answered by describing the learning and behavior issues of their children. Some mothers gave brief, distinct descriptions of what their child has trouble with, such as: *“Homework. Anything that has to do with school. It’s very very hard for him.”*; or *“writing and spelling – academically ... I don’t know what it is but he struggles.”* Another mother of a child with reading problems said, *“Um, he has a hard time with his homework, ..., for example they have book clubs, and they need to read some book. He can’t read the books; I have to read the books for him”*. [She goes on to tell the story about how the teacher got angry at her when she found out that it was her instead of her son who was reading the books. *“[I told her] D. can’t read! What do you want me to do?...He was very upset, and he was crying, he was like I don’t want to go, I don’t want to go.”*]

### 1.2. He Can’t Focus or Sit Still

Some of the mothers who have children with diagnosed ADHD or elevated ADHD symptoms spoke to their sons’ difficulties with their ability to focus and sit still, while answering the same questions. *“The school work [is what he has most trouble with] ..., it’s just concentrating and I think because he lacks the ability to sit there and focus on something like reading a book for an hour, unless it’s something dealing with something he is interested in ; he doesn’t want to do it, he doesn’t want to...”* Another mother described similarly, *“Sitting down and finishing his work you know. Like if he has two homeworks, but for him to sit there and [do the work] he just...it takes him forever. He starts to fidget with something – yeah, like yesterday I caught him playing with the salt. He was even playing with the salt instead of doing his homework, you know?”*

Questions of the PDI-2R-LD that asked about the relationship between mother and son, such as “Tell me about a time when you and your son really didn’t click”; and “How do you

think your child's learning and behavior difficulties are affecting the relationship between the two of you?", were often answered similarly to what is described above. One mother elaborated, "*it does put a struggle on the time [while he is ] getting the work done. Because still at 13, he still needs the constant –let's get it done' prodding. He still needs, umm ... you know, focus. He still needs, okay, time is running out, you know you need to get a handle on what it is you need to do and get it done. You know, so at thirteen he still needs that. ... I do believe at thirteen you shouldn't need it as much, and he still needs it.*"

### 1.3. Failed by the Teachers

An additional subtheme in the larger context of mothers describing their sons' difficulties is a certain perceived failure of the teachers to support their child in the way he needs to be supported and which would give him the opportunity to do better. One woman puts it like this: "*I don't think as if he has a disability. It's like something – okay, that you have to work with him. But I think ... the problems in school got worse because when he first started the school he didn't get help from the teachers. I was trying [and talking to the teacher], oh can we do this, can we do that? To try to help C., and the response [was] oh, I have twenty-eight kids, how can I do that just with him? You know it takes too much time.*" Another mother said, "*it is very difficult especially for my son it being his second language, ..., because he has to read, understand and do. And I said P., teacher didn't read it to you? If there was a question written with more than one sentence, he failed. And I said to the teacher, you know why? Because he couldn't understand probably everything in that big paragraph.*" Another woman described a similar scenario, "*What I feel [is] that he needs and extra push. Like if you are a good experienced teacher, you will see it by yourself. Then you try it like that, then you sit [him] in front of you, and you keep his eye attention at least when you talk. I understand that you have twenty-five*

*children but maybe you have five like that, so make them sit close. If you keep that child in a group, that child will go away from the class. And that she knows...*” One mother described very poignantly her son’s experience in the classroom, when she quoted him: “[Mom], I’m not as smart as you think I am. I need help and no one pays attention to me.”

#### 1.4. Emotional and Social Problems

Another theme within the larger theme of a child experiencing difficulties revolves around the child’s emotional and social problems due to learning problems. One mother answered to the question, to described a time when her son had difficulty doing something on his own, “*He’ll freak out, he’ll freak out. He gets very much like, I can’t do it! He doesn’t wanna do it, he doesn’t want me to help him. He can be difficult at times when he can’t do things on his own and he just wants to leave it as such. He won’t accept that he needs help.*” Another mother said, “*I think sometimes he feels like he can’t do it. [H]e gets I think anxiety when he sees as lot of things on the paper when it comes to reading.*” A different mother answered to the question about what gives her the most pain in parenting, that when her son used to say, “*I am stupid. Why am I not smart? Why I cannot do that?*” Another mothers said, “*He is like sitting and no matter what you say [his mind] is blank. That’s how it is. [I]f he can’t get it and you try [to help him] he cries, so I know he can’t get it. He is not, you know ... extreme, [he] is crying quietly.*” The mother of a boy who has a stutter, in addition to problems with learning, talked about his son’s upset with being made fun of by other children, as well as his “difficulty standing up for himself” and his resulting social withdrawal. She described particular experiences at a playground when another child called him “an idiot” or pushed him, “*...he would just leave [...]angry and not want to play. He’ll sit down next to me. I’ll say M. go back and play. No, I don’t want to play anymore. And then he’ll sit. And it’s hard for him to make friends. It’s really hard.*” Another

woman said: *“When he’s in school, you know [...] because of his ADHD, kids used to tease him. The teacher never, you know, used to call him names in front of the classroom. So the classroom started to call him names and things like that.”* One mother talked about her regrets that “she had been too hard on her son” with regard to his lacking schoolwork and his behavior before she became aware of his learning issues. She is concerned that as a result he may have been feeling *“trampled on [by] me a little bit. I think he thinks we were really hard on him, early on, both me and his father, because we didn’t know. You know we just thought we had this kind of rambunctious, out of control kid that we had to be kind of very strict with.”*

## Theme 2: Frustration and Anger Related to the Experience of Having a Child with Difficulties

### 2.1. Homework

The most salient of the themes in this category was about issues related to frustration and anger with doing homework with the child. One mother answered to the question when she and her son didn’t click: *“[when doing] his homework, exactly – and I was yelling, ok!”* The majority of the quotes in this category came from mothers answering to the questions that ask about: an angry situation; a time when she and her son weren’t clicking; or how she thinks her son’s LD problems were affecting the relationship. However, many of the mothers’ answers to a variety of PDI questions got into this category as well. Mostly anger was reported for either the experience of sitting down with the child and figuring out ways to help him understand his school work and/or how long the whole process takes, or the frustration of him forgetting the homework or not being forthright about what homework he had. One mother said, *“...so I try to be positive... It doesn’t always turn out this way. You know I end up apologizing more than many times for losing my temper, ... especially when [he] can’t get the lesson and you have to*

*actually ... figure out ten-thousand-and-one different ways to make him understand, you know...*” Another mother was frustrated about the amount of time it often takes to finish, *“Yesterday he put salt all over the place, what happened is, he took two and a half hours trying to write 3 post-its. Two and a half hours!”* Next is a woman who describes another scenario, *“I was so happy because it was nine o’clock and we had a great time writing this story [for homework] together. And he says to me, oh I have math and Spanish [too]. And it’s like whamp whaaa. You know and it’s like this kind of stuff where he just doesn’t think ahead.”*

## 2.2 Child Doesn’t Listen

In addition to the frustration that the women reported on with regard to doing homework with their children, many mothers also spoke about their frustration with not being able to get their children to listen to them. One mother said, *“Angry? Angry! He makes me angry when he doesn’t listen, you know it’s like I constantly have to tell him the same thing over and over again, and he just gets me so angry because I always have to repeat myself all the time...”* To the questions about a time when she got angry at her son a different mother said, *“Well he’s a pain! That you have to tell him things a million times before he could do something.”* Or yet another mother, *“I’m tired of saying the same thing. You know, I talk, I talk, I talk. I’m tired of talking!”*

## 2.3. Angry at Teachers/School Staff

Another important sub category of mothers’ anger and frustration revolved around their feelings toward the child’s teachers or any school staff related to dealing with the child’s school issues. Some mothers were angry at their son’s teachers because they felt they weren’t working hard enough to help their sons. To her son’s teacher’s complaint one mother responded, *“... they would be writing on the board and he just stops writing and she never brings him back. She just lets him sit there. ... So what are you going to do to help him?”* To a similar complaint from a

teacher another mother said, “[*There is*] nothing wrong physically with my son. If he sits like that [*it’s*] because you are not being creative enough, but I can’t tell her that.” Another source of anger was the sense that teachers and school in general were not supplying enough feedback regarding their children and mothers found that evaluations and interventions were not done early enough to support their children optimally or even adequately. One mother complained, “*You know, I know their routine... I just knew them, that’s how Catholic school is. They’re not trying to help you. You have to kind of, they want you to ... make your own assessment and they don’t assess your child.*” Several mothers talked about the experience of pressure from teachers to put their sons on medication to help control their behavior in the class room. “[*H*]is public school was like, why don’t we medicate him? I was like, No! Because you guys are not working hand-in-hand. You know he got SUDS, he got the special education label, he got all this going on but when I went to school ... [*a*]nd after speaking to two different sets of teachers I realized nobody knew what the other hand was doing and the only thing you come and tell me is to medicate? And I was like, No!”

#### 2.4 Child’s School Performance

Some of the mothers also spoke about their frustration with their children’s performance in school. One mother talked about an incident where her son did not respond well to questions on a test and got a low grade as a result. “*I said to him, how could you do that? [not answering the questions.] Oh mommy, it was too much about whatever. And it [had] nothing to do with the questions, he just wanted to get rid of the work. I said I’m mad at you because you don’t do such a thing on a test.*” Another mother spoke about her frustration with the schools complaints about her son’s behavior, “*You know the fighting, the getting up from the [desk], you know all the complaints from the school that he was fighting, getting up from his seat, making noises,*

*disrupting the class, you know. Doing other stuff.”*

## 2.5 Isolation in Dealing with Child’s Problems

A number of mothers also complained about their feelings of isolation in dealing with their children’s difficulties. One mother answered the question about how she feels her son’s school and behavior issues have affected their relationship like this, *“I get frustrated and sometimes, I’m like all alone, it’s me doing all of that. I have her I have him, I have my work, I have my school, I’m doing all! I’m doing everything. And I have to do the cooking, the washing, the ... so ... frustrated, yeah!”*

## Theme 3: Mother’s Difficulties in Raising Child with School Issues

### 3.1. Pressure and Stress of Daily Living

Many mothers talked about the stress they experience due to caring for a child with learning and behavior issues. Especially the mothers of the children with diagnosed ADHD or elevated symptoms felt the stresses of daily living to be very severe. To some of the questions in the “Affective experience section of the PDI, mothers answered similarly to one woman who said, *“It’s a lot of stress being a parent. It’s a lot of stress to have kids not able to umm... get it. To be able to deliver, you know who can listen, quick and easy.”*; or *“Well if they were up to par, umm that’s less work for me, but the fact that they are not, that’s more pressure, there is some more pressure there.”* Another mother said, *“It’s exhausting sometimes because sometimes I just want to read a book or have other things to do, or whatever and it’s just non-stop.”*

### 3.2. Feeling One’s Limitations in Helping Child

Several women talked about their concerns with not being able to help their children as

much as they would want to, their feeling that they are lacking in something and therefore unable to give their child what he needs. A couple of the women who reported learning issues for themselves said the following to questions asking about what gave them the most pain in parenting and how they felt they changed as a mother of a boy with learning issues respectively, “...I can’t do what I know needs to be done.... You know it’s interesting about my son and his speech and processing, when I was a child, I wasn’t talkative, you know. ... I’m a good listener, and now I’m in a position where I have to, I’m conscious of what I’m saying and wanting to be clear, boy that’s work. Trying to give something that I don’t have....” The other mother said, “it’s difficult because, I gave my issues [her description about her own learning issues as a child and an adult] and it’s difficult to see your child go through the same issues that you did, you know and I’m saying you want things to be easier for your child, you want to make everything better, so there are some things that are just out of your control, so it makes me feel powerless, I would say.”

Other women talked about lacking in emotional strength and patience. One woman who described herself in the first section of the PDI as a “bad parent”, said, “I need more patience. I know, I need to be more in control. You know, I really do try. That’s basically the way I see – bad parent.” Another woman felt badly about feeling so burnt out from the stresses of daily living, that she felt unable to be more emotionally available and responsive to her son; she said, “[sometimes] N. goes like, Mommy, sometimes I’m afraid of such and such. Like, you can tell he wants to ... hug you, to kiss you, but I get so annoyed, you know I just want to tell him, Go do your work, go do this, go do that. I know that this is what’s so pathetic, I know it! OK, although I try to ... reciprocate but I just don’t. I just don’t you know.”

### 3.3. Leisure Activities

Finally some woman talked about not being able to do things together with the child or as a family easily, *“N. cannot sit still. Like in order for us... when we go to a movie, I have to threaten him, basically tell him if you can’t stay quite or sit still at the movie, coz he’s like ... get’s into it ... we’re gonna leave.”*

#### Theme 4: Guilt

##### 4.1. Regret Over Missed Opportunities for Helping Child

In answering the question about what they would do differently if they could do the parenting experience over, several mothers mentioned that they feel regret over not having put their child into some type of nursery school, as one mother said, *“...he didn’t have preschool or anything pre-kindergarten, and that’s something I think he would have benefited from.”* Other mothers felt badly about not having been able to diagnose their children earlier and gotten some early intervention for their child. They responded to the direct question about what they felt guilty about as a parent, *“[T]hat he is ten years old and that so much time was wasted before he was diagnosed...”* or, *“I didn’t notice that M. perhaps had ADHD because I was so busy battling court for his custody. So in a way because of those things it may have gotten lost in the shuffle.”* A couple of mothers felt regret over not having started their child on medication to control ADHD symptoms, *“he still had you know symptoms of ADHD in 5<sup>th</sup> grade, ... I spoke to his pediatrician again and we agreed then that we would try medication for him, and I took him to a neurologist. I think my regret is not doing it sooner...”*

##### 4.2. Guilt Over not Having Spent Enough Time Home with Child

*“I worked the first three years of his life in corporate America and never came home. Work, work, work. And when I came home it was rushed. ... But it wasn’t enough...”*

*“If I had to do it all over again, I would definitely be staying home. Just to spend more time with him when he was little, maybe he would have developed a little better I think.”* Several women voiced similar types of regrets over not having spent more time with their children, especially in the early years.

#### 4.3. Having Created “Genetically Faulty Children”

Some of the mother spoke about their feelings of guilt for having some type of responsibility for their children’s genetic make-up and therefore their issues with learning. One mother said, *“and biologically they’re mine. So I created them, so do I feel guilty? Yeah, like I did something wrong.”* Another woman said, *“So sometimes when I look back, I say you know what, maybe it’s hereditary and maybe it’s from me that he has this disability.”*

#### 4.4. Failing as a Parent

Some of the mothers expressed feelings of having failed as a parent. Like one mother, who said: *“Umm it definitely humbled me to the point of not thinking I know everything. Or that umm what am I doing wrong, that’s causing him problems in school. I mean I try, you know sitting with him. I’ve tried site words, ...I’ve tried things but I’m like, what more can I do?”* Other women have shared similar views. *“You know, like what am I doing wrong? That they have to keep calling me. You know what? I feel like they [the school] were trying to make me feel guilty for not putting him on medication. You know, I’m feeling like I am failing as a parent.”*

#### 4.5. Guilt Over Losing Temper

Many mothers spoke about their guilt over having lost their temper with their children around issues with homework or behavior. Several expressed sentiments such as the following, *“And then you get to the point that your saying things that are not supposed to come out in front*

*of your children. For example, oh come on you will never get it, I don't know why you are like this, you now like you are blaming the child that he exists and it's not right."* Another mother said, *"And I told him it's unacceptable to talk to me like this. Here we are in the trenches together, going through all of this together, dealing with all this nonsense together and you have the nerve to yell at me – unacceptable. And you know I felt bad afterwards that I had reacted that way."*

## Theme 5: Loss

Mostly mothers spoke about feelings of loss to the direct question about when they felt as though they were losing their child just a little bit, what they would do differently if they could turn back the time, or how they felt changed by the experience of having a child with learning and behavior issues.

### 5.1. Different Kind of Parenthood

The majority of women, who spoke to the theme of loss, spoke about a sense of loss with regard to their hopes for and dreams about motherhood and that some of their fantasies about the experience were unfulfilled due to the fact that their child has learning and behavior issues. One mother said, *"...you know you have that ideal, that things could be peaches and cream, and you know it's not. It's a lot of work. ... You can't enjoy the minutes because at that minute, instead of looking at the beauty of having the child, you know you have to say okay, tomorrow we have to do this and tomorrow we have to do that..."* Another woman said, *"So I think my expectations were that I'd just be this mom that would, you know, have this time with this child. This peaceful time with this child. And it was never that – and it was never this peaceful time with this child."*

### 5.2. Loss of a Part of Relationship with Child

Some women, like the one quoted here, spoke to a sense of loss of more of a relationship with her son. *“I like most when we’re not struggling with the symptoms. It’s very hard. There’s the emotional part. Um, when the symptoms aren’t there, we can just be together. You know? And that’s really nice, cause when the symptoms are there, the overactivity, the loud talking, the non-stop. You know? It gets in the way of being with him”* Another mother described her son’s very frequent temper tantrums that she found very challenging to help him with and control. *“...he had temper tantrums all the time, [...] and he would act out in school..., and I felt like, I felt like, I wasn’t, I couldn’t get to him.”*

### 5.3. Loss of Self

Several mothers also talked about losing much time for themselves while taking care of the many needs of their children. As one mother put it: *“My appearance used to be better, and now because of the time thing. I used to be very open for new things, like going to lectures to listen to something you don’t know what so ever. In my work place they told me why don’t you go back to school to complete your education. Osssst.... Why? Because I have no time and I don’t feel like it is the right time to do right now, when I am facing my young children having so much trouble.”*

### 5.4. Lost Opportunities

Some mothers also spoke about lost opportunities for their children due to their issues with learning and behavior. Like one mother said, *“they [the teachers] had talked to us about him going into the umm more advanced 5<sup>th</sup> grade class and they talked to us a few times but when he took his state tests he scored very low and we were disappointed, but not surprised, just disappointed.”*

## Theme 6: Worry

### 6.1. Worry about Academics

Many of the mothers answered to the question about what they worry about, that they are seriously concerned about their children's academic success or ability to deliver what is needed to go through school successfully. *"Yeah, about his success in school."* Or another mother, *"[I worry about] just his academic. Just his academics."*, or yet another mother, *"[I worry about] his schooling, his grades and stuff, ... [the] worry that [he is] gonna pass through the next grade or [that he'] not gonna pass a certain test."*

### 6.2. Worry about Future

One mother described her unsuccessful struggles to get her son into a better high school and her concern about his future, *"... I tried so many things but he didn't get in. I was like, what is he [...] going to be rejected all his life or something?"* Another mother said, *"I worry about him laying around, not being able to concentrate on his studies, not taking life seriously."* A mother of a 10-year-old boy with ADHD expressed her concern about his teen years in light of the fact that his ADHD medication had not been adjusted well yet. *"Umm I worry that when he becomes a teen ager, if we don't get him medicated properly he might self medicate. And I worry that when he is an adult, he's not, if he hasn't outgrown this, he's probably going to have different issues. I worry about those things a lot."*

### 6.3. Worry Regarding Functioning/Being in the World

Another group of mothers expressed some concern about their child's difficulty with social functioning. One mother said, *"I am concerned about his lack of communication, his lack of self expression, how he is expressing how he really feels."* Another mother said, *"I'm worried about umm sometimes he lack of behavior, speaking-wise. Yeah, being more engaged and not being by himself so much. I'd like him to talk more."* Another mother worried about his functioning in

daily life. *“I do worry about him often. Every day he doesn’t go to school by himself, I still take him to school at 10-years-old. [...], I’ve seen him cross the street by himself but I’ll be walking with him and I see that he’ll be in lingoland.”*

## Theme 7: Mother and Child Overcoming Problems with Learning and Behavior

### 7.1. Achieving Success in Helping the Child

The majority of quotes in the general category of “overcoming problems” speak to the child with help from the parents, teachers, special programs or medication having been able to significantly overcome behavior issues or challenges that made learning and academic achievement so difficult. Although mothers often spoke to this theme particularly with the questions in section B of the interview, they really spoke to the theme in answering to questions all throughout the PDI. One mother proudly reports about her son who has a significant amount of trouble with reading and writing, that *“[...] he’s done a lot better. [T]he reading, ahh it’s called the ELA-English Language Arts, a citywide test, he scored the highest in his division. I was really really shocked..”* Another mother said, *“I think that it’s getting better because the more he learns to control himself, and what to do, and you know certain things instead of being aggressive-like to talk and explain to people what, you know, I think it’s much better than screaming.”*

### 7.2. Embracing What Is

Some of the mothers saw as a source of strength in overcoming the challenges of the learning and behavior issues by accepting and embracing what it is and moving through it. One mother explained, *“[...] on the one hand he has been dealt that hand but on the other, it’s what*

*makes him exceptional in other areas. So... it's like, kid these are yours. You know? I have this thing where every day I was bringing him –until we ran out of people- I was bringing him home people who were thought to have ADHD. So like Leonardo Da Vinci, Benjamin Franklin, you know those things. So we put it out to help him to realize that he was not alone. And he was like if that's the company that I am in, then I don't feel so bad anymore.”*

### 7.3. Mother Working on Herself

One mother talked, throughout the interview, about the therapy that she and her son were in to help them as a family with the issues around the son's learning, behavioral and attentional issues. To this theme she says the following, “[sometimes] he gets this glazed over look in his eyes, where they are not really looking at you. They are looking kind of through you. And I was like M. you're glazing over, and he was like, yeah I was kind of looking at you, but not really. And I was like, gosh... this is what I deal with all the time, you know. But even those kind of moments when I know he's not really, like tuned into me, it's like it doesn't matter. My little package. So I try to be the most loving parent, even when I get furious- whatever. It's like you know, I make up for it any way I can. In terms of bringing it back to the facts that it's not something he chooses, or I chose, but that this is something no different than diabetes or something else that we just have to work with.”

## Theme 8: Mother Learning From the Experience

### 8.1. Mother Learning About LDs and How to Help Child

Most of the quotes in this category belong to this subtheme; they come mainly from answers to the questions about how it has changed her to be the mother of a child with LDs or what she would not have changed if she could go back in time. One mother said, “As a person I

*am able to identify with a lot of [parents] who are dealing with learning disabilities. [I am] able to be a resourceful teacher. Finding strategies of approaching this thing. Ten-thousand-and-one ways of explaining the same thing. [...] I am reading constantly. I don't read the newspaper because I am reading something about disabilities or [...] about educational things.”* Another mother said, *“I went to parenting classes so I could learn how to deal with him different and things like that. And you know, not taking the easy way, like here take the medication and that's it.”*

The bulk of the quotes really belong in just this one category, however; a few parents also talked about being able to appreciate the experience of other parents and of their children, or the children's teachers better and having learned something worthwhile about the other's experience as well. Like one mother mentions, *“You know it really opened [my] mind because I've been reading a lot [about other] kids, not just kids who have problems like D. but all types of disabilities that kids have and ahm you learn that there are a lot of people with needs.”* Another mother pointed out, *“I'm a little more tolerant of the teachers and I guess I have to learn to appreciate what they're working on. [...] you expect [the teacher] to be able to assess your child accurately and they can't. I mean the reality is they can't.”*

## Theme 9: Wish for Child to Reach Potential

To many of the questions on the affective experience of parenting and the view of the relationship between mother and son as well as to some of the questions in looking ahead into the future, mothers spoke to their desire to have their children excel in life, in terms of academics and professional achievements as well as feeling content and happy.

### 9.1. Academic Success

One mother explained, “...I try to tell him, you don’t wanna go to any Joe Schmo high school, which is yeah, you can get into, you know, [...] even though you can go to that high school [the high school that is part of the school that the child is going to already and can continue on without an application], you always wanna try out for other high schools to see if you can get into it [...]”; another mother said, “I’m so proud of his accomplishments. [...] When I see him really putting all his attention ... and his soul into something good, you know, he’s not going to become nothing, he is actually going to become something, he has that already in him.”

## 9.2. Child Feeling Comfortable With Self and Happy

“I want him to be able to, when he goes out into society, feel comfortable with who he is [...].” [I want to help my son] *get into a stable position that I would feel that he is comfortable, that he is not struggling. Cause I don’t want him to feel that he is struggling in school. I want him to be proud of himself.* “I am determined to see him, you know, grow up and have his head in a good place, you know, where this isn’t an affliction he can’t control.” I just want B. to be happy in life. I want him to be happy with his choices, I want him to strive for the best, so he never has to question himself.”

In summary, the qualitative analysis of the women’s narratives, who took part in the study, yielded much detailed information about their specific parenting experience. The data informed about the various important issues relevant to the mothers’ lives, such as the specific difficulties experienced by mother and child, as well as their affective experience of raising a child with the challenges described. The narratives illustrated the mothers’ intense feelings of frustration, anger, worry, loss and guilt associated with their everyday lives. In addition, the mothers talked about in what ways they felt they and their children were overcoming their challenges, how the

mothers felt they had learned from raising their children, or about their wishes for their children to reach their potential. The mothers spoke in many different voices, talking in a candid and often very moving way about their many seemingly common yet difficult experiences which are part of their lives.

## CHAPTER V

### Discussion

#### **A. Introduction and Goals of Study**

Much of the research studying maternal RF has focused either on its relationship to the mother's own and her child's attachment status or on parenting behavior. Mothers with a higher capacity for RF are more likely to be categorized as securely attached; they are also more likely to have securely attached infants and toddlers (Fonagy et al., 1991; Fonagy et al., 1997; Slade et al., 2005b). Other research which explored the relationship between maternal RF capacity and affective communication, as well as sensitive mothering behavior, showed that those mothers with the highest RF capacity were also able to have the most flexible affective communication with their children and supply the most sensitive parenting (Slade et al., 1999; Grienenberger et al., 2005). In terms of the populations researched in these areas, most studies have focused on the mother-infant or mother-toddler dyad, which makes sense given the theoretical background outlined (e.g. Fonagy et al., 1991; 1995), and the body of research supplying evidence for the importance of maternal RF for the child's development.

Recently however, a study by Ilardi (2010) examined a potential link between maternal reflective functioning capacity and parenting outcomes for school-age children. More specifically, Ilardi's research looked at the relationship between maternal RF and the psychosocial functioning of 10 year old boys with varying diagnoses of ADHD, LDs and associated behavior disorders. Ilardi outlines previous relevant research demonstrating that children with the challenges described above have more social difficulties, difficulties with ego-

development, self regulatory capacities, self-representations, and object-relations (2010). The findings of her study showed that a mother's ability to mentalize about her child, about the parent-child relationship, and about herself as a parent, was in fact positively associated with better psychosocial functioning in the children.

Ilardi's findings together with previous research outlining the importance of maternal RF for the optimal development of the baby and young child imply the continued importance of maternal RF for development as children grow beyond the infant and toddler stages. The results of Ilardi's study suggest that maternal RF may be especially important for children with learning and behavior problems. Given Ilardi's findings, it is perhaps useful to add maternal RF as a factor into Johnston & Mash's "developmental perspective" (2001), which claims that an interaction takes place between sensitivity of family environment, the child's unique ADHD diagnosis, personality and his individual temperament. In this proposed framework maternal RF may be considered a potential risk factor or protective factor for child outcomes.

While there is no doubt regarding the importance of a continued effort to learn more about the various environmental factors leading to better child outcomes, especially for children who face various learning and behavioral challenges such as those outlined above, it is just as important, however, to gain more knowledge about the parents' experience, in particular the experience of the mothers as the children's primary caretakers. Perhaps one reason why there has been a lack of focus in studying the experience of mothers in this population, especially their experience regarding stress and depression, is the seemingly intuitive, yet possibly faulty conclusion that finding ways to help the ADHD/LD child feel better and become more successful in his academic, social and family environment, would automatically lead to alleviating a mother's symptoms of stress and depression as well. Although this is a reasonable assumption, it

is one that appears to have been proven wrong by several research studies (Wells et al, 2000; Hoofdakker et al, 2007; Hoofdakker et al., 2009).

These studies, which are part of an emerging area of research, suggest that although parenting programs can significantly improve parenting techniques, parent-child interactions, and even family atmosphere, they do not however seem to help the parents, especially the mothers, feel less stressed and depressed. It looks as if although families can be helped in important and meaningful ways by these interventions, something is missed. The benefits to the family, for some reason, do not appear to impact maternal stress and depression enough. It seems that more research is necessary to gain a better understanding of the mothers' experience and in particular what the contributing factors may be which lead to maternal stress and depression in this population, so that treatment approaches may be developed to specifically address these mental and emotional health issues in women.

To a certain extent then, we are still in the dark about what it is truly like for a mother to parent a child with ADHD/LD, and the associated behavior problems, and what specifically may lead to her feelings of stress and depression. It was therefore one of the main goals of this current study to contribute to a deeper knowledge about a mother's specific parenting experience by gathering a large body of psychologically rich data via the questions of the PDI-2R. A qualitative analysis of the mothers' narratives facilitated an in-depth information gathering of these mothers' experience with regard to the details of the different aspects of raising her child, especially at times of heightened emotional arousal. A second main goal of this research project was to explore the mothers' ability for mentalizing by examining her level of RF overall, and comparing that with various subsections of the interview. A possible relationship between RF capacity and reports of a more positive parenting experience was explored, as well as a mother's

ability to mentalize while talking about topics which were assumed to be more difficult for her to contemplate, such as the affective experience of motherhood or responding to questions tapping into the experience of the child's learning and behavioral issues. It was further anticipated that the results of the study and the conclusions that might be drawn would not only contribute to a richer understanding of a mother's experience but would also point the way toward effective interventions.

## **B. Hypotheses and Exploratory Research Questions**

### **1<sup>st</sup> Exploratory Research Question**

The first aim of this research project was to investigate the RF capacity of the mothers who participated in the study. The mothers' overall RF capacity as well as the RF scores with regard to the individual demand questions was rated. Maternal RF capacity was assessed using the PDI-2R-LD interview, a slightly amended version of the original PDI (PDI: Aber, et al., 1985; PDI-R Slade, et al., 2003). Means and standard deviations were computed, both for the mothers' overall RF capacity as well as for each of the demand questions.

The findings revealed that the overall RF scores, as well as the RF scores for the demand questions of the interview, were particularly low for the mothers in this sample, with the mean overall RF score reaching only a 4. This was surprising as Slade (2005) described that generally RF scores of 5, "definite or ordinary RF" are most frequently expected in a non-clinical sample. In the current sample the overall mean RF score was one whole point lower than what would be expected for a non-clinical sample such as the one of the current study. The majority of the mean RF scores for the demand questions in this sample, 18 out of 23 (78%), were even below the overall mean of 4, ranging from the lower to the upper threes but not exceeding 3.94.

Slade (2005) describes a RF score of 3, “questionable or low RF”; although it contains some implication of an attempt at mentalizing, as still lacking a demonstration of clear and unambiguous reflective functioning, meaning it is deficient in the acknowledgement of different emotions being present at the same time, conflicts, or any indications of feeling unsure about the feelings or mental states of others. An illustration of low RF from the current sample is one mother’s answer to the question about a time when her son was really upset, which received a score of a 3 for RF function. She talks about the time when she told her son that he will have to miss his basketball practice for several Saturdays to come because he will have to go to a tutoring program instead.

*I told him that he has to sacrifice three Saturdays for academics because his teacher told him he has to [do it]. He is not happy about that. He’s a nice guy he says, “Okay”. You know I don’t even know how to describe that behavior. He’s just like, “ok, if I have to”. You know just upset, disappointed by the fact that you’re taking away my basketball.*

Although this mother can acknowledge her son’s disappointment over missing out on his basketball practice, she appears uncertain as to how her son really feels about this. One would expect that a child might respond to such a change in plan with other feelings, namely anger, in addition to simply feeling disappointed. To illustrate an answer to a question of the PDI that scored a 4 for RF, the following response by a different mother is added, describing a time when she and her son “really clicked”. She said,

*Last week, he went shopping and he brought home some Levis, real nice pants you know and I thought he looked so cute and he was like “Right Mom? These are phat!” and then we laughed about it.*

Even though this moment between mother and son when he tries on the new pants appears to be a genuine and convincing clicking moment, the description lacks depth and meaning. One wonders, what else the mother is feeling and thinking as she looks at her son in the new jeans; no

elaboration follows on any feelings about the way he looks, his having gone shopping on his own, picked out pants to look a certain way, or any reference to the language they both enjoyed together.

The following quote of yet another mother in the study illustrates more in depth what low maternal RF is like when the stakes are higher. This mother talks about a negative incident, which took place at her son's school and which resulted in some serious and obviously very upsetting disciplinary action against him. Although her RF score for this particular question is a 4, her overall RF score is 3 "questionable or low RF". In her answer to the question about a time when she and her son really "clicked", the mother talks about a moment between her son and herself alone in the car after they had left their meeting with the principal of the school and several teachers to discuss the incident and the resulting consequences. The son had just said to his mother that he felt as though he had no friends in school, to which she responded the following:

*...as he was just talking to me, as he could express himself, I just got like a second wind, you know, like, I'm glad you got that people aren't what they seem, and [...] we don't take the word "friend" lightly. [...] So he made the statement that he came to the realization, (laughs) and I was like "Wow". [...] the fact that he was able to draw a conclusion, just going through a situation in life, and actually drawing something from it, as supposed to just going through it. That he was thinking and actually making some connections. I was impressed. (I: So that was the moment of clicking?) Yeah, that was like, "Wow". (I: And how did you feel in that moment?) Oh, I was delighted. (I: And how do you think he felt?) [...] I think he was comfortable, I don't even, he wasn't even sad. I'd say he was hurt, you know, cuz he was like a boy, just as if you said: "Man I just missed that bus."*

It appears that although this mother is interested in her son's experience, she needs to use defenses, such as denial in this answer, to "block out and distort" her son's internal life (Slade, 2005). This mother negates and minimizes her son's experience of feeling alone and without friends and turns it into a pseudo revelation for him or an epiphany of some sort, talking about

this experience as if it turned out to be mainly a positive experience of personal growth for him. In the interview the mother actually does not describe more of what her son says in relation to this incident in particular or his experience of it; however, given that having a meeting with a school's principal regarding a disciplinary action against one's child would be no doubt stressful and upsetting for any parent and child, this mother's response feels mismatched with the context.

In contrast to the above examples is a response from one of the few mothers in the sample who reached an overall RF score of 5, "definite or ordinary RF". It clearly shows what Slade (2005) describes as having the capacity to "make sense out of one's experience in terms of thoughts and feelings" and "[having] a consistent model for this." This mother demonstrates with her answer that she can produce a genuine reflection of mental states and talk coherently about how those mental states may relate to behavior, when she describes how her son's learning and behavior issues are affecting their relationship.

*It was difficult for me because, both with [me] and his father, we went through school fairly easily, so we don't understand what he's going through. I didn't have to study. I didn't, I went through school and it was no problem. My parents came from the Dominican Republic so there was no one to help me in school. They didn't understand the language. They didn't know from anything. I did my own homework no one had to check it, it was always fine. And now it's all this, you know parental participation like I said which is so different from when I was growing up. Umm the teachers checked your homework, not your parents. And now it's different. Umm and so he doesn't like me to check his homework because again he thinks that's a critique of him, instead of realizing that it's a supervision of his homework. Umm so he just...I mean for me I don't...it was...it's hard. You know? It's hard to relate to what he's going through, but I understand it because not everybody is the same. So I understand it. Because then I went to college and I was a total mess up. I was like "owww...wake up call." And I had to work, so you know. And there are things now that I don't...I can't wrap my head around. So you know...And like I said he doesn't get two times three but he gets other stuff. And so in a way, this school has to teach him basics, but now he's working on geometry and he's doing great in geometry. Which is odd. Which is backwards. But when they were doing multiplication tables, he can't- he doesn't get that. So we have a weird situation because he's not doing well. He has a wonderful vocabulary but, you know, he doesn't do well with little words. So...what do you do? You know? So, on the one hand he's extraordinary in certain ways and on the other hand, he isn't.*

An integral part of the reflexive capacity is being able to acknowledge that oneself and one's child have an internal life. Being able to describe such an internal life with thoughts, feelings, plans, wishes, intentions, etc. is a very basic part of the reflective functioning capacity (Slade, 2005). Being able to accomplish this kind of description alone will only leave a person in the lower range of functioning with regard to RF. What brings a person's RF capacity into the moderate to high range -scores between 5 and 9- however, is the ability to make connections between different internal mental states, in oneself and others, as well as behavior (Slade, 2005).

To return to the first result of the current research project, which is that the sample of mothers, which was identified as non-clinical by the BSI, only reached RF scores averaging 4, the question presents itself: Why did these mothers then score so low? The three answers that appear most obvious are, that: (1) this sample ended up being a low RF group of mothers just by chance. This is a possibility, especially given the small sample size. (2) A second possibility is that low RF capacity in the mother may be a contributing factor early on in the child's development either creating an ADHD child from the start or exacerbating any vulnerabilities that may have been there already. This idea is in line with Johnston and Mash's conclusion (2001), which affirm that factors inherent in the family environment may exacerbate ADHD symptoms and any comorbid symptoms in the child. A third possibility – and one which will be explored below – is the idea that a relationship may exist between having a child with ADHD, learning issues and associated behavior problems and a mother's decreased ability for RF. Implied in this last potential explanation is the assumption that there is something about the experience of having a child with the above described issues that compromises a mother's ability for reflective functioning, leading her to be classified in the "clinical" range at least with regard to her mentalizing capacity.

Even under the best of circumstances, a parent's capacity to mentalize fluctuates depending on the situation she is in and her own emotional response. At certain times and in certain situations it will be easier or harder for a mother to think about her child's inner life, about the relationship with her child, and about herself as a parent. It seems possible that if stressful and emotionally difficult parenting situations occur often and persist over time that they may lead to a more constantly decreased ability for RF. A mother may limit her mentalizing ability as a coping mechanism used to ward off stressful and emotionally difficult feelings and thoughts related to her parenting experience in order not to become overwhelmed or disorganized by it. She may initially even have had high RF capacity, but in an attempt to cope with the continuous emotional and psychological stresses of raising her child with these challenges, she inhibited her mentalizing activities and abilities to such a degree that they became significantly decreased. It is important to note that there is no assumption here that a mother purposely "decides" to inhibit her reflective abilities; rather, it is likely that these processes take place on an unconscious level.

The proposed idea that the mothers' RF capacities became diminished as a result of a coping response to an extremely difficult parenting and family situation is linked to research studies investigating the RF capacity in clinical populations having experienced trauma. Fonagy (2000) describes accruing evidence that the trauma of abuse during the childhood years commonly results in the child's compromised reflective functioning capacity. Fonagy reports that the abuse and maltreatment causes children to develop deficits in mentalization and that they generally "withdraw from the mental world" (2000, p.1133). Other research studying the RF capacity of adults with Borderline Personality Disorder and a history of child physical or sexual abuse (Fonagy et al., 1996) has also shown a lower capacity to mentalize for these populations.

The researchers concluded that the populations studied dramatically inhibited their mentalizing abilities in an effort to avoid contemplating the abuse, its meaning, or the important relationships with the people involved in it. Implied in these findings is a possible relationship between RF capacity and the use of certain types of defenses which aid in warding off or denying thoughts and feelings that are too threatening to allow into consciousness, which results in an inhibition of the ability to reflect.

In their study exploring attachment status and reflective capacity in psychiatric classifications, Fonagy, Leigh, Steele, Steele, Kennedy & Mattoon (1996) evaluated the reflective functioning capacity in a variety of clinical populations as well as a “normal” control sample. The authors found a significant difference between the non-clinical group, reaching an average RF score of 5.2, and the various clinical groups with either Axis I or Axis II diagnoses, which as a whole had an RF score of 3.7. Axis I disorders such as depression, anxiety, substance use, and eating disorders had the following scores respectively: 3.8; 3.5; 3.4; 2.8. The groups with the Axis II disorders reached scores ranging from 2.7 to 3.9, with Borderline Personality Disorder reaching the lowest score (2.7). It is noteworthy, that although the BSI results of the current sample defined it as non clinical, when comparing the sample’s RF scores, especially the scores for the individual demand questions, with the RF scores of the clinical groups in the above mentioned study by Fonagy and colleagues (1996), the current study’s scores look more like those typical for clinical populations with either Axis I or II disorders.

In the absence of other studies evaluating the RF capacity in mothers of children with learning and behavior issues, we cannot be sure at this time if our sample is indeed representative of this population with regard to their mentalizing abilities. It would be necessary to undertake other studies to more definitively establish what the RF capacity for mothers of children with

ADHD and LDs in fact is and if this population may be considered “clinical” at least in terms of their mentalizing abilities. However, if we assume that our sample of participating mothers is in fact representative of the larger population of mothers of learning and behavior disordered children, we need to presume that their lower capacity for reflective functioning about their own and their child’s experience, as well as the parent-child relationship is at least one of the criteria identifying them as such.

Spinelli (2009), in his exploration of the relationship between ego mechanisms of defense and reflective functioning, describes research, such as that by Fonagy and colleagues (1996) outlined above, which link defensive functioning with psychopathology. In his reasoning on how defensive functioning is defined from the vantage point of psychoanalytic ego psychology, he concludes that psychiatric classifications may be understood to phenomenologically describe defensive functioning. Although he points to the fact that not much research exists to date studying such a relationship between RF and a person’s use of defenses, recent studies seem to suggest that defensive mechanisms do in fact play a role in the ability to mentalize. Therefore, it would be useful for future research to examine defensive use specifically in the population under study so that it may be linked more definitively to RF capacity.

In the above cited research by Fonagy (2000) and Fonagy et al. (1996), the participants experienced a major trauma, such as physical and/or sexual abuse that occurred during childhood. In considering the experience of the mothers in the current study, “trauma” of course is not understood in this sense but rather as a subtler kind of chronic strain taking place in adulthood and stemming from the potentially extremely stressful experiences that are part of raising a child with ADHD, LDs and the associated behavior problems. Although the experiences of the mothers in the study sample are of an appreciably different nature and take

place later in life during a very different developmental phase, it is still possible that those experiences lead to employing similar coping mechanisms and defensive activity and further resulting in a correspondingly diminished RF capacity.

In accordance with this line of thinking, which links defensive use to RF capacity, the idea is proposed that raising a child with learning and behavior problems is associated with increased emotional and psychological stresses that together with the day-to-day child rearing challenges results in the need for the use of the type of defenses that are more commonly found among clinical populations. In order to cope with her stressful and challenging parenting situation the mother engages in the kind of defensive activity that keeps her from becoming overwhelmed by emotionally and psychologically threatening thoughts and feelings and that also help her to function in her demanding parenting role. As she continues to use defenses, such as denial, projection, and distancing, in a continual manner in response to her parenting experience, this coping strategy becomes over time more chronically entrenched, significantly inhibiting her reflective capacities.

The term “ego strain”, coined by Sandler (1967), applies to the impact that this kind of “traumatic parenting experience” may have on a mother, when she is faced with such an amount of disorganizing and overwhelming external pressure that, unable to adjust or to tolerate it, she resorts to using defenses that aim at denying or shutting out those stimuli. Drake (2005) elaborates on the defensive use of denial in this context: “Not knowing, or denial, can interfere with emotional reciprocity and the capacity to give and receive. This occurs because trauma tends to impair one’s ability to recognize and respond to others.” This expansion on the consequence of the defensive use of denial on interpersonal relationships appears to parallel to a certain extent what happens to the mothers mentalizing capacity when it becomes decreased due

to the external pressures of an extremely difficult parenting experience and the effect this may have on the mother-child relationship.

Although thinking about the mothers' experience in terms of trauma may seem somewhat excessive in this context, conceptualizations of traumatic experiences and their impact on psychological adjustment and functioning, especially as they relate to defensive functioning, nevertheless appear relevant. This is particularly useful in the absence of a current clinical classification for this population. At this point it is still unclear how to best describe a mother's subsequent psychological adjustment to the above described parenting situation within current existing frameworks. In sum the current data suggest that the RF function of a mother in the population under study might be considerably decreased – even comparable to a clinical level of functioning, possibly due to increased parenting demands and stresses. It is important to keep these considerations in mind as the remaining hypotheses as well as exploratory research questions are discussed.

### 1<sup>st</sup> Hypothesis

The study's first hypothesis examined the link between higher levels of maternal reflective functioning and a report of a more rewarding parenting experience. This hypothesis is based on research linking maternal reflective functioning capacity to parenting behavior. Research examining maternal RF has shown that those mothers with the highest RF capacity were also able to have the most fluid affective communication with their children and supply the most sensitive parenting (Grienenberger et al., 2005). It was assumed that those mothers with higher ability to mentalize on their own and their child's experiences and who evidence a certain ease and sufficiency in their affective communication would also be the ones to report a more

rewarding and joyful parenting experience.

In addition, research from the field of attachment has shown that mothers who were classified as “autonomous,” as determined by the AAI, scored significantly higher on the joy-pleasure/coherence dimension with regard to their parenting experience as evidenced by their PDIs (Slade et al., 1999). The same study found that mothers who scored high on the joy-pleasure/coherence dimension were also more positive in their parenting behavior (Slade et al., 1999). Given that maternal RF capacity is positively correlated with maternal attachment status, meaning mothers who are classified as securely attached are more likely to have higher reflective functioning capacity (Fonagy et al., 1991; Fonagy et al., 1997; Slade et al., 2005b), it was hypothesized that in the current sample those mothers who were able to demonstrate a higher capacity to reflect on their own and their children’s states of mind would also be the ones to report on a more satisfying and pleasurable experience of motherhood.

Having a more satisfying and pleasurable mothering experience was defined for this purpose as reporting less of the more negatively shaded themes, i.e. “worry”, “loss”, “anger” and “guilt”, and more of the positively valenced themes, such as “overcoming problems” and “child reaching potential”, which were identified in the narratives of the PDI-2R-LD. A two-tailed Pearson Correlation was performed to investigate if such a relationship exists between the mothers’ overall RF scores and the frequency with which she mentioned identifying themes, which spoke to either more negative or more positive emotions with regard to her parenting experience. However, this hypothesis was not supported by the data.

This finding indicates that in the current study sample RF capacity may not mediate a mother’s report of a more positive parenting experience. This would mean that regardless of RF capacity women would equally be unable to report more on positive and less on negative themes.

This may indicate that even for the mothers with the highest RF scores in the sample that their mentalizing capacities were not helping them to have a more positive parenting experience to report on. A possible conclusion which may be drawn from this finding is that scores for maternal RF capacity in the low average range do not counteract/protect the mother from the stress and depression of parenting a child with ADHD, LDs and associated behavior problems, that may lead to the account of a more rewarding parenting experience. To illustrate this point, two mothers are quoted with their answers to the question about what brings them joy in their parenting. One of the mothers who actually reached an overall RF score of 5, answered monosyllabically to this question by saying:

*“Um, to have,... I mean, I said their..., but to have their company.*

Her answer to this particular question was scored as only a three. Similarly, another mother with an overall RF score of 4 dropped down to a 2 in answering this same question, when she said:

*“Uh, seeing the way they’ve been growing up. To be very respectful, uh, to be well-behaved, to do good in school.”*

As we contemplate the potential meanings of this finding one continues to be curious about the question, what happens to a mothers RF capacity as she goes through very challenging parenting experiences? If her ability to mentalize in fact decreases due to the stresses related to parenting her child, what may this mean in terms of her own experience and more specifically in terms of her emotional health?

## 2<sup>nd</sup> Hypothesis

An additional hypothesis in this study was that a mothers’ RF capacity with regard to speaking about her affective experience of parenting would be lower than her overall RF scores. It was further hypothesized that this would be true even for those mothers who reached the

highest levels of RF in this study. Both hypotheses were tested by conducting single sample t-tests, comparing the mean RF score for the affective experience of parenting to the overall RF score of the entire sample and then compared to just those five mothers who reached the highest RF scores. The first claim, that all women in this study's sample will have a lower RF score when talking about the affective experience of parenting compared to the overall RF score, was not supported by the data. However, the second claim, that even the women who reached the highest overall RF scores would have lower scores with regard to the RF score for the affective experience of parenting turned out to be supported by the data available for investigation.

It was expected that the mothers in the study sample are having a difficult and emotionally challenging time parenting, which may make it hard for them to talk about their affective experience as it may be overwhelmingly tinged by negative experiences and emotions which might be difficult to tolerate, such as anger at the child, pain and worry associated with parenting, etc. It was thought that denial and other defensive mechanisms would set in as a protective mechanism, in turn lowering the mother's ability to reflect on her emotional experiences associated with raising her child.

However, considering the overall low RF scores in this sample, the findings related to this hypothesis are not surprising. Given the fact that the mothers' RF scores are so low overall, it may have been hard to show a significantly lower functioning just on the questions related to the affective experiences compared to the mothers' overall RF capacity. It is possible that only for the mothers with the highest RF scores (low average - namely 5) were the data able to show a difference in functioning, meaning that the mothers with the highest RF scores were the only ones who had a level of functioning that was high enough to decrease from in a statistically significant way.

## 2<sup>nd</sup> Exploratory Research Question

The second exploratory research question of this study was to examine the mothers' capacity for RF in response to the LD questions of the PDI-2R-LD that were added to the original measure and how these RF scores compared to the mothers' overall RF capacity. Another single sample t-test was conducted, comparing the mean of the RF for the LD questions with the overall RF mean. As expected, the findings showed that the mothers' RF scores while talking about their experiences raising a learning disabled child, were indeed lower compared to their overall RF scores.

It is interesting to see that unlike in the 2<sup>nd</sup> hypothesis discussed above, which compared mothers' RF scores for affective experience to overall RF, for the current hypothesis the data showed that it was in fact more difficult for all mothers in the sample, not just for the mothers with the highest RF scores, to talk about the LD issues of their children compared to other questions of the PDI-2R-LD. When the mothers were asked directly about their children's LD issues and how they impacted their lives and relationships, it was perhaps harder to elaborate on that aspect of their experience, compared to more general questions about the pain, worry, and anger etc. with regard to parenting in the affective experience section of the interview.

There were several low RF scoring answers to the question about how the child's LDs were thought to affect the relationship between mother and child by mothers who had the highest overall RF scores. Their significantly lower scores when answering these questions compared to other sections of the interview seemed striking. One mother who reached a score of a 5 overall RF, answered to this question simply:

*[How do my son's learning and behavior issues affect] our relationship? No."*

A second mother with a 4 overall RF score, said to the same question, which was, as the previous response, also scored with an RF score of 1:

*“I don’t think that that, he doesn’t, that doesn’t affect us.”*

It appears that these mothers and others in the sample had difficulty talking more richly and expansively when asked about the impact of the LDs on the relationship with their child. The fact that in both of these examples the mothers simply denied any impact of these challenges on the relationship suggests that they may have had to resort to the use of rather immature defenses -such as denial- to keep their negative affect at bay. The errors in grammar may even suggest that the question triggered a temporary breakdown in defenses which made the narrative slightly incoherent.

### 3<sup>rd</sup> Exploratory Research Question

An additional exploratory research question examined how the RF scores for the LD questions compared to RF capacity with regard to questions about motherhood, as evaluated within the section on the affective experience of parenting of the PDI. To answer this question one more single-sample t-test was used to compare the mean of the RF-LD score to the mean for the RF for the “affective experience of parenting”. The data did not show a significant difference between these two sets of data.

The 2<sup>nd</sup> hypothesis examined if the sample’s RF scores for “the affective experience of motherhood” would be any different than its overall RF capacity, which turned out to not be supported by the data. However, comparing the “affective experience of parenting” RF scores only for that subset of mothers with the highest overall RF scores with their overall RF scores

indeed showed that the RF scores for the affective experience were lower than the overall RF capacity in those mothers, possibly suggesting that those mothers with the higher RF capacity evidenced some difficulty in talking specifically about their affective experience of parenting. It is possible that this secondary result, looking only at a subset of data, may be indicating a relationship between RF capacity and ability to talk about the affective experience of parenting in this population that could not be shown with the data available for analysis. It is possible that if the sample size had been larger or the RF scores higher or more varied that it would have shown this result for the whole sample. The following 2<sup>nd</sup> exploratory research question similarly examined a difference between the RF scores for the LD questions and the overall RF capacity. This result showed that the RF scores for the LD questions for the sample as a whole were in fact different from their overall RF, with RF being lower for the LD section.

Comparing the sample's RF scores for the subsection "affective experience of motherhood" with its RF scores for the LD questions of the PDI-2R interview for this final research question shows that these two data sets appear to not be significantly different. This result may underline the findings, represented by the second part of the second hypothesis that the mothers with higher overall RF evidenced more difficulty talking about the affective experience of parenting. This result may further suggest that if the sample had been larger or the mothers had had a higher RF capacity that the second hypothesis may also have been supported by the data.

### **C. Qualitative Analysis of the PDI-2R Narratives**

Before discussing the results from the qualitative analysis of the narratives of the current study, it makes sense to briefly summarize those challenges that have previously been identified

in the literature for families living with ADHD, LDs and behavioral problems. It appears to be a reasonably logical assumption, that to a certain extent and within the parameters of the questions of the PDI-2R, the mothers in our study would talk about at least some of the difficulties stemming from their children's learning and behavior problems that have formerly been recognized. Consequently, in the current study various corresponding themes were expected to emerge from the mothers' narratives, which will be discussed below. It will further be suggested where the present qualitative analysis adds to previous findings.

Whalen and his colleagues (2006) found in their research with families living with ADD/ADHD, LDs and behavior problems, that mothers perceived managing their day-to-day tasks as very difficult. Especially challenging times were reported to be mornings and weekends when children were not on medications. Children were perceived to limit and constrain family activities and those aspects were found to make it harder for the family to enjoy activities together, consequently lowering family members' satisfaction with family life and their experience of feeling supported by their family (Whalen et al., 2006; Brown & Pacini, 1989). Problems with the marital relationship have also been reported for this population (Hechtman, 1996; Brown & Pacini, 1989).

In addition, Peters & Jackson (2008) reported their findings of mothers often experiencing the responsibility of caring for their children as overwhelming, especially as they felt the need to be their child's advocate with regard to their medical treatment and school. Inextricably linked to the difficult and high demand nature of their caretaking activities and the childrearing duties, which were experienced as lacking variety and enjoyment, Whalen et al., (2006) found in their research that mothers often perceived their caretaking responsibilities and aspects of family life as an obligation rather than a choice.

These studies conclude that because of the above mentioned difficulties, increased mental health issues, such as stress and depression have been reported for this population (Brown & Pacini, 1989; Anastopoulos et al., 1992; West et al., 1999; Podolski & Nigg, 2001; Hechtman, 1996; Johnson & Reader, 2002). Whalen et al. (2006) also found parents reported more negative moods and had lower levels of self-perceived parental effectiveness, in addition to high levels of anger.

Additionally Peters and Jackson (2008) found that mothers at times also felt blamed for their child's difficulties by their environments but that they also attributed blame to themselves and experienced feelings of guilt. The same researchers also found that feelings of sadness were evident in the mothers' narratives they studied. They further found that mothers often felt that their children were stigmatized by the diagnosis and that the families experienced a certain degree of social rejection due to the child's problems.

The general themes that were identified in the narratives of the current study were found to be very much as expected, given the existing literature on the challenges experienced by families living with ADHD, LDs and associated behavior problems. The mothers talked extensively about most of the topics regarding the parenting challenges identified in the literature and they spoke about them in various parts of their interviews. Almost all of the topics around the family challenges previously recognized appeared either as a primary theme or as one of the secondary themes in the current study's data. Some of the specific topics from the literature were not represented by the current data with a primary or secondary theme, such as marital discord resulting from the stresses related to the child's diagnosis, feelings of being stigmatized by the child's diagnosis, or experiencing social rejection as a family due to the child's challenges. This is likely due to the nature of the PDI-2R interview, a structured interview with direct and mostly

unambiguous questions about the parenting experience. In addition, not all comments made by the mothers in the study became part of forming primary or secondary themes, although they may have covered some of the topics outlined by previous research.

Nine primary themes were found, which were the themes to which most quotes could be attributed to. Briefly summarized again, the primary themes identified in the current study were: a mother's description of her son experiencing difficulties related to any aspect of having learning and behavior issues; a description of her own difficulties in raising her child related to his school and behavior issues; and the mothers' voicing their frustration and/or anger related to the experience of having a child with these difficulties. Additional primary themes were found around guilt, loss and worry related to the mothers' parenting experience. Finally, these other major themes emerged regarding: the mother and her child overcoming LD and behavior problems; around her learning from the experience of raising her child and the theme of her expressing a wish for her child to reach his potential. The two themes, "Child Experiencing Difficulties" and "Frustration/Anger for Mother and Child" were most frequently mentioned by the mothers in the study. "Guilt" was the third most commonly mentioned theme with almost two mentions on average. The remaining six themes were mentioned more or less equally by each mother.

In addition to confirming the findings to date in this area of research, the current study contributes to a more expanded exploration within the existing themes of the various aspects of a mother's experience of parenting a child with the issues described above. The qualitative analysis of this study's data resulted in the creation of many sub-categories for each of the themes, aiming at a deeper understanding of some of the aspects of a mother's parenting experience. One of the explicit goals of the current study was to contribute to a better

understanding of the specific parental difficulties associated with ADHD, LDs and associated behavior problems, and to add specifically to a better descriptive outlining with regard to how family relationships are impacted by the child's challenges. This need has been noted by various researchers in this field of study, notably Johnston and Mash (2001). What follows is an elaboration and description of some of these more specific challenges that parents with children with diagnoses as discussed above.

Within the theme of the child experiencing difficulties, almost all mothers talked extensively about what their son's specific problems were, giving detailed, descriptive accounts of the particulars; one related yet separate subtheme surfaced around the child's inability to focus and to sit still. A further subtheme emerged around the child's social emotional challenges due to his learning and behavior challenges. Another subtheme developed when many mothers talked about their son's experience of not being optimally supported by their teachers.

As part of the larger theme of the mother's anger and frustration related to her childrearing experience, there emerged several secondary themes. One of the major topics the mothers spoke to was their challenges with their sons completing their homework in an adequate manner, or the mothers helping their sons with the homework in general. What mothers also found very frustrating and anger provoking was that their sons did not listen to them well. Further, their school performance –academic and behavioral- was also a source of anger and frustration. Many mothers also reported feeling frustrated and angry at the teachers for not partnering with them and their children more effectively regarding their children's behavior and academic work in school. Finally, feeling isolated in dealing with their sons' challenges brought about frustration and anger in the mothers.

Another primary theme, one concerning the mothers' own difficulties with raising their

children, was also made up of several secondary themes. Specifically the pressures and stresses not only of the day-to-day living but also regarding leisure activities surfaced, in addition to the mothers feeling upset about their limitations in helping her child. Several secondary themes surfaced around the general theme of maternal guilt. Many mothers felt regret over missed opportunities for helping the child or for not having spent enough time home with the child. Several mothers talked about their guilt over having created genetically faulty children. Many parents felt guilt over failing as a parent and specifically felt guilt for repeatedly losing their temper with their children.

The secondary themes that surfaced around loss for the mothers in the study, emerged around feelings of loss regarding a different kind of parenthood experience mothers had hoped for before having children or before becoming aware of the child's challenges with learning and behavior. Some women spoke about feelings of loss regarding opportunities that may have been lost to their children due to their issues with learning and behavior. Other mothers mentioned feelings of loss for a certain part of the relationship with their child that in some way may have become obscured or hindered by the child's challenges. Finally some of the mothers spoke to experiences of loss concerning a certain loss of self that came with the many and often consuming responsibilities of parenting their child. Subthemes clustering around mothers' worry were about their children's academic future and their future with regard to achievements in life more generally, and more specifically his functioning in the world.

Some of the more positive themes around the mothers' experience of raising their children which surfaced from the analysis of the mothers' narrative were the following: Some of the mothers spoke about a sense of their overcoming their sons' problems with learning and behavior. Specifically they talked about achieving a certain success in helping their child and

actually finding evidence of their accomplishments. Some mothers talked about a sense of acceptance of their son's challenges and experiencing that as a source of strength. A few of the mothers, one in particular, also spoke about working on herself in order to feel better herself and to achieve a more effective and less stressful way of being with her child. An additional theme in this category surfaced as mothers talked about their learning from their experience, especially learning more about ADHD and LDs. The final primary theme was around the mothers' wish for her son to reach his potential, not only academically but also personally by feeling comfortable and content with himself.

#### **D. Limitations, Significance and Future Research**

##### **Limitations of Study and Resulting Need for Further Research**

There are important limitations to this study that should be acknowledged. The limitations of the current study naturally point to the need for further research. First, the sample size clearly limits the generalizability of the study. The small size of the study sample may also have contributed to the lack of statistical findings with regard to some of the hypotheses and exploratory research questions. A larger sample would supply greater statistical power for the analyses undertaken and in addition would also boost the confidence in discussing any significant findings.

A second limitation is related to the sample population. Comparing our sample to Slade's (2005) study, this study sample was uncharacteristic as it did not reach RF scores that would be expected for a non-clinical sample (as was established with the BSI). The current sample may in fact have been more disturbed, in ways not picked up by the BSI, than a non-patient, "normal" population. Further research with larger samples of the same population is necessary to establish

if in fact lower RF scores in the range of 4 are representative for this population.

Third, the sample was quite diverse in terms of the children's diagnoses; therefore it is not clear if the study would have yielded comparable results if the children had more similar learning and behavior issues, e.g. only inattentive or only hyperactive type ADD/ADHD children; or children with either all expressive language or reading difficulties. These varied symptom pictures in the children likely resulted in different experiences for them but also may have impacted the parenting experience in different ways. As a result the mothers may have talked about quite different parenting situations and histories when responding to the questions of the PDI-2R. A replication of this study with a larger and more homogenous sample in terms of the children's diagnoses with regard to learning and behavior is therefore needed to corroborate the findings of the current study.

Fourth, verbal productivity was not controlled for in analyzing the PDI-2R narratives. The interviews varied significantly in length and it is unclear if relationships exist between verbal productivity and RF capacity as well as type and number of themes reported. It might be useful for future research to establish a means of assessing verbal productivity, such as word count or timed length of interview and enter this as a factor into the data analysis. Finally, the children in the study sample were all boys by chance. Future research will have to show if any of the findings extend to mothers of girls as well.

#### Significance of Study and Need for Future Investigations

In spite of the noted limitations, the current study provided valuable data. Its findings raise an important question with regard to the study population's low RF functioning. As stated previously, the current sample's RF scores range from 3 to 5 and averaging 4, which is one point

lower than what would be expected most commonly in a non-clinical sample (Slade, 2005). A RF score of 4 is positioned between a 3, “questionable or low RF” and a 5, “definite or ordinary RF”, which is considered an average score on the low end within the 5-9 range of this classification of the RF scale. As evidenced by their RF scores, it appears that the mentalizing capacities of the mothers in the current study, and possibly others in this population, hover between not quite being able to reflect well on their own experience, the experience of their child or the parent-child relationship (RF score of 3) and sporadically being able to do so –at least to a moderate degree (RF score of 5). As average scores remain around 4 it seems to indicate that the mothers are not able to reach RF scores more consistently in the latter classification. Prospective studies will have to substantiate if mothers of children with ADHD, LDs and associated behavior problems are in effect most appropriately categorized as “clinical” with regard to their mentalizing capacities. However, if the current findings are indeed confirmed by future studies, this will have important implications for clinical interventions.

Existing research suggests that there are aspects of the experience of mothering a child with ADHD, LDs and associated behavior problems, which result in increased emotional and psychological stresses and feelings of depression (Brown & Pacini, 1989; Anastopoulos, et al., 1992; Hechtman, 1996; West et al., 1999; Podolski & Nigg, 2001; Johnson & Reader, 2002). The explanation was examined if mothers, in an attempt to cope with these difficult experiences and related thoughts and feelings, frequently resort to using the kind of more immature defenses, such as denial, distortion and projection, which can lead to decreased functioning with regard to her mentalizing capacities. Research with clinical populations having experienced childhood trauma have shown that mentalizing abilities can be impeded by such experiences (Fonagy et al., 1996; Fonagy 2000) and it has been suggested by researchers such as those cited above that

defensive functioning plays a part in this process. Future research will have to investigate specifically the defensive uses in this population and further study the impact of such defenses on mentalizing capacities. Consequently a more robust investigation of a relationship between these two variables would be valuable. As evidence of certain defensive patterns becomes more apparent in this population and their possibly negative impact on mentalizing capacity, these findings will further impact therapeutic interventions.

In addition, the current study findings suggest that even the mothers with the highest RF scores, namely 5, were unable to report on a more rewarding parenting experience. These findings pose important questions for future research with regard to a possible relationship between a mother's RF capacities and her experience of mothering, and more specifically whether her RF capacity has a mediating function with regard to leading to a more rewarding parenting experience. Whalen's et al. findings (2006) already suggest that mothers in this population have lower parenting esteem, report more negative mood states and are feeling ineffective as a parent less often than their "normal" controls. It is possible that a low average RF score, namely 5, may not supply a mother with enough mentalizing capacity to help her specifically in this type of parenting situation, where she is exposed to very challenging circumstances over a prolonged period of time. In order for a woman to achieve a more rewarding experience as a parent, her capacity to reflect may need to be significantly higher. Future studies will have to further explore the contribution of RF capacity to a mother having a fulfilling and rewarding parenting experience.

Additional study results appear to confirm the expectation that it may be particularly difficult for mothers, such as the ones in our sample, to contemplate and speak about her child's difficulties with learning and behavior and how they impact the parent-child relationship. Both

the findings about a mother's lacking feelings of reward and fulfillment in her role as a parent together with her difficulty in thinking and talking in a rich way about her child's learning and behavior difficulties and how they impact their relationship, have important implications for clinical practice. Closely related to this field of study are important questions around what happens to a woman's mental and emotional health in this challenging parenting circumstance.

Further, the findings from the qualitative analysis of the current study add significantly to an emerging area of research that explores the parenting experience of mothers raising children with ADHD/LDs, and associated behavior problems. Previous research has already identified a variety of family challenges for this population (Brown & Pacini 1989; Anastopoulos, et al., 1992; West et al., 1999; Podolski, Nigg, 2001; Hechtman, 1996; Johnson & Reader, 2002; Whalen et al. 2006; Peters & Jackson, 2008), which to a large extent were confirmed by the themes that emerged from the analysis of the mothers' narratives collected for this study. A strength of the current study is the detail-focused analysis of the narratives; this supplied a more extensive account of the mothers' experience, richly adding to our knowledge about it. This above described data has important clinical value as will be discussed in more detail below.

### **E. Clinical Implications**

By qualitatively analyzing the women's narratives who took part in the study, much detailed information emerged regarding their particular parenting experience that could have an impact on clinical work with these parent/child dyads. It could be helpful to know, for example, about the many common yet difficult experiences a mother and her son face as part of living with the challenges described or the intense feelings of frustration, anger, worry, and guilt that are

associated with those experiences. In addition, being aware that mothers are also preoccupied with thoughts about her child overcoming the ADHD/LD and behavior challenges, her experience of learning from raising her child, or her wishes for her child to reach his potential, can further be very useful. Knowing these themes can inform a clinician's "mental set" when listening and attempting to enter a patient's world.

Loss, in all its various forms, becomes an important theme in most treatments. It may be helpful for clinical practice to be aware that in addition to the general theme of "loss" which all mothers in the study sample spoke to, several meaningful specific subtopics surfaced as well. It can be useful to explore these topics specifically in psychotherapy. As part of their experiences around loss, mothers talked about their feelings of loss for a different kind of parenthood experience they may have hoped for before having children or before becoming aware of the child's challenges with learning and behavior. Feelings of loss for a certain part of the relationship with their child were also mentioned. Some women further talked about feeling that their children may have missed out on important experiences because of their issues with learning and behavior. In addition, mothers spoke about having lost parts of themselves due to the demands of the parenting. As clinicians increase their knowledge and understanding of these mothers' experience they are better equipped to help them mourn these losses and find other avenues to connect with their children and to their sense of parenthood.

As mentioned previously, by qualitatively analyzing the women's narratives we have learned not only about the various important aspects relevant to their specific parenting experience but also about important characteristics of their affective experience of raising their children, especially when situations are more difficult. These data helped clarify which feeling states are most prevalent and most challenging in this parenting population. The data of the

current study revealed that maternal frustration, anger and guilt in response to the specific difficulties inherent in their parenting situation were topics the mothers most often talked about in responding to the questions of the PDI-2R. It would be crucial to create a space to facilitate a discussion in the therapeutic relationship about these feeling states and potentially related topics. It would be essential to especially help mothers in the process of therapy to talk about their feelings of frustration and anger, so that they may be able to acknowledge them and work them through, rather than acting on them or needing to defend against them in a rigid manner.

One of the mothers who reached one of the highest overall RF scores (5) in the study sample, illustrates this above point well with her answer to the question about a time when she got angry at her son:

*Ahhh recently yeah ahh, what did he do? I had asked him about something and he just yelled at me. And I asked him in a very calm voice and he just like...he yelled at me and it was unnecessary. And he has a tendency to yell and scream and react. And I've made a conscious effort not to scream at him or yell at him because it's just feeding more of the anxiety. And I got really really pissed off that he yelled at me. I had asked him to go take a bath. And he said something to like, "You know I'm doing something." So I took off my...my slipper and I gave him a spanking on his bottom. And I haven't spanked him since he was like four years old. I mean I can count the times that I've given him a spanking. And I don't usually resort to that but it was really like shocking him back from talking to me like that. And I told him it's unacceptable to talk to me like that. Here we are in the trenches together, going through all of this together, dealing with all this nonsense together and you have the nerve to yell at me-unacceptable. And you know I felt bad afterwards that I had reacted that way.*

Although this mother says that she rarely spanked her son, she "lost her cool" in the situation she described and hit him. She knows this is not how she wants to parent him and feels badly afterwards but in the moment became overwhelmed by affect, lost control to a certain extent and with it her ability to step back and decide on a better course of action for herself and for her son. Like many of the mothers in the current study sample, this mother feels "bad" and

guilty after an angry response to her child and likely also feels that she has not done a good job as a mother.

To be able to acknowledge difficult feelings, a person needs to be able to think about and reflect on these affective states. She needs to think about and understand what her thoughts and feelings mean in the context of the relationship and how her affective state may be experienced by others, namely her child. A mother's experience of frustration and anger and perhaps feelings of hatred toward her child can be quite frightening. However, once talked about, acknowledged, understood better and accepted to a larger extent, the feelings can then be integrated in a more healthful way.

Acting out her anger, like this mother did when she spanked her son, is one way unacknowledged feelings, such as anger, can become problematic. On the other hand, when unacknowledged anger leads to defensive action, such as projection, denial, and distancing it can lead to trouble as well. As mentioned above the use of these more immature defenses may lead to a decreased capacity for mentalizing (Fonagy et al., 1996; Fonagy, 2000). It therefore has implications for clinical practice in being mindful of mothers using these types of defenses as they may be linked to decreased mentalizing capacities.

Much research to date suggests that there are many benefits to a mother's mentalizing capacity, for her child and for the relationship with the child (Fonagy et al., 1991; Fonagy et al., 1997; Slade et al., 2005b; Slade et al., 1999; Grienenberger et al., 2005). The findings by Ilardi (2010) also suggest that a significant positive relationship exists between maternal RF and the social functioning of children with ADHD, LDs and associated behavior problems. Together with beginning research suggesting that RF capacity is related to defensive functioning, it appears useful to also work with mothers toward increasing mentalizing abilities.

In her overview of the theory and development of reflective parenting programs Slade (2007) describes as the main goal in developing parenting programs for parents and young children as improving the relationships between parents and their children via working toward “engaging and enhancing parental reflective functioning”. She further states that “the enhancement of parental reflective capacities would necessarily be crucial to any successful treatment effort, a potent catalyst for change in the parent-child relationship” (Slade, 2007). Slade, in considering previous research in the field of parent-infant psychotherapy, suggests that although interventions may not have explicitly highlighted the improvement of mentalizing abilities, it nevertheless appeared likely that “much of these programs’ success in changing parental representations of the child, and in altering caregiving practices, were actually the result of changes in parental reflective functioning that were the by-product of focusing on the parent-child relationship...” (Slade, 2007). It is hoped that the specific themes illuminated by the present study will help alert the clinician to areas where mentalizing capacity is likely to break down, and which specific aspects of parenting might be fruitful to explore in treatment.

## **F. Conclusion**

This present research study examined the reflective functioning capacity of mothers who have sons with ADHD/LDs and associated behavior problems using the PDI-2R. One of the main aims of the study was to look at the mothers’ overall RF capacity and compare it with various subsections of the interview. Results showed that the RF scores of the study sample were significantly lower compared to other nonclinical samples. The study considered a possible relationship between RF capacity and mothers’ reports of a more positive and rewarding parenting experience. The study results suggest that those women with the highest RF scores

were just as unable to report on a more positive experience parenting as were those mothers with the lowest RF scores.

In addition, the study explored a mother's ability to mentalize while talking about topics which were thought to be harder for her to talk about, such as the affective experience of parenting or responding to questions that directly asked about the experience with regard to the child's learning and behavior challenges. The study findings imply that, compared to talking about their affective experience, mothers had a more difficult time talking about the effect their children's learning and behavior issues had on their relationship. Perhaps due to the general low RF capacity in the mothers it was unclear if they also had more trouble talking about difficult general parenting moments during heightened emotional states.

The study's investigation of a relationship which may exist between parenting a child with ADHD/LDs and associated behavior problems and a mother's RF capacity implies that the emotional and psychological strains of mothering a child with these issues may lead to certain coping mechanisms and defensive uses that may significantly decrease a mother's ability to mentalize. The majority of the sample's RF scores fall in the clinical range, if future studies confirm this kind of mentalizing functioning in the population under study; this has far-reaching implications for clinical practice. The current study highlights the importance of working with this population therapeutically to increase its RF capacity. Furthermore the study lays the groundwork for future research further linking parenting stress in this population with RF capacity, as well as coping mechanisms and defensive activity.

An additional goal of the current research study was to gather a large amount of psychologically rich data to contribute to a deeper awareness of a mother's specific parenting experience in this population. The current study adds to a better descriptive outlining of what

challenges mothers face while raising a child with ADHD/LD and associated behavior problems. Moreover the present study underlines the need for a continued inquiry into the mother's experience within this population and the more descriptive and the detailed outlining of a mother's challenges supplied by this study may inform future research in this area, aiming to further delineate the mothers' parenting experience. These study findings also point to the importance of addressing the most salient issues regarding parenting in this context along with the mothers' corresponding emotions in the therapeutic situation. The conclusion drawn from the study results are preliminary in nature and will have to await confirmation by results of future studies with larger sample populations.

APPENDIX

**PDI-R2**

**PARENT DEVELOPMENT INTERVIEW  
REVISED**

Arietta Slade  
J. Lawrence Aber  
Brenda Berger  
Ivan Bresgi  
Merryle Kaplan

Adapted with the help of:

Linda Mayes  
Mary Target  
Sidney Blatt

October, 2003

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## **PARENT DEVELOPMENT INTERVIEW-REVISED**

### **A. View of the Child**

Today we're going to be talking about you and your child. We'll begin by talking about your child and your relationship, and then a little about your own experience as a child. Let's just start off by your telling me a little bit about your family – who lives in your family? How many children do you have? What are their ages? (Here you want to know how many children, ages, including those living outside the home, parents, other adults living in home. If atypical rearing situation (foster care) history of foster placements, who have been primary caregivers, etc.; likewise, if there appears to be a history of divorce, or multiple moves, get some of the detail of that just to create a context for understanding the interview.)

1. I'd like to begin by getting a sense of the kind of person your child is... so, could you get us started by choosing 3 adjectives that describe your child. (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_? (Go through and get a specific memory for each adjective.)
2. OK, now let's return to your child... In an average week, what would you describe as his/her favorite things to do, his/her favorite times?
3. And the times or things he has most trouble with?
4. What do you like most about your child?
5. What do you like least about your child?

### **B. View of the Relationship**

1. I'd like you to choose 3 adjectives that you feel reflect the relationship between you and (your child). (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_? (Go through and get a specific memory for each adjective.)

2. Describe a time in the last week when you and (your child) really “clicked”. (Probe if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)

3. Now, describe a time in the last week when you and (your child) really weren’t “clicking”. (Probe if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)

4. How do you think your relationship with your child is affecting his/her development or personality?

### **C. Affective Experience of Parenting**

1. Now, we’re going to talk about your feelings about being a parent. Can you start out by choosing 3 adjectives that describe you as a parent. (Pause while they list adjectives.) Now let’s go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_? (Go through and get a specific memory for each adjective.)

2. What gives you the most joy in being a parent?

3. What gives you the most pain or difficulty in being a parent?

4. When you worry about (your child), what do you find yourself worrying most about?

5. How has having your child changed you?

6. Do you ever really feel you need somebody to take care of you? (Probe, if necessary: What kinds of situations make you feel this way? How do you handle your needy feelings?)

6a. What kind of effect do these feelings have on (your child?)

7. Do you ever feel really angry as a parent? (Probe, if necessary: What kinds of situations make you feel this way? How do you handle your angry feelings?)

7a. What kind of effect do these feelings have on your child?

8. Do you ever feel really guilty as a parent? (Probe, if necessary: What kinds of situations make you feel this way? How do you handle your guilty feelings?)

8a. What kind of effect do these feelings have on (your child?)

9. When your child is upset, what does he/she do? How does that make you feel?

What do you do?

10. Does (your child) ever feel rejected?

11. Does your child ever moods and feelings that you don't understand?

#### **D. Parent's Family History**

Now I'd like to ask you a few questions about your own parents, and about how your childhood experiences might have affected your feelings about parenting....

1. I'd like you to choose 3 adjectives that describe your childhood relationship with your mother, from as early as you can remember. (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_?

2. Now can you choose 3 adjectives that describe your childhood relationship with your father? (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_?

3. Did you ever feel rejected or hurt (physically or emotionally) by your parents as a young child?

4. How do you think your experiences being parented affect your experience of being a parent now?

5. Why do you think your parents behaved as they did during your childhood?

6. How do you want to be like and unlike your mother as a parent?

7. How about your father?

8. How are you like and unlike your mother as a parent?

9. How about your father?

#### **E. Dependence/Independence**

1. When does your child need attention from you? (Probe, if not spontaneously volunteered: How do you feel when this happens?)

2. Why do you think those are the things he/she needs help with?

3. When does he feel comfortable doing things on his own? (Probe if not spontaneously volunteered: How do you feel when this happens?)

4. What happens when he/she can't do things on his/her own? (Probe if not spontaneously volunteered: How do you feel when this happens?)

### **E. Separation/Loss**

1. Now, I'd like you to think of a time you and your child weren't together, when you were separated. Can you describe it to me? (Probe: What kind of effect did it have on the child? What kind of effect did it have on you?) Note: If the parent describes something other than a recent (i.e. within one year) separation, repeat the question asking for a more recent.

2. Has there ever been a time in your child's life when you felt as if you were losing him/her just a little bit? What did that feel like for you?

3. Is there anyone very important to you who (your child) doesn't know but who you wish he/she was close to?

4. Do you think there are experiences in your child's life that you feel have been a setback for him?

### **G. Looking Behind, Looking Ahead**

1. Your child is \_\_\_\_\_ already, and you're an experienced parent (modify as appropriate). If you had the experience to do all over again, what would you change? What wouldn't you change?

2. How do you think about the relationship you and your child will have when your child is an adult?

3. Can you imagine yourself as a grandparent? What do you imagine? What would you hope for?

# Parent Development Interview Revised

## LD Version

Arietta Slade  
J. Lawrence Aber  
Brenda Berger  
Ivan Bresgi  
Merryle Kaplan

**This interview is an adaptation of the Parent Development Interview (Aber, Slade, Berger, Bresgi, & Kaplan, 1985). This protocol may not be used or adapted without written permission from Arietta Slade, Yale Child Study Center, 230 South Frontage Road, New Haven, CT 06520, [asladephd@earthlink.net](mailto:asladephd@earthlink.net)**

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Adapted for the use with the parents of learning disabled children by Anne-Britt Ekert Rothstein.

**Demand questions are in bold.**  
**RF-LBD questions are in bold underlined.**

### A. View of the Child

Today we're going to be talking about you and your child. We'll begin by talking about your child and your relationship, and then a little about your own experience as a child. Let's just start off by your telling me a little bit about your family who lives in your

family? How many children do you have? What are their ages? (Here you want to know how many children, ages, including those living outside the home, parents, other adults living in home. If atypical rearing situation (foster care) history of foster placements, who have been primary care givers, etc.; likewise, if there appears to be a history of divorce, or multiple moves, get some of the detail of that just to create a context for understanding the interview.)

1. I'd like to begin by getting a sense of the kind of person your child is so, could you get us started by choosing 3 adjectives that describe your child. (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_? (Go through and get a specific memory for each adjective.)

2. And, what about you, what kind of person are you? Can you choose 3 adjectives that describe you. (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_? (Go through and get a specific memory for each adjective.)

3. Did you ever struggle in school like your child does?

4. OK, now let's return to your child In an average week the last couple of weeks, what would you describe as his/her favorite things to do, his/her favorite times?

5. And the times or things he has most trouble with?

6. What do you like most about your child?

7. What do you like least about your child?

### B. View of the Relationship

1. I'd like you to choose 3 adjectives that you feel reflect the relationship between you and (your child). (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_? (Go through and get a specific memory for each adjective.)

**2. Describe a time in the last week when you and (your child) really "clicked". (Probe if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)**

**3. Now, describe a time in the last week when you and (your child) really weren't "clicking". (Probe if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)**

**4. How do you think your relationship with your child is affecting his/her development or personality?**

**5. How do you think your child's learning and behavior difficulties are affecting the relationship between the two of you?**

6. In what ways did you end up being very different as a mother than the way you imagined you'd be?

*C. Affective Experience of Parenting*

1. Now, we're going to talk about your feelings about being a parent. Can you start out by choosing 3 adjectives that describe you as a parent. (Pause while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_\_\_. (Go through and get a specific memory for each adjective.)

**2. What gives you the most joy in being a parent? What kind of effect do these feelings have on your child?**

**3. What gives you the most pain or difficulty in being a parent? What kind of effect do these feelings have on your child?**

4. When you worry about (your child), what do you find yourself worrying most about? What kind of effect do these feelings have on your child?

**5. How has having your child changed you?**

**8. Tell me about a time when you got angry at your child? What happened? How did you handle your angry feelings? What effect did these feelings have on your child?**

**9. Tell me about a time when you felt guilty as a parent. What happened? What did you do? What did your child do? What effect did these feelings have on your child?**

**10. Tell me about a time when your child was really upset. What happened? How did your child handle his/her upset? How did that make you feel? How did you handle your child's upset? What effect did these feelings have on your child?**

**11. Does (your child) ever feel rejected?**

Eliminated questions from the original measure:

Do you ever really feel you need somebody to take care of you?

What kinds of situations make you feel this way? How do you handle your needy feelings?

#### D. Parent's Family History

Now I'd like to ask you a few questions about your own parents, and about how your childhood experiences might have affected your feelings about parenting..

1. I'd like you to choose 3 adjectives that describe your childhood relationship with your mother, from as early as you can remember. (Pause here while they list adjectives.)

Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_?

2. Now can you choose 3 adjectives that describe your childhood relationship with your father, from as early as you can remember. (Pause here while they list adjectives.) Now let's go back over each adjective. Does an incident or memory come to mind with respect to \_\_\_?

**3. Did you ever feel rejected or hurt (physically or emotionally) by your parents as a young child?**

**4. How do you think your experiences being parented affect your experience of being a parent now?**

**5. Why do you think your parents behaved as they did during your childhood?**

**6. How do you want to be like and unlike your mother as a parent?**

**7. How about your father?**

**8. How are you like and unlike your mother as a parent?**

**9. How about your father?**

10. Do you know of any problems with learning or behavior in your family? How about your mother? How about your father?

#### E. Dependence/Independence

**1. When does your child need attention from you? (Probe, if not spontaneously volunteered: How do you feel when this happens?) Does this usually have to do with school? If not with school, what areas?**

**2. Why do you think those are the things he/she needs help with? (This question is scored along with above question.)**

**3. When does he feel comfortable doing things on his own? (Probe if not spontaneously volunteered: How do you feel when this happens?) Does this usually have to do with school? If not with school, what areas?**

**4. What happens when he/she can't do things on his/her own? (Probe if not spontaneously volunteered: How do you feel when this happens?)**

*F. Separation and Loss*

**1. Now, I'd like you to think of a time you and your child weren't together, when you were separated. Can you describe it to me? (Probe: What kind of effect did it have on the child? What kind of effect did it have on you?) Note: If the parent describes something other than a recent (i.e. within one year) separation, repeat the question asking for a more recent.**

2. What was it like when your child first went to school?

**3. Has there ever been a time in your child's life when you felt as if you were losing him/her just a little bit? What did that feel like for you?**

4. Is there anyone very important to you who (your child) doesn't know but who you wish he/she was close to?

**5. Do you think there are experiences in your child's life that you feel have been a setback for him?**

*G. Looking Behind, Looking Ahead*

1. Your child is \_\_\_\_\_ already, and you're an experienced parent (modify as appropriate). If you had the experience to do all over again, what would you change? What wouldn't you change?

**2. How do you think being the mother of a child with learning and/or behavioral problems has changed you as a mother?**

3. How do you think about the relationship you and your child will have when your child is an adult?

Eliminated questions from the original measure:

Can you imagine yourself as a grandparent? What do you imagine? What would you hope for?

## References

- Aber, J.L., Slade, A., Berger, B., Bresgi, I. & Kaplan, M. (1985). The Parent Development Interview. Unpublished Manuscript.
- Aber J.L, Belsky J., Slade, A., & Crnic, K. (1999). Stability and change in maternal representations of their relationship with their toddlers. *Developmental Psychology*, 35, 1038-1048.
- Achenbach, T.M., & Rescorla, L.A. (2001). Manual for the ASEBA School Age Forms & Profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth and Families.
- Adam, K.S., (1993). Attachment interview patterns in suicidal adolescents. Paper for presentation at conference: John Bowlby's Attachment Theory: Historical, Clinical and Social Significance. (Unpublished).
- Ainworth, M. S., & Wittig, B. A. (1969). Attachment and exploratory behavior of one-year-olds in a strange situation. In B.M. Floss (Ed.), *Determinants of Infant Behavior, Volume 4*. London: Methuen.
- Ainsworth, M. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Oxford, England: Lawrence Erlbaum.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision. Washington DC, American Psychiatric Association, 2000.
- American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. Washington, DC: American Psychiatric Press.
- Anastopoulos, A.D., Guervremont, D.C., Shelton, T.L., DuPaul, G.J. (1992). Parenting stress among families of children with attention deficit hyperactivity disorder. *Journal of Abnormal Child Psychology*, 20 (5), 503-520.
- Barkley, R.A. (1990). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment*. New York: Guilford Press.
- Barkley R.A., Guevremont, D.C., Anastopoulos, A.D., Fletcher, K.E. (1992). A comparison of three family therapy programs for treating family conflicts in adolescents with Attention-Deficit Hyperactivity Disorder. *Journal of Consulting and Clinical Psychology*, 60 (2), 450-462.
- Beery, K.E. (1997). *The Beery-Buktenica Development Test of Visual-Motor Integration 4<sup>th</sup>*

*Edition, Revised.* Parsippany, NY: Modern Curriculum Press.

Benoit, D., Parker, K., & Zeanah, C. (1997). Mothers' representations of their infants assessed prenatally: Stability and association with infants' attachment classifications. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 38 (3), 307-313.

Benoit, D., Zeanah, C., Parker, K., Nicholson, E., & Coolbear, J. (1997). "Working Model of the Child Interview": Infant clinical status related to maternal perceptions. *Infant Mental Health Journal*, 18(1), 107-121.

Blatz, W.E. (1932). The significance of early environmental factors in personality development. *University of Iowa Extension Bulletin* (283), 49-55.

Blatz, W.E. (1939). The group and the young child. *Proceedings of the Biennial Meeting of the Society for Research and Child Development*, 8-14.

Bor, W., Sanders, M.R., Markie-Dadds, C. (2002). The effects of the Triple P-Positive Parenting Program on preschool children with co-occurring disruptive behavior and attentional/hyperactive difficulties. *Journal of Abnormal Child Psychology*, 30 (6), 571-587.

Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. New York, Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. II. Separation, anger, and anxiety*. New York: Basic Books.

Bowlby, J. (1980). *Attachment and loss: Vol. III. Loss*. New York: Basic Books.

Brown, R.T. & Pacini, J.N. (1989). Perceived family functioning, marital status, and depression in parents of boys with attention deficit hyperactivity disorder. *Journal of Learning Disabilities*, 22 (9), 581-587.

Brown, L., Sherbenou, R.J., & Johnsen, S.K. (1997) *Test of Nonverbal Intelligence – Third Edition*. TX: Pro-ed.

Bussing, R., Zima, B.T., Gary, F.A., Wilson Garvan, C. (2003). Barriers to detection, help-seeking, and service use for children with ADHD symptoms. *The Journal of Behavioral Health Services & Research*, 30 (2), 176-189.

Cantwell, D. (1995). Attention deficit disorder: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35 (8), 978-987.

Chronis, A.M., Chacko A., Fabiano, G.A., Wymbs, B.T., Pelham, W.E. Jr. (2004). Enhancement to the behavioral parent training paradigm for families of children with ADHD: review and future directions. *Clinical Child & Family Psychology Review*, 7 (1), 1-27.

Chronis, A.M., Jones, H.A., Raggi, V.L. (2006). Evidence-Based Psychosocial Treatments for Children and Adolescents with Attention-Deficit/Hyperactivity Disorder. *Clinical Psychology Review*, 26, 486-502.

Cunningham, C.E. (1995). A family systems oriented parent training program. In R.A. Barkley (Ed.) *Attention Deficit Hyperactivity: A Handbook for Diagnosis and Treatment*. New York: Guilford Press.

Cunningham, C.E. (2007). A family-centered approach to planning and measuring the outcome of interventions for children with attention-deficit/hyperactivity disorder. *Journal of Pediatric Psychology*, 32 (6), 676-694.

Derogatis, L. (1979, 1993). *The Brief Symptom Inventory*. Minneapolis, MN: National Computer Systems.

Drake, D. (2005). Strain Trauma: Effects on Symptom and Character Development of an Eight Year Old Girl. *Child and Adolescent Social Work Journal*, 22 (2), 213-227.

DuPaul, G.J., Power, T.J., Anastopoulos, A.D., & Reid, R. (1998). *The ADHD Rating Scale-IV: Checklists, norms and clinical interpretations*, New York: Guilford Press.

Eyberg, S.M. & Robinson, E.A., (1982). Parent-child interaction training: Effects on family functioning. *Journal of Clinical Psychology*, 11, 130-137.

Eyberg, S.M. (1988). Parent-child interaction therapy: Integration of traditional and behavioral concerns, *Child and Family Behavior Therapy*, 10 (1), 33-46.

Fonagy, P., Steele, M., Moran, G., Steele H., & Higgitt, A. (1993). Measuring the ghost in the nursery: An empirical study of childhood experiences and their infant's security of attachment. *Journal of the American Psychoanalytic Association*, 41, 957-989.

Fonagy P., Steele, M., Steele, H., Leigh, T., Kennedy, R., Mattoon, G., & Target, M., (1995). Attachment, the reflective self, and borderline states: The predictive specificity of the Adult Attachment Interview and pathological emotional development. In *Attachment theory: Social, developmental and clinical perspectives*, ed. S. Goldberg, R., Muir, & J. Kerr. Hillsdale, NJ: Analytic Press, pp. 223-279.

Fonagy, P., Steele, M., Moran, G., Steele, M., & 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, 200-217.

Fonagy, P., (1991). Thinking about thinking: Some clinical and theoretical considerations in the treatment of a borderline patient. *International Journal of Psycho-Analysis*, 72, 1-18.

Fonagy, P., & Target, M., (1996). Playing with reality: I. Theory of mind and the normal

development of psychic reality. *International Journal of Psycho-Analysis*, 77, 217-233.

Fonagy, P., Target, M., Steele, H. & Steele, M., (1998). Reflective Functioning Manual, Version 5.0, for Application to Adult Attachment Interviews. London: University College London.

Fonagy, P. & Higgitt, A. (1989). A developmental perspective on borderline personality disorder. *Revue Internationale de Psychopathologie*, 1, 125-159.

Fonagy, P., Leigh, T., Steele, M, Steele, H., Kennedy, R., Mattoon, G., Target, M. & Gerber A. (1996). The relation of attachment status, psychiatric classification, and response to psychotherapy. *Journal of Consulting and Clinical Psychology*, 64(1), 22-31.

Forehand, R. & McMahon, R. (1981). *Helping the noncompliant child: A clinician's guide to parent training*. New York: Guilford Press.

Forehand, R. & Long, N. (1988). Outpatient treatment of the acting out child: Procedures, long term follow-up data, and clinical problems. *Advances in Behavior Research Therapies*, 10, 129-177.

Fraiberg, S., Adelson, E., & Shapiro, V. (1975). Ghosts in the nursery: A psychoanalytic approach to the problem of impaired infant-mother relationships. *Journal of the American Academy of Child Psychiatry*, 14, 387-421.

George, C., Kaplan, N., & Main, M. (1984, 1988, 1996). *The Adult Attachment Interview. Unpublished protocol (3<sup>rd</sup> edition)*. Department of Psychology, University of California at Berkeley.

George, C., & Solomon, J. (1996). Representational models of relationships: Links between caregiving and attachment. *Infant Mental Health Journal*, 17(3), 198-216.

Gomes, H., 2001, *Attention in Children with Language Impairments*. Grant funded by the National Institute for Deafness and other Communication Disorders (1R01 DC 04992-01).

Gomes, H., Halpetin, J.M., Tartter, V.C., Ritter, W., Wolfson, V.M., Mody, M. (2010). *Auditory and visual attention in children with specific language impairment*.

Greene, R.W., Biederman, J., Faraone, S.V., Quелlette, C.A., Penn, C., Griffin, S. (1996). Toward a new psychometric definition of the social disability in children with attention-deficit hyperactivity disorder. *Journal of American Child and Adolescent Psychiatry*, 35 (5), 571-578.

Gresham, F.M. & Elliot, S.N. (1990). Social Skills Rating System-Parent Form.

Grienenberger, J., Kelly, K., & Slade, A. (2005). Maternal reflective functioning, mother-infant affective communication, and infant attachment: Exploring the link between mental states and observed caregiving behavior in the intergenerational transmission of attachment. *Attachment & Human Development*, 7, 299-311.

Hanf, C. (1969). *A two stage program for modifying maternal controlling during mother-child interaction*. Paper presented at the meeting of the Western Psychological Association, Vancouver, British Columbia.

Harlow, H.F. (1958). The nature of love. *The American Psychologist*, 13, 673-685.

Harrison, C. & Sofronoff, K. (2002). ADHD and parental psychological distress: Role of demographics, child behavioral characteristics, and parental cognitions. *Journal of American Child and Adolescent Psychiatry*, 41 (6), 703-711.

Harpin, V.A. (2005). The effect of ADHD on the life of an individual, their family, and community from preschool to adult life. *Archives of Disease in Childhood*, 90 (1); 12-17.

Hechtman, L. (1996). Families of children with attention deficit hyperactivity disorder: A review. *Canadian Journal of Psychiatry*, 41, 350-360.

Hoofdakker, B.J., Veen-Mulders, L., Sytema, S., Emmelkamp, P.M.G., Minderaa, R.B., Nauta, M.H. (2007). Effectiveness of behavioral parent training for children with ADHD in routine clinical practice: A randomized controlled study. *Journal of American Child Adolescent Psychiatry*, 46 (10), 1263-1271.

Hoofdakker, B.J., Nauta, M.H., Veen-Mulders, L.V., Sytema, S., Emmelkamp, P.M., Minderaa, R.B., Hoekstra, P.J. (2009). Behavioral parent training as an adjunct to routine care in children with attention-deficit/hyperactivity disorder: Moderators of treatment response. *Journal fo Pediatric Psychology*. [Epub ahead of print].  
Interagency Committee on Learning Disabilities (1987), *Learning Disabilities: A report to the U.S. Congress*. Washington, DC: U.S. Government Printing Office.

Iardi, M. (2010). *Maternal Mentalization and Child Psychosocial Adaptation for Children with Learning and Behavioral Disorders*. Unpublished Doctoral Dissertation. City University of New York.

Johnson, J.H. & Reader, S.K. (2002). Assessing stress in families of children with ADHD: Preliminary development of the disruptive behavior stress inventory (DBSI). *Journal of Clinical Child Psychology in Medical Settings*, 9 (1), 51-62.

Johnston, C., Mash, E.J. (2001). Families of children with attention-deficit/hyperactivity disorder: review and recommendations for future research. *Clinical Child & Family Psychology Review*, 4 (3), 183-207.

- Jones, K., Daley, D., Hutchings, J., Bywater, T., Eames, C. (2007). Efficacy of the Incredible Years Basic parent training programme as an early intervention for children with conduct problems and ADHD. *Child: Care, Health and Development*, 33 (6), 749-756.
- Karen, R. (1994). *Becoming Attached*. New York: Warner Books.
- Karen, R. (1990). *Becoming Attached*. *The Atlantic*, pp. 40-70.
- Kohut, R. & Adrews, J. (2004). The efficacy of parent training programs for ADHD children: A fifteen-year review. *Developmental Disability Bulletin*, 32 (2), 155-172.
- Lagae, L. (2008). Learning disabilities: definitions, epidemiology, diagnosis, and intervention strategies. *Pediatric Clinicians of North America*, 55 (6), 11259-1268.
- Long, P., Forehand, R., Wierson, M., Morgan, A. (1994). Does parent training with young noncompliant children have long-term effects? *Behavior Research Therapy*, 32 (1), 101-107.
- Lorenz, K. (1935). The companion in the bird's world. The fellow-member of the species as releasing factor of social behavior. *Journal fur Ornithologi*, 83, 137-213.
- Main, M. (1991). Metacognitive knowledge, metacognitive monitoring, and singular (coherent) vs. multiple (incoherent) models of attachment: Findings and directions for future research. In C.M. Parkes, C. Murray, J. Stevenson-Hinde, & P. Marris (Eds.). *Attachment Across the Life Cycle* (pp. 127-159). New York: Tavistock/Routledge.
- Main, M.S., Kaplan, N. & Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), *Growing points of attachment theory and research*, 50 (1-2, Serial No. 209), 66-104.
- Main, M. S., & Goldwyn, R. (1985). *Adult Attachment Classification System*. Unpublished Manuscript. Berkeley: University of California.
- Main, M. & Goldwyn, R. (1995). Interview based adult attachment classifications: Related to infant-mother and infant-father attachment. *Developmental Psychology*.
- 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(2), 237-243.
- Main, M. (1999). Mary D. Salter Ainsworth: Tribute and Portrait. *Psychoanalytic Inquiry*, 19 (5), 682-736.
- Morton, J. & Frith, U. (1995). Causal modeling: A structural approach to developmental psychopathology. In D. Cicchetti & D.J. Cohen (Eds.), *Manual of Developmental Psychopathology*, New York: Wiley.

- Pastor, P.N., Reuben, C.A. (2008). *Vital Health Statistics, 10 (237)*, 1-14.
- Peters, K. & Jackson, D. (2009). Mothers' experience of parenting a child with attention deficit hyperactivity disorder. *Journal of Advanced Nursing* 65 (1), 62-71.
- Podolski, C-L., & Nigg, J.T. (2001). Parent stress and coping in relation to child ADHD severity and associated child disruptive behavior problems. *Journal of Clinical Child Psychology*, 30 (4), 503-513.
- The Psychological Corporation. (2001). *Wechsler Individual Achievement Test — Second Edition*. San Antonio, TX: Psychological Corporation.
- The Psychological Corporation. (1999). *Wechsler Abbreviated Scale of Intelligence*. San Antonio, TX: Psychological Corporation.
- Saunders, B. & Chambers, S.M. (1996). A review of the literature on attention-deficit hyperactivity disorder children: Peer interactions and collaborative learning. *Psychology in the Schools*, 35 (4), 333-340.
- Sanders, M.R. (1999). Triple P-Positive Parenting Program: Towards an Empirically validated multilevel parenting and family support strategy for the prevention of behavior and emotional problems in children. *Clinical Child and Family Psychology Review*, 2 (2), 71-90.
- Sanders, M.R., Mazzucchelli, T.G., Studman, L.J. (2004). Stepping Stones Triple P: the theoretical basis and development of an evidence-based positive parenting program for families with a child who has a disability. *Journal of Intellectual & Developmental Disability*, 29 (3), 265-283.
- Schuhmann, E.M., Foote, R.C., Eyberg, S.M., Boggs, S.R. (1998) Efficacy of Parent-Child Interaction Therapy: Interim report of a randomized trial with short-term maintenance. *Journal of Clinical Child Psychology*, 27 (1), 45-45.
- Semel, E., Wiig, E.H., & Secord, W.A. (2003) *Clinical Evaluation of Language Fundamentals, Fourth Edition*. San Antonio, TX: Psychological Corporation.
- Sandler, J. (1967). Trauma, strain and development. In Furst (Eds.), *Psychic Trauma*, NY: Basic Books.
- Slade, A., Belsky, J., Aber, J.L. & Phelps, J. (1999). Maternal Representations of their relationship with their toddlers: Links to adult attachment and observed mothering. *Developmental Psychology*, 35, 611-619,
- Slade, A. (1999). Attachment theory and research: Implications for the theory and practice of individual psychotherapy with adults. In J. Cassidy & P. R. Shaver (Eds.), *The handbook of*

*attachment theory and research* (pp. 575-594). New York: Guilford Press.

Slade, A. (1999). Representation, symbolization, and affect regulation in the concomitant treatment of a mother and child: Attachment theory and child psychotherapy. *Psychoanalytic Inquiry, 19*, 797-830.

Slade, A., Aber, J.L., Berger, B., Bresgi, I. & Kaplan, M. 2003; The Parent Development Interview (PDI-R), Unpublished Manuscript.

Slade, A. & Aber, J.L. (1992). Attachments, drives and development: Conflicts and convergences in theory. In J. Barron, M. Eagle, & D. Wolitzky, (Eds.), *Interface of Psychoanalysis and Psychology*. Washington DC: APA Publications

Slade, A., Bernbach, E., Grienemberger, J., Levy, D.W., & Locker, A. (2005). *Addendum to Reflective Functioning Score Manual for use with the Parent Development Interview*. Version 2.0. Manuscript.

Slade, A., Grienemberger, J., Bernbach, E., Levy, D., & Locker, A. (2005b). Maternal reflective functioning, attachment, and the transmission gap: A preliminary study. *Attachment & Human Development, 7*, 283-98.

Slade, A. (2005). Parental reflective functioning: An introduction. *Attachment & Human Development, 7*, 269-81.

Slade, A., Bernbach, E., Grienemberger, J., Levy, D.W., & Locker, A. (2005). *Addendum to Reflective Functioning Scoring Manual for use with the Parent Development Interview*. Version 2.0 Manuscript.

Slade, A. (2007). Reflective Parenting Programs: Theory and Development. *Psychoanalytic Inquiry, 26: 4*, 640-657.

Spinelli, P.J., (2009). *The Relationship between Ego Mechanisms of Defense and Reflective Functioning*. Unpublished Doctoral Dissertation. Adelphi University.

Target, M., & Fonagy, P. (1996). Playing with reality II: The development of psychic reality from a theoretical perspective. *International Journal of Psycho-Analysis, 77*, 459-479.

Taylor, T.K., Schmidt, F., Pepler, D., Hodgins, C. (1998). A comparison of eclectic treatment with Webster-Stratton's Parents and Children Series in a children's mental health center: A randomized controlled trial. *Behavior Therapy, 29*, 221-240.

Thorell, L. (2009). The Community Parent Education Program (COPE): Treatment effects in a clinical and a community-based sample. *Clinical Child Psychology and Psychiatry, 14 (3)*, 373-387.

- Van IJzendoorn, M.H. (1995). Adult attachment representations, parental responsiveness and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment. *Psychological Bulletin*, 117, 387-403.
- Van IJzendoorn, M.H. & Bakermans-Kranenburg, M.J. (1996). Attachment representations in mothers, fathers, adolescents, and clinical groups: A meta-analytic search for normative data. *Journal for Consulting & Clinical Psychology*, 64, 8-21.
- Webster-Stratton, C. (1981). Modification of mothers' behaviors and attitudes through a videotape modeling group discussion program. *Behavior Therapy*, 12, 634-642.
- Webster-Stratton, C. (1984). Randomized trial of two parent training programs for families with conduct disordered children. *Journal of Consulting and Clinical Psychology*, 52, 666-678.
- Webster-Stratton, C. (1990). Enhancing the effectiveness of self-administered videotape parent training for families with conduct-problem children. *Journal of Abnormal Child Psychology*, 18 (5), 479-492.
- Wells, K.C., Epstein, J.N., Hinshaw, S.P., Conners, C.K., Klaric, J., Abikoff, H.B., Abramowitz, A., Arnold, L.E., Elliott, G., Greenhill, L.L., Hechtman, L., Hoza, B., Jensen, P.S., March, J.S., Pelham, W., Pfiffner, L., Severe, J., Swanson, J.M., Vitiello, B., and Wigal, T. (2000). Parenting and family stress treatment outcomes in attention deficit hyperactivity disorder (ADHD): An empirical analysis of the MTA study. *Journal of Abnormal Child Psychology*, 28 (6), 543-553.
- West, J., Houghton, S., Douglas, G., Wall, M. & Whiting, K., (1999). Levels of self-reported depression among mothers of children with attention-deficit/hyperactivity disorder. *Journal of Attention Disorders*, 3 (3), 135-140.
- Whalen, C.K., Henker, B., Jamner, L.D., Ishikawa, S.S., Floro, J.N., Swindle, R., Perwien, A.R., Johnston, J.A.. (2006). Toward mapping the daily challenges of living with ADHD: Maternal and child perspectives using electronic diaries. *Journal of Abnormal Child Psychology*, 34 (1), 115-130.
- Woodward, L., Taylor, E., Dowdnye, L. (1998). The parenting and family functioning of children with hyperactivity. *Journal of Child Psychology and Psychiatry*, 39 (2), 161-169.
- Zeanah, C.H., Benoit, D., Hirshberg, M.L., & Regan, C. (1994). Mothers' representations of their infants are concordant with infant attachment classifications. *Developmental Issues in Psychiatry and Psychology*, 1, 1-14.